It is the near future.
The world has become highly information-intensive,
with a vast corporate network covering the planet,
electrons and light pulsing through it.
But the nation-state and ethnic groups still survive.
And on the edge of Asia,
in a strange corporate conglomerate-state called "Japan" ...

GHOST IN THE SHELL

THE ROLE PLAYING GAME

Version 1.5

C O N T E N T S

Unlike previous games I designed, where the source material was fragmented and inconsistent, Ghost in the Shell maintains a singular vision. I have tried to maintain that vision. To that end, I made a choice early on the development of this game. I was to avoid trying to "fill the gap" with original material. When I created the Alien – FUZION RPG, it became necessary to filter certain parts of the setting while endorsing some personal views. This emerged from a problem with inconsistent storytelling – where too many different writers would write different interpretations of a setting, leading to numerous plot holes. Ghost in the Shell started with the vision of Masamune Shirow and continued from there. Mamoru Oshii created the two movies in one tangent while the creators of Stand Alone Complex took another. The only difference between the two is the inclusion of the Puppet Master (which occurs in the movie, but not in the series). Beyond that, the comics, the movies, and series maintain a fairly uniformed vision. However, one voice had to gain dominance. I chose the series as it occupies the most exposure currently.

As I said, I will not be adding any content myself. Certain sections will have gaps and I will make aware those gaps. There is evidence that does lead to some educated conclusions and I have added those as well. A few vehicles required names. Just to make certain, all printed facts here are backed up by references in the movies, the series, or the Manga. Because of an obvious lack of some content, I will be adding some universal ideas from Cyberpunk 2020 (non-unique weapons, cybernetics that would obviously exist). The rest come from the base D20 used to create the game. This brings up an interesting point: Why don't I use Cyberpunk 2020. Several reasons actually. First, Cyberpunk 2020 by RTG is becoming increasingly hard to find and it has never been available as a free game. Looking through the rules of Cyberpunk, I realized I would be modifying the setting too much (totally restructuring the net and hacking for one). I realized I should just start with a clean palette.

Ghost in the Shell was serialized in Kodansha's Young magazine "Pirate Edition" every three months from 1989 to 1990. By now cyberpunk had become an everyday word, but its vision of the future remained bleak. In 1992, Mamoru Oshii created the feature film under Production IG and Manga Entertainment.

Final thanks go out to several people.
Shirow Masamune for creating the franchise.
Mamoru Oshii for giving it a voice.
Production IG for giving it a body.
Manga for importing and translating
John Pike for his in information on the SVR and Japanese Self Defense Force
Deric Bernier for creating the first 2020 conversion based on the original Manga. It allowed me to jump several steps

Chris Dias
Ghost in the Shell
Role Playing Game Designer

WHAT IS
GHOST IN THE SHELL?

In the near future, many envisioned a time where machines would integrate themselves increasingly into society. The lines between man and machine would blur. This division, as many expected, occurred as machines became more and more human. The eventual fear arose when they would become so human as to confuse when humanity ended and machine began. As machines evolved into becoming more human, humanity itself, could discover itself being pushed aside, first by the lack to need to exist, and finally, by force. The dystopian vision people believed would occur often ended with machines rising up to take the next step in the evolutionary ladder above us. Thankfully, this vision proved wrong, but not in the way imagined…

The alluded line between man and machine did blur, the mixing of the two did occur. People were confused when humanity ended and machine began. However, this crossover appeared further down the spectrum than any had thought. Machines remained as inhuman—as thoughtless--as ever. They never threatened to overrun humankind nor did they ever appear to be even close to threatening our dominance of the globe. However, the irony in the future grew from the trend of humans becoming more like machines. First the onset of cyberization occurred. Then the Cyberbrain appeared, and changed the course of mankind's evolution forever.

No longer were computers simply linked; now the entire network shared one massive system. One did not own computers, just terminals to the net. Cyberbrains shared the workload. Brains became computers themselves. Humans could store their memories in their brain or in external sources and instantly recall them at any time. The answer to virtually any question sat seconds away. Now every experience we encountered in our lives would be stored digitally in our brain, downloadable and even shared…and

The Timeline

Unfortunately, time is never an ally for a storywriter. Whenever a date locks down, one must come to the eventual realization that the future simply will not be arriving as fast as we would like. Kubrik envisions moon bases and missions to Jupiter by the turn of the century. Scott saw flying cars by the end of next decade. Shirow believed cybernetics would be commonplace by now.

Even though Ghost in the Shell sits a roomy 25 years in the future, time has already proven this date unreasonable for the story. Kusanagi received her first complete prosthetic body around 6 (and we know her to be in her 30s); this would mean she would be fitted with her first complete prosthetic body very soon. As we have seen, the advancement of prosthetics hasn't come close to reaching that goal. Shirow envisioned this technology catapulting due to the medical need after not one, but two more world wars. The first supposedly took place already. See where I am going with this?

And Kahn Noonian Sing left in the Botany Bay 10 years ago. We can accept it and move on…or one could advance the clock. If one were to do that, I think 2050 would be a reachable goal. That puts WWIII in about 15 years. One can endorse this alteration or continue with the setting in 2029

unfortunately, open to attack, deletion, or even modification. However, one aspect of humans remained outside the realm for technology, the soul…at least, for a short time. Soon, this soul lost its spiritual definition and became something tangible, provable by science, altered by technology. They gave this a name, the Ghost— the personality of an individual. The Ghost is an aspect lost on Machines. Even in this future, machines can come as close to human as possible, but can never generate their own Ghost.

Machines have yet to emerge with their own personality. They can simulate these reactions. The definition of AI is Artificial Intelligence—recreating intelligence without really being intelligent. As the Ghost became something tangible, the technology of Cyberbrains altered. Initially, those with Cyberbrains could access anything on the net, information either from their own memory devices or from external memories like anyone could three decades before. The Shell refers to one's body—where the Ghost resides. This fact would seem obvious except that Androids soon became commonplace. They are Shells without Ghosts. In addition, those with Cyberbrains in brain boxes could exist without Shells. The term "Ghost in the Shell" was not always true.

The next question arose of what makes one human. Is it the Ghost? So far, that appears the safest assumption, as machines cannot generate their own ghost…at least not yet. Therefore, a human being—one with full rights and privileges of being human, may not even need to have any organic parts left…or even a body. This makes ethnicity and genetic inheritance somewhat pointless…and yet, even more relevant. No one is born with prosthetics and there is a minimum age before prosthetics could be applied with any significant extent. Some have tried to remove all records of who they were before cyberization. One could change everything about themselves with perfect success, including their race or sex. However, once one's family, heritage, or ethnicity could be removed, the more important it became to keep. This kept the diversity of governments, sovereign states, and ethnic groups constant. The political upheavals occurring during this technological upswing provided a catalyst for this division between people.

In fact, a cause and effect loop occurred because of the political turmoil of the age. The onset of cyberization and prosthetics that could not only supplement the organic replacement but also improve upon it as well stemmed from a medical need arising from the side effects of not one, but two more world wars.

Just a little over 30 years ago, the planet became swept in World War III. Even though a nuclear exchange occurred, it did not regress society from a technological perspective. In fact, some of the greatest strides in science occurred during this war. Cybernetics became a fast, growing technology governments and corporations utilized to gain an edge with their adversaries.

The planet, geopolitically, changed substantially after this war. Sovereign nations altered throughout the globe. Some merged while others fractured. Paranoia, not unlike the Cold War, developed across the planet and probably led to the larger, Non Nuclear Fourth World War, which fragmented the globe even more. However, through this turmoil, one country gained dominance. It emerged from WWIII bruised but stronger willed. World War IV further strengthened its resolve to be independent and powerful. This nation was Japan…

In this future, the political game continues, more frantic than ever. The political map remains drawn in pencil. War seems on the verge of breaking out at each turn. Paranoia continues and countries fight to keep them safe. However, with the Internet totally out of one country's control, a need arose to guard the virtual borders of a country as well as its physical ones. Some of the greatest threats to a nation reside not in the barrel of a gun, but in the transmissions in the air.

What exists and what doesn't.

It is very possible that someone may read content in these pages that, revealing the plot for episodes and movies not seen. Since this game needed to cover all its bases, all the material, including events of the books and media are present. So, a warning is being issued in case you don't want to know what happens in Stand Alone Complex, 2nd Gig, or the two feature films.

In addition, since all the events are present as well, setting the story at the beginning will change how the story is perceived. The Individual Eleven Terrorist group and the activity around them occur two years after the events of the Laughing Man. Also, the covert illegal actions of Locus Solus occur in the second movie, which is a divergent timeline from Stand Alone Complex. One should consider these when finalizing the setting of their specific story. Placing the setting in 2029, around the Laughing Man, means the refugee problem has yet to inflame while setting it after 2032 translates to a more volatile political situation rather than a corporate one.

However, it is assumed that even though events may or may not occur in one's own game, the people and groups involved still exist and the problem may develop on its own.

THE WORLD

NOTE: The following are established in the books and media. One could easily invent new governments and corporations to suit one's needs. Virtually nothing of the old world remains. This is what we DO know:

GOVERNMENTS, SOVERNTIES, & CONTESTED REGIONS

Alliance – Russian / American: Russia became more powerful since WWIII and signed an alliance with the Northern States of old America. What formed was the Alliance. It is assumed Canada is also a member of this group, giving the Alliance domination over a large portion of the Northern Hemisphere. It is not known their position in the global circle but given their relationship with the AE, it is assumed they formed a Democracy with the American Democratic Party at its core.

American Empire: Shocking, as it may seem, one of the biggest loser of World War III was the United States, which found itself fractured after the war. The conservative party, along with the majority of the defense industry, took control of the Southern States. They formed Empirical America, or the American Empire, as it is often known. The Empire is predominantly right wing and carries an antagonistic relationship with the America/Russia Alliance. The American Empire has been demonstrating its authority as a military state since the last Great War. However, it started to suffer from a collapsed economy recently. Part of this is due to the reduction of Nuclear weapons as a deterrent now that almost every nation has them and with the Japanese Miracle, fallout is no longer a fear.

Although still a very important nation, America's superpower status has been giving way to the economic behemoth of Japan in recent years. Currently, it is suffering from a faltering economy and a

---

The Unexplained Ghost Transfer Theory

Perhaps in the future of Ghost in the Shell, the idea of moving from your Shell is a far off from Science Fiction as the story is to modern day. People do not really dive into other brains. A simulation makes those who dive into others only seem that are physically moving their psyches.

Someone hacking into a database is not really traveling there, but is simply getting the information to appear they are.

So, what of these few incidents of people's ghosts being lost? What of the reports claiming someone had been able to exit their shell and download into a new one without physical transplantation? Rumors abound of a movie theatre built into a cyberbrain where people who entered never came out. A story circulated that a therapist at a CCSS facility was lost inside a patient's brain and never returned. These reports fall into the files of the unexplained. Some can simply be passed off as rumors— urban legends to frighten people. People's souls are bound in their brain and can never leave.

Right?

divided population. Class and racial lines have divided people into separate groups, each struggling against the others. Crime has risen to an all time high and the under funded government cannot keep enough police on the streets to do anything about it. The major corporations have stepped in somewhat offering privatization of law enforcement in some areas. As for foreign policy, the government is looking to do anything that will improve their status economically.

To that end, they conspired with Japanese party officials to push through the AE/Japan Security pact. This involved blowing the powder keg dealing with refugees and removing the current Prime Minister from office. It failed, however, and the Security Pact fell apart.

European Union (EU): Previously called the European Community (EC) and sometimes known as the Common Market – it is an intergovernmental organization of 12 Western European nations with its own institutional structures and decision-making framework. The aim of the EC's founders was to construct a united Europe through peaceful means and create conditions for economic growth, social cohesion among the European peoples, and for greater political integration and cooperation among governments. Despite criticism early on, the EU has become a formidable economic competitor to Japan and the Americas. Although relations are good between the EU and Japan, this economic rivalry has become the basis for several corporate sponsored covert actions between the two entities.

They survived World War III with battle scars. It is known that Berlin was struck. Thanks to the resolve of its people, it rebuilt itself faster than any other city after the war.

Gavel Republic: The Gavel Republic is a small, relatively new sovereignty in Asia that used to be a military dictatorship. It recently survived a revolution and is now a democracy. The old leaders of Gavel attempted amnesty in Japan. Gavel may sound like an odd name, but that is because it is a conglomerate or capitol group.

Japan: By 2029, Asia became the most important and most powerful economic region in the entire world and at the helm of all the prosperity in the Pacific-Rim is none other than Japan, home to the biggest and most technologically advanced cites in the world. Details are in their own chapter.

Jenoma: Located in South America, this nation, like Gavel, became a democracy. It owes this status thanks to Marcelo Jarti. Jarti was a drug kingpin and a known murderer. He is also responsible for freeing Jenoma from a military dictatorship and securing the democracy that now stands. Jarti lead the Democratic Revolution and remained the military advisor to the current administration. Jarti avoided multiple assassination attempts--the last, in Panan City. He is regarded as a true hero even though he had no interest in politics afterward. He considers himself a soldier and assisted neighboring countries in revolutions of their own. He has thwarted five attempts from SAS and Delta force to have him wiped out.

LAS – League of Arab States: The League of Arab States was formed in Cairo on Mar. 22, 1945, by Egypt, Saudi Arabia, Syria, Lebanon, Iraq, Transjordan (now Jordan), and Yemen. The main aim of the league is to coordinate the political action and safeguard the sovereignty of the Arab states. In the council of the league, on which each member has one vote, only unanimous decisions are binding.

The Ghost Anchor Theory

Proving a Ghost exists as something that could be digitized does offer a conundrum on a spiritual side. Does a soul die every time he Ghost dives? Are we unknowingly copying ourselves and suiciding the originals every time our Ghost leaves our body? This is where the future got confusing. When information moves, it does not really. It copies itself, deleting the original. It never really moves. If someone's Ghost leaves his or her body, it really does leave. It does not copy. Does a new Ghost appear where it wants, exactly the same, none the wiser? Does one die every time they attempt to leave their Shell? Its very possible the Ghost information is so unique, it cannot be duplicated, so when someone's ghost moves, it does really appear to move. Yes, one could argue that its simply a series of switches that turn of and on in succession.

Perhaps the Ghost (our personality) is that which is anchored in our brain, and thus is the reason why it is susceptible to attack from disease and mental illness and (in the future) from Ghost hacking. Our soul, that spiritual part, remains tangible, moving where the Ghost is transferred. Using this theory, the Ghost may indeed by copying and deleting every time it movies but we remain ourselves.

I imagine this debate raging when someone first discovered the ability of Ghost transference. Later, someone invented Ghost Dubbing—actually personality copying. The fact that the duplicates could not be copied and the original faded every attempt, seemed to prove that really only one unique Ghost can ever really appear at the same time.

You will have to determine where your morality sits on this issue, as it always remained a point of confusion whenever I read it.

The Iraqi invasion of Kuwait in 1990 split the league. Twelve of its members condemned Iraq, and nine sent ground forces to join the anti-Iraq coalition in the 1991. The league was split again during World War III when 11 members left the League for good. Today the League has negotiated lucrative trade agreements between several of its members and Japan. This has, of course, led to problems with Israel, and the fighting has spilled over into the streets of Japan. Recently, Japan's Foreign Minister, Hidaka, tried to remedy the problem by getting Japanese corporations to form joint ventures with Israeli corps. The whole thing was scraped when it was discovered that the Mossad was manipulating events in order to sway public opinion over to the Israeli cause.

Pegasus: A floating city being built in the Indian Ocean. Large unzoned sectors exist for corporations to take root. The process continues and it may be decades before the city is populated to capacity.

Russia: Russia, or the Russian Federation, is the largest country in the world, extending from the Baltic Sea in the west to the Pacific Ocean in the east, and occupying more than half of the Eurasian landmass. From 1922 to 1991, Russia was the main constituent republic in the Union of Soviet Socialist Republics. In the early 2000s, a hard-line communist faction seized control of the Russian Federation once again, but by the end of WW III, it became apparent that economically, Russia would have to change. After a plot to gain access to EU markets through a German connection failed, Russia turned to Japan for help. In order to grease the gears between the two nations, Russia withdrew its presence from the Northern Islands (which it has occupied since 1945), returning them to Japan.

S.A.S. -- Special Air Service: The SAS is one of the world's premier Special Forces teams. The history of the SAS dates back to WWII. After the war, the SAS saw action in Oman, Aden, Malaya, Borneo, and to some extent, Vietnam. These operations were mainly of the counterinsurgency type. They also saw extensive action in the Falklands war. During the Gulf War, SAS teams were inserted deep within Iraq to search for mobile Scud launchers. In February of 1998 a Squadron of SAS soldiers were sent to the Gulf again, when Saddam Hussein threatened another war. The main role for the SAS during this operations was to rescue downed pilots, however it was speculated that they were also tasked with reconnaissance. They found extensive use in both World War III and IV but details are spartan. The first full body prosthetic appeared in the SAS soon after World War III. Only about 10 out of 125 applicants will make it into the SAS.

UN --The United Nations: The UN is a general international organization established at the end of World War II to promote international peace and security. The main purposes of the organization were to "save succeeding generations from the scourge of war." It has since participated in almost every major war including the "peacekeeping actions" that escalated into World War III and WW IV. It should be noted that by 2029 Japan has become a principal supplier of military aid to the UN.

Section 9 vs the HLF:
Events leading to the Aeropolis II incident.

Eighteen people were severely injured when 50 grams of C-6 were detonated at the Megatech Body Research & Development Division Headquarters. The HLF soon admitted responsibility with a message leaked onto an encrypted security net, making trace and identification virtually impossible. The security hack indicated member or members of the HLF had substantial hacking prowess.

Only 2 days before, Zebra 27 staged a heist on a military arms depot and was caught on camera. This revealed his presence and his connection to the HLF to Section 9 as the weapons stolen from the depot were used against Section 9's A-4 loadout personnel in the Bay Area, where the HLF were organizing since the HQ bombing.

Soon after, the Energy Ministry was discovered trying to access Section 6's files on Zebra. An official at the Energy Ministry, Sawamura, had leaked the Arms depot location and inventory to Zebra. Sawamura was also connected to Megatech's Body R&D.

Survivors from the Bay Area shootout, including Zebra, fled to an unused refugee relief sector, abandoned by the city because of the build up of industrial pollutants (not even the Refugees wanted to be there).

It was in the old city where the HLF's current secret base was located—at the monstrosity known as Aeropolis II. Section 9 moved into the Geofront while Sawamura was arrested.

In the end, the whole incident stemmed originally from a defect in Megatech's main reactor. Sawamura planned to collect bribes from Megatech's development section in exchange for covering up the problem. The blast of the Aeropolis II reactor, which was prevented by Section 9, was meant to resemble a terrorist act….then Zebra stepped into the picture.

His scheme was to take over the reactor and extort money from Sawamura. He went too far when he contacted Section 9 and claimed responsibility. Zebra 27 was eventually caught on the top floor of Aeropolis II and eliminated.

RIVAL ORGINZATIONS

These groups don't necessarily need to be rivals unless, one works for the Public Office in Japan. Potential games may involve working for or with these groups. Some are terrorist groups while others are intelligence offices for rival governments.

CIA: Part of the AE, the CIA has returned to their roots of covert actions and active espionage. The Central Intelligence Agency is an American intelligence agency, responsible for obtaining and analyzing information about foreign governments, corporations, and individuals, and reporting such information to the various branches of the American Empire. Now the outfit of honor they established before the United States split has long since passed. They were secretly involved in the conspiracy to push through the Japan/AE security pact. When the pact fell apart, the CIA was exposed and all known members were deported.

Green Tower: A more public, less violent faction of the Human Liberation front and the mirror opposite of the New World Brigade.

HRU – Hostage Rescue Unit: The HRU is an international organization tasked with the retrieval of hostages in a crisis situation. They try to enforce their authority but if a situation may involve issues of national security, they are often denied access.

Human Liberation Front: When Cyberization became commonplace after World War III, a grass roots movement appeared in the corners of the world. They preach a gospel against the onset of cyberization. They feared machines would take over…not from physical force, but by simply turning us into them. They believed once a human undergoes cyberbrain modification, they are no longer human. Humans toss in their sleep. Human memories fade over time. Humans grow old and die when their time has come. As someone sheds more and more of their organic side away, what is left to call them a person? A ghost is not enough to the members of the HLF, which grew in size substantially after the discovery of Cyberbrain Sclerosis. The HLF believed CS fell from God as punishment to those breaking the laws of nature. It wasn't long before the HLF became finally recognized as a terrorist group. One of their first acts was the kidnapping of the daughter of the CEO of Tokura Electronics, the first citizen ever implanted with substantial cyberbrain prosthetics.

The leader of the HLF for the majority of their existence is only known as "Zebra 27". Under his leadership, they soon followed up the Tokura incident with a major attack on the Megatech Body Research & Development Division Headquarters. This lead Section 9 to one of their first high-profile cases. Zebra 27 is presumed dead at the conclusion of the Aeropolis II nuclear threat incident.

Today the HLF still strike out from hidden locations, fighting the onset of cyberization and the overpowering monopoly of the Internet.

Korinkai: The Korinkai is a known and massive mafia organization in Japan. They have branches all over Japan. Gondo Kanekichi, known to be a key figure in the organization, runs the Niihama branch. They control most of the cyber-drug market in Japan.

MOSSAD: The world famous Israeli Intelligence Agency [Hebrew for "institute"] that – in this era – has gone a little soft. Formerly known as the Central Institute for Coordination and the Central Institute for Intelligence and Security, the Mossad has responsibility for human intelligence collection, covert action, and counterterrorism. Its focus is on Arab nations and organizations throughout the world. Mossad is also responsible for the clandestine movement of Jewish refugees out of Syria, Iran, and Ethiopia. Mossad agents are active in the former communist countries, in the West, and at the UN.

Mossad has a total of eight departments, though some details of the internal organization of the agency remain obscure.

Collections Department is the largest, with responsibility for espionage operations, with offices abroad under both diplomatic and unofficial cover. The department consists of a number of desks that are responsible for specific geographical regions, directing case officers based at "stations" around the world, and the agents they control. Beginning in 2000, the Mossad undertook an advertising campaign to promote recruitment of collection officers.

Political Action and Liaison Department conducts political activities and liaison with friendly foreign intelligence services and with nations with which Israel does not have normal diplomatic relations. In larger stations, such as Paris, Mossad customarily had under embassy cover two regional controllers: one to serve the Collections Department and the other the Political Action and Liaison Department. Special

Operations Division, also known as Metsada, conducts highly sensitive assassination, sabotage, paramilitary, and psychological warfare projects.

LAP (Lohamah Psichologit) Department is responsible for psychological warfare, propaganda and deception operations.

Research Department is responsible for intelligence production, including daily situation reports, weekly summaries and detailed monthly reports. The Department is organized into 15 geographically specialized sections or "desks", including the USA, Canada and Western Europe, Latin America, Former Soviet Union, China, Africa, the Maghreb (Morocco, Algeria, Tunisia), Libya, Iraq, Jordan, Syria, Saudi Arabia, the United Arab Emirates and Iran. A "nuclear" desk is focused on special weapons related issues.

Technology Department is responsible for development of advanced technologies for support of Mossad operations. In April 2001, the Mossad published a "help wanted" ad in the Israeli press seeking electronics engineers and computer scientists for the Mossad technology unit.

New World Brigade: A terrorist group following of the ideals of the Human Liberation Front. They believe man is becoming too much like machine. They believe humans should stay human and that robots should remain inhuman and not resemble or mimic humanity in anyway. They have struck cybernetic and robotic companies in their futile quest to push back the onset of cyberization.

The Individual Eleven: The Individual Eleven is a terrorist group working to free the 3 000 000 refugees currently in camp. The ideology is based all around the need for individualism. In the past, many fear that onset of cyberization cultivates a trend for people to be more synchronous. They would share so many similar memories via the Internet, and could share their memories at will, they would cease being unique and lose the individuality. They believe the Internet may eventually become a group consciousness for the entire world and people themselves, would not possess singular ghosts. The group itself formed from an idea of separate individuals performing terrorists acts without knowing the other members or how many there really are. The true origin of the group stems to a more insidious source, leading from evidence that a virus may have infected cyberbrains with the knowledge to act in a certain way, in fact contradicting their motus operandi. By having similar motivations and sharing the exact same root cause of agenda, they become a more self-contained entity. Because no leader ever came forward and several other cases were connected to the Eleven even though the virus theory never made a connection in those situations, it is thought the events around this terrorist group mirrors that of the Laughing Man case. The case of the Individual Eleven reached a climax when all known members of the group committed suicide on top of the Nanyou News Agency Headquarters.

Red Bianco: A volunteer corps supporting the interim Mexican government. They fought off both the UN and the American Empire, which covered up their attempted takeover as another war on drugs.

They employed several mercenary units. Saito is known to have been working for them during this time and met Major Kusanagi during this time…on the wrong side of the conflict.

Refugee Liberation Organization: After World War IV, Japan took in almost 3 000 000 refugees, mostly from the Peninsula temporarily, as refugees. This situation continues to this day. The RLO is a group trying to gain independence from the Japanese Government for the millions of people still trapped in the refugee camps. They claim to be non-profit but rumors of corruption have arisen.

Russian Mafia: The Russian Mafia, also known as the *Organizatsiya*, is a name given abroad to groups of organized criminals of various ethnicity which appeared from the Soviet Union after its disintegration. Apart from ethnic Russians, the term comprises the Chechen, the Georgian, the Ukrainian, the Armenian, the Azeri mafiosi, as well as so called "mafia" groups from other former USSR republics. Not nearly as powerful as they used to be, the Russian Mafia is known for kidnapping people and selling their cyberbrains and organs oversees. This black market is the largest financial source for the Mafia. They began this kidnappings almost ten years ago, being dubbed the Blindfold Ivan abductions. They stopped for a short time and then restarted again, only to be stopped in their tracks

South Sees Mafia: Another known crime syndicate. Little knowledge available.

SVR: SVR is short for *Sluzhba Vneshney Razvedki* or the "Foreign Intelligence Service". It was founded in 1991 after the demise of the Soviet Intelligence wing of the KGB. The Soviet Union's Committee for State Security dissolved along with the USSR in late 1991. Most of its assets and activities continued through several separate organizations.

Headquartered in Moscow, the SVR has offices

in Russian embassies, consulates and trade establishments throughout the world. As with its predecessor, the First Chief Directorate of the KGB, it is likely that the SVR continues to be composed of separate Directorates, and Services:

--Directorate S, which is responsible for illegal agents (those under deep cover) throughout the world.

--Directorate T, responsible for the collection of scientific and technological intelligence.

--Directorate K, which carries out infiltration of foreign intelligence and security services and exercises surveillance over Russian citizens abroad.

--Service I, which analyzes and distributes intelligence collected by SVR foreign intelligence officers and agents, publishes a daily current events summaries for the Politburo, and assess future world developments.

--Service A, which is responsible for planning and implementing active measures.

--Service R, which evaluates SVR operations abroad.

The Foreign Intelligence Academy is the main training establishment for the SVR. The operational core of the SVR is eleven geographical departments, which supervises SVR employees assigned to residencies abroad. These officers, or rezidenty, operate under legal cover, engaging in intelligence collection, espionage, and active measures. Although SVR personnel frequently use diplomatic cover when assigned abroad, the SVR frequently uses journalists for cadre work, and many SVR intelligence officers consider it one of the best covers.

The SVR is represented on the Security Council and the Defense Council. It participates in the work of various interagency groups and commissions.

Umibouzu: In legend, it's a Sea Monster. In reality, it is a crack mercenary unit loaded with the most advanced weapon and machines on the market. They worked on the Meguro Recapture Operation. Umibouza is not technically their name. They don't officially exist so they don't officially have a name.

The Real SVR
By John Pike

The SVR was established as an independent entity by Presidential Edict No. 293 dated 18 December 1991. Its specific aims were to provide the Russian Federation president, Federal Assembly, and Government with the intelligence information that they need to adopt decisions in the political, economic, defense, scientific-technical, and ecological spheres. The agency was tasked with promoting Russian Federation policy in the security sphere, to promoting the country's economic development and scientific and technical progress, and providing military-technical support for Russia's security.

On 10 January 1996, President Yeltsin signed the law on foreign intelligence that was passed by the old Duma in December 1995. The law, which identifies the four Russian agencies including the SVR with external intelligence functions, determines the structure, main principles and government control over the SVR. The committees on Security and International Affairs of the Russian Duma have both created subcommittee to deal with intelligence matters.

The Spetsnaz unit *Vympel* ("Banner") is a counter terrorist unit of the SVR (Foreign Intelligence Service). Originally developed in 1981 as an infiltration unit to conduct infiltration, sabotage, and intelligence missions in enemy territory, Vympel subsequently evolved into a Counter Terrorist (CT) unit, and by 1987, the unit had expanded to a staff of over 500. Following the dissolution of the Soviet Union in 1991, the unit was transferred to the Main Administration for the Protection of the Russian Federation (GUO), along with Spetsgruppa "A", and in 1993, the unit was again transferred to MVD control to MVD. After many original members left, Vympel was disbanded and a new unit, *Vega*, was created, and subsequently the SVR reinstated the name *Vympel*.

CORPORATIONS

Of course, there are hundreds of more corporations in this setting. These are all the ones mentioned:

Dermo: A company that followed Tokura in cyberbrain development. They specialized in crafting Cyberbrain cerebral cores. Unlike Tokura, they are still doing quite well.

Genesis Androids / Genesis Andross Co.: A well known robotics company, they feature a large lineup of various androids, mostly female. Rumors indicate many of their models have been illegally modified. Genesis Androids are common in the love doll underground. They made the GA-07-JL Jeri Android, one of the most popular models among hardcore users, now considered somewhat of an antique.

Hanka Precision Instruments: Hanka Precision Instruments is a major manufacturer of AI robots. They manufacture a variety of different models from defense to waitpersons. Recently, they were caught in a scandal where they were dubbing the ghosts of children into a robot known as the

Tomliand Prototype to achieve a greater sense of human personality. When these robots started going berserk, their plot was found out and their president was arrested. Hanka is still in business but their profits have severely dropped. It is uncertain if they will make it through the next five years. Another corporation, Locus Solus, would attempt the same process later. The result was more successful, and the side effects and the eventual backlash more severe.

Japan Micro Industries: Another target of the Laughing Man, Japan Micro was initially a Micro Machine company. They still consider them their largest commercial asset.

Kenbishi Heavy Industries: On of the biggest corporations around, Kenbishi builds tanks, helicopters, and weapons. They have a biodesic dome where they test their machines around a small city standing for the corporate headquarters. They also make neurochips like the ones for the Tachikomas. Kenbishi multi-ped tanks are infamous. Kenbishi manages to survive many scandals because their massive stock worth. They have been implicated in stealing patents from their own scientists. One of their own tanks went on a rampage after escaping the test facility. Through it all, Kenbishi manages to stay afloat.

Kuromatsu Electrics: A smaller company, KE did some work around Old Tokyo. They employed some of the lost and refugees of old Tokyo, offering new cybernetic bodies with those at least 98% cyberized to work for them. They had uncovered a nuclear power plant in Old Tokyo and were trying to excavate plutonium illegally. The government took over the operation from Kuromatsu but KE was never penalized.

Kyo-Re: Kyo-Re is a military contractor, maker of Therm-Optic Camouflage. They are affiliated with Poseidon, another name for Greater Japan Technology and Research.

Locus-Solus: A relative newcomer, Locus-Solus burst onto the scene with revolutionary robotic designs. Years ahead of Genesis or Hanka, Locus-Solus started small, expanding when they narrowed their assembly line to producing high-end Gynoids. Rumors floated around that the Locus-Solus prototypes were so human-like to pass a cursory examination. However, whispers passed as to the extent of their realism. Public opinion frowns on companies that built sexaroids so most don't publicly offer them, allowing their consumers to modify they companion robots illegally. Apparently, Locus-Solus offered their prototype Hadaly droids pre-modified. To avoid regulations and decency violations, Solus

shifted all production to a multi-national ship anchored far off Japan, in international waters. There, Solus produces some impressive robots. They do still operate a Japanese HQ in Bertrave.

Locus-Solus crumbled when evidence of their robot unique attributes were exposed. Apparently, Solus had refined the same technique Hanka had used (dubbing ghosts illegally into dolls) with better results. However, the Hadaly types fractured more severe than the Hanka models, going berserk and killing their masters. Because of the severity of these side effects, Locus could not cover their tracks fast enough and were destroyed when the case became public.

Meditech Corp: "Give us some spare genes and we'll grow you spare organs." Meditech, one of the few companies not dealing with cybernetics exclusively, uses the side effects of that industry to make a killing. While other companies concentrated on progressing the machine, Meditech returned to the organic, developing organic replacements for the open market. They are now the largest organ dealer in the world. They first began the purchasing, selling, and distribution of used organs from cybernetic surgeries. They would supply these organs to those not wanting cybernetic replacements or to those incapable of them. Eventually, Meditech expanded in cloning. Full body cloning is still illegal but cloning parts are not. The patented technique involves splicing a customer's DNA into a pig. The organs are available for use for the entire lifespan of the animal. They also bread compatible pigs for spare organs. If a customer does not use the organs in the lifespan of the animal, Meditech will broker their sale on the open market. The CEO of Meditech, Iwasaki, was so dedicated to the industry, he sold off his own organs, implanting his brain in a Jameston type cyborg body. Meditech is owned by the Poseidon Group. They operate pig farms in several other countries. Meditech Bherel was struck by the Human Liberation front and their holds were destroyed (All the pigs were killed). With the advancement of cloning increasing each year, the process of reproducing organs in pigs grows less popular. The pig path remains the cheapest and some rival groups developing organ cloning still consider the pig path their greatest competition.

Megatech: Megatech is one of the major manufacturers of prosthetic bodies, robots and Ais in the World. They are known in the industry for producing top of the line equipment, and for their highly popular Class-A prosthetic bodies. They have the largest selection and largest production line of prosthetic bodies. They are known to be the toughest and most realistic. They were one of the first companies to popularize cyberization as an augment rather than a supplement. All the Cyborgs in Section 9 have bodies and parts from Megatech, and the SDF maintains contracts with them as well. Their headquarters are located on an island outside Newport city. In truth, they are the island—a constructed floatation similar to the

---

Can organs be cloned for use in transplants?

From the Human Genome Project

Another potential application of cloning to organ transplants is the creation of genetically modified pigs from which organs suitable for human transplants could be harvested. The transplant of organs and tissues from animals to humans is called xenotransplantation.

Why pigs? Primates would be a closer match genetically to humans, but they are more difficult to clone and have a much lower rate of reproduction. Of the animal species that have been cloned successfully, pig tissues and organs are more similar to those of humans. To create a "knock-out" pig, scientists must inactivate the genes that cause the human immune system to reject an implanted pig organ. The genes are knocked out in individual cells, which are then used to create clones from which organs can be harvested. In 2002, a British biotechnology company reported that it was the first to produce "double knock-out" pigs that have been genetically engineered to lack both copies of a gene involved in transplant rejection. More research is needed to study the transplantation of organs from "knock-out" pigs to other animals.

city itself.

MicroTel: A MircoMachine Company formed late in the industry. A Laughing Man target.

Nanoplant Industries: A smaller MicroMachine Company, Nanoplant was another target for the Laughing Man target

Nanyou New Agency: The NNA is a news network often accused of being subject to governmental influence. This is further supported by their critical stance against refugee policies. They were a target of the Individual Eleven terrorist group.

Neutron Company: NC is the leading American company specializing in cybernetics. They are one of the few with a foothold in Japan.

Poseidon Industrial Co.: Formally called Greater Japan Technical Research during WWIII, Poseidon is a major cybernetics and micro machine company known for some real fringe designs. They are a real Japanese heavyweight—a mega multinational. They have also contracted work for the JSDF, supplying weapons and technology to the Army. Poseidon, not known for their Micro machine technology, is partially credited for the most well known use of them…that of the Japanese Miracle. This achievement vaulted Poseidon into the limelight, pushed atop a hill they have yet to be knocked off of. In 2032, they would be implicated in a government conspiracy revolving around the Cabinet Intelligence Service and the Individual Eleven terrorist group.

In all, they are one of the largest corporations worldwide, with fingers in almost every facet of the modern world. They own several subsidiary corporations including Meditech. They operate a collection of gigantic marine city clusters.

Rabbit-logo Courier: One of many black market couriers that exist in Niihama City. He has an official name, but he is called the 'Rabbit-logo Courier' because of his mascot character. Couriers only take cash for a job, turning down E-money, cards, stocks, or anything else. Half the fee is paid up front, and the remainder is C.O.D. to be paid once the cargo delivery keycode receipt has been verified. Depending on the money, they will deliver anything to anywhere for you.

Rossini Air Line: A well-known and prominent airline in Asia.

Seburo Corporation: A firearms founded in October 2024. Now, almost all ammunition in modern firearms takes Seburo rounds.

Sagawa Electronics Inc: Sagawa Electronics Inc. is the main company of the Sagawa Group. The Sagawa Group is a massive corporate Zaibatsu that has its hands in every piece of the corporate pie. Sagawa Electronics was once a midsize corporation who manufactured a variety of electronic goods: optics, cyberware, toasters etc. until the Public Security Bureau stepped in during the war. A man named Kagasaki (who is now Minister of the Interior) used the corporation to get close to the Russian bases. Along the way, he embezzled enough money to launch the Sagawa Group into a prosperous future. Sagawa operates a Geofront in Betrave. During the construction, the Geofront expanded into the Bertalrek Underground Submarine base the Russian army supposedly collapsed and buried before leaving. This expansion was not authorized by the Japanese government but it did give the Geofront a subterranean sea-dock.

Sagawa Electronics was a laughing man target during his corporate terrorism.

Satsuma Meditechs: The most powerful corporation in Kyushu, Satsuma was targets by the Laughing Man during his terrorism. A MicroMachine Company, Satsuma Meditechs was the only corporation that didn't get funds from the government when the Laughing man blackmailed them.

Serano Genomics: The primary company in the Laughing Man blackmail case, the CEO of Serano was kidnapped and held for ransom by the primary suspect. This first event marked the beginning of the Laughing Man blackmail acts. Serano pioneered the MicroMachine industry and was the first company to file a patent for a MM treatment of Cyberbrain Sclerosis. Serano received funds from the government to compensate for the loss of stock from the Laughing Man. Serano later admitted that the patent for the treatment was premature and that the MicroMachines they developed to treat the disease were ineffective. Serano was assassinated before being able to testify. Their corporate headquarters are located in Holland.

They have been credited with many advances including Interceptors and the Asian Miracle.

Tadokoro Trading: A smaller corporation with a Chairman with a fetish for companion androids, Tadokoro was struck by the a super theft ring known as Cash Eye. Later, Tadokoro was arrested for money laundering.

aged body from the NWB. It was never revealed how she had aged so quickly or if her cyberbrain prototype was the cause.

Tonda Inc.: Tonda constructs robotics but none resembling humanoids. They made robots and sentinels for high security buildings. They have allowed several other models to be sold privately. Of these, the Tonda Cyclops is the most popular and the latest, a line of cyberdogs.

Toyoda Chemicals: A smaller company that freelances in Cybernetic bodies.

Tokura Electronics: Not so large now, but Tokura pioneered brain cyberization. They spear front in the industry, they were later passed by other companies with sleeker, less evasive designs. The daughter of the CEO of Tokura was the first person ever implanted with Cyberbrain implants. She would later be kidnapped by members of the New World Brigade and was remained missing until 2029 where members of Section 9 rescued her rapidly

JAPAN

Capital: New Tokyo
Population: 142,449,703
Literacy: 99%
Currency: yen (¥)
Climate: Varies from tropical in south to cool temperate in north.
Maritime claims: 12 nm; 3 nm in the international straits – La Perouse or Soya, Tsugaru, Osumi, and Eastern and Western Channels of the Korea or Tsushima Strait
Defense Branches: Japan Ground Self-Defense Force (Army), Japan Maritime Self-Defense Force (Navy), Japan Air Self-Defense Force (Air Force)

LANDSCAPE

Mountains dominate Japan's landscape, covering 75 to 80 percent of the country. Japan is a major economic power, and average income levels and standards of living are among the highest in the world. The country's successful economy is based on the export of high-quality consumer goods developed with the latest technologies.

ECONOMY

Government-industry cooperation, a strong work ethic, mastery of high technology, and a comparatively small defense allocation (roughly 1% of GDP) have helped Japan advance with extraordinary rapidity to the rank of the most powerful economy in the world. One notable characteristic of the economy is the working together of manufacturers, suppliers, and distributors in closely-knit groups called keiretsu. Industry, the most important sector of the economy, is heavily dependent on imported raw materials and fuels. The much smaller agricultural sector is highly subsidized and protected, with crop yields among the highest in the world. Usually self-sufficient in rice, Japan must import about 70% of its requirements of other grain and fodder crops. Japan maintains one of the world's largest fishing fleets and accounts for nearly 25% of the global catch. The crowding of the habitable land area has been Japan's major long-run problem.

GOVERNMENT

Japan's governmental system in 2029 is heavily influenced by the English Parliamentary system. It is divided into three branches, the bicameral Diet (legislative), The Judicial and the Administrative. The Public elects the members of the Diet, who then elect a Prime Minister. The Prime Minister then appoints the heads of the Ministries.

CIS / STRATEGIC INFLUENCE RESEARCH COUNCIL

An organization recently formed that, under the Chief Cabinet Secretary, mainly serves to collect and analyze foreign intelligence and to sometimes manipulate public opinion. They formed after the last war when pre-war intelligence agencies and the former Bureau of Defense Policy merged.

IMPORTANT MINISTRIES

Ministry of Agriculture, Forestry, and Fisheries: The Ministry undertakes administration related to agricultural, forestry, and fisheries products, covering from production to consumption and also to rural development and promotion of the welfare of rural inhabitants.

Ministry of Education: The MOE controls the education system, schools, and payrolls of all teachers.   They also operate special education facilities including ones dealing with Cyberbrain Closed Shell Syndrome.

Ministry of the Environment: MOTE regulated the air quality and ensures corporations follow state directed regulations for waste disposal.   MOTE employs many different breeds of MicroMachines, sold to them various companies, to accomplish certain tasks. Certain MicroMachines, for example, can devour pollution. The Ministry informs the public of their use and operates the machine for dispersal and cleanup. The Ministry also operated the Japanese miracle, which removed the radiation from the destroyed Tokyo.

Ministry of Finance: The Ministry of Finance attempts to maintain a stable, yet dynamic economy and a peaceful and prosperous society by managing the overall national finances through efficient

> The Ministry of Finance controls the budgets of most other organizations including other Ministries. The deadline every year is the end of August. After compiling a full report of the requesting budgets, the Ministry of Finance presents the final draft to the Cabinet, and the Cabinet presents it to the diet. The budget for Section 9 is part of a secret "blank fund"…

and transparent administration in the interests of the people as taxpayers, and promote the sustainable growth of the world economy.

Ministry of Foreign Affairs:
Also known as MOFA, this ministry is responsible for all matters of international diplomacy. They handle Foreign affairs work. They deal with international trade, policy, economic assistance and treaties. Public Security Section 6 works under them and often clashes with members from Section 9, under Internal Affairs. Organization and Functions follow:

Minister's Secretariat: The Minister's Secretariat takes charge of overall coordination and administration under the Ministry.

Public Diplomacy Department: The Public Diplomacy Department takes charge of implementation of international agreements to promote cultural exchange, cooperation with international cultural organizations, and the introduction of Japanese culture abroad.

Global Issues Department: Takes charge of the Global issues policy, United Nations administration, human rights and refugee-related matters.

Foreign Policy Bureau: Takes charge of the planning of basic and middle- or long-term foreign policy.

Disarmament, Non-proliferation and Science Department: Takes charge of arms control and disarmament, non-proliferation, nuclear energy, and, science cooperation and other scientific affairs.

Asian and Oceanian Affairs Bureau: Takes charge of planning work connected with the formulation of policies concerning Asian and Oceanian countries.

North American Affairs Bureau: Takes charge of planning work connected with the formulation of policies concerning the North American countries.

European Affairs Bureau: Takes charge of planning work connected with the formulation of policies concerning the European countries.

Middle Eastern and African Affairs Bureau: Takes charge of planning work connected with the formulation of policies concerning Middle Eastern and African countries.

Economic Affairs Bureau: Takes charge of protection and promotion of Japan's interests relating to foreign commerce and navigation.

Economic Cooperation Bureau: Takes charge of matters concerning treaties and international agreements on economic cooperation.

International Legal Affairs Bureau: Takes charge of the conclusion of treaties and other international agreements, and matters of international law and legal matters concerning foreign relations.

Consular Affairs Bureau: Takes charge of protecting Japanese nationals and their property abroad (except matters dealt with by other bureaus), issues passports and other documents necessary for travel abroad, and plans and handles emigration affairs.

Intelligence and Analysis Service: The Intelligence and Analysis Service takes charge of the following matters: general management of information on the international situation; general administration of research affairs; research and surveys on foreign countries (except matters under the charge of other bureaus), and; general analysis of the international situation and collection of necessary information.

Ministry of Foreign Aid:
Not to be confused with MOFA, The Foreign Aid Ministry is often referred to as ODA, or "Official Development Assistance". This is an agency the government has the most problems with as the current view of the other Ministries are to deal with internal problems first. The prime concern from the other Ministries, especially MOFA, is how

---

Kei Yazawa

Born in the Tohoku Region to parents who ran all sorts of financial businesses. He and his older sister, Toshimi, were separated when they were infants. While at agricultural college, his thesis relating to rice cultivation garnered attention, and he joined a research agency of the Agriculture Ministry. During the war, he used the evacuation as an excuse to move to the Tohoku Autonomous Region, where he, Eichi Gotoh, and Takeru Fuwa immersed themselves in research for 'miracle rice.'

He was a simple man of few words who loved solitude, but there are many who sympathize with the ideals they glimpse in those few words. Later called the 'Charisma of the Tohoku Autonomous Region,' he was adored by many people. Accompanying the formation of an organization of people who spontaneously gathered to idolize that charisma were rumors that stirred up the tabloids that said they were a cult group0 that espoused environmental protection. However, as people's interest waned, their existence was forgotten.

A.D. 2030. Died from a malignant tumor. This was a disease that could be avoided with a prosthetic body, but he left this left after leaving a message to his sister, Toshimi, to the effect of. 'People should live in harmony with the earth, and return to the earth when it's time."

the funds ODA uses to aid other countries are misappropriated by that country…often enough, against the knowledge of the ODA AND the country being aided. A good example of this involved recent actions with the Gavel Republic.

Ministry of Health and Welfare: This Ministry regulates drug and the import /export of medicine in Japan. They approve of all drugs to be sold in Japan and regulate their pricing. They also coordinate patents with medical companies. The Ministry controls the how these companies sell their product and how it can be marketed in Japan…if at all. Their departments include: The Statistics and Information Department, the Health Policy Bureau, the Health Service Bureau, the Department of National Hospital/Pharmaceutical and Food Safety Bureau, the Department of Food Safety, the Labor Standards Bureau, the Industrial Safety and Health Department, the Workers' Compensation Department, the Workers' Life Department, the Employment Security Bureau, the Department of Employment Measures for the Elderly and Persons with Disabilities, the Human Resources Development Bureau, the Equal Employment/Children and Families Bureau, the Social Welfare and War Victims' Relief Bureau, the Department of Health and Welfare for Persons with Disabilities, the Health and Welfare Bureau for the Elderly, the Health Insurance Bureau, the Pension Bureau, the Director-General for Policy Planning and Evaluation, the Social Insurance Agency, the Central Labor Relations Commission, and the Affiliated institutions/regional Bureaus.

The Ministry was recently clouded with controversy when it was revealed that they intentional held back the Murai vaccine in treatment in favor of the less effective MicroMachine treatment. The then General of the Ministry used the Murai vaccine as blackmail for the MicroMachine companies, successfully acquiring a massive amount of money. This was a root cause and effect of the Laughing Man case.

Ministry of Internal Affairs: National affairs including public works and police fall under MIC. The Ministry of Internal Affairs and Communications was initially responsible for creating the fundamental national systems of Japan. These systems include the national administrative organizations, the public service personnel system, local tax/finance, the election system, fire/disaster prevention, information and communications, postal services, and statistical systems.

The MIC is committed to building a safe and convenient society for all while achieving efficient administration at the same time.

Japan currently (2005) has no Ministry of Internal Affairs. The police are headed by the state minister and a five-member National Public Safety Commission (including the Prime Minister). More modeled after the British structure, which does have a Foreign Ministry and a Ministry of Foreign Affairs. England also has Shadow Cabinets, so it can be theorized Japan may have adopted the idea as well…

They operate Public Security section 9, a division that does not officially exist. The Ministry of Internal Affairs is run by the Minister with the Senior Vice-Minister under him. Other ranks of authority include the Parliamentary Secretary for Internal

Functions of the Public Security Bureau
(The following has been modified from a real PSB in China)

Their relative functions include:

1. Implementing the guidelines and policies of police work and drafting out related local regulations and organizing carrying out the police and safeguard work of the city;

2. Mastering the situations which threaten the stability of policies and the domestic safety and the social public security, and working out related measures and carrying them out;

3. Preventing, forbidding and detecting crimes and dealing with accidents and turbulence. Supervising special industries and dangerous goods;

4. Maintaining traffic safety and traffic orders, and coping with traffic accidents;

5. Organizing carrying out and supervising fire prevention;

6. Undertaking safeguarding the Party and top leaders of Japan and important foreign guests;

7. Supervising residence policies, nationality, affairs on entry and exit of aliens and related affairs of aliens' staying and traveling in Japan according to law;

8. Executing penalties to the criminals sentenced to be controlled or taken into custody or being deprived of political rights and to the criminals to be punished out of prisons. Supervising and examining the criminals placed on probation or released on probation. Administrating jails, hoosegows, compelling drug quitting hospital, accepting and educating office, etc according to law;

9. Supervising and guarding the public information network;

10. Directing and supervising the securities of national departments, social communities, enterprises and key construction projects. Directing the security keeping work of security keeping committees and other folk organs;

11. Presiding over educating penitentiary people and laboring according to law;

12. Carrying out police scientific and technological work and taking charge of the construction of police information technology, criminal technology and action technology;

Affairs, the Vice-Minister and the Vice-Minister for Policy Coordination as well as the Secretary to the Minister.

Ministry of Justice: They deal with judicial affairs, including the courts (which are not a jury system). The Ministry of Justice is in charge of a broad area of legal affairs, which include civil, criminal, immigration and other matters. In particular, it takes charge of nationality, family registration and registration of real estate, prosecution of criminal cases, correction and rehabilitation of offenders, litigations involving the interests of the State, immigration control and registration of foreign residents, and the protection of the rights of citizens in general. Thus, the Ministry of Justice is primarily responsible for maintaining the legal order of the country in which the rule of law is ensured.

Ministry of Land and Transport: MOLT operates a massive protected network almost as guarded as the defense network. More than just building roads, MOLT governs their regulations. They employee all road workers but also regulate the traffic system itself. All streetlights and stoplights are computer controlled from central hubs which all communicate. The entire rail network also falls under their care. MOLT also controls the massive camera network on every road. This system proves very useful for locating accidents and for assisting the various law enforcement agencies.

Ministry of National Defense: The MND is responsible for defense matters involving the SDF. The JSDF are explained in detail later.

Ministry of Telecommunications: They monitor and control the flow of information in Japan. They maintain the public network and enforce the laws governing it. This expanded in the last few decades to all cyberbrain communication. They often must employ the help of Public Security to fight off against the increasing amount of Cyber crime. Anything that could disrupt the communications network falls under their jurisdiction.

PUBLIC SECURITY BUREAU

The Public Security Bureau is a national police force used by the Ministries. It is almost military in nature and often engages in espionage and special operations. There are nine distinct sections, each of which answers to one Ministry or another.

Section 1: The Special Service Squad of Police Headquarters' Investigations, Section 1 is operated and occupied by Law Enforcement. Togusa was transferred from Section 1 to Section 9. Section 1 operates from Police Headquarters and is known to be populated with some of the best criminal investigators in Japan. They have jurisdiction to all criminal cases in Japan but can have special cases removed from their power by other sections, especially when dealing with cyber crime and terrorism. Section 1 is lead by Kubota, a close personal friend of Aramaki.

Section 2: Section 2 is controlled by the Ministry of Health and Welfare. Originally, they only worked alongside Section 1 for drug enforcement. This later deviated and the two sections operate independently. Where Section 1 pursues the illegal selling and use of prohibited medicine, Section 2 tackles the larger organizations attempting to bypass the Ministry's power on the Drug Evaluation Committee. The Ministry makes sure that no un-authorized experiments take place and that no new patents are filed without prior knowledge of the Ministry. Being MicroMachine advocates translates that Section 2 attempts to prevent other alternate forms of treatment from being developed.

Section 3: Section 3 is in charge of drug enforcement, and is similar in scope to the US' DEA. Section Three utilizes combat trained personnel and investigates personnel in its operations. Since all agents are cross-trained, they can engage in either activity. Section 3 answers to the Ministry of Internal Affairs.

Cont.

13. Taking charge of securing the installation and sufficient funds of police equipments for departments directly under the control of municipal public security bureau. Directing the equipments and financial affairs of police branch offices;

14. Working out and implementing the regulations and policies of managing the whole police. Organizing educating, training and publicizing the whole public security bureau. Supervising leaders and police ranks according to their power purviews. Carrying out police supervision and handling illegal cases of Dalian police;

15. Leading Japanese fire prevention and safeguard police, and leading and directing army troops to carry out police tasks and related affairs;

16. Undertaking affairs handed over by the municipal committee, the municipal government and the police department.

Colonel Tonada and the Triumvirate

Having gained experience with Aramaki and others under Colonel Tonoda in Public Security Section 1, Kubota later became Bureau chief as the Colonel's Successor. Kubota is generally just as capable as Aramaki. Colonel Hideo Tsujisaki, along with Kubota and Aramaka made a trio of prodigies under Tonoda, all under Section 1.

Section 4: The "Rangers", as they are also known, constitute the commando force of Public Security. More modeled after the British force than the American one, the Section 4 Rangers are small, lightly armed and armored, elite troops usually air-dropped into a hostile situation to deal with. The Rangers are not meant to be used as standard infantry and are not affiliated with the JSDF. Rangers, initially, were amphibious raiders, sent ashore in small groups to hit an enemy installation and then depart as they had arrived, by sea. Eventually, this evolved to include air interdiction as well. Their missions involved moving in fast and light, never being bogged down with heavy weapons. Rangers only take what they need to succeed on a mission, often only taking small arms and machine guns. The practice of using full-cyborgs became popular because of the impact a single cyborg could have in a combat situation. Because Rangers would move in and out quickly, the need to operate long times between servicing would not be an issue. They also often operated with therm-optic camouflage. Bateau was transferred to Section 9 from Section 4.

Section 5: Unknown.

Section 6: Section 6 contains all investigations, combat and special operations personnel used by The Ministry of Foreign Affairs. This section is highly secretive and is deeply rooted in espionage and covert operations. Comparative to the US' CIA or the British MI-6. There are no (official) full-cyborgs in S-6. Section 6 answers directly to the Minister of Foreign Affairs. Section 6 deals with jurisdiction issues outside the country's borders.

Section 7: Unknown.

Section 8: Unknown.

Section 9: Section 9 (AKA: Koukaku Kidoutai) is the Ministry of Internal Affairs counter-terrorist, cyborg crimes, and assassination squad. Section 9 is a paramilitary organization, and most of its members are full cyborgs. It is no coincidence that Section 9 resembles the German GSG9 (Without a doubt, the most extensively trained and equipped counter-terrorist squad on the planet), and like each GSG9 agent, each S-9 member is extensively trained in combat, anti-terrorism and investigations. When a terrorist incident occurs it is S-9's job to either stop it, or investigate the aftermath and find those responsible. Public Peace Section Nine is an elite domestic anticrime unit tasked with preemptive and aggressive prevention of crime. Their duties include response to serious cyberbrain crimes, protection of foreign national VIPs within Japanese borders, investigation of wrongdoings of those in public office, investigation of high profile murder cases and top secret assassinations. They are called out to deal with those situation and crimes that the national police cannot. This unit is cleverly headed by Daisuke Aramaki while tactical command is the responsibility of the very talented Motoko Kusanagi. Recruitment for S-9 is mostly done from the special forces of the GSDF. Typically the most talented full cyborgs with tactical and investigations training are offered positions in Section 9. Occasionally S-9 will recruit from the police, which is where Togusa came from. Section 9 is less than 6 years old. The payroll of Section 9 is done through a dummy security company, to which technically, everyone involved, except for Aramaki, is employed. S-9 has access to a wide range of equipment. They are allowed to carry their choice of sidearm and a variety of SMGs and assault rifles are provided for them. S-9 also employs the use of therm-optic camouflage (as does S-6 of the PSB and S-4 of the Rangers) and has access to Tachikomas and later, Fuchikomas

JAPANESE SELF DEFENSE FORCE

Nearly 240,000 strong, Japan's military excels Britain's in spending and manpower although they are prohibited to possessing nuclear weapons. A prohibition on war is supported by the Japanese government themselves and declared in their own constitution. They are also not allowed to be deployed outside of Japan…at least in original theory. After World War III, the SDF did expand their reach to beyond their borders. The only real exercise of this new muscle occurred when the SDF was used in ground operations across the sea in World War IV.

The Defense Agency and the SDF is basically the same thing. However, the term Defense Agency refers to the administrative organization responsible for management, while the SDF is used to mean the actually military arm that conduct activities for the defense of the nation. The SDF fall under control of the civilian Defense Agency, subordinate to the prime minister. Unlike the Ministry of Foreign Affair, JDA is not a full-fledged ministry. Rather, it is an agency, a part of the Prime Minister's Office. Not only is it of lower bureaucratic standing, therefore, but also it has less control over its own fate than do full ministries. Thus, of the 10 bureaucratic appointments to JDA, at least four are assigned from other ministries. This situation is the result of a deliberate effort to ensure continued civilian control.

The overall organization is called the Defense Agency rather than the Ministry of Defense. The armed forces were designated the Ground Self-Defense Force (GSDF), the Maritime Self-Defense Force (MSDF), and the Air Self-Defense Force (ASDF). All SDF personnel are technically civilians: those in uniform are classified as special civil servants and are subordinate to the ordinary civil servants who run the Defense Agency. There is no military law, and offenses committed by military personnel- -whether on base or off base, on duty or off duty, of military or nonmilitary nature—are all adjudicated under normal procedures by civil courts in appropriate jurisdictions.

According to the original basic policy for defense in 1957, the nation's security would be achieved by supporting the United Nations (UN) and promoting international cooperation. Japan's national defense policy had been based on maintaining the 1960 Treaty of Mutual Cooperation and Security with the United States, under which Japan assumed unilateral responsibility for its own internal security and the United States agreed to join in Japan's defense in the event that Japan or its territories were attacked. Government

Japan's feelings on war
Article 9.
Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes.
In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.

24

policy held that the SDF would be developed only to repel a small-scale, limited invasion and that the nation would depend on the United States to come to its aid in the event of a more serious incursion. Against a nuclear threat, Japan would also depend on the deterrence of America's nuclear arsenal.

This all collapsed after World War III when the United States broke in two and could no longer maintain that defense. The destruction of Tokyo via nuclear device more than finalized this deal's breakdown. However, Japan was able to show strength in its own non-aggressive deterrence. The Japanese Miracle—Micromachines designed to remove radiation form effective areas—helped starve off the fear of nuclear attack, reducing the need for an American Nuclear shield. The UN still maintains its cooperation with Japan but the SDF did expand their charter to increase their military's power. This allowed Japan to being the power it is today. The SDF still did no operations outside their own borders unless in cooperation with the UN. This occurred in both World War III and World War IV, the last with some heavy controversy, as the SDF's involvement in the Peninsula was more complicated and detrimental.

The GSDF defends against ground invasion and threats to internal security, be able to deploy to any part of the nation, and protect the bases of all three services of the Self-Defense Forces. The MSDF meets invasion by sea, sweeps mines, patrol and survey the surrounding waters, and guard and defend coastal waters, ports, bays, and major straits. The ASDF renders aircraft and missile interceptor capability, provide support fighter units for maritime and ground operations, supply air reconnaissance and air transport for all forces, and maintain airborne and stationary early warning units.

The Defense Agency, as part of the Office of the Prime Minister, is required by Article 66 of the constitution to be completely subordinate to civilian authority. Its head, the director general, has the rank of minister of state. He is assisted by two vice directors general (vice ministers), one parliamentary and one administrative; the Defense Facilities Administration Agency; and the internal bureaus. The highest figure in the command structure is the prime minister, who is responsible directly to the Diet. In a national emergency, the prime minister is authorized to order the various components of the SDF into action, subject to the consent of the Diet. In times of extreme emergency, that approval might be obtained after the fact.

The internal bureaus, especially the Bureau of Defense Policy, Bureau of Finance, and the Bureau of Equipment, are often headed by officials from other ministries and are the main centers of power and instruments of civilian control in the Defense Agency. The Bureau of Defense Policy is responsible for drafting defense policy and programs, for determining day-to-day operational activities, and for information gathering and analysis in the SDF. The Bureau of Finance is instrumental in developing the Defense Agency budget and in establishing spending priorities for the Defense Agency and the SDF. The Bureau of Equipment, organized into subunits for each of the military services, focuses on equipment procurement. Before any major purchase is recommended to the Diet by the Defense Agency, it has to be reviewed by each of these bureaus.

Below these civilian groups is the uniformed SDF. Its senior officer is the chairman of the Joint Staff Council, a body that included the chiefs of staff of the ground, maritime, and air arms of the Self-Defense Forces. Its principal functions are to advise the director general and to plan and execute joint exercises. The three branches maintain staff offices to manage operations in their branches. Although rank establishes echelons of command within the SDF, all three branches are immediately responsible to the director general and are coequal bodies with the Joint Staff Council and the three staff offices.

The Defense Agency's main office houses nearly 7,000 agency personnel with eight organizations. The complex has five wings.

A-Wing is the home of the military's central nervous system, hosting the Joint Staff Council and the Staff Offices for each of the three branches of the Self-Defense Forces (SDF) – Ground, Maritime and Air. The wing has 23 floors, 19 of which are above ground. The four basement floors house the central coordination center. Atop the wing are two heliports where large helicopters can land.

B-Wing hosts the SDF's communications corps and contains a massive, 220-meter-high communications tower.

C-Wing is home to intelligence divisions. The two buildings each have eight floors and four basements.
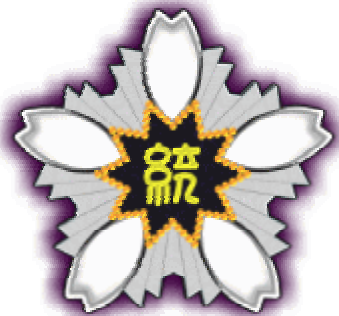
D-Wing houses the Defense Facilities Administration Agency and the Defense Agency's Central Procurement Office.

Japan Ground Self Defense Force (Nihon Rikujyo Jieitai): The largest of the three services, the Ground Self-Defense Force (GSDF) operates under the command of the chief of the ground staff, based in the city of Ichikawa, east of Tokyo. Strategy is determined by the nation's elongated insular geography, its mountainous terrain, and the nearness of the Asian mainland. The terrain favors local defense against invasion by ground forces, but protection of the approximately 15,800-kilometer coastline of the four main islands would present unique problems in the event of a large-scale invasion. Potentially hostile aircraft and missile bases are so close that timely warning even by radar facilities might be difficult to obtain. Maneuver space is limited to such an extent that ground defenses would have to be virtually in place at the onset of hostilities. No point of the country is more than 150 kilometers from the sea. Moreover, the straits separating Honshu from the other main islands restrict the rapid movement of troops from one island to another, even though all major islands are now connected by bridges and tunnels. Within each island, mountain barriers and narrow roads restrict troop and supply movements. The key strategic region is densely populated and highly industrialized central Honshu, particularly the area from Tokyo to Kobe. Japan has many places suited for landing operations and is geographically located close to neighboring countries on the continent.

It was extremely difficult, or practically impossible, for Japan to have enough defense capability to repel all troops from the sea in the events of World War III. It incurred enormous and unbearable costs building up a defense capability for the predicted attack. Remarkably, the invasion failed to take a foothold, which lead to the use of Nuclear weapons later. The ground element was neither equipped nor staffed to offer more than a show of conventional defense by itself. However, the determination of that staff escalated the will to stave off the invasion. Antitank artillery, ground-to-sea firepower, and mobility improved and surface-to- ship missiles came to bear to push back the enemy's campaign. The number of uniformed personnel was insufficient to enable an immediate shift onto emergency footing. Instead, the ratio of officers to enlisted personnel was high, requiring augmentation by reserves or volunteers during the crisis.

Because of population density on the Japanese islands, only limited areas were available for large-scale training, and, even in these areas, noise restrictions were a problem. The GSDF tried to adapt to these conditions by conducting command post exercises and map maneuvers and by using simulators and other training devices. In live firing during training, propellants were reduced to shorten shell ranges. Such restrictions diminished the value of combat training and troop morale. This changed after World War III. After the Japanese Miracle swept over Tokyo, reducing the radiation to a safe background level, the remnants of old Tokyo were split. Half became converted into part of one of the refugee camps while the other found itself the new urban training ground. Noise restrictions were relieved and training continues to the day there. Shijuku sank to the bottom of the ocean.

Japan Self Defense Forces (JSDF)
Total Armed Forces:
Active – 236,700
Reserve – 149,200

Army: Japan Ground Self-Defense Force (JGSDF)
Active – 148,500 (Aprox. 15% full cyborgs)
12 Combat Divisions
1070 Tanks (350 Multiped variety)
190 attack helicopters (various types)
250 Armor Suits (Japanese and American versions)
 …supporting Artillery/Air Defense Guns and Missiles

Navy: Japan Maritime Self-Defense Force (JMSDF)
Active – 42,600
16 SSK-A submarines
55 Principal Surface Combatants
3 patrol and coastal combatants
31 mine countermeasures
9 amphibious warfare ships
5 Stealth warships.
12,000-strong Air Arm with
80 combat aircraft and
80 armed helicopters

Air Force: Japan Air Self-Defense Force (JASDF)
Active – 44,200
431 total combat aircraft including
2 fighter/ground attack squadrons with…
40 F-16/X and
20 F-22 Raptor Stealth fighters
10 fighter squadrons with…
160 JSF-35 and
50 F16/X
…Supporting air-defense guns and missiles

Paramilitary Forces
12,000 Maritime Safety Agency
(Coast Guard)
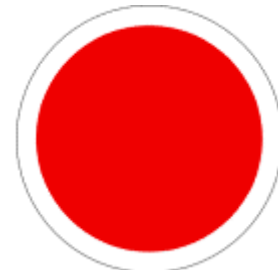
Japan Maritime Self Defense Force (Nihon Kaijyo Jieitai): Two kinds of operations are conducted by the Japan Maritime Self Defense Force [JMSDF] for the purpose of defending Japan: securing maritime traffic and securing Japanese territory. For Japan, which relies on foreign countries for the supply of almost all energy and food, the influence to national life is quite serious in case that maritime traffic is cut off. It can also be said that the impact to the world economy is significant in such case. Therefore, the JMSDF must be able to secure maritime traffic against attack by enemy submarines, surface ships and aircraft by effectively combining each operation such as surveillance, escort and defense of ports and straits. In case of aggression that aims at territorial occupation, it is necessary to stop it at sea in order to prevent direct damage to the territory. For that purpose, the JMSDF, in cooperation with the JGSDF and the JASDF, contributed to the defense of Japan during WWIII by destroying enemy surface ships, aircraft, and laying mines around the expected landing zone.

CHIEF OF STAFF MARITIME (海上幕僚長)	VICE ADMIRAL (海 將)	REAR ADMIRAL UPPER HALF (海 將 補)
CAPTAIN (一等海佐)	COMMANDER (二等海佐)	LIEUTENANT COMMANDER (三等海佐)
LIEUTENANT (一等海尉)	LIEUTENANT JUNIOR GRADE (二等海尉)	ENSIGN (三等海尉)
WARRANT OFFICER (准海尉)	MASTER CHIEF PETTY OFFICER (海曹長)	
SENIOR CHIEF PETTY OFFICER (一等海曹)	CHIEF PETTY OFFICER (二等海曹)	PETTY OFFICER SECOND CLASS (三等海曹)
PETTY OFFICER SECOND CLASS (海士長)	PETTY OFFICER THIRD CLASS (一等海士)	
SEAMAN (二等海士)	SEAMAN APPRENTICE (三等海士)	

The nation is vitally dependent on maintaining access to regional and worldwide shipping lanes and fishing areas, but it is incapable of defending the sea routes on which it relied. Its energy supplies

came primarily from Middle Eastern sources, and its tankers had to pass through the Indian Ocean, the Strait of Malacca, and the South China Sea, making them vulnerable to hostilities in Southeast Asia. Vulnerability to interception of oceangoing trade remained the country's greatest strategic weakness.

The large volume of coastal commercial fishing and maritime traffic limits in-service sea training, especially in the relatively shallow waters required for mine laying, mine sweeping, and submarine rescue practice. Training days are scheduled around slack fishing seasons in winter and summer—providing about ten days during the year. The MSDF maintains two oceangoing training ships and conducts annual long-distance on-the-job training for graduates of the one-year officer candidate school.

Japan Air Self Defense Force (Nihon Koku Jieitai):

The Air Self-Defense Force detects invading aircrafts and missiles quickly and destroys them as far from Japan as possible. The ASDF has the capability for vigilance and surveillance and quick counterattack against invading aircrafts and missiles. The ASDF possesses aircraft control and warning units consisting of a network of radar sites and airborne early warning capable of surveillance throughout the air space in and around Japan on a continuous basis.

The ASDF maintains an integrated network of radar installations and air defense direction centers throughout the country known as the Basic Air Defense Ground Environment. The Air Self-Defense Force (ASDF) is the major aviation arm of the SDF. It has an authorized strength of over 47,000 and maintained some 46,000 personnel and over 330 combat aircraft. Front-line formations include three ground-attack squadrons, nine fighter squadrons, one reconnaissance squadron, and five transport squadrons. The Air Self-Defense Force possesses 28 fixed ground radar sites in 28 locations throughout the nation. The 12 fighter squadrons consist of nine interceptor units and three support fighter units. The main mission of interceptor units is to intercept intruding aircraft, while that of support fighter units is to counter landing invasions, and to support from the air the GSDF and MSDF units fighting against invading forces as necessary. The ground-to-air missile units of the ASDF counter air invasion together with the fighter squadrons. The ASDF maintains six ground-to-air missile groups for the air defense of each area of political, economic and strategic importance

Security Council: The Security Council is presided over by the prime minister and includes

the ministers of state specified in advance in Article 9 of the Cabinet Law; the foreign minister, the finance minister, the chief cabinet secretary, the chairman of the National Public Safety Commission, the director general of the Defense Agency, and the director general of the Economic Planning Agency. The chairman of the Security Council also can invite the chairman of the Joint Staff Council and any other relevant state minister or official to attend. The Security Council addresses a wider range of military and nonmilitary security issues, including basic national defense policy, the National Defense Program Outline, the outline on coordinating industrial production and other matters related to the National Defense Program Outline, and decisions on diplomatic initiatives and defense operations.

JAPANESE LOCATIONS

Akihabara: The world's biggest electrical equipment town. The name Akihabara is now world-famous. More than 350 electrical appliances, cybernetics, and electronics shops of all sizes are located in a small area around Chuo-dori Avenue, in the west of Akihabara Station. In recent years, the main trend has shifted from general home electrical appliances toward the new world of the cybernetics. Many residents speak English, Chinese and Korean.

With many service centers and the showrooms of major manufacturers, as well as duty-free shops and various events, the town is attractive in the eyes of visitors. Among these events, the Denki-matsuri Festival, held in summer and winter, is the biggest, a great chance for good shopping that you should never miss.

Aeropolis I & II: The old city in Niihama West sector is enormous. However, as expansion continued, this area grew less and less desirable for construction. At first, it was saturated with industrial pollutants. A large section of Nihama's old-city would become a Refugee Releif Sector. The Refugees refused to move into the heavy polluted area and it was abandoned. Even though the industrial pollutants of the old city had long since been removed with MicroMachines, no one has attempted to rebuilt and repopulate this area. The area was still next to a Refugee sector and looked ugly with old, tattered buildings.

In a vain attempt to inject life back into the old city and stimulate repopulation and investment opportunities, Megatech began a very audacious project to build a Geofront in the west sector. It would be the twin of a similar construction in the East, Aeropolis. Like its sister, Aeropolis II would feature a subterranean development topped with a massive tower complex rising over 100 floors above the ground. However, even though Aeropolis I proved a success, Aeropolis II failed and construction was halted. Officially, according to the Megatech construction committee, Aeropolis II is only in delay status and eventually, work will resume…eventually.   Many believe it was a stupid structure to build there in the first place as it stood 90 floors higher than anything else around it.

However, most forgot about its existence until the Human Liberation Front staged a terrorist act in Aeropolis II using its abandoned but still functioning nuclear reactor.

Artificial Intelligence Research Agency: Located in Newport, the AIRA is a group investigating reports of spontaneous ghosts forming in usually Ghostless AI and conducting experiments to create one themselves. So far, they have never found an occurrence. By current date, the only thing that can create a ghost is a human being. However…the new Neurochips by Kenbishi, installed in Tachikomas, when exposed to massive amounts of stimuli, added to the fact that one of the chips was damaged by the use of natural oil, encouraged one model to develop the bare basics of a ghost.

Bertarve: Bertarve is located at the southernmost tip of the island of Etorofu. Etorofu along with Kunashiri, Shikotan, and the Habomai island group were occupied by Russia from 1945 until the end of WW III. In those days, Bertarve was a Russian city and the location of a Soviet sub base. When Russia withdrew and returned the Northern Islands to Japan, they set demo charges and buried the sub base. In recent years, Bertarve has grown up quite a bit. There are still many Russians that live in the area, but many Japanese have moved back in. Corporate Support for this area has been high due to its strategic northern location, and most major corporations operate branch offices in the area. The city's major problem is crime.

With little time to change over police forces and to get an adequate system in place, Bertarve has fallen victim to a skyrocketing crime rate. The city has become a haven for wanted criminals, gangs and spies working on Russian targets. A thriving black market operates here, and due to the corruptibility of local police, it goes on in plain view in a large street market style setting. If it is illegal, and you want it, you can find it here.

The geography of Bertarve is quite interesting. The city is built at and around the base of Mt. Bertarve, which is about 4,500 meters high. The skyscrapers block out a lot of the view of the mountain. Some of the larger buildings are over 2 kilometers tall. From the center, the city sprawls out eleven kilometers each direction. There are major shipping ports situated on all sides of the city making it a major Japanese port. Etorofu is connected to the other islands and the mainland by the Tohoku Maglev train. As far as social geography goes, the rich live high in the towers above the poor who wander about the streets. With aerial walkways connecting many of the towers, the rich never have to come down to ground level.

Like Newport City, Bertarve is extremely dense and driving a car here is a hindrance. Most of the streets are filled with people, and for most of them, the preferred method of travel is walking. A Maglev runs through the city as well as a major mega-highway, both of which connect Etorofu to the other islands.

Bertrave is the key location of the Etorofu route.

Dream Island: How deceiving a name it is. Yume-no-Shima, Dream Island—the landfill of the Tokyo metropolis—expanded after the third war to encompass an area four times its original planned size. A very large recycling plant still exists there, among the dunes of garbage.

Etorofu Route: Ports all operate substantial security to prevent contraband or prohibited technology from leaving Japan or to prevent weapons or terrorists from entering. However, a hole exists in the transport route through the Northern Islands. This became known as the Etorofu Route—a smuggling passage connecting Japan with Eastern Russia. Anything illegal in Japan owes its existence to this security gap. Most of the Smuggling is controlled through Bertrave and estimates indicate the money that passes through this city measures in the millions.

Harima City for Academic Research: Begun as a research facility complex financed by the state and major domestic corporations, Harima evolved into a city with the growth of the research and educational facilities. By 2028, the neurochips developed in 1998 at the Harima City for Academic Research had come to be used in many A.I.s and robots.

The city is also home to Spring-8, the largest third-generation synchrotron radiation facility in the world. It provides the most powerful synchrotron radiation currently available. The Japan Atomic Energy Research Institute (JAERI) and RIKEN (The Institute of Physical and Chemical Research) started construction of Spring-8 in 1991, and with support from Hyogo Prefecture, universities, research institutes and industry, completed the construction and opened the facility in October 1997. Since the completion of

the facility, management, operation, upgrading of the facility, user service, and R&D on SR science and technology have been performed by the Japan Synchrotron Radiation Research Institute (JASRI), which was designated by law as the sole institute for the management, operation and development of Spring-8. At Spring-8, many researchers from around the world are making efforts to unlock the secrets of nature using synchrotron radiation as the key.

Harima Science Garden City is a major part of the Nishi-Harima "Technopolis" plan. This allowed Hyogo Prefecture to become the leading prefecture in Japan in the fields of science and technology. Megatech and Kenbishi Heavy Industries both use the city for a test bed for their prototypes.

Kyushi: Kyushi is now the national capitol of Japan

Newport city: Newport is a constructed Island, built off the Shinhama ward of the Tokushima Prefecture. Newport City became a major city for trade, international relations and foreign affairs. The city was built in the early part of the millennium when issues of space started arising. There was generally not much of an urban metropolis in the Tokushima area before the port was opened in the 1990s. The area prospered, and its residents grew exponentially.

In the early 2000s work began on the floating metropolis that is now known as Newport City. The city has become one of the thriving new metropolises of the new millennium. Although New Tokyo and Osaka are still very important cities in Japan, Newport City has become the significant international city.

Major international corporations have their headquarters here, and many political conferences are now held here instead of in New Tokyo.

As for the city's geography itself, it is built in an almost fortress-like fashion. The biggest corporate towers loom ominously in the center of the floating section, while thousands of smaller buildings surround them. An inner waterway surrounds the middle section. This waterway branches off into smaller canals that wind around parts of the city. The second ring is made of up large shipping piers (which are equipped to handle the largest sectional cargo ships) and warehouses. The rest of Shinhama, which is on land, is known as "Old Town." The northern areas of Tokushima are more spread out, and it is here where you find large estates and traditional pagoda style architecture.

There are many mega-highways that lead to the floating section; unfortunately, once you are on the island it is nothing more than a hindrance to drive a car. Newport City is very dense and heavily populated, so the best ways to get around are by the elevated train system, the electric busses or by boat (provided you are going somewhere on the canal).

New Hanamaki City: Another new population center constructed after World War III.A regional city that lies on the Tohoku Linear Rail line heading to Bertarve. A region with prosperous agriculture and industry. The station for the monorail, the sole transpiration facility that goes to the Tohoku Autonomous Region is located in the innermost ward of its industrial zone.

New Tokyo / Old Tokyo: Rebuilt after the majority of the old one was destroyed in a nuclear blast, New Tokyo rests closely to its predecessor and expanding so close its on the verge of reintegrating it again. When it occurs, Old Tokyo may be ready to be inhabited again. 24 hours a day, machines continually tear down and rebuild the landscape, trying to raise the ground level to bring the majority of the area from below the sea. The radiation thankfully, has been removed thanks to the Japanese Miracle. To this day, Old Tokyo remains a staunch reminder of how close the world came to destroying itself. Currently, what remains dry of Old Tokyo houses millions of homeless and those who wish to remain off the grid. It is known to have a very lucrative black market for weapons and cybernetics.

Niihama City: In Niihama prefecture, Niihama grew to immense size. Section 9 calls Niihama City home. It is also the location of the very well known Nihima University and the Niihama School of Medicine and Dentistry Medical College where the Nano Manufacturing Department resides.

Ostrov Islands: Japan claims ownership of several islands north of Hokkaidô. These include the two southernmost Kuril Islands, Ostrov Iturup (Etorofu-jima) and Ostrov Kunashir (Kunashiri-jima), as well as Shikotan and the Habomai island group. The Union of Soviet Socialist Republics (USSR) took control of these islands from Japan after World War II ended in 1945. Since the USSR dissolved in 1991, Russia has administered the disputed islands.

After World War III, Japan seized control of these Islands under no protest. The resident Russian population was allowed to remain as immigrants, and many of them accepted the situation on Ostrov Iturup, the most populace of islands. Clashes still occur between the different ethnic groups on the Ostrovs. Several abandoned Russian military bases sit still, unoccupied. At least two navel bases were also abandoned and even an underground submarine dock. Several corporations like Sagawa shifted facilities onto Iturup, moving onto the old base facilities. A Geofront was also constructed there. Because of the massive immigrant population, and the precarious political position of the islands, several black markets exist, especially on Iturup.

Refugee Relief Sectors: After World War III and World War IV, a massive shifting of population occurred all over the globe. Hundred of thousands of non-Japanese citizens found themselves on Japanese soil, either from a failed invasion, or fleeing from their own countries. Many, those with applicable skills and training and advanced cyberbodies, were permitted visas. Others gained full citizenship, leading to the more colorful demographic of Japan's society. However, hundreds of thousands still remained. The Special Refugee Treatment Act was formed and locations around Japan (mostly no-man land and old radiation zones cleaned up after the Japanese Miracle) were set aside and fenced. The Refugees were permitted to live independently in these zones. However, they could not enter Japan without proper permits or Visas. In many ways, these Sectors became autonomous nations, under no leadership, with no way to support themselves. None of the people in these sectors wants to return to their countries (if they existed), so they remained…for years.

There are five residential refugee relief sectors in Japan. Mostly with Chinese refugees. One is located in Niihama. The largest one in Kyushu, off Nagasaki, is better known as Dejima Camp or Dejima Island (literally protruding island). This is not the same Dejima from history but a newer construct. The original Dejima was an artificial island in the port of Nagasaki, completed in 1636 to house Japan's Portuguese residents. The Edo Shogunate ordered the separation of the Portuguese from the Japanese population in order to stop Portuguese missionary work. One year later, the Portuguese were completely expelled from Japan, and the Dutch factory formerly located in Hirado was moved to Dejima. The Dutch workers, then the only Westerners allowed in the country, were restricted to Dejima during Japan's two centuries of isolation. Today, the old Dejima is not an island anymore, as the surrounding area has also been reclaimed during the 20th century. However, a number of Dejima's historical structures remain or are being reconstructed in the area. Among the attractions are the Dejima Historical Museum and a miniature model of the former island.

Another sits in Kanto and the other in Shinjuku—where part of old Tokyo resides in the camp. Homeless people, with nowhere else to go, often hide in Refugee Relief Sectors. These sectors often supply a cheap labor force to major cities. Dejima Island stands out from other districts. Unlike other districts, which recycles other facilities, it was a floating industrial island, built only for its purpose, connected to the mainland, by the very long Oohashi bridge. This bridge remains the only passageway and method of wired communication between the island and the rest of Japan. The ironic connection of the old island and the new one cannot be denied.

> 'Autonomous Region Charter.'
> With pride and duty in our hearts as citizens of the Tohoku Autonomous Region, utilizing the knowledge cultivated by our forebears and the essence of hard-won technology our goal is to work for peace on this world;
> **Item:** We shall cultivate strong bodies, hearts, and profound knowledge.
> **Item:** We shall build cities where the consideration of heart touching heart may be found.
> **Item:** We shall utilize astonishing knowledge and technology to restore world peace.

Tohoka Autonomous Region: The Tohoka Autonomous Region is a section of Japan largely ignored, and thus became somewhat independent since the last war. It is camouflaged from air and space. This region was known to be a refuge of scientists operating on several advanced technologies including MicroMachines. Japan still considers the TAR part of their nation and when the scientists of TAR developed a technology which (with the proper patents) could yield a massive monetary injection,
Japan stole the patent and robbed TAR of its insurance. This technology was MM Rice, which cured the majority of the food problems across the world.

Optically camouflaged in aerial and satellite imagery, all that shows is a giant dam that boasts a large water capacity. In reality, it is a special JGSDA facility that was constructed to safeguard intellectual assets. With the war now over, work has begun to return it to its original dam form.

1987: Construction begins on dam structure.

1995: Construction is completed.

1996: Converted to 'Tohoku Final Defensive Perimeter Outer Wall' without the dam structure undergoing a test filling.

1996: Construction begins on the Rikuu dam as the Tohoku Final Defense Perimeter, which is to form the outer wall of a JGSDA facility.

2000: Primary construction complete as Tohoku Final Defense Perimeter.

2002: Converted to JGSDA FACILITY TO SCIENTIST EVACUATION POINT. It employs noted scholars and engineers of all fields from Japan's corporations and learning institutions. Research begins on military engineering and increasing the food supply.

2026: With the end of the war, the decision to close it down. Other than certain people, withdrawal begins.

2028: Dismantling operation begins. Prostheticized refugees are brought in as a work force.

Although it lies in the mountainous region of New Hanamaki City, it is off-limits to unauthorized personnel under the pretext of water supply security.

Type: concrete gravity dam
Embankment height: 156 meters
Embankment width: approx. 400 meters
Embankment volume: approx. 2 million cubic meters
Total storage capacity: 193 million cubic meters
Effective storage capacity: 183 million cubic meters
Official designation: Rikuu Dam #1

With an investment of 400 billion yen in operating funds, it was built as a multi-purpose dam, with such goals as flood control, conservation, irrigation, and hydroelectric power.

A closed ecosystem was artificially produced in the deep underground sector of the Tohoku Autonomous Region to conduct cultivation experiments on MM-rice. The experiments were expected to produce high yields, even in a variety of weather and natural environments, but the project ended with the death of head researcher Kei Yazawa.

Inaugural Address
'Autonomous Regional Director Inaugural Address'

We hold these truths to be self-evident, that all men are created equal, that they are endowed with certain unalienable rights that among these are life, liberty, and the pursuit of happiness. Those to secure these rights, governments are instituted among men, deriving their just powers from the consent of the governed. That whenever any form of government becomes destructive to these ends, it is the right of the people to alter or to abolish it. It is their rights of citizens to throw off such government, and to provide new guards for their future security.

The foundation of the new government is to be laid on such principles and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness. Nor have we been wanting in attention to our Japanese brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which, would inevitably interrupt our connections and correspondence. Yet again, however, the citizens of Japan have failed to listen to calls based on justice and ties of common kindred.

We, therefore, the representatives of the Tohoku Autonomous Region, in General Congress, assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the name, and by the authority of the good people of the Tohoku Autonomous Region, solemnly publish and declare, that as a free and independent autonomous region, this Tohoku Autonomous Region of right ought to be a free, independent economic zone. As the Tohoku Autonomous Region, we declare our independence and are henceforth-absolved form all allegiance to the Japanese government. And for the support of this declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our lives, our fortunes and our sacred honor.
Toshimi Tagami
Tohoku Autonomous Regional Director

KNOWN EVENTS & IMPORTANT POINTS

Blindfold Ivan: It refers to the MO of hacking into the Public Security Network of the IR-System and cutting out just the images from the moment abduction takes place. The abduction involves women, usually young, and usually in the public circle. They are smuggled out of Japan, where their organs are sold on the black market. The reason there are no witnesses in spite of the fact that they disappear in the middle of busy areas is likely because the eyes of passersby were hacked to "blindfold" them.

China/Taiwan Alliance: A treaty formed in response of the Security Pact between Japan and the American Empire.

Cyberbrain Sclerosis: 2019—At a time when cyberbrain implantation was just becoming common, a certain cyberbrain disorder of mysterious origins caused a stir in the medical field. Sections of the brain that received cyberbrain implants gradually hardened and eventually lead to brain death. The disorder was later named cyberbrain sclerosis. While the probability of getting this disorder was not high, anyone with cyberbrain implants was susceptible. Since no cure had been found, it was ranked along side tuberculosis, cancer, and HIV the incurable diseases of the 20th century. In terms of specific symptoms, slight memory loss is the disease's preliminary warning sign. As the illness worsens, symptoms include deterioration of speaking ability, incompatibility with external memory storage units, and severe memory deficiency. Eventually, those afflicted will face brain death, or so it was thought. While it was possible to delay the symptoms' progress with appropriate treatment, it was believed sclerosis itself could not be cured, causing a momentary yet considerable panic within the cyberbrain-implanted population when the disease's existence was first disclosed to the public. As if they had entirely forgotten that they cheerfully advertised the advancement and application of cyberbrain technology in the past, various media began to indulge in their customary off-the-point and delayed criticism of high-ranking government officials who retired to posts in cyberbrain manufacturing companies.

Concurrently, the public jumped on the bandwagon, resulting in the creation of many anti-cybernetics organizations represented by groups such those belonging to the Human Liberation Front and those advocating the resurrection of return-to-nature movements.

Cyberbrain Sclerosis & The Laughing Man

It is believed the cover-up of the Murai vaccine was instigated by the minister of Health and Safety at the time with the help of the CEO of Serano Genomics—the first company to apply for a patent of using MicroMachines towards CS. It is thought that the final culprit in the cover-up was the then Minister of Health and Safety, Yakushima, and not the CEO of Serena Genomics as SG simply beat out a half dozen other companies in the process of developing a MM treatment for CS.

The arrival of CS and cover-up of the Murai Vaccine is said to have been the catalyst for the Laughing Man case, the most widely known case of corporate terrorism since the war.

The Murai vaccine, which was developed by Dr Murai Chitose, suppresses Sclerosis. However, medical experts at the time consisted largely of MicroMachine treatment advocates. The vaccine treatment developed by Dr. Murai was conceptually behind the times, and the majority felt that allowing his research would delay completion of the concurrent research on MicroMachine treatment. Perhaps because of such concerns, approval of the Murai vaccine was delayed. Dr Murai, who hoped for the approval of his vaccine treatment until the very end, died an unfulfilled death in February 2021 at age 68, without witnessing the decision of the drug evaluation committee. However, in April 2021, the Murai vaccine was suddenly approved for special use by select individuals, after initially being rejected. This approval was not made public, and patients who used the vaccine do not officially exist.

Pressured by the public for a rapid response, the government announced a new treatment involving MicroMachines in order to pacify them. The publicized treatment did not have a significant effect, and many questions remained. However, the media dashed off to search for the next scandal after burying a few scapegoats, and the public forgot their problems with customary alacrity once the media dropped the subject matter. As a result of such routine work, the hysteria over anti-cybernetics movements consequently subsided. But the past of CS and the existence of Murai did not die in 2021. Even now, there are those who are interested in the situation.

Enter the Sunflower Society—a Non-Profit Organization that supports individuals who file suit against the government and large corporations. They demanded disclosure of information on the Murai vaccine and those who have received the vaccine from government agencies on multiple occasions in the past. However, the Ministry of Health, Labor, and Welfare used the Individual Privacy Act as a shield to reject their demands.

Cyborg Anti Discrimination Law: After membership in the Human Liberation front gained popularity, the Government discovered anti-cyborg crime increased substantially. Some cyborg refugees during the war discovered their sacrifice to augment themselves backfiring as some had trouble procuring employment upon returning home. To combat this effort, the Cyborg Anti-Discrimination Law was formed to deal with this new form of intolerance. Since its formation, Cyberization has reaches such a common point in the world, the law is somewhat soporiferous.

Echelon: The largest electronic spy network in history, run by Empirical America, the United Kingdom, Canada, Australia, and New Zealand, they capture telephone calls, faxes and e-mails around the world. Echelon is estimated to intercept up to 5 billion communications every day.

Geofront: A deep subterranean development. The TAR is a Geofront. Geofronts are also known to be the Headquarters of major corporations. Bertrave features more than one. They are often virtually self-sufficient so some of them in the world have dubious sovereignty. They always have some form of self-sufficiency. Almost all of them run off their own nuclear power plants. Sometimes Geofronts are also the titles of power plants themselves.

Ghosts & Shells: The term Ghost, began circulating sometime after World War III but the origin dates back to early decades of the last century. It refers to an individual's mind or essence of being…their soul perhaps—although that term is somewhat of an antique in this day since the soul denotes spirituality while the ghost is a subject of science. Its what differentiates a human being from a robot. Regardless of how much the biological is replaced with cybernetic, a ghost retains its humanity and individuality. Usually, such a term, separating it from the Shell, was meaningless. One was their Ghost in their Shell. Separation could not exist. That is not longer the case. One could exist without a shell. And shells could exist without Ghosts. The Shell refers to the body, organic or inorganic.

One could even transfer of a *ghost* from one body to another. Existing without a proper Shell (even the basic rudimentary forms like brainboxes) results usually in degradation. A consequence of Ghosts and Shell separation arose in criminology. When a criminal is convicted of a crime, a technical analysis is done either determining if the crime was committed due to material defects in the biological or the cybernetic systems in the criminal brain. If a mechanical defect arises, said defect is repaired and the convict is released. If the crime results from the individual's ghost, the process becomes more invasive. Anything from personality reprogramming to full ghost erasure can occur. If the Ghost contained itself in a prosthetic body, the body would usually be sold off for parts.

Incident at Shunuiji State: In the year 2024, when the nations were exhausted from the fourth world war, the American Empire called the deployment of UN troops to the Peninsula where internal conflict still continued. That action triggered Self Defense Force Deployment—the first time leaving

---

Toshimi Tagami

Born in the Tohoku Region to parents who ran all sorts of financial businesses. Census records at the time list her real name as Toshimi Yazawa. Soon after the birth of her brother, Kei Yazawa, their parents divorced. After the divorce, she used Tagami, her mother's maiden name.

Recognized as a genius in the field of program construction, she received a scholarship and entered the military academy. After making it thought the special curriculum, and joined the force as an officer cadet. Assigned to 7th Special Forces Tactical Unit, she engaged in missions where she would wage psychological attacks by switching prosthetic bodies and infiltrating the enemy. Because of this unique tactic and her many meritorious deeds, she came to be called the Choreographer. Her specialty was using her unparalleled psychological profiling skills to anticipate the enemy's tactics and movements, using the tactic to neutralize them with a minimum use of armed forces. She came to be called the Choreographer when, during the ware, a high official in the JDSDF commented that she 'Made the enemy dance in the palm of her hand.'

This is only recorded in few top-secret military flies, but the upon learning of the actions the Choreographer took during the Nemuro Landing Operation as leader of the 7th Special Forces Tactical Unit, to a handful of people the Choreographer became a symbol of menace to both friend and foe.

After the war ended, she was appointed by the military as director of the Tohoku Autonomous Region, where she was reunited with Kei Yazawa, her long-lost brother.

After joining the military, she became a full cyborg due to an accident during training. The prosthetic body was a market model, and no particular improvements where made to the capabilities of its hardware, and other than an expansion of external memory in its cyberbrain for data processing purposes, it has no distinguishing characteristics. Attached to Inspector General, Tohoku Front, Ground Self Defense Army.

Japanese territory. The American Empire started its resurrection as the world's dominant power by using the deployment as a way to obtain excavation rights to the Uranium mines in the Northern Peninsula from the Unified Government. Japan could not refuse the UN, considering how enthused it was about wartime military procurement. Thus, this became the first trial for the SDF, which has been able to avoid actual combat throughout two world wars, aside from the recapture of Nemuro. The Prime Minister at the time, fell to a terrorist bomb.

Cont.

2011: Joined the JGSDA as an officer cadet. Many examples of meritorious service follow.

2024: Appointed as Regional Director of Tohoku Autonomous Region, takes office. In her inauguration, issues the Autonomous Region Charter.

2027: With the role of the Tohoku Autonomous Region over, she receives the military's decision and declares that the region is to be dismantled. The researchers who have been employed within the Autonomous Region are advised to leave.

2028: Having received the dismantling proclamation, she is appointed as Dismantling Site Supervisor.

The Government had strict control of the media in order to suppress domestic opinion and decided to deploy the PKF Cyborg Unit (a Commando unit comprised entirely of full non-maintenance Cyborgs) to Shunuiji State, which was thought to be relatively safe. The agency in charge of this disinformation campaign was the current Cabinet Intelligence Service's predecessor, the Cabinet Press Agency. At the time, Shinuiji was a Special Administrative Region and a trade center, making it exempt from attacks. But after the unified government was established, the remnants of the defeated people's army chose as their battlefield a rural area about twenty kilometers west of Shinuji. The altitude was high, making it ideal for guerilla warfare. Soon after the cyborg infantry arrived, it was decide that two units would be deployed as a counter-guerilla punitive force, so they began moving into the frigid mountains. This was the first time units were equipped with hybrid cyborgs on the battlefield, but the PKF-issue hybrid cyborgs would not have experienced much discomfort, even while advancing through snow in –20 degrees Celsius weather. At the time, the main infantry was on heightened alert after receiving an intelligence report that the last elite troops of the people's army were plotting to attack Shinuiju State. The PKF Company was to circle north, around the enemy and launch a preemptive strike. However, on the way, the platoon found a refugee camp along a river on the border that was not mentioned in the intelligence report. The camp was being looted by the soldiers of the people's army who had, essentially, become bandits. Seeing this happen before their eyes, the platoon was spurred into combat by moral indignation. While there were only thirty of them against one hundred and twenty soldiers, the fighting quickly reached a conclusion. The platoon was a group of elites with cyborg bodies, while those who were attacking the camp were mostly unarmed and starved, even if they were former soldiers. After that, the PKF received several reports on the People's Army, but that was their only actual combat. They were forced to stay on alert due to the extreme cold and the possibility of a guerilla attack at any time, but for the main infantry positioned back in the city, the tension was not that great. But after a while, a problem surfaced in the platoon camp out in the farmland. Post Traumatic Stress Disorder. The experience of having massacred people in their first fight, not to mention the fact it was very uneven, began to eat away at the young soldiers. Those who still had their original lungs and other organs tried synthetic alcohol and hashish that has been brought in by refugees, desperate to escape the nightmarish flashbacks of the massacre. When order gradually began to break down in the SDF, the Japanese media pelted them with insensitive comments. The massacre at the refugee camp had not reached the media due to censorship, but their criticism of the man's behavior was all the more severe because of it. In addition, their freedom was restricted by the policies designed to prevent the men's disgrace from reaching the media. They were even barred from returning to Japan. The refugee camp massacre near the border leaked to part of the media and a false rumor that is have been executed by the JSDF began to circulate. The farmers vehemently condemned the JSDF and demanded an explanation. However, under media censorship, neither the young soldiers, nor their superior officers could defend themselves. Three months later the remaining members of the People's army surrendered and the JSDF was clear of all further obligations. Everyone in the media stopped talking about the massacre after that.

Japan / I.A. Security Pact: Japan used the muscle of the Japanese Miracle to encourage a Security Pact with Imperial America where IA was the sword, Japan was the shield. They could use the deterrent of nuclear weapons and the Japanese miracle against other nations. This cooperation has been seen as a good idea and bad idea to members of Japan's hierarchy, who believe Japan may loose its drive for independence if the Security Pact goes through.

Japanese Miracle: A swarm of MicroMachines capable of removing radiation from the

environment found itself dubbed the Japanese or Asian Miracle (depending on who you ask). Japan was able to regain its status as a superpower after the implementation of the radiation dispersal removal method. Japan is the only country with the technology to remove harmful radiation—a muscle they flexed during the last war and used at the end of World War III. There is a reference to an Asian Miracle. It is assumed this is the same thing and not a different use of same technology in a different arena. Japan hoped this would gain equal, if not superior footing with the American empire.

THE QUOTE

"I thought what I'd do was, I'd pretend I was one of those deaf-mutes…"

The passage continues:
"That way I wouldn't have to have any goddamn stupid useless conversations with anybody. If anybody wanted to tell me something they'd have to write it on a piece of paper and shove it over to me. They'd get bored as hell doing that after a while, and then I'd be through with having conversations for the rest of my life."

Laughing Man:

Youth and subculture have iconified the logo of the Laughing Man, the most widely known case of corporate terrorism since the last war. It all began with the kidnapping of Serano Genomics' CEO, Ernest Serano. Soon, after six major MM companies were blackmailed. The symbol of the Laughing Man is widely known. The case and details of the origin and identity of the culprit is not.

MicroMachines:

Also known as Nanites, the technology around subatomic machines changed the world forever. Huge advances in science and industry occurred because of MicroMachines. Many diseases became extinct. Food problems ceased being an issue. The original breakthrough—its time and patent ownership—fell into the annals of history, somewhat forgotten. Now, almost all major corporations have branches dealing with MicroMachines…at least those who are not totally dependant on that technology. It can be joked that MicroMachines are more abundant on the planet than insects. At first, they were designed to cure genetic defects in animals. This later evolved when cybernetics became more than just a supplementary technology. Nanotechnology allowed perfect grafting of circuitry into the organic, opening the doorway to a ever expanding highway of cybernetics, leading all the way to the full prosthetic bodies available today. None of the cybernetics on the planet (from replacement limbs to cyberbrains to full cyborgs) would

Fuwa's Genetics Research

"The Development of Joint Engineering in Applied Entomology'
- Takeru Fuwa
In this research, I make theoretical preparations for various arrangements in order to make practical use of applied Entomology, which was derived from the development of technology to exterminate harm insects that spanned the end of the 19th Century to the beginning of the 20th Century. Applied Entomology had its beginnings in the field that was established and formed by the development of technology to eradicate the Rocky Mountain Locus, which were swarming the 1870s America (now Imperial America). However, it was made more complicat4ed by the appearance of MM technology, which didn't wait for this century to appear, and the current main focus is on the research and development of new technology that makes use of the bodies of insects.

On the other hand, Joint Engineering is a key ingredients of the master/slave mechanism which are indispensable in Armed Suit (powered exoskeleton) development. These mechanisms, the aim of which at first was to mimic human movement, are fast reaching their limits in controlling the sort of multiped powered exoskeletons that are currently in use. And thus, my goal is the development of a next-gen master/slave mechanism that is more natural and does not put an unnecessary load on the human control system by taking the organic functions of insects, multiped organisms occurring in the natural world, and replicating them with micromachines on a genetic level. Applied Entomology and Joint Engineering. The fusion of research taken from both fields by means of micromachines is research that hints at new capabilities in the control systems of complex, multiped machines which are likely to appear in the near future. I foresee many difficulties in pursuing this merged research that is as yet untapped, but I believe that it will surely yield results that will be valuable for the future of humanity.

Takeru Fuwa,
Niihama University (Applied Entomology)

be possible without MicroMachines. All robots (big and small) owe their existence to them. They cured virtually all disease, ended hunger, and even destroyed the pollution clouding the biggest cities (although the inhalation themselves did offer a temporary risk to certain sensitive lungs). MicroMachines removed the radiation from destroyed areas. When philosophers talk about the age-old legends of the Philosopher's Stone or the Fountain of Youth, they all agree mankind found it.

MicroMachine measure 1/1000000 of a millimeter. Micro Machines can root themselves so much in a subject's brain, they can never be removed. Ones that die simply take up space. Not even inserting more MMs can remove the dead ones safely without damaging the brain cells around them. This is considered not a problem given the size of MM in accordance to the brain around them…sometimes its just better to leave them there.

Meguro Recapture Operation: During the invasion, naval vessels attempted a mass landing across the northern island. Even though Nemuro is the largest known conflict occurring on Japanese soil, most still consider Meguro a conflict of equal footing. Meguro's capture occurred soon before or after Nemuro (it is never detailed). Unlike Nemuro, where the enemy never gained a foothold, Meguro became the setting of a major urban battle as the enemy had rooted themselves in the city. Meguro City's remarkable geographical feature is a hilly landscape with many steep rises and descents, despite its location on the east coast.

MM / MicroMachined Rice: Micromachine technology, which was misappropriated for use as a link to agricultural product improvement, not just in the fields of cyberbrain and prosthetic body manufacturing, was cheap and safe, made real the development of high-yield crops, and played a major role in the worldwide food supply problem. Although the use of micromachines in food products was first met with physiological revulsion, MM-rice, rice to which this technology was applied was widely used in farmland-scarce Japan, and its development and refinement due to the increased food supply demands during the war made it a positive recipient of government support. Among these, Rikuu-132 drew attention as high-yield, all-purpose rice that could withstand lack of sunlight and water and was also resistant to cold-weather damage.

MM-Rice cured the world food problem. Rikuu-132, its technical term, was made by the TAR (Tohoka Autonomous Region) and when the scientist that created it, Yazawa, died, Japan filed for patent rights under orders from the Minister of Agriculture, Forestry, and Fisheries. The residents of the TAR did not approve. They do not recognize Japan's authority over them but could not get headway with the UN that did not recognize their status. Certain more radical members of the TAR resorted to terrorism to make their case known.

'Declaration of MM-rice Terrorist Act'
(Tohoku Autonomous Region Declaration of Independence)

We, the citizens of the Tohoku Autonomous Region, feel bottomless rage at having the development patent rights for the MM-rice that we ourselves developed confiscated from us by the government. It does not bear repeating that 'Rikuu-132' is premium MM-rice, fine enough to be sold to upscale restaurants throughout Japan. 'Rikuu – 132,' delivered from the Tohoku Autonomous Region, was also used at the MM-rice Promotion Society dinner which was held at the Kuretake restaurant recently.

Perhaps you should have given more thought to how you are still using the rice whose development patents you stole from us. We took the liberty of doing a small amount of tinkering to the MM-rice we sent to the dinner. In this way, the micromachines in the rice that was taken into the body will be broken down and be taken into the bloodstream. And we are able to remotely alter these micromachine3 structures in the bloodstream as we see fit. It is possible to block the blood vessels by causing a chain reaction with the micromachines already present in the body. Once this alteration in the structure of the micromachines is carried out, even the heartiest human will be dead in minutes. Our demands are simple in the extreme. Make the Tohoku Autonomous Region independent from Japan. This is all, if our independence is not recognized within 72 hours, we will trigger the virus program planted in the MM-rice. These micromachine cancellation key exists only here in the Tohoku Autonomous Region. It is possible to create an antidote, but it would take at least 100 hours. The deadline is in 72 hours. Will you recognize the independence of the Tohoku Autonomous Region, or will you choose your own deaths?

The choice is yours.

The rise in recent years of consumer unease regarding MM agricultural products due to the general distribution of improper produce, is troubling. Awareness of consumer food safety is growing on a worldwide scale, and even abroad, movements to reorganize food safety administrations are increasing their activity. Due to climbing patent costs, the number of products that can only be dealt in by economic superpowers is climbing. Expensive patents are an evil practice, and hunger countermeasures utilizing MM produce is a rocky road. Movements calling for copylefting or patent reductions from a moral standpoint

are becoming more active in many countries aboard. With calls for copylefting on the one hand, activity to preserve micromachine technology and copyrights as intellectual property rights continues unabated.

MM-Rice Terrorist Act: When initial attempts to secure independence from the Japanese Government failed, members of the Tohoku Autonomous Region committed to terrorism. This involved a subtle plan to distribute tainted MM-rice laced with a Cellular Suicide Program built in to high-class restaurants around Japan. This procedure developed for many months until the terrorist plot was finally revealed with the ransom letter released by the TAR.

Kei Yazawa, who had been one of the suspects, died many years before the operation, and the introduction of a virus into the MM-rice was entirely orchestrated by Toshimi Tagami, the Autonomous Regional Director, and formerly known as the 'Choreographer.' Toshimi Tagami entered into a prosthetic body of the same make as that of Motoko Kusanagi with the intent to cause personal disturbances with Section 9, but due to Batou's discovering the preserved corpse of Kei Yazawa and realizing the facts of the matter, her plan was foiled, and the attempt at confusion also ended in failure. With the dispersal of the MM-rice source code that occurred automatically upon the death of Toshimi Tagami, a vaccine was developed in short order, and the case was wrapped up without a single person falling victim to the tainted rice. Assuming for the moment that Toshimi Tagami had succeeded in her personal disturbance of Section 9, she would have retreated to Niihama as a member of Section 9 after destroying all evidence by leaving Motoko Kusanagi behind and sinking the Autonomous Region. Having become Motoko Kusanagi, we may assume that she would have conducted intelligence operations within the government and military to avenge her younger brother, Kei Yazawa.

Nemuro Landing Operation: Nemuro city and port are located in the most northeastern end of Hokkaido. It is the capital city of Nemuro Sub prefecture. The city has an estimated population of 55,056. It is a city with a history, since Adam Laxman arrived from Russia to negotiate with Japan for the first time in 1792. Exchanges with Russia have been fostered in the form of the removal of a measure that regulates Russians' entry, and by visaless exchanges with residents in four northern islands. In 1994, it signed a sister-city agreement with Severo-Kurisk, Sakhalin, Russia, which is deeply related to Nemuro through their main industry, fishery. Nemuro played a very important role as a base of international exchange, especially with the northern region. All seemed well for the small town.

…then came the invasion. A major attempt during World War IV where a rival nation attempted a landing in Japanese territory occurred in Nemuro. The city's name now became synonymous with the Nemuro Landing operation. The JSDF deployed as fast as possible to the area of Hokkaido. The town was already overrun. The fighting grew long and gruesome on both sides. Eventually, the Japanese forces retook Nemuro. This probably occurred before the SDF had permission to leave Japanese territory…to go on the offensive. Almost every single

solider in reserve was called to Nemuro. Most members of Section 9 participated in this operation.

Neurochip: Robotics forever changed when Dr Asuda of Kenbishi developed a revolutionary AI in a new form of Neurochip. It allowed Ghosts to inhabit Cyberbrains without any organic content. It raised the question as to what defines a human if there is nothing organic remaining. The existence of the Ghost would be reason enough. Some theorized that if a Robot or an AI would ever develop a Ghost, it would be with the help of the Neurochip. As a brain center of Robots and Ais, the Neurochip never gained popularity, possibly because of the fear that robots would, in fact, develop ghosts. Asuda believed that if the Neurochip was only given basic instructions, given time and input, allowing itself to grow, that it could indeed create the very basic parameters of a ghost. However, Asuda could not secure the patents and lost the designs to his employer Kenbishi. They then developed the Fuchikoma & Tachikoma, intelligent tanks equipped with Neurochips. When one Tachikoma was given natural oil, it damaged its hardwired instructions, allowing the Neurochip freedom to write its own code. This allowed Asuda's dream to become a reality and the Tachikoma was the first robot to gain the basic skeleton of Ghostline.

The original Neurochip tracks back to the late 20th century. Caltech researchers invented a "neurochip", connecting a network of living brain cells to electrodes incorporated into a silicon chip. By 2010, the Neurochip became the standard in all robotics. The modern design removed the organic components but the pattern of the chip remained—that of mimicking the human brain. Technically, all androids and advanced AIs contain Neurochips but most are of simple design. Asuda's advanced model made the old series outdated, like comparing a Porsche to Fiat.

By 2030, the only machines with the Asuda Neurochip were Section 9 Tachikomas. However, they would later find use in new model Bioroids.

Ostrich Meat: Ostriches are only bred for meat purposes. They have become the cattle of the 21st century.

Paralympics: Properly speaking, the Paralympics is the other Olympics held for people with physical disabilities. However, in the modern age of 2030, the competitors are people with prosthetics. And somewhere along the way, the Paralympics became mainstream and the Olympics, where non-prostheticized people gathered, was reduced to a decorative traditional event. The realization of physical abilities that far surpass normal strengths also inevitably implies a change in the nature of sports. Considering the physical abilities of a prostheticized person, there are records certain to be set in track and field events that cannot compare to those of the Olympics.

Project Sunset: The last World War spread to the corners of the globe. The American Empire pulled out of South America early, but not before engaging in some of the most vile practices known. In their final days, the CIA concocted operations to make enemy countries lose their will to fight. They sent Guerilla teams into enemy territories, settle in, make friends with the local population, and then have them killed in atrocious way to demoralize their allies. Many members became mentally unstable afterward. Some went completely psychotic and continued their killings after the War ended.

Prosthetic Refugees: This refers to the unavailingly prosthetic humans from injuries incurred during wartime. They are given refugee status by the UN or a Non Government Agency (NGO). This is another term of the Refugees in the intern camps around Japan. They have been a source of some trouble.

Refugee Relief Fund: Japan took in 3 000 000 Refugees after the end of the last war. Since then, there has been substantial money set aside to support them. As time, progressed, however, their burden was felt increasingly by the government and people. Many attempted to find work but most still live off sucking the tit of government. Discrimination ensued. Some of these members are those who fought for the Japanese governments while others are immigrants, captured after the war concluded and had no home to return to as their home ceased to exist.

Refugee Special Treatment act: The agreement on the benefits the Refuges from the war would gain. However, this act was repealed by the new Prime Minister in 2032 before any supplementary

acts were introduced. It was not released if the refugees would be granted Japanese citizenship. This caused quite stir when it occurred. Of course, the RSTA was originally conceived as a temporary measure and was never meant to extend as long as it did. The problem remained of what to do with the 3 000 000 refugees in the five camps around Japan. Currently, Refugees are limited to the camps and are not allowed To leave without special ID. Some have gotten jobs but are treated somewhat like paroled inmates while outside. They get to live and have a job outside the camp but Refugee officers make sure they know that could be pulled at any time. Some have gained Japanese citizenship. However, this is rare unless a refugee offers a usable skill to the outside world. Applicants wanting Ids or Permits (let alone citizenship) must

pass mental and physical exams. The majority of Refugees have some form of cybernetic implant. Worn and well out of service, the often fail the minimum requirements for functionality. Those that try to escape are either killed or deported.

> Eichi Gotoh
> Although a researcher of little repute, his paper of 'Research on Autonomous Micromachines' was a clincher for him, and his research on radioactively cleanup, the 'Asian Miracle,' put his name on the map, making him a household name worldwide.
> After the Asian Miracle, those concepts that were debated in eccentric, bold moves, became the subject of scorn in academic circles as impossible and 'lacking common sense,' but Gotoh, who had stayed true to his research ideology, didn't let such talk from the outside change his attitude. He moved to the Tohoku Autonomous Region, which had hired him, and continued his research independently. With the end of the war approaching, he was hired as a visiting professor at a university in England, and his life was cut short in an accident on the flight to England. Years after his death, his state of theories was reappraised, and he is now called a 'genius before his time,' and prized as 'the authority on MM engineering' and 'a scientist of proud isolation.'

The Security Pact: In 2033, the Japanese Prime Minister avoids an assassination attempt before meeting representatives from the American Empire to re-negotiate the Security Pact.

Sensory Perception Wire Tap Act: When cyberization became commonplace, the police discovered basic hardware wiretaps obsolete. The Sensory Perception Wire Tap Act allowed law enforcement personnel to tap into human sensors, like audio and sight, for surveillance. Of course, judicial permission was still necessary for evidence to be properly entered in court. This allows the use of cybernetic audio-visual wiretapping devices.

World Summit Terrorist Attacks: 2028-2030. A terrorist group called "Angel Wing" planted bombs on glass skyscrapers in Shanghai, Moscow and Paris to protest against nations making decisions for the rest of the world. The acts are related to the damage cause by raining debris.

WWIII : Very little is known about the events that occurred during the turn of the new century. What is known is that the split of the United States as it was known for two hundred years occurred as a side effect of this war. Empirical America formed from the Southern States. By this data, it becomes clear that American, in fact, lost that war, but with whom or for what reasons, remains unclear. Japan was also involved in the war but in a background status, and never committed SDF forces to actual combat. Some evidence points that the war occurred in Eurasia. Nuclear exchanges occurred in the Asian sphere. The process of removing radiation was referred to as the Japanese Miracle. The only known casualty of this limited exchange was Tokyo Prefecture, which was destroyed to the extent that the majority of it sunk below sea level. To this day, the deconstruction of the site continues. The arrival of the Japanese Miracle is said to have contributed to the American's Empire waning power in this decade, due to the fact that nuclear weapons lost part of the their deterrent, the side-effect of nuclear fallout.

WWIV: World War IV goes by several names. Sometimes it is referred to as the Non-Nuclear World War IV or the Second Vietnam War. However, it is known that the conflict of the war centered on the Peninsula, thus the Second Vietnam War reference. In the end, Empirical America and Japan came out on top, victorious. The United Nations were also involved and it is believed that the Peninsular may be under a new Unified government. Japan, because of their treaty with Empirical America, never became involved in actual combat with the exception of Shunujii.

Evidence also points that military flare-ups occurred in South America and Mexico during this time. Mercenary groups appeared in the hundreds, populated by remnants of armies once connected to nations that no longer exist. The increase in independent states and sovereign regions grew from the chaos that was the last thirty years. The planet remains more divided as ever and several locations exist in the planet where sovereignty falls into question—where no one is really sure who owns or governs what.

¥€$ / A-SIA: Oddly enough, the term "yes" applies to a universal currency adopted some years back. Currently, the ¥€$ does not carry a favorable exchange rate with A-SIA. As a foothold into

Asia, the Western nations set up Japan as an intermediary and implemented a bold monetary unification. By combining each of their currencies, the yen, the euro, and the dollar, they hoped to bring a global revolution to the economic framework. However, led by China, Korea, and India, the Asian nations also executed a large scale monetary unification and issue the A-SIA to counter this. Perhaps their resentment that Japan, an Asian country, had joined forces with the West strengthened their solidarity, but the A-SIA rose to become a powerful currency in a single bound. Japan still uses the Yen but one can transfer 1-1 to ¥€$ currency.

      Zebra 27: Zebra 27's political views are not perfectly clear as he had already established a career before joining the HLF and some rumors pointed he was hired on as their leader and did not join under common views. Zebra 27 made an illegal fortune as an arms dealer in one of the Africa's most densely populated nations, Burundi. He left his command in Bujumbura**,** the capital city and shifted his operations with the HLF to Japan. He is fluent in English, Japanese, French and Kirundi. His country origin is not known. In fact, since many intelligence experts, including Section 6 which had been tracking him, believed Zebra 27 changed his identity at least once, many doubt the current leader of the HLF is the same Zebra 27 from Burundi. Others believe they are the same since Zebra 27 did vacate from his dealings after a large shake-up in South Africa found his security lacking in his current occupation.

THE BASIC GAME

Ghost in the Shell requires the D20 Modern rules to fully take advantage of all the aspects of the Game. One could, of course, use the D20 Modern SRD or even the Dungeons and Dragon 3.0 or 3.5 Players Handbook. However, this game was created using the D20 core book and it is advised above all others. This might come to a surprise to some, as level-based gaming does not seem to fit in with this universe. GITS does re-imagine and re-interpret the rules in a new way, looking at the game at a different angle.

Many pages from the OLG SRD are recreated here for ease of reference. Those rules that are modified are presented here. Otherwise, just flip through your D20 Modern book.

Basic points: Because of the power level, a PCs base attack bonus stops at +11. Class limits stop at 15. Because all PCs begin at zero level with their starting occupation. All the basic classes of D20 modern are gone. Now one can go into a prestige class from D20 modern immediately at level 1. Advanced classes for GITS are 5-level based. One attack bonus can surely rise above +11 with feats and cybernetic enhancements.

Experience Points can now be spent on feats and equipment as well as earning levels. One must choose where to invest their points. When one spends it on a class, they may never use those points again. XP can also translate to money, allowing for cybernetic implants. Starting characters get an XP bonus anywhere from 4000 to 10000 to spend on cybernetics, equipment, or Level adjustment. Disadvantages

Initial XP Award	Gameplay
4000	Minimum Cybernetics. High future XP awards for traditional level-based gaming. Normal D&D style game. XP awards +50% - +75%
8000	Minimum Cybernetics and/or basic starting level progression. Normal future XP awards. Group should already be in their paths for long-term advancement. XP awards normal.
12 000	Extensive Cybernetics and/or level specialization. Designed for experienced gamers wanting to start off into a role-playing game rather than a level-advancing game. Limited future XP awards. XP awards –50%
21000	Best of the best. Almost zero level progression. XP awards –75%. Characters are as good as they are going to get

Table: Ability Modifiers and Hacks												
				————————————Hacks Actions (By DC) —————								
Score	Modifier	# Hack Attacks	Hit Points / Defense	14	18	22	26	30	34	38	42	46
1	–5	0	0	——————————————— Character cannot cyberhack —————————								
2–3	–4	0	0	——————————————— Character cannot cyberhack —————————								
4–5	–3	0	1	——————————————— Character cannot cyberhack ————————								
6–7	–2	1	1	—	—	—	—	—	—	—	—	—
8–9	–1	1	1	1	—	—	—	—	—	—	—	—
10–11	0	1	2	1	1	—	—	—	—	—	—	—
12–13	+1	1	2	1	1	1	—	—	—	—	—	—
14–15	+2	2	3	1	1	1	1	—	—	—	—	—
16–17	+3	2	3	2	1	1	1	1	—	—	—	—
18–19	+4	2	4	2	2	1	1	1	1	—	—	—
20–21	+5	3	4	2	2	2	1	1	1	1	—	—
22–23	+6	3	5	2	2	2	2	1	1	1	1	—
24–25	+7	4	5	3	2	2	2	2	1	1	1	1
26–27	+8	4	6	3	3	2	2	2	2	1	1	1
28–29	+9	5	6	3	3	3	2	2	2	2	1	1
30–31	+10	5	7	3	3	3	3	2	2	2	2	1
32–33	+11	6	7	4	3	3	3	3	2	2	2	2
34–35	+12	6	8	4	4	3	3	3	3	2	2	2
36–37	+13	7	8	4	4	4	3	3	3	3	2	2
38–39	+14	7	9	4	4	4	4	3	3	3	3	2
40–41	+15	8	9	5	4	4	4	4	3	3	3	3

may be taken, allowing bonus XP to be spent in other areas.

To that end, the PC character sheet is virtually unchanged. However, one should split Experience Points in 3 subgroups: Used, Unused, and Total.

Used XP: This is XP set aside for level development. It tells you what XP you have invested into advancing levels and indicate how long you are from achieving the next desired level.

Unused: This is XP being saved for future use, like spending it on Cybernetics or equipment.

Total: This is all the XP earned in total during adventuring and PC creation. This tells what power level (using the same table) the PC is at and assists in judging ones Encounter Level.

ABILITY SCORES

Ability Modifiers: Each ability, after changes made because of race, has a modifier ranging from –5 to +5 (or more).

The modifier is the number you apply to the die roll when your character tries to do something related to that ability. You also use the modifier with some numbers that aren't die rolls. A positive modifier is called a bonus, and a negative modifier is called a penalty.

 # Hack Attacks: The number of Cyberbrain actions a character can take / round. It is initially based off one's Intelligence but may be modified later with feats and / or character abilities.

Hit Points / Defense: This is connected to Wisdom and is added to all Barrier Defense Numbers. It is also connected to Constitution as the Hit Point bonus per level (see later).

Hack Actions: This is the maximum number of Hacks per DC the Character can know. Certain feats, racial templates, and character classes may modify these numbers. It is initially based off one's Intelligence but may be modified later with feats and / or character abilities.

Rolling for abilities: Because a character's physical abilities may be dumped when adopting cybernetics, a player is not allowed to shift the poor abilities to Constitution, Dexterity, or Strength when designing a character. The preferred way to roll of the basic six are as follows:

Roll 4d6, drop the lowest die, and re-roll all "1" s.

Repeat twice and distribute among the Physical stats (Con, Dex, Str)

Repeat three times and distribute among the mental stats (Wis, Int, Cha).

Wisdom & Intelligence: Of all the abilities, none can really be more important than Wisdom and Intelligence. Both are required for Hacking and computer use.

ACTION POINTS

Action points provide characters with the means to affect game play in significant ways. A character always has a limited amount of action points, and while the character replenishes this supply with every new level he or she attains, the character must use them wisely. A character can spend 1 action point to do one of these things:

Character Power Level	Action Point Dice Rolled
1st–7th	1d6
8th–14th	2d6

Alter a single d20 roll used to make an attack, a skill check, an ability check, a level check, or a saving throw. Use a class talent or class feature during your turn for which the expenditure of 1 action point is required.

When a character spends 1 action point to improve a d20 roll, add 1d6 to the d20 roll to help meet or exceed the target number. A character can declare the use of 1 action point to alter a d20 roll after the roll is made—but only before the GM reveals the result of that roll (whether the attack or check or saving throw succeeded or failed). A character can't use an action point on a skill check or ability check when he or she is taking 10 or taking 20. When a character spends 1 action point to use a class feature, he or she gains the benefit of the feature but doesn't roll a d6. In this case, the action point is not a bonus to a d20 roll.

A character can only spend 1 action point in a round. If a character spends a point to use a class feature, he or she can't spend another one in the same round to improve a die roll, and vice versa. Depending on the hero's character level (see the table below), he or she may be able to roll more than one d6 when spending 1 action point. If the character does so, apply the highest result and disregard the other rolls.

REPUTATION

Reputation is used to determine whether another character (a GM character) recognizes a character. Those who recognize the hero are more likely to help the hero or do what he or she asks, provided the reputation has a positive connotation to the character that recognizes the hero. A high Reputation bonus also makes it difficult for the hero to mask his or her identity.

Most of the time, a hero doesn't decide to use his or her reputation. The GM decides when a hero's reputation can be relevant to a scene or encounter. At the moment it becomes relevant, the GM makes a Reputation check for a GM character who might be influenced in some fashion due to the hero's fame or notoriety, as detailed below.

Fame and Infamy: Most characters with a high Reputation bonus (+4 or higher) are considered well known within their profession or social circle. Whether this has a positive or negative connotation depends on the point of view of the person who recognizes the hero.

When a character has a positive opinion of a hero's reputation, the hero is considered famous by that character. Fame, when recognized, provides a bonus to certain Charisma-based skill checks.

When a character has a negative opinion of a hero's reputation, the hero is considered infamous by that character. In addition, at the GM's option, a hero might be considered infamous in certain situations due to events that have transpired in the campaign. Infamy, when recognized, provides a penalty to certain Charisma-based skill checks.

Using the Reputation Bonus: Whenever the GM decides that a character's reputation can be a factor in an encounter, the GM makes a Reputation check (DC 25) for the GM character involved. A Reputation check is 1d20 + the hero's Reputation bonus + the GM character's Int modifier. (Some Knowledge skill modifiers might apply instead of the Int modifier, if the hero would be well known in the field covered by the Knowledge skill.) Modifiers to the Reputation check depend on the hero and the GM character in question, as shown below. Note that if the GM character has no possible way of recognizing a hero, then the Reputation check automatically fails. If the GM character succeeds at the Reputation check, he or she recognizes the hero. This provides a +4 bonus or a –4 penalty on checks involving the following skills for the duration of the encounter: Bluff, Diplomacy, Gather Information, Intimidate, and Perform.

Situation	Reputation Check Modifier
The hero is famous, known everywhere with either a positive or negative connotation	+10
GM character is part of the hero's professional or social circle	+5
The hero has some small amount of fame or notoriety	+2

The GM must decide that a character's fame or infamy can come into play in a given situation to make a Reputation check necessary. A character that doesn't know, or know of, the hero can't be influenced by his or her reputation.

HIT POINTS AND DEFENSE (New rule)

As you read this book, you will notice a few alterations in the way the game works regarding Hit Points and Defense. The broad points are as follows: Hit points are lower, Defense is higher, and Armor increases Hardness rather than Defense.

1: No Class-based Hit points. Classes don't denote hit points. Starting character hit points = one's Constitution score. This ability is flat at first level and is not altered by the constitution modifier. Only the Toughness feat or the Constitution Increase advantage can boost this. Increasing one's Constitution score later (from leveling or cybernetics) only adds the difference and not a whole new number. Each level gained offers the Constitution Hit Point Bonus from the "Hit Points / Defense" column on the previous page. This is to prevent level advancing characters to lose hit points every level gained. However, increasing your CON later on only gains the difference in starting hit points as well as further level bonuses and does not offer retroactive hit points from the previous levels.

EG: A character with a CON of 20 has 10 hit points at first level and gains 5 hit points every level past that. If CON rises to 22 a few levels later, the character gains 1 hit point and 6 hit points with further levels but does not get +1 hit point for each of the previous levels.

2: Equipment Defense = Hardness. Defense (or AC) is based only on the Dexterity and the Class Defense Bonuses. Equipment Defense from armor and shields are used as hardness and do not contribute to the AC or Defense of the target. All Hardness compounds but be aware that few armor can be worn in layers.

3: Defense is a base 15 system. Usually, AC or Defense is added onto a base 10 number. With the removal of AC and the lower hit points, evasion becomes ever more important. Now the Dexterity bonus and the Class Defense Bonus (and any other bonus that are non-armor) are added to 15 rather than 10. Flat Footed characters still have a 15 Defense. Touch Defense is no longer applicable.

Optionally, every starting character may receive the *Combat Expertise* feat for free regardless of prerequisites.

EG: A 1st level character with an 18 Dexterity has a Defense of 19.

CHARACTER GENERATION

Character generation occurs in the following steps

1> Roll Attributes – Detailed above

2> Choose Starting Templates – These are what the character did before choosing a career

3> Choose Advantages & Disadvantages – If any. This step can occur any time during character generation.

4> Choose Starting Class / Prestige Class -- This is what the character does for a living now. Prestige classes are unique and specialized

5> Spend remaining Experience (Cybernetics and Equipment)

6> Pick a career

STARTING TEMPLATES

How one is raised and the life they lead as well as how they were born altars the paths they choose forever. Like the racial templates, these are the basics of a person before they decide what they want to be in life.

All templates are human. Like all D20 systems, humans gains two feats at level 1. Because D20 Modern has starting occupations, these have been included as part of Early Life. A PC chooses one of the early templates that follow. Some detail something occurring at birth. Some detail one's upbringing. Also included is the character's minimum age the character reaches before he can choose her first class.

The template also receives an XP bonus or penalty when taking the template. One can merge idea and have a background that encompasses several templates, but they cannot mix the bonuses. They only get the bonuses or penalties for one.

<D20 and GITS templates follow>

ACADEMIC (d20)

You love books and lived out of a library. You lived in school for most of your life.

Prerequisite: Age 20+.
Abilities: +1 to Int, -1 to Wis and Cha

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Computer Use, Craft (writing), Decipher Script, Gather Information, HackCraft, Knowledge (art, behavioral sciences, business, civics, current

events, earth and life sciences, history, physical sciences, popular culture, tactics, technology, or theology and philosophy), Research, or add a new Read/Write Language or a new Speak Language.

Experience Increase: +400.

ADVENTURER (d20)

You can be into big-game hunting, relic hunting, extreme sports, and thrill seeking. You may also have a zest to explore.

Prerequisite: Age 15+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Bluff, Climb, Demolitions, Disable Device, Drive, Escape Artist, Intimidate, Jump, Knowledge (arcane lore, streetwise, tactics, or technology), Move Silently, Pilot, Ride, Spot, Survival, Swim, Treat Injury.

Bonus Feat: Select one of the following: Archaic Weapons Proficiency, Brawl, or Personal Firearms Proficiency.

Experience Increase: +100.

ATHLETE (d20)

Athletes include amateurs of Olympic quality and professional athletes of all types, including gymnasts, weight trainers, wrestlers, boxers, martial artists, swimmers, skaters, and those who engage in any type of competitive sport. You were skilled at youth in one of these fields. It is assumed you had a family, which supported this.

Abilities: +1 to Str or Con, -1 to Wis

Skills: Choose three of the following skills as permanent class skills and receive a +1 competence bonus on checks using those skills. Balance, Climb, Drive, Jump, Ride, Swim, Tumble.

Bonus Feat: Select either Archaic Weapons Proficiency or Brawl.

Experience Increase: +100.

CELEBRITY (d20)

You were famous young or you were born into a famous name.

Abilities: +2 to Cha, -1 to Int

Prerequisite: Age 15+.

Skills: Choose one of the following skills as permanent class skills and gain a +1 competence bonus on checks using that skill: Bluff, Craft (visual art or writing), Diplomacy, Disguise, Perform (act, dance, keyboards,

percussion instruments, sing, stand-up, stringed instruments, or wind instruments).

Reputation Bonus Increase: +1.

Experience Increase: +400.

CORPORATE (Gits)

Corporate details ones life being raised in a family with close ties to a major corporation. The character should choose which ties to have.

Prerequisite: Age 20+.

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Computer Use, Decipher Script, Gather Information, HackCraft, Knowledge (business, civics, current events, history, technology), Research, or add a new Read/Write Language or a new Speak Language.

+4 competency to mental-based skill rolls dealing with the corporation of choosing (eg: Gather information)

Experience Increase: +300.

CREATIVE (d20)

The creative ones are usually quiet. They aspire to be illustrators, copywriters, cartoonists, graphic artists, novelists, magazine columnists, actors, sculptors, game designers, musicians, screenwriters, photographers, or web designers.

Abilities: +1 to Int, -1 to Wis

Prerequisite: Age 15+.

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Bluff, Computer Use, Craft (visual art or writing), Disguise, Forgery, Knowledge (art), Perform (act, dance, keyboards, percussion instruments, sing, stand-up, stringed instruments, or wind instruments), Spot.

Experience Increase: +400.

CRIMINAL (d20)

Either you family started this way or you just fell into the wrong side of the law. Were you caught?

Prerequisite: Age 15+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Disable Device, Disguise, Forgery, Gamble, Hide, Knowledge (streetwise), Move Silently, Sleight of Hand.

Bonus Feat: Select either Brawl or Personal Firearms Proficiency.

Experience Increase: +300.

C.C.S.S. RECOVERANT (Gits)

For the past several years, this poor soul underwent hundreds of hours of therapy to combat the disorder of Cyberbrain Closed-Shell Syndrome. Now, they can finally re-enter society.

Prerequisite: Age 15+, Int 14+

Skills: The following skills are permanent class skills and gain a +1 competence bonus on checks using those skills: Computer Use, Decipher Script, Gather Information, Knowledge (technology).

Attributes: +2 to Int, -4 to Cha OR +4 o Int, -6 to Cha (Min 3). If the –6 drops below the min 3, you cannot take the +4.

Special: Move down one row on the Hack Action table (Eg Int 14 now becomes Int 16 for the purposes of the number of Hack actions available). This is a permanent increase. Increasing one's Int later keeps the Hack Action row one lower.

Cyber: Cyberbrain included or 500 xp towards an upgraded Cyberbrain.

Bonus Feat: Choose one of the following: Hacking Aptitude, Hack Focus, Speed Reprogram, Hack Mastery, Hack Penetration

Experience Decrease: -1000.

DOCTOR (d20)

You always wanted to help people and strove for that from an early age.

Prerequisite: Age 25+.

Abilities: +1 to INT

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Craft (pharmaceutical), Computer Use, Knowledge (behavioral sciences, earth and life sciences, or technology), Search, and Treat Injury.

Experience Increase: +0.

DRIFTER (d20)

Drifters are aimless wanderers and worldwide jacks-of-all-trades who move between cities, working odd jobs until boredom or fate leads them elsewhere. Along the way, they learn strange customs and pick up interesting and diverse skills.

Prerequisite: Age 15+.

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using that skill:

Bluff (Cha), Decipher Script (Int), Disable Device (Int), Disguise (Cha), Forgery (Int), Gamble (Wis), Gather Information (Cha), Hide (Dex), Knowledge (streetwise) (Int), Navigate (Int), Sleight of Hand (Dex).

Experience Increase: +500

EMERGENCY SERVICES (d20)

You just love those red trucks. You always wanted to help people. You either wanted to become a fire fighter or another in a similar field

Prerequisite: Age 18+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Balance, Climb, Computer Use, Drive, Jump, Knowledge (behavioral sciences, earth and life sciences, or technology), Search, Treat Injury, Swim.

Experience Increase: +400.

GLADIATOR (d20)

Gladiators have been fighting all their lives, whether on the streets or in some form of arena. They include disenchanted youths and poverty-stricken hoodlums looking to trade fists for cash, clones bred in secret labs to fight from birth, and low-ranking members of a society's warrior caste.

Prerequisite: Age 18+.

Skills: Choose two of the following skills as a permanent class skill and gain a +1 competence bonus on checks using that skill. Balance (Dex), Intimidate (Cha), Knowledge (streetwise) (Int), Tumble (Dex).

Bonus Feat: Select either Brawl or Combat Martial Arts.

Experience Increase: +500

INVESTIGATIVE (d20)

Naturally intuitive, you are interested in reporting, photo, journalism, private investigating, police investigation, criminology, criminal profiling, or espionage

Prerequisite: Age 23+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Computer Use, Craft (visual art or writing), Decipher Script, Forgery, Gather Information, Investigate, Knowledge (behavioral sciences, civics, earth and life sciences, or streetwise), Research, Search, Sense Motive.

Bonus Feat: Select either Brawl or Personal Firearms Proficiency.

Experience Increase: +200.

LAW ENFORCEMENT (d20)

You were either born into a family of law enforcement (Daddy was a cop) or you planned on this path from an early age.

Abilities: +1 to Str, -1 to Cha

Prerequisite: Age 20+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Diplomacy, Drive, Gather Information, Intimidate, Knowledge (civics, earth and life sciences, streetwise, or tactics), Listen.

Bonus Feat: Select one of the following: Combat Martial Arts, Armor Proficiency (light), or Personal Firearms Proficiency.

Experience Increase: +0

MILTARY (d20)

Military covers any of the branches of the JSDF.

Prerequisite: Age 18+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Climb, Demolitions, Drive, Hide, Knowledge (tactics), Move Silently, Navigate, Pilot, Survival, Swim.

Bonus Feat: Select one of the following: Brawl, Combat Martial Arts, Armor Proficiency (light), or Personal Firearms Proficiency.

Cyber: 1000 XP discount towards the purchase of cybernetics. (Must still purchase a cyberbrain extra)

Experience Decrease: -100.

NEUROCHIP (Gits)

You were never human. You brain is a complicated neural network built from the Kenbishi Heavy Industries Lab. For reasons unknown, you have developed the bare basics of a ghost. You personality is basic but pure. It is unlikely you are in a humanoid body.

NOTE: The GM MUST exercise extreme caution and should only allows this class if the Player is aware of what is being asked.

Prerequisite: N/A

Cyber: You exist in a robotic body. You have a –10 to all Cha based skills. The

body chosen depends on the XP modifier chosen (see below). They automatically get a Cyberbrain or 500 xp towards an upgraded Cyberbrain.

Abilities: -6 to Charisma (min 3), -2 to Wis, +4 to Int. Whatever body they have gains a +2 to Dex.

Feats: Neurochips do not gain the +1 feat at 1st level. They only get the one, not two.

Experience Decrease:
Humanoid (non Military): 0
Combat (C/B/A): -1000/-1500/-2000
Tachikoma / Fuchikoma: -3000

POOR SOUL (Gits)

During a crisis, your body was so damaged, it was placed into a non-human body and it, unfortunately, fused to it. You have been stuck there ever since. You cannot leave it unless risking massive cerebral damage (like most trying to totally abandon their organic brain).

Prerequisite: Age 20+.

Cyber: You are given a non-human cyborg body. You have a –10 to all Cha based skills. The body chosen depends on the XP modifier chosen (see below). They automatically get a Cyberbrain or 500 xp towards an upgraded Cyberbrain.

Abilities: -4 to Charisma (min 3)

Experience Decrease:
Jameston type: +3000 xp
Basic Doll: +1500
Military non-human Droid: -500
Tachikoma / Fuchikoma: -4000 xp

PROSTHETIC EMERGENCY (Gits)

An accident occurred early in life and the result was a long process of rehabilitation. Getting a cyberbody early meant hundreds of hours of adapting to the full body prosthesis.

Prerequisite: Age 15+.

Cyber: A free base model prosthetic body (Dex, Cont, Str = 10) OR a 1000 XP discount towards the purchase of an upgraded cyborg body. Cyberbrain included or 500 xp towards an upgraded Cyberbrain.

Abilities: -1 to Charisma

Experience Increase: +300.

RELIGEOS (d20)

You either found god early or late in life or have been one of faith ever since.

Prerequisite: Age 23+.

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Decipher Script, Knowledge (arcane lore, art, behavioral sciences, history, streetwise, or theology and philosophy), Listen, and Sense Motive.

Experience Increase: +500.

WAR REFUGEE (Gits)

Children are too young so those leaving the camps gained visas or citizen ship. This template deals with those able to work freely outside the camp...but always remember where they came from and why.

Prerequisite: Age 28+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Disable Device, Disguise, Forgery, Gamble, Hide, Knowledge (streetwise), Move Silently, Sleight of Hand.

Bonus Feat: Select either Brawl or Personal Firearms Proficiency.

Cyber: -500 XP discount towards the purchase of cybernetics (Must still purchase a cyberbrain).

Experience Increase: +0.

Reputation Decrease: -2

RURAL (d20)

You were raised on a farm or in an otherwise rural community

Prerequisite: Age 15+.

Skills: Choose two of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Balance, Climb, Drive, Handle Animal, Repair, Ride, Survival, Swim.

Bonus Feat: Select either Brawl or Personal Firearms Proficiency.

Experience Increase: +200.

SCAVENGER (d20)

Scavengers turn society's wreckage and discarded trash into useful tools or items for trade, and if they're lucky, their endeavors might even yield one or two objects of special value.

They effortlessly navigate and strip clean the most treacherous places, and their playgrounds are abandoned space stations, gutted buildings, and smoking battlefields.

Prerequisites: Age 15+.

Skills: Choose three of the following skills as permanent class skills. If a skill you select is already a class skill, you gain a +1 competence bonus on checks using that skill. Decipher Script (Int), Disable Device (Int), Knowledge (technology) (Int), Move Silently (Dex), Repair (Int), Search (Int), Spot (Wis), Survival (Wis).

Experience Increase: +300

TECHNICIAN (d20)

Scientists and engineers of all types fit within the scope of this starting occupation. You have been fiddling with gadgets and never stopped. You probably love computers and planned to get a cyberbrain when they were first introduced.

Prerequisite: Age 23+.

Skills: Choose three of the following skills as permanent class skills and gain a +1 competence bonus on checks using those skills: Computer Use, Craft (chemical, electronic, mechanical, or structural), Knowledge (business, earth and life sciences, physical sciences, or technology), Repair, and Research.

Experience Increase: +500.

TRANSPORTER (d20)

Skilled drivers and pilots, transporters move people, information, and precious cargo safely from one destination to another. They treat their vehicles as extensions of their bodies and are most comfortable behind the wheels of skycabs or the thruster controls of cargo shuttles.

Prerequisite: Age 18+.

Skills: Choose two of the following skills as permanent class skills. If a skill you select is already a class skill, you gain a +1 competence bonus on checks using that skill. Craft (mechanical) (Int), Drive (Dex), Knowledge (current events, popular culture, or streetwise) (Int), Navigate (Int), Pilot (Dex), Repair (Int).

Bonus Feat: Vehicle Expert.

Experience Increase: +300.

ADVANTAGES & DISADVANTAGES

Taking a radical departure from D20, now Players Characters can give them a much-needed initial XP boost by taking deficits in their character. Unlike other games, there are not pages and pages of them. In addition, a character can spend XP and get new abilities and even attribute boosts.

In the future, disease and bodily injury can be fixed rather easily with Micromachines and Cybernetics. It also should be noted that these are all organic abilities and not brought on by cybernetics. If you take a Strength boosting advantage, it's gone the moment you switch to a Cybernetic body. Disadvantages stay with you from Character Generation on. If one wants to remove one (GM discretion and usually only for Physical or Psychological ones) later on, they must role play the experience AND spend the x2 the bonus they got during PC generation (yup, x2). They might have to spend XP for a cybernetic as well.

Some Advantages and Disadvantages have mirrors and both should not be taken. These can ONLY be chosen at Character Generation and not bought later on. Also, the GM has control over how many a PC can take. I suggest no more than 3 on either side. Unless specified, double choices don't stack. Taking 2 Fast Reflexes, for example, will not give you +4 Dex.

ADVANTAGES

Ally: These are general contacts the PC can enlist upon to help when needed. These are continuous and are not considered favors. These are FRIENDS and the PC and should not take advantage of their kindness. Don't confuse friends with Contacts or Favors. Sometimes these allies show up when not called simply because they knew the PC was in danger. Thankfully, an Ally's power is comparable to the PCs so they maintain their usefulness throughout game progression. They are not necessarily good for information…but they may know where to get it. How powerful they are and what they can send against the enemies of the PC depends on the XP cost.

XP Cost	Result
500	-2 PC power level. Can provide minor assistance or whose ability is limited to a small area. Ally only arrives when contacted.
1000	Equal to PC power level. Can bring in friends of their own or has contacts throughout the region or country. Ally may arrive under good reason or cause (30%)
1500	+2 PC power level. Ally often can bring in allies. Ally can also show up when not asked (50%).
2000	+3 PC power level. Ally has access to more weapons and most likely is a class A hacker of a military cyborg. Often shows up when needed (70%)

Table: Advantages and Disadvantages		
Advantages	**XP Cost**	**Description**
Ally	500 – 2000	Character gains an ally offering physical or hacking assistance.
Contact	200 – 1000	Character gains an information source.
Eidetic Memory	500	+2 to all Knowledge skills of 1 rank or more, +1 skill rank cap.
Fast Healer	400	Double recovery and heal rate.
Fast Reflexes	1500	+2 to Dexterity permanently.
High Pain Threshold	750 / 1200 / 2000	+4 to all Fort Saves and DR 2/-, DR 3/-, or DR 4/-
Improved Charisma	1000	+2 to Charisma Permanently.
Improved Constitution	1000	+2 to Constitution Permanently.
Improved Intelligence	1500	+2 to Intelligence Permanently.
Improved Wisdom	1200	+2 to Wisdom Permanently.
Increased Agility	2000	+2 Dodge Bonus to Defense
Lucky	300	+2 Action points as part of her permanent pool.
Night Sight	200	see twice as far in low light.
Physical Strength Boost	1000	+2 to Dexterity permanently.
Seasoned	300	+2 to all Knowledge rolls they have at least 1 rank in (this stacks with Eidetic Memory or Cyberbrains).
Disadvantages	**XP Award**	**Description**
Addiction	200 / 400 / 800	The character has a mental addiction that simply did not go away if they acquired cybernetics.
Cybernetic Rejection	1500	The character cannot have or ever take cybernetics.
Cyberbrain Sclerosis	500 / 1500 / 2000	The character has been diagnosed…
Dependant	200 / 400 / 800	Character is obligated or wishes to take care of another. They require protection, support, and help.
Decreased Constitution	700	-2 to Constitution Permanently (min3)
Decreased Charisma	600	-2 to Charisma Permanently (min3).
Decreased Intelligence	900	-2 to Intelligence Permanently (min3).
Decreased Wisdom	800	-2 to Wisdom Permanently (min3)
Enemy	Special (see below)	Someone or many people are out to get you
Low Pain threshold	450 / 650 / 1000	-4 to all Fort saves and takes
Physical Weakness	700	-2 to Strength permanently.
Slow Healer	300	Recovery takes twice as long and knockout recovers half as long.
Slow Reflexes	700	-2 to Dexterity permanently.
Unlucky	150	Lose 2 Action points from you permanent pool.

Contact: Not like Allies, Contacts are really only good for information and it costs the Character every time. Their usefulness depends on how often they can deliver correct information.

XP Cost	**Result**
200	Unreliable. Gather Information / Knowledge rank (with Attribute Bonus) = +10. 20% of giving incorrect information.
400	Occasionally Useful. Gather Information / Knowledge Rank (with Attribute Bonus) = +15. 10% of giving incorrect information.
700	Creepy amount of Knowledge. Gather Information / Knowledge Rank (with Attribute Bonus) = +20.
1000	Inside Man. Contact risks life and limb talking to the Character. Gather Information / Knowledge Rank (with Attribute Bonus) = +25.

Eidetic Memory: Obviously one with a Cyberbrain gains this as well, so the ability does not stack. This is for those who cannot use Cybernetics. The PC remembers virtually any fact they are exposed to. Any Knowledge skill with at least 1 rank gain a +2. The maximum level for all skill at first level is 4. With Eidetic Memory, it is now 5 (or Level +4 instead of Level +3).
    XP Cost: 500

Fast Healer: An ability removed if full body prosthetics is used, the Character heals double the normal rate. Recovery takes half as long and knockout recovers twice as fast.

XP Cost: 400

Fast Reflexes: Void if cybernetics is used to replace arms, legs, OR full body, the Character gains a +2 to Dexterity permanently.

XP Cost: 1500

High Pain Threshold: An ability removed if full body prosthetics is used, the Character gains toughness to physical damage. The character gains a +4 to all Fort saves and gains Damage resistance depending on the XP spent.

XP Cost	Result
750	DR 2/-
1200	DR 3/-
2000	DR 4/-

Improved Constitution: An ability removed if full body prosthetics is used, the Character gains a +2 to Constitution Permanently.

XP Cost: 1000

Improved Charisma: Void if the character has any attributes that reduce her Charisma or Charisma based skills (Like Neurochip, Poor Soul, or CCSS). The Character gains a +2 to Charisma Permanently.

XP Cost: 1000

Improved Intelligence: The Character gains a +2 to Intelligence Permanently.
XP Cost: 1500

Improved Wisdom: The Character gains a +2 to Wisdom Permanently.
XP Cost: 1200

Increased Agility: An ability removed if full body prosthetics is used, the Character gains a +2 Dodge Bonus to Defense.

XP Cost: 2000

Lucky: Born with a four-leaf clover in their but, the character gains +2 Action points as part of her permanent pool.

XP Cost: 300

Night Sight: Void if the characters eyes are swapped, they have low light vision, meaning they see twice as far in low light. They still cannot see in total darkness.

XP Cost: 200

Physical Strength Boost: Void if cybernetics is used to replace arms, legs, OR full body, the Character gains a +2 to Strength permanently.

XP Cost: 1000

Seasoned: The character has lived and seen it all. They know more about the world than the greens around them. The Character must be at least 30. However, they do gain a +2 to all Knowledge rolls they have at least 1 rank in (this stacks with Eidetic Memory or Cyberbrains).

XP Cost: 300

DISADVANTAGES

Addiction: The character has a mental addiction that simply did not go away if they acquired cybernetics. This may include eating, TV, smoking or even drugs. Either way, if they are kept away from them, the character suffers –3 to their Wis and –3 to their Con. Major addictions must be role-played and acquiring what is needed may involve heft costs.

XP Award	Result
200	Cigarettes, A specific food, Working out
400	Minor Drug (Aspirin, Pain Killers)
800	Major Drug (Cyber drugs for Cyborgs)

Cybernetic Rejection: The character cannot have or ever take cybernetics. Their body possesses a fierce rejection. Even Cyberbrains are not permitted. (GM discretion on this one since many Campaigns require PCs have Cyberbrains)

XP Award: +1000

Cyberbrain Sclerosis: The character has been diagnosed and suffers from Cyberbrain Sclerosis. The character must have a Cyberbrain. Their XP award is dependant on how far the disease has spread. MicroMachine therapy holds it back but it is loosing the fight. Note: If this game is set after Season 1 of Stand Alone Complex, it can be assumed that the Murai vaccine may have been allowed to the general public. If so, the XP awards are reduced 90% as the symptoms can now be totally suppressed, meaning the bonus only applies to the annoying procedure of getting medication.

XP Award	Result (unless suppressed)
500	Beginning stages. –1 to Int & Wis (min3) and an additional –1 to all Intelligence based skills (-2 total).
1500	Moderate Progression. –3 to Int & Wis (min3) and an additional –2 to all Intelligence based skills (-5 total).
2000	Final Stages. –6 to Int and Wis (min3) and an additional –4 to all Intelligence based skills (–10 total). Character has less than a year to live…

Dependant: The character is obligated or wishes to take care of another. They require protection, support, and help. They can be a friend, a little brother, or a whole family. Note that these dependants cannot be allies or contacts.

XP Award	Result
200	Dependant is virtually self sufficient (younger sibling, friend) or a major dependant which is dead. Visit the grave often.
400	Dependant requires help in some regards (wife)
800	Major Dependants that require constant help (wife and kids, kids, wanted fugitive, dying relative, etc)

Decreased Constitution: Void if full body prosthetics are used, the Character incurs a –2 to Constitution Permanently (min3)

XP Award: 700

Decreased Charisma: The Character incurs –2 to Charisma Permanently (min3).

XP Award: 600

Decreased Intelligence: The Character incurs a –2 to Intelligence Permanently (min3).

XP Award: 900

Decreased Wisdom: The Character incurs a –2 to Wisdom Permanently (min3).

XP Award: 800

Enemy: The Character upset someone big time and they are out for blood. The bonus is dependant on how much the enemy is willing to throw and how far the enemy is willing to throw it. Add the two choices of the tables to get the final result.

XP Award	Result
100	-2 PC power level.
300	Equal to PC power level
500	+2 PC power level.
700	+3 PC power level

XP Award	Result
100	Is alone…
300	Can bring in friends to help and has contacts throughout the region or country.
400	Often brings in allies. Has ties with the military or a corporation.
600	Has overpowering influence in a corporation, the military, or in a rival government.

Low Pain threshold: Void if full body prosthetics are used, the Character hates being injured. It hurts…it really hurts. The character incurs a –4 to all Fort saves and takes more damage when injured

XP Cost	Result
450	Damage inflicted is increased +15% (round up)
650	Damage inflicted is increased +20% (round up)
1000	Damage inflicted is increased +25% (round up)

Physical Weakness: Void if cybernetics is used to replace arms, legs, OR full body, the Character incurs a –2 to Strength permanently.

XP Award: 700

Slow Healer: An ability removed if full body prosthetics is used, the Character heals half the normal rate. Recovery takes twice as long and knockout recovers half as long.

XP Award: 300

Slow Reflexes: Void if cybernetics is used to replace arms, legs, OR full body, the Character incurs a –2 to Dexterity permanently.

XP Award: 700

Unlucky: Accident Prone, the character looses 2 Action points from her permanent pool.

XP Award: 150

CLASSES

<Some of these classes are modified from D20 modern. No longer does one need to take a hero class. They no longer exist>

All classes have Computer Use (Int) as a class skill.

BODYGUARD (d20)

Class Information: The following information pertains to the Bodyguard class.

Possible lifepath: Public Security, Military, Corporate Security. A bodyguard could work from the Prime Minister or the heads of the Ministries or even the Yakuza, guarding bosses.

Action Points: 6 + one-half character level, rounded down, every time the Bodyguard attains a new level in this class.

Class Skills: The Bodyguard's class skills (and the key ability for each skill) are: Concentration (Con), Disguise (Cha), Drive (Dex), Forgery (Int), Gather Information (Cha), Intimidate (Cha), Knowledge (behavioral sciences, civics, current events, streetwise) (Int), Listen (Wis), Profession (Wis), Read/Write Language (none), Search (Int), Sense Motive (Wis), Speak Language (none), Spot (Wis).

Skill Points at 1st Level: (3 + Int modifier) x4

Skill Points at Each Level: 3 + Int modifier.

Table: The Bodyguard							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+1	+2	+0	Harm's way	+1	+0
2nd	+2	+2	+3	+0	Combat sense +1	+1	+0
3rd	+3	+2	+3	+1	Bonus feat	+2	+1
4th	+3	+2	+4	+1	Sudden action	+2	+1
5th	+4	+3	+4	+1	Improved charge	+3	+1
6th	+5	+3	+5	+2	Bonus feat	+3	+2
7th	+6	+4	+5	+2	Defensive strike	+4	+2
8th	+6	+4	+6	+2	Combat sense +2	+4	+2
9th	+7	+4	+6	+3	Bonus feat	+5	+3
10th	+8	+5	+7	+3	Blanket protection +5	+5	+3

Class Features: The following features pertain to the Bodyguard class.

Proficiencies: Bodyguards are proficient with all personal firearms and with light and medium armor.

Harm's Way: Once per round, if the Bodyguard is adjacent to an ally who is targeted by a direct melee or ranged attack (but not an area effect), the Bodyguard can subject him or herself to the attack in the ally's stead. If the attack hits the Bodyguard, he or her takes damage normally. If it misses, it also misses the ally.

The Bodyguard must declare his or her intention to place him or herself in harm's way before the attack roll is made. The Bodyguard selects his or her ally either prior to combat or immediately after the Bodyguard makes his or her initiative check. The Bodyguard can't change his or her ally for the duration of the combat.

Combat Sense: This ability allows a Bodyguard of 2nd level or higher to designate a single opponent during his or her action and receive a +1 competence bonus on attacks against that opponent. The Bodyguard can select a new opponent on any action. At 8th level, the competence bonus increases to +2.

Bonus Feats: At 3rd, 6th, and 9th level, the Bodyguard gets a bonus feat. The bonus feat must be selected from the following list, and the Bodyguard must meet all the prerequisites of the feat to select it: Advanced Firearms Proficiency, Armor Proficiency (light), Armor Proficiency (medium), Attentive, Combat Expertise, Combat Reflexes, Double Tap, Improved Brawl, Improved Feint, Improved Knockout Punch, Knockout Punch, Precise Shot, Quick Draw, Quick Reload, Streetfighting, Vehicle Expert.

Sudden Action: Once per day, a Bodyguard of 4th level or higher can focus his or her effort to burst into sudden action when the situation calls for it. The Bodyguard can change his or her place in the initiative order, moving higher in the count by a number less than or equal to his or her class level, as the Bodyguard sees fit. The Bodyguard can declare the use of this ability at the start of any round, before anyone else takes an action.

Improved Charge: A Bodyguard of 5th level or higher can make a charge without having to move in a straight line. All other charge rules apply, but the Bodyguard can alter his or her direction when making a charge to avoid obstacles.

Defensive Strike: At 7th level, if an opponent makes a melee attack against the Bodyguard and misses while the Bodyguard is using the total defense option, the Bodyguard can attack that opponent on his or her next turn (as an attack action) with a +4 bonus on his or her attack roll. The Bodyguard gains no bonus against an opponent who doesn't attack the Bodyguard or against an opponent who makes a successful attack.

Blanket Protection: At 10th level, a Bodyguard can use his expertise to provide protection for up to six allies (not including himself) within sight and voice range of his position. The Bodyguard spends 1 action point and takes a full-round action to issue orders and directions. Doing this provides the Bodyguard's allies with a +1 insight bonus to Defense for 3 rounds.

D A R E D E V I L (d20)

Class Information: The following information pertains to the Daredevil class.

Possible lifepath: Law enforcement, Public Security, Yakuza, Street Gang , Merc

Action Points: 6 + one-half character level, rounded down, every time he or she attains a new level in this class.

Class Skills: The Daredevil's class skills (and the key ability for each skill) are: Balance (Dex), Climb (Str), Concentration (Con), Demolitions (Int), Drive (Dex), Escape Artist (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, popular culture) (Int), Perform (act) (Cha), Pilot (Dex), Profession (Wis), Read/Write Language (none), Ride (Dex), Speak Language (none), Spot (Wis), Swim (Str), Tumble (Dex).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Class Features: The following features pertain to the Daredevil class.

Fearless: A Daredevil gains a +4 morale bonus on Will saves to resist fear effects and on level checks to oppose Intimidate checks.

Nip-Up: A Daredevil of 2nd level or higher can stand up from a prone position as a free action that does not provoke an attack of opportunity.

Table: The Daredevil

Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+2	+0	+0	Fearless	+1	+0
2nd	+1	+3	+0	+0	Nip-up	+2	+0
3rd	+1	+3	+1	+1	Bonus feat	+2	+1
4th	+2	+4	+1	+1	Action boost	+3	+1
5th	+2	+4	+1	+1	Adrenaline rush (one ability score)	+4	+1
6th	+3	+5	+2	+2	Bonus feat	+4	+2
7th	+3	+5	+2	+2	Delay damage	+5	+2
8th	+4	+6	+2	+2	Adrenaline rush (two ability scores)	+6	+2
9th	+4	+6	+3	+3	Bonus feat	+6	+3
10th	+5	+7	+3	+3	Damage threshold	+7	+3

Bonus Feats: At 3rd, 6th, and 9th level, the Daredevil gets a bonus feat. The bonus feat must be selected from the following list, and the Daredevil must meet all the prerequisites of the feat to select it. Acrobatic, Armor Proficiency (light), Armor Proficiency (medium), Athletic, Brawl, Cautious, Dodge, Force Stop, Improved Brawl, Improved Damage Threshold, Improved Knockout Punch, Knockout Punch, Mobility, Nimble, Spring Attack, Streetfighting, Surface Vehicle Operation, Toughness, Vehicle Dodge, Vehicle Expert.

Action Boost: This ability, gained at 4th level, allows a Daredevil to spend 2 action points on a single action in a round. A Daredevil can spend 1 action point, see the result of the roll, and then decide to spend a second point, as long as he or she does so before the Gamemaster reveals the result of the action.

Adrenaline Rush: At 5th level, a Daredevil can temporarily increase one of his or her physical ability scores (Strength, Dexterity, or Constitution). The Daredevil spends 1 action point and gets to increase the selected ability score by 1d4+1 points. The increase lasts for a number of rounds equal to his or her class level. At the end of the duration, the Daredevil is fatigued for 1d4+1 rounds. At 8th level, a Daredevil can temporarily increase two physical ability scores. At the end of the duration, the Daredevil is fatigued for 1d6+2 rounds.

Delay Damage: Once per day, a Daredevil of 7th level or higher can delay the damage dealt by a single attack or effect for a number of rounds equal to his or her class level.

Damage Threshold: A 10th-level Daredevil increases his or her massive damage threshold by 3 points. This increase stacks with the increase provided by the Improved Damage Threshold feat.

D R E A D N O U G H T (d20)

Class Information: The following information pertains to the Dreadnought class.

Possible lifepath: Public Security, Military, Yakuza thug, Law Enforcement, Merc

Action Points: The Dreadnought gains a number of action points equal to 6 + one-half her character level, rounded down, every time she attains a new level in this class.

Class Skills: The Dreadnought's class skills are as follows. Balance (Dex), Climb (Str), Concentration (Con), Intimidate (Cha), Jump (Str), Profession (Wis), Survival (Wis), Swim (Str), Tumble (Dex).

Skill Points at 1st Level: (3 + Int modifier)x4

Skill Points at Each Level: 3 + Int modifier

Class Features: The following class features pertain to the Dreadnought class.

Proficiencies: Dreadnoughts are proficient with all personal firearms and with all non-powered armor.

Fearless: The Dreadnought is immune to fear effects.

Stability: The Dreadnought is incredibly sure-footed. She gains a +4 stability bonus on all rolls made to resist being tripped, overrun, knocked prone, or pushed back by a bull rush attack.

Unhindered: The Dreadnought treats any armor worn as though its armor penalty is 2 better.

Ability Surge: At 2nd level, the Dreadnought can temporarily increase her Strength, but at a penalty to Defense. At 5th and 8th level, she can use this ability more frequently.

The Dreadnought gains a +8 morale bonus to Strength, but takes a –2 penalty to Defense.

Table: The Dreadnought							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+2	+0	+1	Fearless, stability, unhindered	+0	+0
2nd	+2	+3	+0	+2	Ability surge (1/day), steamroller	+1	+0
3rd	+3	+3	+1	+2	Bonus feat	+1	+0
4th	+3	+4	+1	+2	Master defender (+2)	+1	+1
5th	+4	+4	+1	+3	Ability surge (2/day), knockdown	+2	+1
6th	+5	+5	+2	+3	Bonus feat	+2	+1
7th	+6	+5	+2	+4	Master defender (+4)	+2	+2
8th	+6	+6	+2	+4	Ability surge (3/day), heavy artillery	+3	+2
9th	+7	+6	+3	+4	Bonus feat	+3	+2
10th	+8	+7	+3	+5	Master defender (+6)	+3	+3

Activating ability surge is a free action, and the surge lasts for a number of rounds equal to the Dreadnought's class level. Following the ability surge, the Dreadnought is fatigued for as many rounds as she surged, but may negate this penalty as a free action by spending an action point. The Dreadnought may use the ability surge once per day at 2nd level, twice per day at 5th level, and three times per day at 8th level.

Steamroller: Starting at 2nd level, the Dreadnought does not need to move before making an overrun attempt against an opponent. She also gains a +2 bonus on any trip attack made against an opponent who blocks her overrun attempt.

Bonus Feats: At 3rd, 6th, and 9th level, the Dreadnought gets a bonus feat. The bonus feat must be selected from the following list, and the Dreadnought must meet all the prerequisites of the feat to select it: Advanced Combat Martial Arts, Advanced Firearms Proficiency, Advanced Two-Weapon Fighting, Armor Proficiency (light), Armor Proficiency (medium), Armor Proficiency (heavy), Armor Proficiency (powered), Athletic, Brawl, Burst Fire, Cleave, Combat Expertise, Combat Martial Arts, Combat Reflexes, Endurance, Frightful Presence, Great Cleave, Improved Brawl, Improved Bull Rush, Improved Combat Martial Arts, Improved Combat Throw, Improved Disarm, Improved Knockout Punch, Improved Trip, Improved Two-Weapon Fighting, Knockout Punch, Mobility, Power Attack, Run, Spring Attack, Strafe, Streetfighting, Sunder, Toughness, Two-Weapon Fighting, Ultra Immune System.

Master Defender: Starting at 4th level, the Dreadnought becomes especially skilled in defensive fighting. Whenever she fights defensively or takes the total defense action, she gains a +2 bonus to Defense (in addition to the dodge bonus to Defense gained while fighting defensively or engaged in total defense).

The Dreadnought must be wearing medium, heavy, or powered armor to gain this bonus.

The bonus increases to +4 at 7th level and +6 and 10th level.

Knockdown: At 5th level and beyond, whenever the Dreadnought is allowed to apply her Strength modifier to damage, she forces the target of her successful attack to make at a Fortitude save (DC = damage dealt) or be knocked prone by the force of the blow.

Heavy Artillery: Beginning at 8th level, a Dreadnought treats all weapons as one size category smaller for purposes of determining whether or not she can wield them in one hand and if they are considered light weapons.

E X P L O R E R (d20)

Class Information: The following information pertains to the Explorer class.

Possible lifepath: Military, Independent, Corporate, Merc.

Action Points: The Explorer gains a number of action points equal to 6 + one-half her character level, rounded down, every time she attains a new level in this class.

Class Skills: The Explorer's class skills are as follows. Balance (Dex), Bluff (Cha), Climb (Str), Decipher Script (Int), Disable Device (Int), Drive (Dex), Gather Information (Cha), Handle Animal (Cha), Investigate (Int), Jump (Str), Knowledge (art, earth and life sciences, history, physical sciences, theology and philosophy) (Int), Listen (Wis), Navigate (Int), Pilot (Dex), Read/Write Language (none) , Research

Table: The Explorer

Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+1	Explorer lore, survivalist	+1	+0
2nd	+1	+2	+2	+2	Resolve, skilled searcher	+1	+0
3rd	+2	+2	+2	+2	Bonus feat	+2	+1
4th	+3	+2	+2	+2	Trap sense (+1)	+2	+1
5th	+3	+3	+3	+3	Extra step	+3	+1
6th	+4	+3	+3	+3	Bonus feat	+3	+2
7th	+5	+4	+4	+4	Trap sense (+2)	+4	+2
8th	+6	+4	+4	+4	Explorer's evasion	+4	+2
9th	+6	+4	+4	+4	Bonus feat	+5	+3
10th	+7	+5	+5	+5	Extra step, trap sense (+3)	+5	+3

(Int) , Ride (Dex) , Search (Int) , Sense Motive (Wis), Speak Language (none), Spot (Wis), Survival (Wis), Swim (Str), Treat Injury (Wis).

Skill Points at 1st Level: (7 + Int modifier)x4

Skill Points at Each Level: 7 + Int modifier

Class Features: The following class features pertain to the Explorer class.

Explorer Lore: An Explorer picks up stray and obscure facts during her adventures. She may make a special Explorer lore check with a bonus equal to her Explorer class level + her Intelligence modifier to see whether or not she knows some relevant knowledge about notable people, legendary items, or noteworthy places. If the Explorer has 5 or more ranks in Knowledge (history), she gains a +2 bonus on this check. She may take 10 but cannot take 20 on this check.

Table: Explorer Lore

DC	Type of Knowledge	Examples
10	Common, known by at least a substantial minority of the local population.	A local official's hobbies and interests; common legends or rumors about a powerful place of mystery.
20	Uncommon but available, known by only a few people in the area.	The coordinates of a known but uncharted island; legends or rumors about a powerful artifact.
25	Obscure, known by few, hard to come by.	The customs of a documented race; the true home of an ancient royal dynasty.
30	Extremely obscure, known by very few, possibly forgotten by most whom once knew it, possibly known only by those who don't understand the knowledge's significance.	The most likely location of a long-lost pharaoh's tomb; the history of a powerful artifact and its creator

Survivalist: At 1st level, the Explorer gains the bonus feats Guide and Track.

Resolve: Beginning at 2nd level, an Explorer gains a morale bonus equal to one-half her Explorer class level (rounded down) on saving throws to resist fear effects and Intimidate checks.

Skilled Searcher: When actively searching for secret doors or traps, an Explorer of 2nd level or higher gains a bonus on her Search checks equal to one-half her Explorer class level (rounded down).

Bonus Feats: At 3rd, 6th, and 9th level, the Explorer gets a bonus feat. The bonus feat must be selected from the following list, and the Explorer must meet all the prerequisites of the feat to select it: Action Boost, Advanced Two-Weapon Fighting, Aircraft Operation (spacecraft), Archaic Weapons Proficiency, Attentive, Brawl, Dodge, Educated, Endurance, Exotic Firearms Proficiency, Exotic Melee Weapon Proficiency, Heroic Surge, Improved Feint, Improved Knockout Punch, Improved Two-Weapon Fighting, Jack of All Trades, Knockout Punch, Mobility, Nimble, Renown, Spacer, Streetfighting, Studious, Track, Two-Weapon Fighting, Vehicle Expert.

Trap Sense: At 4th level, an Explorer gains an intuitive sense that alerts her to danger from traps, giving her a +1 bonus on Reflex saves made to avoid traps and a +1 dodge bonus to Defense against attacks made by traps. These bonuses rise to +2 at 7th level and +3 at 10th level.

Extra Step: An Explorer of 5th level or higher can spend an action point to take an extra 5-foot step during her turn, as a free action. This extra 5-foot step does not provoke attacks of opportunity. At 10th level, the Explorer can take the extra 5-foot step without spending an action point.

Explorer's Evasion: If an Explorer of 8th level or higher is exposed to any effect that normally allows a character to attempt a Reflex saving throw for half damage, the Explorer suffers no damage if she

makes a successful saving throw. If the Explorer already has evasion, she gains improved evasion instead. Improved evasion works similar to evasion, except the Explorer suffers only half damage on a failed saving throw.

FIELD MEDIC (d20)

Class Information: The following information pertains to the Field Medic class.

Possible lifepath: Military, Civilian Hospital, Corporate Doctor, Merc

Action Points: 6 + one-half character level, rounded down, every time the Field Medic attains a new level in this class.

Class Skills: The Field Medic's class skills (and the key ability for each skill) are: Concentration (Con), Craft (pharmaceutical) (Int), Diplomacy (Cha), Drive (Dex), Knowledge (behavioral sciences, current events, earth and life sciences, popular culture, technology) (Int), Listen (Wis), Pilot (Dex), Profession (Wis), Read/Write Language (none), Research (Int), Speak Language (none), Spot (Wis), Treat Injury (Wis).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Table: The Field Medic

Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+2	+0	+1	Medical specialist +1	+1	+1
2nd	+1	+3	+0	+2	Expert healer	+1	+1
3rd	+1	+3	+1	+2	Bonus feat	+2	+1
4th	+2	+4	+1	+2	Medical mastery	+2	+2
5th	+2	+4	+1	+3	Medical specialist +2	+3	+2
6th	+3	+5	+2	+3	Bonus feat	+3	+2
7th	+3	+5	+2	+4	Minor medical miracle	+4	+3
8th	+4	+6	+2	+4	Medical specialist +3	+4	+3
9th	+4	+6	+3	+4	Bonus feat	+5	+3
10th	+5	+7	+3	+5	Medical miracle	+5	+4

Class Features: The following features pertain to the Field Medic class.

Medical Specialist: The Field Medic receives a competence bonus on Treat Injury checks. At 1st level, the bonus is +1. It increases to +2 at 5th level, and to +3 at 8th level.

Expert Healer: At 2nd level and higher, the Field Medic's ability to restore hit points with a medical kit or surgery kit and a successful use of the Treat Injury skill improves. In addition to the normal hit point recovery rate (1d4 for a medical kit, 1d6 per patient's character level for surgery), the Field Medic restores 1 hit point for every level he or she has in this advanced class.

Bonus Feats: At 3rd, 6th, and 9th level, the Field Medic gets a bonus feat. The bonus feat must be selected from the following list, and the Field Medic must meet all the prerequisites of the feat to select it. Armor Proficiency (light), Armor Proficiency (medium), Cautious, Defensive Martial Arts, Dodge, Educated, Improved Initiative, Medical Expert, Personal Firearms Proficiency, Surface Vehicle Operation, and Vehicle Expert.

Medical Mastery: When making a Treat Injury skill check, a Field Medic of 4th level or higher may take 10 even if stress and distractions would normally prevent him or her from doing so.

Minor Medical Miracle: At 7th level or higher, a Field Medic can save a character reduced to –10 hit points or lower. If the Field Medic is able to administer aid within 3 rounds of the character's death, he or she can make a Treat Injury check. The DC for this check is 30, and the Field Medic can't take 10 or take 20. If the check succeeds, the dead character can make Fortitude save (DC 15) to stabilize and be restored to 0 hit points. If the Field Medic fails the skill check or the patient fails the save, the dead character can't be saved.

Medical Miracle: At 10th level, a Field Medic can revive a character reduced to –10 hit points or lower. If the Field Medic is able to administer aid within 3 minutes of the character's death, he or she can make a Treat Injury check. The DC for this check is 40, and the Field Medic can't take 10 or take 20. If the check succeeds, the dead character can make Fortitude save (DC 20) to stabilize and be restored to 1d6

hit points. If the Field Medic fails the skill check or the patient fails the Fortitude save, the dead character can't be restored.

FIELD SCIENTIST (d20)

Class Information: The following information pertains to the Field Scientist class.

Possible lifepath: Corporate, Independent, Ministries

Action Points: 6 + one-half character level, rounded down, every time the Field Scientist attains a new level in this class.

Class Skills: The Field Scientist's class skills (and the key ability for each skill) are: Craft (chemical, electronic, mechanical, pharmaceutical), Decipher Script (Int), Demolitions (Int), Disable Device (Int), Drive (Dex), Investigate (Int), Knowledge (behavioral sciences, earth and life sciences, physical sciences, technology) (Int), Navigate (Int), Pilot (Dex), Profession (Wis), Read/Write Language (none), Research (Int), Search (Int), Speak Language (none).

Skill Points at 1st Level: (7 + Int modifier)x4

Skill Points at Each Level: 7 + Int modifier.

Table: The Field Scientist							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+0	Smart defense	+0	+0
2nd	+1	+2	+2	+0	Scientific improvisation	+1	+0
3rd	+1	+2	+2	+1	Bonus feat	+1	+1
4th	+2	+2	+2	+1	Skill mastery	+1	+1
5th	+2	+3	+3	+1	Minor breakthrough	+2	+1
6th	+3	+3	+3	+2	Bonus feat	+2	+2
7th	+3	+4	+4	+2	Smart survival	+2	+2
8th	+4	+4	+4	+2	Smart weapon	+3	+2
9th	+4	+4	+4	+3	Bonus feat	+3	+3
10th	+5	+5	+5	+3	Major breakthrough	+3	+3

Class Features: The following features pertain to the Field Scientist class.

Smart Defense: A Field Scientist applies his or her Intelligence bonus and his or her Dexterity bonus to his or her Defense. Any situation that would deny the Field Scientist his or her Dexterity bonus to Defense also denies the Intelligence bonus.

Scientific Improvisation: At 2nd level, a Field Scientist gains the ability to improvise solutions using common objects and scientific expertise. This ability lets the Field Scientist create objects in a dramatic situation quickly and cheaply, but that have a limited duration. By spending 1 action point and combining common objects with a Craft check that corresponds to the function desired, the Field Scientist could build a tool or device to deal with any situation. The DC for the Craft check is equal to 5 + the purchase DC of the object that most closely matches the desired function. Only objects that can normally be used more than once can be improvised.

Electronic devices, special tools, weapons, mechanical devices, and more can be built with scientific improvisation. It takes a full-round action to make an object with scientific improvisation. The object, when put into use, lasts for a number of rounds equal to the Field Scientist's class level, or until the end of the current encounter, before it breaks down. It can't be repaired.

Bonus Feats: At 3rd, 6th, and 9th level, the Field Scientist gets a bonus feat . The bonus feat must be selected from the following list, and the Field Scientist must meet all the prerequisites of the feat to select it: Archaic Weapons Proficiency, Attentive, Cautious, Combat Expertise, Educated, Gearhead, Personal Firearms Proficiency, Point Blank Shot, Renown, Studious.

Skill Mastery: At 4th level, a Field Scientist selects a number of skills from his or her class list equal to 3 + his or her Intelligence modifier. When making a skill check using one of these skills, the Field Scientist may take 10 even if stress and distractions would normally prevent him or her from doing so.

Minor Breakthrough: Upon attaining 5th level, a Field Scientist receives credit for a minor scientific breakthrough that earns him or her the recognition of her peers. The Field Scientist chooses one of the following Knowledge skills: behavioral sciences, earth and life sciences, physical sciences, or

technology. When dealing with others with at least 1 rank in the same Knowledge skill, the Field Scientist gains a +2 bonus on Reputation checks.

This minor breakthrough also provides the Field Scientist with a +500 XP increase.

Smart Survival: A Field Scientist of 7th level or higher can spend 1 action point to reduce the damage dealt by a single attack or effect by 5 points.

Smart Weapon: At 8th level, the Field Scientist selects one weapon that he or she is proficient in and can use with one hand. With the selected weapon, the Field Scientist can use his or her Intelligence modifier instead of Strength or Dexterity modifier on attack rolls.

Major Breakthrough: At 10th level, the Field Scientist gains a +2 bonus on Reputation checks when dealing with individuals who have at least 1 rank in any of the following Knowledge skills: behavioral sciences, earth and life sciences, physical sciences, or technology. This bonus stacks with the bonus provided by the minor breakthrough ability.

This major breakthrough also provides the Field Scientist with a +1000 XP increase.

GUNSLINGER (d20)

Class Information: The following information pertains to the Gunslinger class.

Possible lifepath: Public Security, Military, Corporate Security, Prime Minister, Ministries, Yakuza, Merc

Action Points: 6 + one-half character level, rounded down, every time the gunslinger attains a new level in this class.

Class Skills: The Gunslinger's class skills (and the key ability for each skill) are: Bluff (Cha), Demolitions (Int), Drive (Dex), Escape Artist (Dex), Gamble (Wis), Intimidate (Cha), Knowledge (current events, popular culture, streetwise) (Int), Move Silently (Dex), Profession (Wis), Read/Write Language (none), Ride (Dex), Sleight of Hand (Dex), Speak Language (none), Spot (Wis), Survival (Wis), Tumble (Dex).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Table: The Gunslinger							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+0	+1	+1	Close combat shot	+1	+0
2nd	+2	+0	+2	+2	Weapon focus	+1	+0
3rd	+3	+1	+2	+2	Bonus feat	+2	+1
4th	+4	+1	+2	+2	Defensive position	+2	+1
5th	+5	+1	+3	+3	Lightning shot	+3	+1
6th	+6	+2	+3	+3	Bonus feat	+3	+2
7th	+7	+2	+4	+4	Sharp-shooting	+4	+2
8th	+8	+2	+4	+4	Greater weapon focus	+4	+2
9th	+9	+3	+4	+4	Bonus feat	+5	+3
10th	+10	+3	+5	+5	Bulls eye	+5	+3

Class Features: The following features pertain to the Gunslinger class.

Proficiencies: Gunslingers are proficient with all firearms and with all light armor.

Close Combat Shot: At 1st level, a Gunslinger gains the ability to make a ranged attack with a Medium-size or smaller firearm while in a threatened area without provoking an attack of opportunity.

Weapon Focus: At 2nd level, a Gunslinger gains the Weapon Focus class feature, providing the benefit of the feat with the same name. The Gunslinger must choose a specific personal firearm. The gunslinger adds +1 to all attack rolls you make using the selected personal firearm.

Bonus Feats: At 3rd, 6th, and 9th level, the Gunslinger gets a bonus feat. The bonus feat must be selected from the following list, and the Gunslinger must meet all the prerequisites of the feat to select it. Advanced Two-Weapon Fighting, Burst Fire, Dead Aim, Double Tap, Far Shot, Improved Two-Weapon Fighting, Precise Shot, Quick Draw, Quick Reload, Shot on the Run, Skip Shot, Strafe, Two-Weapon Fighting.

Defensive Position: Starting at 4th level, the Gunslinger gains an additional +2 cover bonus to Defense and an additional +2 cover bonus on Reflex saves whenever he or she has one-quarter, one-half, three-quarters, or nine-tenths cover.

Lightning Shot: Starting at 5th level, a Gunslinger can make a flurry of ranged attacks with a personal firearm at the expense of accuracy. With a lightning shot, the Gunslinger may make one extra ranged attack with a personal firearm in a round at his or her highest base attack bonus. This attack and each other attack made in the round take a –2 penalty. This ability can only be used when taking the full attack action. The penalty applies to all attacks for one full round, including attacks of opportunity.

Sharp Shooting: At 7th level, if the Gunslinger uses a personal firearm to attack a target, the cover bonus to the target's Defense for one-quarter, one-half, three-quarters, or nine-tenths cover is reduced by 2.

Greater Weapon Focus: At 8th level, a Gunslinger receives a +1 competence bonus on attack rolls made with the firearm selected for the Weapon Focus ability at 2nd level. This bonus stacks with the earlier bonus.

Bulls eye: At 10th level, a Gunslinger becomes so adept at using the firearm to which he or she has applied Weapon Focus and Greater Weapon Focus that the gunslinger's attacks with that firearm can deal extra damage. With a successful attack, before damage is rolled, the gunslinger can spend 1 action point to deal +3d6 points of damage.

HACKER (Gits)

Class Information: The following information pertains to the Hacker class.

SPECIAL: The hacker MUST have a cyberbrain.

Possible lifepath: Public Security, Ministries, Independent, Corporate, Street Gang.

Action Points: 6 + one-half character level, rounded down, every time the Hacker attains a new level in this class.

Class Skills: The Hacker's class skills (and the key ability for each skill) are: Craft (electronic, mechanical) (Int), Disable Device (Int), Drive (Dex), Gather Information (Cha), Hack-Craft (Int), Knowledge (behavioral sciences, earth and life sciences, physical sciences, popular culture, technology) (Int), Navigate (Int), Profession (Wis), Read/Write Language (none), Repair (Int), Research (Int), Speak Language (none), Spot (Wis).

Skill Points at 1st Level: (7 + Int modifier)x4

Skill Points at Each Level: 7 + Int modifier.

Table: The Hacker							
Class Level	**Base Attack Bonus**	**Fort Save**	**Ref Save**	**Will Save**	**Special**	**Defense Bonus**	**Reputation Bonus**
1st	+0	+1	+1	+1	Improved Hack Repertoire	+0	+2
2nd	+1	+2	+2	+2	Cyberbrain Specialization	+1	+2
3rd	+1	+2	+2	+2	Bonus Feat	+1	+2
4th	+2	+2	+2	+2	Improved Hack Repertoire	+1	+3
5th	+2	+3	+3	+3	Hacker Portfolio	+2	+3
6th	+3	+3	+3	+3	Bonus Feat	+2	+3
7th	+3	+4	+4	+4	Improved Hack Repertoire	+2	+4
8th	+4	+4	+4	+4	Cyberbrain Specialization	+3	+4
9th	+4	+4	+4	+4	Bonus Feat	+3	+4
10th	+5	+5	+5	+5	Improved Hack Repertoire	+3	+5

Class Features: The following features pertain to the Hacker class.

Improved Hack Repertoire: A Hacker is simply better with her Cyberbrain than others. She can do more with it. Her capacity for hacking is increased   Her available Hacks are one row lower on the Hack Action table (Eg Int 14 now becomes Int 16 for the purposes of the number of Hack actions available but the character does not gain the additional attribute bonus). This is a permanent increase. Increasing one's Int later keeps the Hack Action row one lower. This ability stacks with other abilities that increase the hacking ability (like the CCSS ability) of the character. The character gains another one level drop at 4th level, 7th level, and 10th level.

Cyberbrain Specialization: A Hacker rises above the amateurs around her. Both Computer Use and Hack-Craft have their maximum level raised by +2. At 8th level, they gain this bonus again.

Bonus Feats: At 3rd, 6th, and 9th level, the Hacker may choose one of the following feats: Chain Hack, Cooperative Hack, Empower Hack, Extend Hack, Greater Hack Focus, Greater Hack Penetration, Improved Back-Hack, Hacking Aptitude, Maximize Hack, Quicken Hack, Rapid Hack, Hack Focus, Speed Reprogram, Hack Mastery, Hack Penetration, Hack Attack Increase

Hacker Portfolio: Usually, any hacker only has double their Int bonus in available actual actions, regenerating half their Int bonus (rounded down) in Hack actions ever minute (10 rounds) that passes. At 5th level, the Hacker now has x2.5 their Int bonus in available actions.

INFILTRATOR (d20)

Class Information: The following information pertains to the Infiltrator class.

Possible lifepath: Public Security, Military, Corporate spy, Yakuza, Street gang

Action Points: 6 + one-half character level, rounded down, every time the infiltrator attains a new level in this class.

Class Skills: The Infiltrator's class skills (and the key ability for each skill) are: Balance (Dex), Climb (Str), Disable Device (Int), Disguise (Cha), Escape Artist (Dex), Hide (Dex), Investigate (Int), Jump (Str), Knowledge (art, business, current events, popular culture, streetwise) (Int), Listen (Wis), Move Silently (Dex), Profession (Wis), Read/Write Language (none), Search (Int), Sleight of Hand (Dex), Speak Language (none), Spot (Wis), Tumble (Dex).

Skill Points at 1st Level: (7 + Int modifier)x4

Skill Points at Each Level: 7 + Int modifier.

Table: The Infiltrator							
Class Level	**Base Attack Bonus**	**Fort Save**	**Ref Save**	**Will Save**	**Special**	**Defense Bonus**	**Reputation Bonus**
1st	+0	+0	+2	+0	Sweep	+1	+1
2nd	+1	+0	+3	+0	Improvised implements	+2	+1
3rd	+1	+1	+3	+1	Bonus feat	+2	+1
4th	+2	+1	+4	+1	Improved evasion	+3	+2
5th	+2	+1	+4	+1	Skill mastery	+4	+2
6th	+3	+2	+5	+2	Bonus feat	+4	+2
7th	+3	+2	+5	+2	Improvised weapon damage	+5	+3
8th	+4	+2	+6	+2	Improved sweep	+6	+3
9th	+4	+3	+6	+3	Bonus feat	+6	+3
10th	+5	+3	+7	+3	Without a trace	+7	+4

Class Features: The following features pertain to the Infiltrator class.

Sweep: An Infiltrator knows how to size up an area and get the lay of the land in a single sweep of his or her eyes. This sweep provides a +4 circumstance bonus on Spot checks and covers an area out to 30 feet away from the Infiltrator. The Infiltrator can use this bonus at the start of an encounter. Anything not concealed can be spotted in a sweep with a successful check (DC 10). The DC for concealed or less obvious threats is equal to their Hide check result.

Improvised Implements: At 2nd level, an Infiltrator no longer takes a –4 penalty when wielding an improvised weapon. Also, the Infiltrator is able to make do without proper equipment in certain circumstances: the Infiltrator no longer takes a –4 penalty when using the Climb and Disable Device skills without the proper tools.

Bonus Feats: At 3rd, 6th, and 9th level, the Infiltrator gets a bonus feat. The bonus feat must be selected from the following list, and the Infiltrator must meet all the prerequisites of the feat to select it: Acrobatic, Alertness, Armor Proficiency (light), Athletic, Attentive, Brawl, Cautious, Defensive Martial Arts, Dodge, Elusive Target, Meticulous, Mobility, Nimble, Renown, Run, Stealthy.

Improved Evasion: If an Infiltrator of 4th level or higher is exposed to any effect that normally allows a character to attempt a Reflex saving throw for half damage, the Infiltrator suffers no damage if he or she makes a successful saving throw and only half damage on a failed save. Improved evasion can only be used when wearing light armor or no armor.

For an Infiltrator who does not have evasion (see the Fast hero class description), improved evasion counts as evasion for the purpose of meeting the prerequisites on the Fast hero's defensive talent tree.

Skill Mastery: At 5th level, an Infiltrator selects a number of skills from his or her class list equal to 3 + his or her Intelligence modifier. When making a check using one of these skills, the Infiltrator may take 10 even if stress and distractions would normally prevent him or her from doing so.

Improvised Weapon Damage: At 7th level, an Infiltrator's attacks with improvised weapons deal more damage. The Infiltrator treats an improvised weapon as one size category larger than it is for the purpose of determining the damage it deals.

Improved Sweep: At 8th level, an Infiltrator's ability to get the lay of the land improves. Now the Infiltrator not only spots potential perils with a successful check, he or she can determine the relative strength of these dangers. A successful check relates the danger's strength compared to the Infiltrator: stronger (higher level or Hit Dice), on par (same level or HD), or weaker (lower level or HD).

Without a Trace: At 10th level, when an Infiltrator uses any of the following skills: Balance, Climb, Disable Device, Escape Artist, Hide, Move Silently, and Sleight of Hand, those using Investigate, Listen, Search, or Spot to detect the Infiltrator's activity take a –4 penalty.

INVESTIGATOR (d20)

Class Information: The following information pertains to the Investigator class.

Possible lifepath: Public Security, Military, Corporate, Journalist, Law Enforcement.

Action Points: 6 + one-half character level, rounded down, every time the Investigator attains a new level in this class.

Class Skills: The Investigator's class skills (and the key ability for each skill) are: Bluff (Cha), Disable Device (Dex), Drive (Dex), Forgery (Int), Gather Information (Cha), Intimidate (Cha), Investigate (Int), Knowledge (behavioral sciences, civics, current events, streetwise) (Int), Listen (Wis), Profession (Wis), Read/_Write Language (none), Research (Int), Search (Int), Sense Motive (Wis), Speak Language (none), Spot (Wis).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Table: The Investigator							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+1	+1	Profile	+1	+1
2nd	+1	+0	+2	+2	Contact, low-level	+1	+1
3rd	+2	+1	+2	+2	Bonus feat	+2	+1
4th	+3	+1	+2	+2	Nonlethal force	+2	+2
5th	+3	+1	+3	+3	Contact, mid-level	+3	+2
6th	+4	+2	+3	+3	Bonus feat	+3	+2
7th	+5	+2	+4	+4	Discern lie	+4	+3
8th	+6	+2	+4	+4	Contact, high-level	+4	+3
9th	+6	+3	+4	+4	Bonus feat	+5	+3
10th	+7	+3	+5	+5	Sixth sense	+5	+4

Class Features: The following features pertain to the Investigator class.

Profile: By making a Gather Information check (DC 15) when talking to witnesses of a crime, the Investigator compiles a rough mental picture of the suspect. This mental picture provides a physical description, including distinguishing markings and visible mannerisms. Success makes the profile accurate, at least concerning a particular suspect as seen by witnesses. (For this Gather Information check, no money changes hands.)

The Investigator can expand the profile by making an Investigate check (DC 15) involving the crime scene or other evidence linked to the suspect. If successful, the Investigator combines eyewitness accounts with forensic evidence to develop a profile of the suspect's method of operation. This provides a +2 circumstance bonus on any skill checks made to uncover additional evidence or otherwise locate and capture the suspect.

Contact: An Investigator of 2nd level or higher cultivates associates and informants. Each time the Investigator gains a contact, the GM should develop a supporting character to represent the contact. The player can suggest the type of contact his or her character wants to gain, but the contact must be an ordinary character, not a heroic character.

A contact will not accompany an Investigator on missions or risk his or her life. A contact can, however, provide information or render a service (make a specific skill check on the Investigator's behalf). At 2nd level, the Investigator gains a low-level contact, at 5th level a mid-level contact, and at 8th level a high-level contact.

The Investigator can't call on the same contact more than once in a week, and when he or she does call on a contact, compensation may be required for the assistance the contact renders. In general, a professional associate won't be compensated monetarily, but instead will consider that the Investigator owes him or her a favor. Contacts with underworld or street connections usually demand monetary compensation for the services they render, and experts in the use of skills normally want to be paid for the services they provide.

Bonus Feats: At 3rd, 6th, and 9th level, the Investigator gets a bonus feat. The bonus feat must be selected from the following list, and the Investigator must meet all the prerequisites of the feat to select it: Advanced Firearms Proficiency, Armor Proficiency (light), Armor Proficiency (medium), Brawl, Defensive Martial Arts, Dodge, Double Tap, Educated, Knockout Punch, Personal Firearms Proficiency, Point Blank Shot.

Nonlethal Force: At 4th level, an Investigator becomes adept at using nonlethal force to subdue an opponent. From this point on, he or she can deal nonlethal damage with a weapon that normally deals lethal damage (if he or she so chooses) without taking the normal –4 penalties on the attack roll.

Discern Lie: At 7th level, an Investigator develops the ability to gauge whether another character is telling the truth by reading facial expressions and interpreting body language. The Investigator must be able to see and hear (but not necessarily understand) the individual under scrutiny.

With a successful Sense Motive check opposed by the subject's Bluff check result or against DC 10 (whichever is greater), the Investigator can tell whether the subject is deliberately and knowingly speaking a lie. This ability doesn't reveal the truth, uncover unintentional inaccuracies, or necessarily reveal omissions in information.

Sixth Sense: At 10th level, an Investigator becomes so attuned at solving mysteries that he or she finds a way to derive a conclusion and rarely misses a clue. Whenever the Investigator spends 1 action point to improve the result of a skill check made using certain skills (see below), the Investigator gets to add an additional 1d6 to the result. The skills that sixth sense applies to are Gather Information, Investigate, Listen, Research, Search, and Spot.

MARTIAL ARTIST (d20)

Class Information: The following information pertains to the Martial Artist class.

Possible lifepath: Public Security, Military, Corporate Security, Ministries, Merc, Yakuza, or Law Enforcement

Action Points: 6 + one-half character level, rounded down, every time the martial artist attains a new level in this class.

Class Skills: The Martial Artist's class skills (and the key ability for each skill) are: Balance (Dex), Climb (Str), Escape Artist (Dex), Hide (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, popular culture, theology and philosophy) (Int), Move Silently (Dex), Perform (dance) (Cha), Profession (Wis), Read/Write Language (none), Speak Language (none), Spot (Wis), Tumble (Dex).

Skill Points at Each Level: 3 + Int modifier.

Skill Points at 1st Level: (3 + Int modifier)x4

Class Features: The following features pertain to the Martial Artist class.

Proficiencies: Martial Artists are proficient with all light armor.

Living Weapon: The Martial Artist attacks with either fist interchangeably, or even with elbows, knees, and feet. This means that the Martial Artist may even make unarmed strikes when his or her hands are full, and there is no such thing as an off-hand attack for a Martial Artist striking unarmed.

The Martial Artist also deals more damage with unarmed strikes. At 1st level, the martial artist deals 1d6 points of damage with an unarmed strike. At 4th level, damage increases to 1d8. At 8th level, it

Table: The Martial Artist							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+0	+2	+0	Living weapon 1d6	+1	+0
2nd	+2	+0	+3	+0	Flying kick	+2	+0
3rd	+3	+1	+3	+1	Bonus feat	+2	+0
4th	+4	+1	+4	+1	Living weapon 1d8	+3	+0
5th	+5	+1	+4	+1	Iron fist (one attack)	+4	+1
6th	+6	+2	+5	+2	Bonus feat	+4	+1
7th	+7	+2	+5	+2	Flurry of blows	+5	+1
8th	+8	+2	+6	+2	Living weapon 1d10	+6	+1
9th	+9	+3	+6	+3	Bonus feat	+6	+2
10th	+10	+3	+7	+3	Iron fist (all attacks)	+7	+2

increases to 1d10. This is an increase to Combat Martial Arts damage; this has no effect on Brawl. The Martial Artist can deliver this damage as lethal or non-lethal damage.

Flying Kick: Starting at 2nd level, a Martial Artist can use a charge to deliver a devastating flying kick to an opponent. At the end of this charge, the martial artist adds his or her class level as a bonus to the damage he or she deals with an unarmed strike.

Bonus Feats: At 3rd, 6th, and 9th level, the Martial Artist gets a bonus feat. The bonus feat must be selected from the following list, and the Martial Artist must meet all the prerequisites of the feat to select it: Acrobatic, Advanced Combat Martial Arts, Archaic Weapons Proficiency, Combat Reflexes, Combat Throw, Elusive Target, Exotic Melee Weapon Proficiency, Improved Combat Throw, Improved Combat Martial Arts, Unbalance Opponent.

Iron Fist: At 5th level, a Martial Artist gains the ability to spend 1 action point to increase the damage he or she deals to a single opponent with a single unarmed strike. The martial artist declares the use of the action point after making a successful unarmed strike. The result of the action point roll is added to the damage roll for that attack. At 10th level, this ability improves. The Martial Artist now adds the result of the action point roll to all successful attacks he or she makes in a round.

Flurry of Blows: At 7th level, a Martial Artist gains the ability to strike with a flurry of blows at the expense of accuracy. The Martial Artist must be unarmored to use this talent, and he or she must make unarmed strikes to gain the benefit. With a flurry of blows, the Martial Artist may make one extra attack in a round at his or her highest base attack bonus. This attack and each other attack made in the round take a –2 penalty. This ability can only be used when taking the full attack action. The penalty applies to all attacks for one full round, including attacks of opportunity.

N E G O T I A T O R (d20)

Class Information: The following information pertains to the Negotiator class.

Possible lifepath: Public Security, Military, Law Enforcement

Action Points: 6 + one-half character level, rounded down, every time the Negotiator attains a new level in this class.

Class Skills: The Negotiator's class skills (and the key ability for each skill) are: Bluff (Cha), Investigate (Int), Knowledge (behavioral sciences, business, civics, current events, popular culture, streetwise) (Int), Profession (Wis), Read/Write Language (none), Sense Motive (Wis), Speak Language (none), Spot (Wis).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Class Features: All of the following are features of the Negotiator class.

Conceal Motive: A Negotiator gets to add a bonus equal to his or her Negotiator level whenever he or she opposes a Sense Motive check.

React First: Starting at 2nd level, a Negotiator gains the ability to react first when trying to make a deal or mediate a settlement. The Negotiator must make contact and speak to the participants before the start of combat. If he or she does this, he or she gains a free readied action that allows the Negotiator to make either a move or attack action if either side in the negotiation (other than the Negotiator) decides to start hostilities. The Negotiator gets to act before any initiative checks are made, in effect giving him or her the benefit of surprise.

Table: The Negotiator							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+0	+2	Conceal motive	+0	+1
2nd	+1	+2	+0	+3	React first	+1	+1
3rd	+2	+2	+1	+3	Bonus feat	+1	+1
4th	+3	+2	+1	+4	Talk down one opponent	+1	+2
5th	+3	+3	+1	+4	No sweat	+2	+2
6th	+4	+3	+2	+5	Bonus feat	+2	+2
7th	+5	+4	+2	+5	Talk down several opponents	+2	+3
8th	+6	+4	+2	+6	Sow distrust	+3	+3
9th	+6	+4	+3	+6	Bonus feat	+3	+3
10th	+7	+5	+3	+7	Talk down all opponents	+3	+4

Bonus Feats: At 3rd, 6th, and 9th level, the Negotiator gets a bonus feat. The bonus feat must be selected from the following list, and the Negotiator must meet all the prerequisites of the feat to select it: Advanced Firearms Proficiency, Armor Proficiency (light), Armor Proficiency (medium), Attentive, Confident, Dead Aim, Deceptive, Educated, Far Shot, Iron Will, Personal Firearms Proficiency, Trustworthy.

Talk Down: A Negotiator of 4th level or higher can talk his or her way out of trouble. Either prior to the start of hostilities or during combat, the Negotiator can talk down a single opponent within 15 feet of his or her position or otherwise able to hear the Negotiator's voice. The target must be able to understand the Negotiator. That opponent immediately stops fighting and reverts to an indifferent attitude regarding the Negotiator and the situation in general. Any hostile action by the Negotiator or by one of the Negotiator's allies directed at the opponent allows the opponent to act as he or she sees fit.

To initiate this talent, the Negotiator must spend a full-round action talking to his or her opponent. The opponent makes a Will saving throw. The DC is equal to 10 + Negotiator's class level + Negotiator's Charisma bonus. If the save fails, the opponent stops fighting. If the save succeeds, the opponent continues as normal.

At 7th level, a Negotiator can talk down a number of opponents equal to his or her Charisma bonus within 15 feet of his or her position or within 15 feet of a television, radio, or telephone broadcasting the Negotiator's message.

At 10th level, the range extends to 30 feet and covers all opponents who can hear and understand the Negotiator's voice. This is a Mind-Affecting ability.

No Sweat: Starting at 5th level, whenever a Negotiator spends 1 action point to improve the result of a die roll, he or she rolls an additional 1d6. The Negotiator can then select the highest die roll to add to his or her d20 roll.

Sow Distrust: A Negotiator of 8th level or higher can turn one character against another. The Negotiator must spend a full-round action and know the name of the character he or she is attempting to persuade as well as the name of the character toward whom the target's distrust will be directed. The target must be able to hear and understand the Negotiator.

The target makes a Will save. The DC is equal to 10 + Negotiator's class level + Negotiator's Charisma bonus. If the target fails the save, his or her attitude toward the other designated character worsens by one step: helpful turns to friendly, friendly to indifferent, indifferent to unfriendly, unfriendly to hostile (see the Diplomacy skill). The target makes a Will save whenever the Negotiator uses this talent against him or her. As long as the target continues to fail the Will save, the Negotiator can continue taking full-round actions to worsen the target's attitude toward a designated character. When the target's attitude drops to hostile, he or she attacks the designated character. A successful Will save doesn't restore previous attitude shifts, but it does render the target immune for 24 hours to further attempts by the Negotiator to sow distrust. The Negotiator can't use this talent on his or her allies. This is a Mind-Affecting ability.

P E R S O N A L I T Y (d20)

Class Information: The following information pertains to the Personality class.

Possible lifepath: Work for the Prime Minister or the heads of the Ministries or be independent.

Action Points: 6 + one-half character level, rounded down, every time the Personality attains a new level in this class.

Class Skills: The Personality's class skills (and the key ability for each skill) are: Bluff (Cha), Craft (visual arts) (Int), Craft (writing) (Int), Diplomacy (Cha), Knowledge (art, behavioral sciences, business, civics, current events, popular culture) (Int), Perform (act, dance, sing, stand-up) (Cha), Profession (Wis), Read/_Write Language (none), Speak Language (none).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Table: The Personality

Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+0	Unlimited access	+0	+2
2nd	+1	+2	+2	+0	Bonus class skill	+1	+2
3rd	+1	+2	+2	+1	Bonus feat	+1	+2
4th	+2	+2	+2	+1	Royalty	+1	+3
5th	+2	+3	+3	+1	Winning smile	+2	+3
6th	+3	+3	+3	+2	Bonus feat	+2	+3
7th	+3	+4	+4	+2	Bonus class skill	+2	+4
8th	+4	+4	+4	+2	Royalty	+3	+4
9th	+4	+4	+4	+3	Bonus feat	+3	+4
10th	+5	+5	+5	+3	Compelling performance	+3	+5

Class Features: The following features pertain to the Personality class.

Unlimited Access: When others would normally make a Diplomacy check or Bluff check to smooth-talk or trick their way into a private party or invitation-only event, the Personality adds a bonus equal to his or her Personality level.

When a Personality buys a ticket to a show or for transportation, he or she can make a Diplomacy check to get that ticket upgraded. DCs are given below.

Upgrade	Diplomacy DC
Seat at sporting event to field pass	10
Hotel room to suite	15
Concert or theater ticket to backstage pass	20
Economy transportation to first-class	25

Bonus Class Skill: At 2nd and again at 7th level, the Personality designates one cross-class skill as a class skill. Once designated, the skill is considered a class skill every time the character adds a new level of Personality.

Bonus Feats: At 3rd, 6th, and 9th level, the Personality gets a bonus feat. The bonus feat must be selected from the following list, and the Personality must meet all the prerequisites of the feat to select it. Alertness, Animal Affinity, Combat Expertise, Confident, Creative, Deceptive, Defensive Martial Arts, Educated, Trustworthy.

Royalty: At 4th and 8th level, a Personality's activities in the public eye generate extra income. This income provides a +1000 XP bonus.

Winning Smile: At 5th level, a Personality develops such a force of personal magnetism that he or she can convince a single target to regard him or her as a trusted friend. (If the target is currently being threatened or attacked by the Personality or his or her allies, this ability won't work.) The target makes a Will saving throw to avoid being persuaded by the Personality's words and actions. The DC is 10 + Personality's class level + Personality's Charisma bonus.

This ability doesn't enable the Personality to control the target, but the target perceives the Personality's words and actions in the most favorable way. The Personality can try to give the target orders, but he or she must win an opposed Charisma check to convince the target to perform any actions the target wouldn't normally undertake. The target never obeys suicidal or obviously harmful orders, and any act by the Personality or his or her allies that threatens the target breaks the mood and clears the target's head. Otherwise, a target remains won over for 1 minute per Personality level.

After the duration expires, the GM determines the reaction and attitude of the target based on what the Personality compelled the target to do. This is a Mind-Affecting ability.

Compelling Performance: At 10th level, a Personality's force of personal magnetism increases to the point that he or she can arouse a single emotion of his or her choice—despair, hope, or rage—in a target. To use this ability, the Personality must spend 1 action point. The emotion he or she arouses affects

one target (a GM character) within 15 feet of the Personality (or within 15 feet of a television, radio, or telephone that broadcasts the Personality's performance). The performance requires a full-round action, and its effects on the target last for 1d4+1 rounds.

The target makes a Will saving throw. The DC is 10 + Personality's class level + Personality's Charisma bonus. If the target succeeds at the saving throw, he or she is immune to the compulsion of this performance. If the target fails, he or she reacts to the emotion as described below.

Despair: The target takes a –2 morale penalty on saving throws, attack rolls, ability checks, skill checks, and weapon damage rolls.

Hope: The target gains a +2 morale bonus on saving throws, attack rolls, ability checks, skill checks, and weapon damage rolls.

Rage: The target gains a +2 morale bonus to Strength and Constitution, a +1 morale bonus on Will saves, and a –1 penalty to Defense. In a dramatic situation, the target is compelled to fight, regardless of the danger.

SOLDIER (d20)

Class Information: The following information pertains to the Soldier class.

Possible lifepath: Public Security, Military, Corporate Security, Law Enforcement, Mercs, Yakuza.

Action Points: 6 + one-half character level, rounded down, every time the character attains a new level in this class.

Class Skills: The Soldier's class skills (and the key ability for each skill) are: Demolitions (Int), Drive (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, history, popular culture, tactics) (Int), Listen (Wis), Navigate (Int), Profession (Wis), Read/Write Language (none), Speak Language (none), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at 1st Level: (5 + Int modifier)x4

Skill Points at Each Level: 5 + Int modifier.

Table: The Soldier							
Class Level	**Base Attack Bonus**	**Fort Save**	**Ref Save**	**Will Save**	**Special**	**Defense Bonus**	**Reputation bonus**
1st	+1	+1	+1	+0	Weapon Focus	+1	+0
2nd	+2	+2	+2	+0	Weapon specialization	+1	+0
3rd	+3	+2	+2	+1	Bonus feat	+2	+0
4th	+4	+2	+2	+1	Tactical aid	+2	+0
5th	+5	+3	+3	+1	Improved critical	+3	+1
6th	+6	+3	+3	+2	Bonus feat	+3	+1
7th	+7	+4	+4	+2	Improved reaction	+4	+1
8th	+8	+4	+4	+2	Greater weapon specialization	+4	+1
9th	+9	+4	+4	+3	Bonus feat	+5	+2
10th	+10	+5	+5	+3	Critical strike	+5	+2

Class Features: The following features pertain to the Soldier class.

Proficiencies: Soldiers are proficient with all firearms and with all armor except for power.

Weapon Focus: At 1st level, a Soldier gains the Weapon Focus class feature, providing the benefit of the feat with the same name. The Soldier chooses a specific weapon. The soldier can choose unarmed strike or grapple as the weapon. The soldier must be proficient with the chosen weapon. The soldier adds +1 to all attack rolls made using the selected weapon.

Weapon Specialization: At 2nd level, a Soldier gains weapon specialization with a specific melee or ranged weapon that he or she also has applied the Weapon Focus feat or class feature to. The soldier gets a +2 bonus on damage rolls with the chosen weapon.

Bonus Feats: At 3rd, 6th, and 9th level, the Soldier gets a bonus feat. The bonus feat must be selected from the following list, and the Soldier must meet all the prerequisites of the feat to select it: Archaic Weapons Proficiency, Armor Proficiency (Powered), Brawl, Burst Fire, Cleave, Combat Reflexes, Exotic Melee Weapon Proficiency, Far Shot, Great Cleave, Improved Brawl, Improved Knockout Punch, Knockout Punch, Weapon Focus, Weapon Specialization, Greater Weapon Focus and Power Attack

Tactical Aid: As a full-round action, the Soldier provides tactical aid to all of his allies (including himself) within sight and voice range of his position. This use of tactical aid requires an action point.

This aid provides a +1 competence bonus on attack rolls. The bonus lasts for a number of rounds equal to one-half of the Soldier's level in the advanced class, rounded down.

Improved Critical: For the weapon the Soldier has applied weapon specialization to the Soldier's threat range increases by one.

Improved Reaction: At 7th level, a Soldier gains a +2 competence bonus on initiative checks.

Greater Weapon Specialization: At 8th level, a Soldier gains greater weapon specialization with the weapon he or she selected at 2nd level. This ability increases the bonus on damage rolls to +4 when using the selected weapon.

Critical Strike: At 10th level, a Soldier gains the ability to automatically confirm a threat as a critical hit when attacking with the weapon he or she has applied weapon specialization to, eliminating the need to make a roll to confirm the critical hit.

T E C H I E (D20 Modern)

Class Information: The following information pertains to the Techie advanced class.

Possible lifepath: Public Security Redcoat, Military, Corporate tech, Underworld Cyborg hack.

Action Points: 6 + one-half character level, rounded down, every time the Techie attains a new level in this class.

Class Skills: The Techie's class skills (and the key ability for each skill) are: Computer Use (Int), Craft (electronic, mechanical) (Int), Demolitions (Int), Disable Device (Int), Drive (Dex), Knowledge (behavioral sciences, earth and life sciences, physical sciences, popular culture, technology) (Int), Navigate (Int), Profession (Wis), Read/Write Language (none), Repair (Int), Research (Int), Speak Language (none), Spot (Wis).

Skill Points at 1st Level: (7 + Int modifier)x4

Skill Points at Each Level: 7 + Int modifier.

Table: The Techie							
Class Level	**Base Attack Bonus**	**Fort Save**	**Ref Save**	**Will Save**	**Special**	**Defense Bonus**	**Reputation bonus**
1st	+0	+0	+0	+2	Jury-rig +2	+1	+0
2nd	+1	+0	+0	+3	Extreme machine	+1	+0
3rd	+1	+1	+1	+3	Bonus feat	+2	+1
4th	+2	+1	+1	+4	Build robot	+2	+1
5th	+2	+1	+1	+4	Mastercraft	+3	+1
6th	+3	+2	+2	+5	Bonus feat	+3	+2
7th	+3	+2	+2	+5	Jury-rig +4	+4	+2
8th	+4	+2	+2	+6	Mastercraft	+4	+2
9th	+4	+3	+3	+6	Bonus feat	+5	+3
10th	+5	+3	+3	+7	Mastercraft	+5	+3

Class Features: The following features pertain to the Techie advanced class.

Jury-Rig: A Techie gains a +2 competence bonus on Repair skill checks made to attempt temporary or jury-rigged repairs. See the Repair skill for details on jury-rigging. At 7th level, this competence bonus increases to +4.

Extreme Machine: If it has mechanical or electronic components, a Techie of 2nd level or higher can get maximum performance out of it.

By spending 1 action point and making either a Craft (electronic) or Craft (mechanical) check (whichever is appropriate for the machine in question), the Techie can temporarily improve a machine's performance—at the risk of causing the machine to need repairs later. The DC for the Craft check depends on the type of improvement being made, as shown on the table below.

The Techie performs the extreme modifications in 1 hour. The Techie can't take 10 or take 20 on this check. If the check succeeds, the effect of the improvement lasts for a number of minutes equal to his or her Techie class level, beginning when the object is first put into use. The Techie selects the single improvement he or she wants to make before making the check. After the duration of the effect ends, the machine reverts to its previous state and a repair chance percentile roll is made. The result of this roll indicates whether the machine requires repairs before it can be used again.

Size	Cost
Diminutive	1200
Tiny	500

Bonus Feats: At 3rd, 6th, and 9th level, the Techie gets a bonus feat. The bonus feat must be selected from the following list, and the Techie must meet all the prerequisites of the feat to select it: Builder, Cautious, Combat Expertise, Educated, Gearhead, Personal Firearms Proficiency, Point Blank Shot, Studious.

Build Robot: A Techie of 4th level or higher can build remote-controlled robots that are Tiny or Diminutive in size. These robots serve as the Techie's eyes, ears, or hands out to a predetermined distance away from the character when the Techie wants to use one of the following skills: Computer Use, Demolitions, Disable Device, Listen, Repair, or Spot.

Improvement	Craft DC	Repair Chance (d%)
Ranged Weapons		
+1 to damage	15	01–25
+2 to damage	20	01–50
+3 to damage	25	01–75
+5 ft. to range increment	15	01–25
+10 ft. to range increment	25	01–50
Electronic Devices		
+1 equipment bonus	15	01–25
+2 equipment bonus	20	01–50
+3 equipment bonus	25	01–75
Vehicles		
+1 on initiative checks	20	01–25
+1 to maneuver	25	01–50
+2 to maneuver	30	01–75

The Techie must have at least 1 rank in the skill that he wants to program into the robot. The Techie can only control one robot at a time, and only one of his robots can be active at any time.

Size	Craft DC
Diminutive	15
Tiny	12

Follow these steps to build a robot.

Construct Frame: The robot's body determines its size, shape, locomotion, and hit points. The DC of the Craft (mechanical) check is set by the robot's size and modified by the form of locomotion selected.

Select a frame size and form, add manipulators and sensors as necessary, and choose a type of remote control link. Add all the modifiers to determine the check's DC. Make the Craft (mechanical) check to construct the robot's frame. It takes a Techie 30 hours to construct a Diminutive robot frame or 12 hours to construct a Tiny robot frame.

A Diminutive robot can be 6 to 12 inches long or tall and weighs about 1 pound. A Tiny robot can be 13 to 24 inches long or tall and weighs up to 3 pounds. Statistics for these robots can be found in the Creature listings.

Construct the Electronics: The next step is to build the internal electronics for the robot and install them in the frame. The DC is based on the size of the robot and modified by the number of components that need to be wired together. For a Diminutive robot, the DC is 20. For a Tiny robot, the DC is 15. Add +1 to the DC for each external component and +2 for the remote link. Make the Craft (electronic) check. It takes a Techie 12 hours to wire a Diminutive robot or 6 hours to wire a Tiny robot.

Components	DC Modifier
Frame Shape and Locomotion 1	
Bipedal	+4
Quadruped	+3
Treads	+2
Wheels	+1
External Components 2	
Manipulators 3	+3
Audio/visual sensor	+2
Remote Range 1	
Remote control link, 100 feet	+1
Remote control link, 200 feet	+3
Remote control link, 300 feet	+5
1 Select only one of the options in this category.	
2 Select one or more of the options in this category.	
3 Necessary for a robot built to use any skill except Listen or Spot.	

Program the Robot: The Techie programs the robot as the final step. Decide how many ranks of the appropriate skill to program into the robot, up to the number of ranks the Techie has in the skill. A Techie's robot can only contain programming for one skill. Make the Computer Use check to program the robot.

The DC for the Computer Use check is 20, modified by the number of ranks the Techie wants to program into the robot (+1 to the DC for each rank). It takes 1 hour to program the robot.

Reprogramming: A robot can be reprogrammed at any time. Doing this requires 1 hour of work and a Computer Use check (DC 20 + the number of ranks programmed into the robot).

Mastercraft: At 5th level, the Techie becomes adept at creating mastercraft objects. He of she applies the mastercraft ability to one of his or her Craft skills (electronic or mechanical). From this point

on, he or she can build mastercraft objects using that skill. With Craft (electronic), the Techie can build electronic devices. With Craft (mechanical), the Techie can build mechanical devices, including weapons.

On average, it takes twice as long to build a mastercraft object as it does to build an ordinary object of the same type. The cost to build a mastercraft object is equal to the cost the components (see the appropriate Craft skill description) + the bonus provided by the mastercraft feature. A Techie can add the mastercraft feature to an existing ordinary object by making a Craft check and pay the costs as though he or she were constructing the object from scratch.

The Techie must also pay a cost in experience points equal to 25 x his or her Techie level x the bonus provided by the mastercraft feature. The XP must be paid before making the Craft check. If the expenditure of these XP would drop the Techie to below the minimum needed for his or her current level, then the XP can't be paid and the Techie can't use the mastercraft ability until he or she gains enough additional XP to remain at his or her current level after the expenditure is made.

When successfully completed, a mastercraft object provides a +1 bonus to its quality compared to an ordinary object of the same type. All weapons and armor, and certain other types of equipment, such as computers and electronic devices, can be constructed as mastercraft objects.

At 8th level, the Techie can add the mastercraft ability to another Craft skill, or he or she can improve his or her ability in the skill selected at 5th level, so that his or her mastercraft objects provide a +2 bonus.

At 10th level, the Techie adds another +1 bonus to his or her mastercraft ability. If the Techie focuses his or her ability on one Craft skill, his or her mastercraft objects now provide a +3 bonus. If the Techie already has the ability for both Craft skills, he or she chooses which one to improve to a +2 bonus. The Craft DC for a mastercraft object is the same as for a normal object of the same type, as described in the Craft skill, with the following modification: For a +1 object, add +3 to the Craft DC; for a +2 object, add +5 to the Craft DC; and for a +3 object, add +10 to the Craft DC.

PRESTIGE CLASSES

AMBASSADOR (D20 Modern)

Requirements: To qualify to become an Ambassador, a character must fulfill the following criteria.

Skills: Diplomacy 6 ranks, Knowledge (civics) 6 ranks, Knowledge (theology and philosophy) 6 ranks.

Allegiance: An Ambassador must pledge her primary allegiance to a faction, nation, world, or empire and remain a dutiful servant of this body; if the Ambassador breaks this allegiance, she loses all the benefits of the Diplomatic Immunity and Open Arms class features (see Class Features, below).

Class Information: The following information pertains to the Ambassador prestige class.

Action Points: The Ambassador gains a number of action points equal to 6 + one-half her character level, rounded down, every time she attains a new level in this class.

Class Skills: The Ambassador's class skills are as follows. Bluff (Cha), Diplomacy (Cha), Gather Information (Cha), Intimidate (Cha), Knowledge (behavioral sciences, civics, current events, history, theology and philosophy) (Int), Profession (Wis), Read/Write Language (none), Research (Int), Sense Motive (Wis), and Speak Language (none).

Skill Points at Each Level: 5 + Int modifier

Table: The Ambassador							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+0	+2	Diplomatic immunity,	+1	+1
2nd	+1	+0	+0	+3	Open arms	+1	+1
3rd	+2	+1	+1	+3	Information access	+2	+1
4th	+3	+1	+1	+4	Restricted access	+2	+2
5th	+3	+1	+1	+4	Select consuls	+3	+2

Class Features: The following class features pertain to the Ambassador prestige class.

Diplomatic Immunity: Starting at 1st level, if the Ambassador is arrested for a crime, she can make a Diplomacy check to invoke her diplomatic credentials and not suffer the usual legal penalty or punishment. The severity of the crime determines the DC of the Diplomacy check, and how authorities react if the Ambassador succeeds. See Table: Diplomatic Immunity for Diplomacy check DCs based on the severity of the crime. If one of the Ambassador's consuls (see the select consul class feature, below) is arrested for a crime and unable to secure her own release, the Ambassador may intercede on the consul's behalf. One may aid the other's Diplomacy check.

An Ambassador who routinely invokes the privilege of diplomatic immunity—either on her own behalf or to protect her selected consuls—is likely to be recalled or terminated by those she has sworn to represent.

Open Arms: The Ambassador is skilled at initiating peaceful negotiations. She may add a competence bonus equal to her Ambassador class level on all Diplomacy checks.

Table: Diplomatic Immunity			
Severity of Crime	**Examples**	**DC**	**Effect of Successful Diplomacy Check**
Class 5	Disturbing the peace, public intoxication, noninjurious traffic violation	15	–2 penalty on subsequent Diplomacy checks in that area
Class 4	Possession of controlled substance, injurious traffic violation, operating business without a license, operating a vehicle or starship without a license, assault without a deadly weapon	20	–5 penalty on subsequent Diplomacy a checks in that area
Class 3	Attempted bribery of a public official, robbery or grand theft, aiding and abetting a known felon, assault with a deadly weapon, possession of a concealed weapon	25	–10 penalty on subsequent Diplomacy checks in the area
Class 2	Murder or manslaughter, fraud, smuggling, assault against a public official, trafficking in controlled substances	30	Deportation within 2d6 hours
Class 1	Conspiracy against the government, murder of a public official, sabotage of public utilities	35	Detention pending the diplomatic action by character's affiliated government

Information Access: The Ambassador can make Gather Information checks without spending money, provided she is dealing with individuals or organizations that are helpful, friendly, indifferent, or unfriendly toward her or those she represents. Dealing with individuals or organizations that are hostile requires the Ambassador to spend money as usual when using the Gather Information skill.

Restricted Access: The Ambassador gains clearance to access restricted files or classified information from any source that recognizes her faction, organization, nation, world, or stellar empire. She gains a +5 bonus on Computer Use to retrieve information and a +5 bonus on Research checks.

Select Consuls: The Ambassador may appoint a number of individuals equal to her Reputation bonus as "consuls" or "attachés." These appointed individuals gain all the benefits of the diplomatic immunity, information access, and restricted access class features (described above). The Ambassador may revoke these privileges at any time and appoint replacement consuls as she sees fit. It takes 1d4 hours for an Ambassador to invoke or revoke a consul or attaché's privileges.

CYBERNETIC SAVANT (Gits)

Requirements: To qualify to become a Cybernetic Savant, a character must fulfill the following criteria.

Base Attack Bonus: +5.

Special: Must have a full body Prosthesis and be human (No Neurochip or Poor Souls)

Class Information: The following information pertains to the Cybernetic Savant prestige class.

Action Points: 6 + one-half character level, rounded down, every time the character attains a new level in this class.

Class Skills: The Cybernetic Savant's class skills (and the key ability for each skill) are: Demolitions (Int), Drive (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, history, popular culture, tactics) (Int), Listen (Wis), Navigate (Int), Profession (Wis), Read/Write Language (none), Speak Language (none), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 5 + Int modifier.

Table: Cybernetic Savant							
Class Level	**Base Attack Bonus**	**Fort Save**	**Ref Save**	**Will Save**	**Special**	**Defense Bonus**	**Reputation bonus**
1st	+1	+1	+1	+0	Cybernetic Rebate	+1	+0
2nd	+2	+2	+2	+0	Cybernetic Efficiency	+1	+0
3rd	+3	+2	+2	+1	Momentary boost	+2	+0
4th	+4	+2	+2	+1	Enhanced Cyberbrain protection	+2	+0
5th	+5	+3	+3	+1	Questioning Humanity	+3	+1

Class Features: The following class features pertain to the Cybernetic Savant Prestige class.

Cybernetic Rebate: Savants can handle cybernetic and cybernetic boosts better than normal cyborgs. All XP costs for cybernetics get a 20% rebate that they can put towards leveling the character. This XP must be spent in levels and not towards more cybernetics. They character must also be able to pay for the cybernetics in full before gaining the rebate.

Cybernetic Efficiency: Any attribute bonuses offers by current or future cybernetic modifications to the existing prosthetic body are increased by +1. This includes the +1 INT given to anyone with a cyberbrain.

Momentary Boost: Savants can push their prosthetic bodies greater than usual. For as many times a day as her Savant level, she can increase her Dex, Con, or Str by her Wis bonus. This ability lasts as many rounds each time as her Wis bonus. Con alters hit points and Fort saves; Dex alters defense and ranged attack; Str alters melee damage and striking. The Savant can increase only one attribute at a time and cannot increase another until the first has passed. Using this ability is a free action.

Enhanced Cyberbrain protection: The Savant at 4th level gains a +5 to all Barrier Defense DCs.

Questioning Humanity: Savants at 5th level begin to wonder if they are human anymore as their affinity for the machine increases to unprecedented levels. Were they ever human to begin with…or are their memories implanted? Could her ghost be real or a simulation? Adding fuel, Savants now can now take 10 on all Balance, Climb, Jump Tumble and any other Dex, Con, or Str based skill rolls (As you usually can't) in any situation.

Finally…Savants can now operate without needing a single organic cell in their cyberbrain. They still cannot exist for long periods in the sea of information…but now they no longer need to worry about organic degradation. As long as they maintain their bodies, they are effectively immortal.

FIELD OFFICER (D20 Modern)

Requirements: To qualify to become a Field Officer, a character must fulfill the following criteria.

Base Attack Bonus: +3.

Skills: Diplomacy 6 ranks, Knowledge (tactics) 6 ranks.

Feat: Personal Firearms Proficiency.

Class Information: The following information pertains to the Field Officer prestige class.

Action Points: The Field Officer gains a number of action points equal to 6 + one-half his character level, rounded down, every time he attains a new level in this class.

Class Skills: The Field Officer's class skills are as follows. Bluff (Cha), Computer Use (Int), Diplomacy (Cha), Gather Information (Cha), Intimidate (Cha), Knowledge (behavioral sciences, civics, history, physical sciences, tactics, theology and philosophy), Read/Write Language (none), Sense Motive (Wis), Speak Language (none).

Skill Points at Each Level: 5 + Int modifier (4 + Int modifier for nonhumans).

Table: The Field Officer							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+0	+0	+2	Leadership, Uncanny survival	+1	+1
2nd	+2	+0	+0	+3	Tactical expertise	+1	+1
3rd	+3	+1	+1	+3	August leadership	+2	+1
4th	+4	+1	+1	+4	Tactical mastery	+2	+2
5th	+5	+1	+1	+4	Commanding presence, Action trust	+3	+2

Class Features: The following class features pertain to the Field Officer prestige class.

Leadership: By providing supervision and guidance, a Field Officer can improve an ally's chances of succeeding at a skill check. Instead of making a skill check to aid another, the Field Officer makes a Diplomacy check (DC 10). He cannot take 10 or take 20 on the check. Success grants a competence bonus on the ally's skill check equal to the Field Officer's Charisma bonus or Reputation

bonus, whichever is greater. The ally must be within sight and hearing distance of the Field Officer and must be able to understand him. A Field Officer cannot use this ability on himself.

Uncanny Survival: A Field Officer can add his class level to his Defense for 1 round, once per day. (The bonus applies to the Field Officer's touch and flat-footed Defense, as well.) He must declare he is doing this at the beginning of his turn, and the Defense bonus lasts until his next round of actions.

Tactical Expertise: As a full-round action, a Field Officer can use his tactical knowledge to coordinate allies. Allies to be affected must be within sight and hearing distance of the Field Officer and must be able to understand him. The Field Officer must make a Knowledge (tactics) check with a DC equal to 15 + the number of allies affected. He cannot take 10 or take 20 on the check. If the check succeeds, all affected allies gain a competence bonus on attack rolls or a dodge bonus to Defense equal to the Field Officer's Reputation bonus. The Field Officer chooses which of the two benefits to impart and must impart the same benefit to all affected allies. The benefits last for 1 round. If the check fails, the Field Officer's allies gain no benefit, but the action is still spent. A Field Officer cannot apply the benefits of this ability to himself.

August Leadership: It works like the leadership ability (see above), except the Field Officer adds his Charisma bonus and his Reputation bonus to the ally's skill check.

Tactical Mastery: The Field Officer requires less time to direct his allies. This ability is similar to tactical expertise (see Tactical Expertise, above) but requires an attack action instead of a full-round action.

Commanding Presence: A Field Officer can use an attack action and his commanding presence to enable an ally or weaken a single foe's resolve. Enabling an ally requires an attack action and a successful Diplomacy check (DC 20). If the check succeeds, the Field Officer can negate any one of the following harmful conditions affecting a single ally: cowering, dazed, fatigued, nauseated, panicked, shaken, or stunned. The ally to be affected must be within sight and hearing distance of the Field Officer and must be able to understand him. The Field Officer cannot use this ability on himself. Weakening a foe's resolve requires an attack action and a successful Intimidate check (DC = target's level check). If the check succeeds, the target is shaken for a number of rounds equal to 1d6 + one-half the Field Officer's class level + the Field Officer's Charisma modifier. The target must be within sight and hearing distance of the Field Officer and must be able to understand him. A target that resists the Field Officer's attempt to weaken its resolve is immune to the Field Officer's use of this ability for 24 hours.

Action Trust: At 5th level, the Field Officer's mere presence inspires, safeguards, and motivates his allies. As a free action, a Field Officer may spend one of his action points to modify an ally's attack roll, skill check, ability check, level check, or saving throw result by +2d6 (applying a bonus of +2 to +12). The ally to be affected must be within sight and hearing distance of the Field Officer to gain the benefits of the Field Officer's spent action point. A Field Officer may use this ability once per round, and not on himself (he gains the normal benefits for spending an action point on himself).

Any character may transfer some or all of her action points to the Field Officer as a free action. The Field Officer must consent to the transfer, and these action points become the Field Officer's to spend as he sees fit.

"GHOST" CLASS "A" HACKER

Requirements: To qualify to become a Super Class A Hacker, a character must fulfill the following criteria. High Int and Wis scores are also useful.

Special: Must be able to use DC 42 Hacks or better.

Skills: Hack-craft, 15 ranks

Class Information: The following information pertains to the Super Class A Hacker Prestige class.

Action Points: 6 + one-half character level, rounded down, every time the Hacker attains a new level in this class.

Class Skills: The Hacker's class skills (and the key ability for each skill) are: Computer Use (Int), Craft (electronic, mechanical) (Int), Disable Device (Int), Drive (Dex), Hack-Craft (Int), Knowledge (behavioral sciences, earth and life sciences, physical sciences, popular culture, technology) (Int), Navigate (Int), Profession (Wis), Read/Write Language (none), Repair (Int), Research (Int), Speak Language (none), Spot (Wis).

Skill Points at Each Level: 10 + Int modifier.

Table: Ghost Class "A" Hacker							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+1	Hacker Portfolio	+0	+2
2nd	+1	+2	+2	+2	Jack-Up	+1	+2
3rd	+1	+2	+2	+2	Ghost affiliation	+1	+2
4th	+2	+2	+2	+2	Hack Bonus	+1	+3
5th	+2	+3	+3	+3	Super Class A Hacker	+2	+3

Class Features: The following features pertain to the Hacker prestige class.

Hacker Portfolio: Usually, a hacker only has double their Int bonus in available actual actions, regenerating half their Int bonus (rounded down) in Hack actions ever minute (10 rounds) that passes. The Ghost Hacker now has x2.5 their Int bonus in available actions.

Jack-Up: Temporarily, Super Hackers can force their brain into doing more than it can. As many times a day as the Ghost Hacker has Ghost Hacker levels, they can make a Computer Use skill at DC30 and cram a higher DC Hack into a lower slot. This can only be for Hacks they have access to. If successful, the Hack occupies a slot one lower but the Hacker must make a Will save at DC 20 or take 1 point of temporary Wis damage. If failed, the task cannot be attempted again for a full day.

Ghost affiliation: Ghost Hackers know how other Ghosts operate and can filter through memories and alter them faster than others. At 3rd level, Hack attacks to penetrate ghosts gain a +4 to penetrate Ghost Barriers and Ghost Actions last twice as long.

Hack Bonus: Your Computer Use and Hack Craft maximum rank in increased by +2. This stacks with the normal increase one receives every level. Skill points must still be spent, however.

Super Class A Hacker: An elite Super Class A Hacker is one that reaches the final evolution of cyberbrain awareness. Super Class A Hackers can take 10 in both Computer Use and Hack-Craft skills even when normally not allowed to.

Finally…as an optional rule, Super Class A Hackers can leave their cyberbrain. Super Class A Hackers can stay out their Int bonus = days.

GUN DANCER (Gits)

Poetic in their movements, flamboyant in the actions, Gun Dancers received their names not from their movements in combat but rather the ballet of gunfire from their weapons. Precision is not as much of a priority as simple numbers. Ignore accuracy; Dancers simply go for a quantity rather than quality approach to gunfire, unlike the basic Gunslinger.

Requirements: To qualify to become a Gun Dancer, a character must fulfill all the following criteria.

Base Attack Bonus: +5.

Feats: Weapon Focus (Any Personal Firearm), Two-Weapon Fighting, and Weapon Finesse

Class Information: The following information pertains to the Gun Dancer Prestige class.

Class Skills: The Gun Dancer's class skills (and the key ability for each skill) are Climb (Str), Intimidate (Cha), Jump (Str), Listen (Wis), Ride (Dex), Tumble (Dex), Balance (Dex) and Bluff (Cha), Spot (Wis)

Skill Points at Each Level: 2+ Int modifier.

Table: Gun Dancer					
Gun Dancer Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special
1st	+1	+2	+0	+0	Improved Two Weapon Fighting
2nd	+2	+3	+0	+0	Improved Personal Firearm Use.
3rd	+3	+3	+1	+1	Rapid Reload
4th	+4	+4	+1	+1	Greater Two Weapon Fighting
5th	+5	+4	+1	+1	Supreme Two Weapon Fighting

Class Features: All of the following are Class Features of the Gun Dancer prestige class.

Weapon and Armor Proficiency: Gun Dancer is proficient with all firearms.

Improved Two Weapon Fighting (Ex): Beginning at 1st Level, a Gun Dancer can fight with two firearms as if she had the Improved Two Weapon Fighting Feat. She looses this ability if using anything but Personal Firearms.

Improved Personal Firearm Use: When the Gun Dancer is using two-weapon fighting; she can use two medium firearms and wield them as light.

Rapid Reload: At 3rd level, a Gun Dancer can reload a firearm as a free action that does not provoke an attack of opportunity. When using two handguns, they both can be reloaded but it costs a move-equivalent action and provokes an attack of opportunity.

Greater Two Weapon Fighting: At 4th level, the Gun Dancer can make a third attack with her off hand weapon, albeit with a –10 penalty (before improvements for BAB).

Supreme Two-Weapon Fighting: At 5th level, Gun Dancer gains an additional attack wither her off-hand weapon. In additional to her three attacks she already has each round with her off hand weapon at penalties at 0, -5, and –10, respectively, she is also entitled to a fourth attack with her off-hand weapon at a –15 penalty.

MELEE FIGHTER (Gits Modern)

Requirements: To qualify to become a Melee Fighter, a character must fulfill the following criteria.

Base Attack Bonus: +3

Feats: Archaic Weapons Proficiency, Dodge, and Mobility

Class Information: The following information pertains to the Melee Fighter prestige class.

Action Points: Melee Fighters gain a number of action points equal to 6 plus one-half their character level, rounded down, every time they advance a level in this class.

Class Skills: The Melee Fighter's class skills are as follows: Climb (Str), Intimidate (Cha), Jump (Str), Listen (Wis), Profession (Int), Ride (Dex), Sense Motive (Wis), and Spot (Wis)

Skill Points at Each Level: 4 + Intelligence modifier.

Table: Melee Fighter							
Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation bonus
1st	+1	+1	+1	+0	Blade Defense	+1	+0
2nd	+2	+2	+2	+0	Precise Strike (+1d6)	+1	+0
3rd	+3	+2	+2	+1	Feat	+2	+0
4th	+4	+2	+2	+1	Precise Strike (+2d6)	+2	+0
5th	+5	+3	+3	+1	Feat	+3	+1

Class Features: The following features pertain to the Melee Fighter prestige class.

Blade Defense: The Melee Fighter adds her Int bonus to AC while in melee combat with another opponent. If the Melee fighter is denied her Dex bonus to AC, she looses her Int bonus to AC as well.

Precise Strike: At 2nd level, the Melee Fighter gains the ability to strike with a melee weapon, gaining a bonus +1d6 added to normal damage. She cannot attack with a weapon in her off hand but she may still gain bonuses to defense with it. Any target that is immune to critical hits cannot be struck with this extra damage. At 4th level, this damage increases to +2d6.

Feat: At 3rd and 5th level, the Melee Fighter can choose one of the following feats (They must still meet all requirements for that feat): Two Weapon Defense, Greater Weapon Focus, Two Weapon Fighting, Improved Two Weapon Fighting, Greater Two Weapon Fighting, Spring Attack, Cleave, or Great Cleave

SHADOW HUNTER (D20 Modern)

Requirements: To qualify to become a Shadow Hunter, a character must fulfill the following criteria. High Strength and Charisma scores are also useful.

Base Attack Bonus: +2

Skills: Investigate 6 ranks, Sense Motive 6 ranks, Knowledge (arcane lore) 3 ranks.

Feats: Track, and Personal Firearms Proficiency or Archaic Weapons Proficiency.

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
Table: The Shadow Hunter							
1st	+0	+1	+1	+1	Target bonus +1	+1	+0
2nd	+1	+2	+2	+2	Swift track	+2	+0
3rd	+2	+2	+2	+2	No trace, target bonus +2	+2	+0
4th	+3	+2	+2	+2	Play a hunch	+3	+0
5th	+3	+3	+3	+3	Locate target, Target bonus +3	+4	+1

Class Information: The following information pertains to the Shadow Hunter prestige class.

Action Points: Shadow Hunters gain a number of action points equal to 6 plus one-half their character level, rounded down, every time they advance a level in this class.

Class Skills: The Shadow Hunter's class skills are as follows: Bluff (Cha), Diplomacy (Cha), Gather Information (Cha), Intimidate (Cha), Investigate (Int), Knowledge (current events, popular cultures, streetwise) (Int), Listen (Wis), Move Silently (Dex), Profession (Wis), Read/ Write Language (none), Research (Int), Search (Int), Sense Motive (Wis), Speak Language (none), Spot (Wis), Survival (Wis).

Skill Points at Each Level: 5 + Intelligence modifier.

Class Features: The following features pertain to the Shadow Hunter prestige class.

Target Bonus: The Shadow Hunter, as a full-round action, may designate an individual as a target. He spends one action point to select a target, and thereafter gains a competence bonus on certain actions involving that particular target. The Shadow Hunter does not need to know the target personally and may know her only through her actions or description. The Shadow Hunter may not select a target while he or the target is in combat, and once he chooses a target, he must wait 24 hours before choosing another.

The Shadow Hunter gains the target bonus as a competence bonus on attacks against that particular target, as well as when using the following skills directly against the target, or in tracking a target: Bluff, Computer Use, Gather Information, Investigate, Listen, Research, Search, Sense Motive, and Spot. The target bonus applies to a single individual and lasts until the Shadow Hunter chooses a new target. The bonus is +1 at 1st level, +2 at 3rd, and +3 at 5th level.

Swift Track: At 2nd level, the Shadow Hunter may move at normal speed while using Track without taking the –5 penalty.

No Trace: At 3rd level, the Shadow Hunter knows how to hide his own tracks, and may, at his choice, move into "No Trace" mode. All attempts to use the Track feat against the Shadow Hunter (though not allies) treat the ground as "firm" for purposes of success. In addition, the DC of any attempts to use Computer Use, Gather Information, Investigate, and Research on matters involving the Shadow Hunter is increased by the Shadow Hunter's levels in this class.

Play a Hunch: At 4th level, the Shadow Hunter gains the ability to make a guess and be assured that it is correct. The Shadow Hunter may, as a full-round action, spend an action point to determine whether an assumption, hunch, or guess is correct. The player states the assertion and pays an action point. The GM secretly rolls percentile dice; there is a 70% +1% per character level chance of getting a response on the hunch (failure indicates merely that you are unsure if this is true or not). If the roll is a success, the player knows if the hunch is true, false, both or neither.   A "both" response is possible for vague assumptions. An "unknown" response is for questions with no immediate answer.

It may be determined that a hunch is so obvious that it does not require a roll, or that it is so vague that there is no chance for success. In these cases, the action point is not spent (though the attempt still counts as a full-round action). A hunch does not translate as a legal truth, and will not stand up in a court of law. Rather it is an obvious fact to the Shadow Hunter alone. Finding proof of an assumption would require additional work.

Locate Target: At 5th level, the Shadow Hunter gains the ability to know where his target is, if the target is in the general vicinity (100 feet of the Shadow Hunter). This ability applies only to the target, and does not reveal attitude, status, or the presence of others around the target.

SHARPSHOOTER (Gits)

Requirements: To qualify to become a Sharpshooter, a character must fulfill the following criteria. High Dexterity is also useful.

    Base Attack Bonus: +2
    Feats: Personal Firearms Proficiency, Weapon Focus (Sniper Rifle)
    Hide: 4 Ranks
    Spot: 4 Ranks

Table: Sharp Shooter							
Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation bonus
1st	+1	+1	+1	+0	Ranged Sneak Attack +1d6, Range Increase bonus +20ft / level.	+1	+0
2nd	+2	+2	+2	+0	Keen Bullets, Take Aim +2	+1	+0
3rd	+3	+2	+2	+1	Ranged Sneak Attack +2d6	+2	+0
4th	+4	+2	+2	+1	Take Aim +4	+2	+0
5th	+5	+3	+3	+1	Ranged Sneak Attack +3d6	+3	+1

    Class Information: The following information pertains to the Sharpshooter Prestige class.

    Action Points: 6 + one-half character level, rounded down, every time the character attains a new level in this class.

    Class Skills: The Sharpshooter's class skills (and the key ability for each skill) are: Demolitions (Int), Drive (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, history, popular culture, tactics) (Int), Listen (Wis), Navigate (Int), Profession (Wis), Read/Write Language (none), Speak Language (none), Spot (Wis), Survival (Wis), Swim (Str).

    Skill Points at Each Level: 4 + Int modifier.

    Class Features: The following features pertain to the Sharpshooter Prestige class.

    Weapon and Armor Proficiency: A Sharpshooter is proficient with all firearms but with no type of armor.

    Ranged Sneak Attack: Any time the Sniper's target is not aware of the sniper's existence or is denied his Dexterity Bonus to AC (Whether or not he has a dexterity bonus), the Sniper's ranged sneak attack deals extra damage. The extra damage is +1d6 at 1st level, and +1d6 every two levels after that.

    Range Increase Bonus: With each level the Sharpshooter gains, the range increments of all her projectile weapons increase by 20 feet.

    Keen Bullets: At 2nd level, all projectiles the Sharpshooter fires behaves as if they were keen weapons in addition to any other properties they may possess. This effect does not stack with other keen effects.

    Take Aim: At 4th level, the Sharpshooter gains a +2 bonus on her attack rolls against a stationary target by careful aiming. Taking aim is a full round action and if the target moves more than five feet during that period, the bonus is lost. No additional bonus exists for spending more than one round aiming. At 7th level, this bonus increases to +4. This does stack with the aim bonus from cybernetics (like Hawkeye)

SPEED DEMON (d20)

    Requirements: To qualify to become a Speed Demon, a character must fulfill the following criteria.

    Skills: Drive 6 ranks.
    Feats: Vehicle Expert.
    Other: Base Reflex save +2.
    Class Information: The following information pertains to the Speed Demon prestige class.
    Action Points: Speed Demons gain a number of action points equal to 6 plus one-half their character level, rounded down, every time they advance a level in this class.
    Class Skills: The Speed Demon's class skills are as follows: Balance (Dex), Concentration (Con), Craft (electronic, mechanical) (Int), Disable Device (Dex), Drive (Dex), Knowledge (current events,

popular culture, technology) (Int), Listen (Wis), Profession (Wis), Navigate (Int), Pilot (Dex), Read/Write Language (none), Repair (Int), Speak Language (none), Tumble (Dex).

      Skill Points at Each Level: 5 + Intelligence modifier.

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+2	+0	Uncanny dodge X, Hit the weak spot	+1	+0
2nd	+1	+0	+3	+0	Need for speed	+1	+0
3rd	+2	+1	+3	+1	Nursing the turns	+2	+1
4th	+3	+1	+4	+1	Leadfoot	+2	+1
5th	+3	+1	+4	+1	Redlining the needle	+3	+1

Table: The Speed Demon

      Class Features: The following features pertain to the Speed Demon advanced class.

      Uncanny Dodge X: The Speed Demon gains the ability of Uncanny Dodge, or increases the potency of this ability if she already has it. If the Speed Demon does not have Uncanny Dodge 1, she gains Uncanny Dodge 1: She retains her Dexterity bonus to Defense (if any) regardless of being caught flat-footed or struck by a hidden attacker. (She still loses her Dexterity bonus to Defense if she's immobilized.) If the Speed Demon already has Uncanny Dodge 1, she gains Uncanny Dodge 2: She can no longer be flanked; she can react to opponents on opposite sides of herself as easily as she can react to a single attacker. If the Speed Demon already has Uncanny Dodge 2, then she gains no further benefit from this ability.

      Hit the Weak Spot: At 2nd level, the Speed Demon knows enough about vehicles to know the best way to damage and disable them. Whether using a weapon or another vehicle, the Speed Demon ignores the first 5 points of hardness when attacking a vehicle.

      Need For Speed: At 4th level, the Speed Demon can improve the top speed of a ground or water vehicle that she controls. The vehicle's top speed is increased by 25%.

      Nursing the Turns: At 5th level, the Speed Demon can get better performance out of a vehicle, reducing some of its penalties. The Speed Demon may spend an action point to negate the Maneuver penalty of a vehicle or Initiative penalty of a vehicle she controls until the beginning of the Speed Demon's next turn.

      Leadfoot: At 7th level, the Speed Demon gains a +2 competence bonus on initiative checks when controlling a vehicle.

      Redlining the Needle: At 8th level, the Speed Demon treats Check/Roll Modifiers for All-Out and Highway Speeds as Street Speeds (reduced to –1 as opposed to –2 and –4, respectively).

STREET WARRIOR (D20 Modern)

      Requirements: To qualify to become a Street Warrior, a character must fulfill the following criteria.

      Base Attack Bonus: +3.

      Skills: Knowledge (streetwise) 6 ranks.

      Feats: Streetfighting, Brawl.

      Other: Before or upon taking the Street Warrior advanced class, the Street Warrior must have an allegiance to some urban area or group. This could include a particular neighborhood or organization that would be suitable for an urban-oriented character.

      Class Information: The following information pertains to the Street Warrior advanced class.

      Action Points: Street Warriors gain a number of action points equal to 6 plus one-half their character level, rounded down, every time they advance a level in this class.

      Class Skills: The Street Warrior's class skills are as follows: Bluff (Cha), Diplomacy (Cha), Disable Device (Int), Drive (Dex), Gamble (Wis), Gather Information (Cha), Hide (Dex), Intimidate (Cha), Investigate (Int), Jump (Str), Knowledge (popular culture, streetwise, tactics) (Int), Move Silently (Dex), Profession (Wis), Sense Motive (Wis), Spot (Wis), Survival (Wis)

      Skill Points at Each Level: 5 + Intelligence modifier.

      Class Features: The following features pertain to the Street Warrior advanced class.

Urban Survival: At 1st level, the Street Warrior gains a +4 competence bonus on Survival checks in urban areas, which includes the ability to follow tracks, hunt feral animals, find (or lose) individuals in urban maze, find safe places to crash, and avoid hazards peculiar to a city environment.

Table: The Street Warrior							
Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+1	+2	+0	+0	Urban survival, Improvised weapons	+1	+1
2nd	+2	+3	+0	+0	Street cred	+1	+1
3rd	+3	+3	+1	+1	Improved streetfighting	+2	+1
4th	+4	+4	+1	+1	Weapon specialization	+2	+2
5th	+5	+4	+1	+1	Improvised weapon damage, Advanced streetfighting	+3	+2

Improvised Weapons: the Street Warrior becomes an expert at using improvised weapons. The Street Warrior does not take a –4 penalty on attack rolls when wielding an improvised weapon.

Street Cred: At 2nd level, the Street Warrior adds his Reputation bonus to Charisma skill checks in his home location, or in situations involving others of his chosen allegiance(s). These skills include Bluff, Diplomacy, Gather Information, and Intimidate.

Improved Streetfighting: The extra damage provided by the Streetfighting feat increases to 1d4+2.

Weapon Specialization: At 4th level, the Street Warrior gains weapon specialization with a specific melee weapon (including unarmed strike). The weapon must be one in which the Street Warrior has a Weapon Focus feat. He gets a +2 bonus on all damage rolls with the chosen weapon. Should the Street Warrior not have a Weapon Focus, he does not get this ability until such a time that he gains Weapon Focus.

Improvised Weapon Damage: At 5th level, the Street Warrior's attacks with improvised weapons deal more damage. He treats an improvised weapon as one size category larger than it is for the purpose of determining the damage it deals.

Advanced Streetfighting: The extra damage provided by the Streetfighting feat increases to 1d4+4.

SUPER HACKER (GITS)

Requirements: To qualify to become a Super Hacker, a character must fulfill the following criteria. High Strength and Charisma scores are also useful.

Special: Must be able to use DC 34 Hacks or better.

Skills: Hack-craft, 8 ranks

Class Information: The following information pertains to the Super Hacker Prestige class.

Action Points: 6 + one-half character level, rounded down, every time the Hacker attains a new level in this class.

Table: SuperHacker							
Class Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+1	Improved Hack Repertoire or Hack Attack Increase	+0	+2
2nd	+1	+2	+2	+2	Improved Hack Repertoire or Hack Attack Increase	+1	+2
3rd	+1	+2	+2	+2	Improved Hack Repertoire or Hack Attack Increase	+1	+2
4th	+2	+2	+2	+2	Improved Hack Repertoire or Hack Attack Increase	+1	+3
5th	+2	+3	+3	+3	Improved Hack Repertoire or Hack Attack Increase	+2	+3

Class Skills: The Hacker's class skills (and the key ability for each skill) are: Computer Use (Int), Craft (electronic, mechanical) (Int), Disable Device (Int), Drive (Dex), Hack-Craft (Int), Knowledge (behavioral sciences, earth and life sciences, physical sciences, popular culture, technology) (Int), Navigate

(Int), Profession (Wis), Read/Write Language (none), Repair (Int), Research (Int), Speak Language (none), Spot (Wis).

Skill Points at Each Level: 7 + Int modifier.

Class Features: The following features pertain to the Hacker class.

Special: The SuperHacker can choose one of two options per level.

Improved Hack Repertoire: A Hacker is simply better with her Cyberbrain than others. She can do more with it. Her capacity for hacking in increased. Her available Hacks are one row lower on the Hack Action table (Eg Int 14 now becomes Int 16 for the purposes of the number of Hack actions available but the character does not gain the additional attribute bonus). This is a permanent increase. Increasing one's Int later keeps the Hack Action row one lower. This ability stacks with other abilities that increase the hacking ability (like the CCSS ability) of the character.

Hack Attack Increase: The Hacker is now faster with Barrier Breaking and Hack Actions. The Character's number of Hack Attacks is one row lower (not necessarily one number higher) on the Hack Table. (Eg: Int 18 or 19 has 2 actions. Now the actions increase to 3. However, this ability must be taken two more times before it increases to 4). This is a permanent increase. Increasing one's Int later keeps the Number Hack Attacks row one lower. This ability stacks with other abilities that increase the hacking ability (like the feat of the same name) of the character.

WEAPON MASTER (D20)

Requirements: To qualify to become a Weapon Master, a character must fulfill the following criteria. High Dexterity is also useful.

Base Attack Bonus: +5

Special: Character chooses a specific weapon. She must be proficient with the weapon of choice and have Weapon Focus for it as well. Dex 13+

Feats: Combat Reflexes, Expertise.

Intimidate: 4 Ranks

Class Information: The following information pertains to the Weapon Master Prestige class.

Action Points: 6 + one-half character level, rounded down, every time the character attains a new level in this class.

Class Skills: The Weapon Master's class skills (and the key ability for each skill) are: Intimidate (Cha), Jump (Str), Knowledge (current events, history, popular culture, tactics) (Int), Listen (Wis), Navigate (Int), Profession (Wis), Read/Write Language (none), Sense Motive (Wis) Speak Language (none), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 2 + Int modifier.

Table: Weapon Master							
Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation bonus
1st	+1	+1	+1	+0	Massive Damage 1/day/level	+1	+0
2nd	+2	+2	+2	+0	Increased Multiplier 1/day	+1	+0
3rd	+3	+2	+2	+1	Superior Combat Focus	+2	+0
4th	+4	+2	+2	+1	Increased Multiplier 2/day	+2	+0
5th	+5	+3	+3	+1	Superior Combat Reflexes	+3	+1

Class Features: The following features pertain to the Weapon Master Prestige class.

Massive Damage: You can choose to maximize damage from a weapon 1/day per level of Weapon Master with the weapon of choice. If the weapon deals 1d8 points of damage, it deals 8, not including bonuses from strength or added dice damage (like from Sneak Attack). This ability cannot be used if a critical hit is successfully scored.

Increased Multiplier: Once a day at 2nd level, twice at 4th, the Weapon master can increase the damage multiplier of the weapon of choice if a critical hit is successfully scored. This ability must be used before any damage dice is rolled.

Superior Weapon Focus: Stacking with any existing Weapon Focus bonus, this adds an additional +1 to all attack rolls with the weapon of choice.

Superior Combat Reflexes: This ability enables you to make a total number of attacks of opportunity in your round equal to your Dexterity bonus plus your Wisdom Modifier.

CAREER PATH

The Career path actually falls under the direction of the Game Master and not the Players. The GM must decide how the game will be played—which path the game will take. Since the Players (assuming more than one) will be together as a team, they must all choose the same Career Path. The GM may wish, to challenge herself, to have the group chose their own path, as long as they are all the same. To make them different means the group would have different careers, and thus have no reason to work together. This is not the path the characters were before but what they are doing when the game begins. The GM may elect each PC to choose their own career and have them move into a new unified one as the game begins, but they receive no benefits from their past careers, only the new one. These benefits take effect as the game is played.

CORPORATE

Being tied to a corporation brings many benefits. One has access to the top technology. One can flaunt power unprecedented. However, when one joins a corporation, they seldom can ever leave. Servitude requires unflinching loyalty under a massive hierarchal structure. Seldom are characters independent. Corporations always want to know where their money is being invested. Uniforms are mandatory. Tasks include mostly escort and protection of important corporate heads. They may also be assigned retrieval jobs to bring back important information or rival company defectors.

Benefits: Cybernetics gain free periodic servicing. May access mission specific equipment (no more than +10% of groups total XP Value). Player may also take a 25% discount to all cybernetics under condition that the player sign a contract with the corporation, demanding all discounted purchased be returned if the Player were ever to leave the corporation. Group must be all tied to the same corporation. Players also gain access to the corporation's information network.

LAW ENFORCEMENT

The players are members of an elite SWAT or investigation division. One Player may be promoted to a higher rank to control the group or they can all answer to a Lieutenant. There will always be authority above. Jobs include primarily investigation and apprehension. The GM should choose a division the players would be under. They may work for Treasury or Cybercrime or the basics (Homicide, Drug Enforcement, etc).

Benefits: +1 level Contact Advantage (If the PC already has a 200 XP, contact, it becomes a 400 XP Advantage for free, etc). May access mission specific equipment (no more than +15% of groups total XP Value).

MERC

Mercenaries are independent military groups with no affiliation to any government of sovereignty. They answer only to the almighty dollar and can find their work from the jungles of South America to the urban decay of New Tokyo. They sport the highest quality of cybernetics and weaponry although full body prosthetics are somewhat rarer. They have a commander (PC or not) that accepts the jobs and passes it to the group. They have to be responsible for every facet of their group—from buying weapons, the purchasing food.

Benefits: Commander must be old enough to receive the Seasoned advantage, which she gets free. Group gains an Ally and an Enemy of equal value free.

MILITARY

The group is either part of a larger squad or a crack unit. They operate mostly outside of normal borders, sometimes on the other side of the planet or maybe across the sea. They may be called to quell unrest in Japan, but this should be a rarity. Refer to the SDF section for more information.

Benefits: Full servicing for all cybernetics. Access to mission specific equipment (no more than +15% of groups total XP value.

PUBLIC SECURITY

The group works for the one of the sections of Public Security. They could answer to Aramaki in Section 9 or one of the lesser-known sections (some are unaccounted for so a GM could invent it). They must understand the chain of command and respect it at all times. They must follow the charter of Public Security and the specific Section they are employed under. This means they operate mostly within the jurisdiction of Japan.

Benefits: Cybernetics gain free periodic servicing. Access to all known weaponry in combat loadout (all personal weapons must still be purchased). May access mission specific equipment (no more than +10% of groups total XP Value). Player may also take a 25% discount to all cybernetics under condition that the player sign a contract with Public Security, demanding all discounted purchased be returned to the Player were ever to leave Public Security. Refer to the Public Security Section for more information.

STREET GANG

Members are a complete gang or members of a larger group. They are selfish—only dealing with the power of their own gang and the occupation of their turf. They may operate from a front, which may or may not turn a profit. Jobs are usually ones players make up themselves. They may ally to the Yakuza in a minor degree. They fight with other gangs and try to keep off the radar of the police or Public Security.

Benefits: Group gets a +500 XP Ally Advantage on top of any other advantages they have.

YAKUZA

The group work for one of the many organized crime syndicates around Japan. Their loyalty may be in question, but their obedience must be absolute. They may operate from a front—a location devoid of suspicion (a bar, a store, etc) where they receive missions from their boss. These can include protection of their hierarchy to attacks on other organizations.

Benefits: 15% off all equipment purchases except for cybernetics.

NEW SKILLS

SKILL		ABILITY	UNTRAINED	ACTION
Computer Use		Int	Yes	Special
Craft	chemical	Int	No	Special
	electronic	Int	No	Special
	mechanical	Int	No	Special
	pharmaceutical	Int	No	Special
	structural	Int	Yes	Special
	visual art	Int	Yes	Special
	writing	Int	Yes	Special
Demolitions		Int	No	Full / Special
Drive		Dex	Yes	Move
Gamble		Wis	Yes	Special
Hackcraft		Int	Yes	Special
Knowledge		Int	No	React or Full
Navigate		Int	Yes	Full / Special
Pilot		Dex	No	Move
Read / Write Language		None	No	--
Repair		Int	No	Full / Special
Research		Int	Yes	Special
Treat Injury		Wis	Yes	Special

COMPUTER USE (Int)

Check: Most normal computer operations don't require a Computer Use check (though a character might have to make a Research check; see the Research skill description). However, searching an unfamiliar network for a particular file, writing computer programs, altering existing programs to perform differently (better or worse), and breaking through computer security are all relatively difficult and require skill checks.

In the world of Ghost in the Shell, it no longer deals with the typing of keyboards and the reading of computer screens but in the instantaneously transfer of information from one area to the next. It deals with all forms of hacking, into computers and cyberbrains. In the world of Ghost in the Shell, it's as important a skill to all involved as Hide is to a Rogue in D&D.

Special: A character can take 10 when using the Computer Use skill only when doing regular work. A character cannot take 10 or 20 with Barrier actions. A character can take 20 in some cases, but

not in those that involve a penalty for failure. There are several feats and classes that increase this skill. Refer to the Hacking section for details beyond what is explained here.

Time: Most Computer Use checks require at least a full-round action. The GM may determine that some tasks require several rounds, a few minutes, or longer, as described above.

CRAFT (chemical) (Int) Trained Only

This skill allows a character to mix chemicals to create acids, bases, explosives, and poisonous substances.

Acids and Bases: Acids are corrosives substances. Bases neutralize acids but do not deal damage. A base of a certain type counteracts an acid of the same type or a less potent type.

		Craft DCs		
Type of Acid	**Purchase price**	**Acid**	**Base**	**Time**
Mild (1d6/1d10) [1]	70	15	10	1 min.
Potent (2d6/2d10)	200	20	15	30 min.
Concentrated (3d6/3d10)	450	30	20	1 hr.
1 The dice rolls in parentheses are typical contact damage/immersion damage caused per round of immersion.				

Explosives: Building an explosive from scratch is dangerous. If the Craft (chemical) check fails, the raw materials are wasted. If the check fails by 5 or more, the explosive compound detonates as it is being made, dealing half of its intended damage to the builder and anyone else in the burst radius.
If the check succeeds, the final product is a solid material, about the size of a brick. An explosive compound does not include a fuse or detonator. Connecting a fuse or detonator requires a Demolitions check.

Type of Scratch-Built Explosive	**Purchase Price**	**Craft DC**	**Reflex DC (save for half damage)**	**Time**
Improvised (1d6/5 feet) [1]	40	10	10	1 round
Simple (2d6/5 feet)	200	15	12	10 min.
Moderate (4d6/10 feet)	650	20	12	1 hr.
Complex (6d6/15 feet)	2000	25	15	3 hr.
Powerful (8d6/20 feet)	9000	30	15	12 hr.
Devastating (10d6/25 feet)	35000	35	18	24 hr.
1 The figures in parentheses are typical damage/burst radius for each type of explosive.				

Scratch built explosives deal concussion damage.

Poisonous Substances: Solid poisons are usually ingested. Liquid poisons are most effective when injected directly into the bloodstream. Gaseous poisons must be inhaled to be effective. The table below summarizes the characteristics of various poisons.

Save DC: The Difficulty Class of the Fortitude save to negate the effects of the poison.

Initial Damage: The damage a character takes immediately upon failing his or her Fortitude save.

Secondary Damage: The damage a character takes after 1 minute of exposure to the poison if the character fails a second saving throw. Ability score damage is temporary, unless marked with an asterisk, in which case the damage is permanent ability drain. Unconsciousness lasts for 1d3 hours, and paralysis lasts 2d6 minutes.

Purchase Price: To obtain the raw materials to craft the poison, or to purchase one bottle of solid or liquid poison or one high-pressure cylinder of gaseous poison. A bottle holds four doses, while a cylinder holds enough gas to fill a 10-foot-radius area.

Restriction: The restriction rating for the poison, if any, and the appropriate black market purchase modifier. (+1 = +10%, +2 = +20%, +3 = +30%, +4 = +40%). Apply this modifier to the purchase price when acquiring the poison on the black market.

Craft DC: The DC of the Craft check to create a quantity of the poison.

Time: The amount of time required for the Craft check.
If the Craft check succeeds, the final product is a synthesized solid or liquid poison stored in a bottle (containing 4 doses) or a gas stored in a pressurized cylinder. When released, the gas is sufficient to fill a 10-foot-radius area and takes 1 round to fill the area.

Special: A character without a chemical kit takes a –4 penalty on Craft (chemical) checks.
A character with the Builder feat gets a +2 bonus on all Craft (chemical) checks.

Poison	Type	Save DC	Initial Damage	Secondary Damage	Purchase Price	Restriction	Craft DC	Time
Arsenic	Ingested	15	1d4 Str	2d4 Con	90	Res (+2)	24	4 hr.
Atropine	Injury	13	1d6 Dex	1d6 Str	12	Res (+2)	14	1 hr.
Belladonna (plant)	Injury	18	1d6 Str	2d6 Str	300	Lic (+1)	n/a	n/a
Blue vitriol	Injury	12	1d2 Con	1d2 Con	12	Res (+2)	9	1 hr.
Blue-ringed octopus venom	Injury	15	1d4 Con	1d4 Con	300	Lic (+1)	n/a	n/a
Chloral hydrate	Ingested	18	1d6 Dex	Unconsciousness 1d3 hours	12	Res (+2)	28	8 hr.
Chloroform[1]	Inhaled	17	Unconsciousness 1d3 hours	—	90	Res (+2)	24	4 hr.
Curare (plant)	Injury	18	2d4 Dex	2d4 Wis	400	Res (+2)	n/a	n/a
Cyanide	Injury	16	1d6 Con	2d6 Con	400	Mil (+3)	31	15 hr.
Cyanogen	Inhaled	19	1d4 Dex	2d4 Con	150	Mil (+3)	28	8 hr.
DDT	Inhaled	17	1d2 Str	1d4 Str	90	Lic (+1)	20	4 hr.
Knockout gas	Inhaled	18	1d3 Dex	Unconsciousness 1d3 hours	200	Res (+2)	26	8 hr.
Lead arsenate (gas)	Inhaled	12	1d2 Str	1d4 Con	40	Res (+2)	17	2 hr.
Lead arsenate (solid)	Ingested	12	1d2 Con	1d4 Con	40	Res (+2)	18	2 hr.
Mustard gas	Inhaled	17	1d4 Con	2d4 Con	200	Mil (+3)	26	8 hr.
Paris green (gas)	Inhaled	14	1d2 Con	1d4 Con	90	Res (+2)	20	4 hr.
Paris green (solid)	Ingested	14	1d4 Con	1d4 Con	90	Res (+2)	24	4 hr.
Puffer poison (fish)	Injury	13	1d6 Str	Paralysis 2d6 minutes	260	Lic (+1)	n/a	n/a
Rattlesnake venom	Injury	12	1d6 Con	1d6 Con	200	Lic (+1)	n/a	n/a
Sarin nerve gas	Inhaled	18	1d4 Con	2d4 Con	500	Illegal (+4)	30	15 hr.
Scorpion/tarantula venom	Injury	11	1d2 Str	1d2 Str	200	Lic (+1)	n/a	n/a
Strychnine	Injury	19	1d3 Dex	2d4 Con	90	Res (+2)	23	4 hr.
Tear gas	Inhaled	15	Nauseated 1d6 rounds	—	90	Res (+2)	21	4 hr.
VX nerve gas	Inhaled	22	1d6 Con	2d6 Con	2000	Illegal (+4)	42	48 hr.

1 Chloroform gives off vapor that causes unconsciousness. Applying chloroform to an unwilling subject requires a successful grapple check and pin.

N/a: Certain poisons can't be made with the Craft skill. Instead, such a poison must be obtained by extracting it from the creature in question.

C R A F T (electronic) (Int) Trained Only

This skill allows a character to build electronic equipment from scratch, such as audio and video equipment, timers and listening devices, or radios and communication devices.

When building an electronic device from scratch, the character describes the kind of device he or she wants to construct; then the Gamemaster decides whether the device is simple, moderate, complex, or advanced compared to current technology.

Special: A character without an electrical tool kit takes a –4 penalty on Craft (electronic) checks.

A character with the Builder feat gets a +2 bonus on all Craft (electronic) checks.

Type of Scratch-Built Electronics (Examples)	Purchase Price	Craft DC	Time
Simple (timer or detonator)	70	15	1 hr.
Moderate (radio direction finder, electronic lock)	150	20	12 hr.
Complex (cell phone)	500	25	24 hr.
Advanced (computer)	3000	30	60 hr.

C R A F T (mechanical) (Int) Trained Only

This skill allows a character to build mechanical devices from scratch, including engines and engine parts, weapons, armor, and other gadgets. When building a mechanical device from scratch, the character describes the kind of device he or she wants to construct; then the Gamemaster decides if the device is simple, moderate, complex, or advanced compared to current technology.

Type of Scratch-Built Mechanical Device (Examples)	Purchase Price	Craft DC	Time
Simple (tripwire trap)	30	15	1 hr
Moderate (engine component, light armor)	200	20	12 hr.
Complex (automobile engine, 9mm autoloader handgun)	600	25	24 hr.
Advanced (jet engine)	1800	30	60 hr.

Special: A character without a mechanical tool kit takes a –4 penalty on Craft (mechanical) checks. A character with the Builder feat gets a +2 bonus on all Craft (mechanical) checks.

C R A F T (pharmaceutical) (Int) Trained Only

This skill allows a character to compound medicinal drugs to aid in recovery from treatable illnesses. A medicinal drug gives a +2 circumstance bonus on Fortitude saves made to resist the effects of a disease. The Craft (pharmaceutical) check is based on the severity of the disease to be countered as measured by the DC of the Fortitude save needed to resist it.

Special: A character without a pharmacist kit takes a –4 penalty on Craft (pharmaceutical) checks. A character with the Medical Expert feat gets a +2 bonus on all Craft (pharmaceutical) checks.

Disease Fortitude Save DC	Purchase Price	Craft DC	Time
14 or lower	30	15	1 hr.
15–18	120	20	3 hr.
19–22	450	25	6 hr.
23 or higher	1800	30	12 hr.

C R A F T (structural) (Int)

This skill allows a character to build wooden, concrete, or metal structures from scratch, including bookcases, desks, walls, houses, and so forth, and includes such handyman skills as plumbing, house painting, drywall, laying cement, and building cabinets.

Type of Scratch-Built Structure (Examples)	Purchase Price	Craft DC	Time
Simple (bookcase, false wall)	30	15	12 hr.
Moderate (catapult, shed, house deck)	120	20	24 hr.
Complex (bunker, domed ceiling)	480	25	60 hr.
Advanced (house)	2000	30	600 hr.

When building a structure from scratch, the character describes the kind of structure he or she wants to construct; then the Gamemaster decides if the structure is simple, moderate, complex, or advanced in scope and difficulty.

Special: A character without a mechanical tool kit takes a –4 penalty on Craft (structural) checks. A character with the Builder feat gets a +2 bonus on all Craft (structural) checks.

C R A F T (visual art) (Int)

This skill allows a character to create paintings or drawings, take photographs, use a video camera, or in some other way create a work of visual art. When attempting to create a work of visual art, the character simply makes a Craft (visual art) check, the result of which determines the quality of the work. Unless the effort is particularly elaborate or the character must acquire an expensive piece of equipment, the basic components have a purchase price of $30.

Creating a work of visual art requires at least a full-round action, but usually takes an hour, a day, or more, depending on the scope of the project.

Special: A character with the Creative feat gets a +2 bonus on all Craft (visual art) checks.

Skill Check Result	Effort Achieved
9 or lower	Untalented amateur
10–19	Talented amateur
20–24	Professional
25–30	Expert
31 or higher	Master

C R A F T (writing) (Int)

This skill allows a character to create short stories, novels, scripts and screenplays, newspaper articles and columns, and similar works of writing. When creating a work of writing, the player simply makes a Craft (writing) check, the result of which determines the quality of the work.

Creating a work of writing requires at least 1 hour, but usually takes a day, a week, or more, depending on the scope of the project.

Special: A character with the Creative feat gets a +2 bonus on all Craft (writing) checks.

Skill Check Result	Effort Achieved
9 or lower	Untalented amateur
10–19	Talented amateur
20–24	Professional
25–30	Expert
31 or higher	Master

D E M O L I T I O N S (Int) Trained Only

Check: Setting a simple explosive to blow up at a certain spot doesn't require a check, but connecting and setting a detonator does. Also, placing an explosive for maximum effect against a structure calls for a check, as does disarming an explosive device.

Set Detonator: Most explosives require a detonator to go off. Connecting a detonator to an explosive requires a Demolitions check (DC 10). Failure means that the explosive fails to go off as planned. Failure by 10 or more means the explosive goes off as the detonator is being installed.

A character can make an explosive difficult to disarm. To do so, the character chooses the disarm DC before making his or her check to set the detonator (it must be higher than 10). The character's DC to set the detonator is equal to the disarm DC.

Place Explosive Device: Carefully placing an explosive against a fixed structure (a stationary, unattended inanimate object) can maximize the damage dealt by exploiting vulnerabilities in the structure's construction.

The GM makes the check (so that the character doesn't know exactly how well he or she has done). On a result of 15 or higher, the explosive deals double damage to the structure against which it is placed. On a result of 25 or higher, it deals triple damage to the structure. In all cases, it deals normal damage to all other targets within its burst radius.

Disarm Explosive Device: Disarming an explosive that has been set to go off requires a Demolitions check. The DC is usually 10, unless the person who set the detonator chose a higher disarm DC. If the character fails the check, he or she does not disarm the explosive. If the character fails by more than 5, the explosive goes off.

Special: A character can take 10 when using the Demolitions skill, but can't take 20. A character with the Cautious feat and at least 1 rank in this skill gets a +2 bonus on all Demolitions checks. A character without a demolitions kit takes a –4 penalty on Demolitions checks.

Making an explosive requires the Craft (chemical) skill. See that skill description for details.

Time: Setting a detonator is usually a full-round action. Placing an explosive device takes 1 minute or more, depending on the scope of the job.

D R I V E (Dex)

Check: Routine tasks, such as ordinary driving, don't require a skill check. Make a check only when some unusual circumstance exists (such as inclement weather or an icy surface), or when the character is driving during a dramatic situation (the character is being chased or attacked, for example, or is trying to reach a destination in a limited amount of time). When driving, the character can attempt simple maneuvers or stunts. See Driving a Vehicle for more details.

Try Again?: Most driving checks have consequences for failure that make trying again impossible.

Special: A character can take 10 when driving, but can't take 20. A character with the Vehicle Expert feat gets a +2 bonus on all Drive checks. There is no penalty for operating a general-purpose motor vehicle. Other types of motor vehicles (heavy wheeled, powerboat, sailboat, ship, and tracked) require the corresponding Surface Vehicle Operation feat, or the character takes a –4 penalty on Drive checks.

Time: A Drive check is a move action.

G A M B L E (Wis)

Check: To join or start a game, a character must first pay a stake. The character sets the purchase price of the stake if he or she starts the game, or the GM sets it if the character joins a game. Stakes run from penny-ante ($20) to astronomical ($10 000). The character's Gamble check is opposed by the Gamble checks of all other participants in the game. If there are many characters participating, the GM can opt to make a single roll for all of them, using the highest Gamble skill modifier among them and adding a +2 bonus to the check.

If the character beats all other participants, he or she wins.

Try Again?: No, unless the character wants to put up another stake.

Special: A character can't take 10 or take 20 when making a Gamble check. A character with the Confident feat gets a +2 bonus on all Gamble checks.

Time: A Gamble check requires 1 hour.

HACKCRACFT (Int)

The Normal citizens of the world, never try to disturb the status quo. For those attempting to alter the world, there is HackCraft. HackCraft epitomizes all the talent of the Hacker. After breaking through barriers, HackCraft takes over and starts fishing around, altering and deleting. It is the skill used to accomplish all the Hack Action at the back of this book.

Check: HackCraft is used for all Hacking Actions as well as checks to identify a specific Hack. The DCs for Hackcraft checks relating to various tasks are summarized on the table above. One must be aware they are being attacked to make a Hackcraft check.

Special: A character cannot take neither 10 nor 20 with Hack Craft

Time: Hack Craft times depend on the action being attempted (se later).

Synergy: If you have 5 or more ranks in Computer Use, you get a +2 bonus on Hackcraft checks.

NOTE: Hackcraft is neither a trained nor a unique skill. It is suggested that everyone take one rank in it. This removes the –4 penalty and offers up the synergy bonus from Computer use (which everyone should have at least 5 ranks in anyway). This gives everyone the capacity for at least limited hacking, not just the Hackers themselves. This is a staple of this setting.

Hackcraft DC	Task
10 + ¼ attack Hack DC (round up)	To identify a hack attack after the effect has passed and its presence is known. Full round action.
20	Identify a virus composition (its effects) when it has been located. Full minute action.
20 + Barrier Level	Identify a Barrier difficulty and its defense. Roll for each level. Full minute action. One must penetrate one barrier to find out what is underneath.
20 + ½ attack Hack DC	Identify a hack type as it is being attempted. One must be aware of the attempt.
25	Identify a computer virus, Trojan horse, or toy bomb.
30 or higher	Understand a strange or unique AI or

KNOWLEDGE (Int) Trained Only

This skill encompasses several categories, each of them treated as a separate skill. These categories are identified and defined below.

The number of Knowledge categories is kept purposely finite. When trying to determine what Knowledge skill a particular question or field of expertise falls under, use a broad interpretation of the existing categories. Do not arbitrarily make up new categories.

Check: A character makes a Knowledge check to see if the character knows something. The DC for answering a question within the character's field of study is 10 for easy questions, 15 for basic questions, and 20 to 30 for tough questions. Appraising the value of an object is one sort of task that can be performed using Knowledge. The DC depends on how common or obscure the object is. On a success, the character accurately identifies the object's purchase DC. If the character fails, he or she thinks it has a purchase DC 1d2 higher or lower (determine randomly) than its actual value. If the character fails by 5 or more, he or she thinks it has a purchase DC 1d4+2 higher or lower than its actual value. The GM may make the Knowledge roll for the character, so he or she doesn't know whether the appraisal is accurate or not. The fourteen Knowledge categories, and the topics each one encompasses, are as follows.

Arcane Lore: The occult, magic and the supernatural, astrology, numerology, and similar topics.

Art: Fine arts and graphic arts, including art history and artistic techniques. Antiques, modern art, photography, and performance art forms such as music and dance, among others.

Behavioral Sciences: Psychology, sociology, and criminology.

Business: Business procedures, investment strategies, and corporate structures. Bureaucratic procedures and how to navigate them.

Civics: Law, legislation, litigation, and legal rights and obligations. Political and governmental institutions and processes.

Current Events: Recent happenings in the news, sports, politics, entertainment, and foreign affairs.

Earth and Life Sciences: Biology, botany, genetics, geology, and paleontology. Medicine and forensics.

History: Events, personalities, and cultures of the past. Archaeology and antiquities.

Physical Sciences: Astronomy, chemistry, mathematics, physics, and engineering.

Popular Culture: Popular music and personalities, genre films and books, urban legends, comics, science fiction, and gaming, among others.

Streetwise: Street and urban culture, local underworld personalities and events.

Tactics: Techniques and strategies for disposing and maneuvering forces in combat.

Technology: Current developments in cutting-edge devices, as well as the background necessary to identify various technological devices.

Theology and Philosophy: Liberal arts, ethics, philosophical concepts, and the study of religious faith, practice, and experience.

Try Again?: No. The check represents what a character knows, and thinking about a topic a second time doesn't let the character know something he or she never knew in the first place.

Special: An untrained Knowledge check is simply an Intelligence check. Without actual training, a character only knows common knowledge about a given subject. A character can take 10 when making a Knowledge check, but can't take 20. A character with the Educated feat gets a +2 bonus on any two types of Knowledge checks. The GM may decide that having 5 or more ranks in a specific Knowledge skill provides a character with a +2 synergy bonus when making a related skill check.

Time: A Knowledge check can be a reaction, but otherwise requires a full-round action.

NAVIGATE (Int)

Check: Make a Navigate check when a character is trying to find his or her way to a distant location without directions or other specific guidance. Generally, a character does not need to make a check to find a local street or other common urban site, or to follow an accurate map. However, the character might make a check to wend his or her way through a dense forest or a labyrinth of underground storm drains. For movement over a great distance, make a Navigate check. The DC depends on the length of the trip. If the character succeeds, he or she moves via the best reasonable course toward his or her goal. If the character fails, he or she still reaches the goal, but it takes the character twice as long (the character loses time backtracking and correcting his or her path). If the character fails by more than 5, the or she travels the expected time, but only gets halfway to his or her destination, at which point the character becomes lost. A character may make a second Navigate check (DC 20) to regain his or her path. If the character succeeds, he or she continues on to his or her destination; the total time for the trip is twice the normal time. If the character fails, he or she loses half a day before the character can try again. The character keeps trying until he or she succeeds, losing half a day for each failure.

Length of Trip	DC
Short (a few hours)	20
Moderate (a day or two)	22
Long (up to a week)	25
Extreme (more than a week)	28

When faced with multiple choices, such as at a branch in a tunnel, a character can make a Navigate check (DC 20) to intuit the choice that takes the character toward a known destination. If unsuccessful, the character chooses the wrong path, but at the next juncture, with a successful check, the character realizes his or her mistake.   A character cannot use this function of Navigate to find a path to a site if the character has no idea where the site is located. The GM may choose to make the Navigate check for the character in secret, so he or she doesn't know from the result whether the character is following the right or wrong path.

A character can use Navigate to determine his or her position on earth without the use of any high-tech equipment by checking the constellations or other natural landmarks. The character must have a clear view of the night sky to make this check. The DC is 15.

Special: A character can take 10 when making a Navigate check. A character can take 20 only when determining his or her location, not when traveling.

A character with the Guide feat gets a +2 bonus on all Navigate checks.

Time: A Navigate check is a full-round action.

PILOT (Dex) Trained Only

Check: Typical piloting tasks don't require checks. Checks are required during combat, for special maneuvers, or in other extreme circumstances, or when the pilot wants to attempt something outside the normal parameters of the vehicle. When flying, the character can attempt simple maneuvers and stunts (actions in which the pilot attempts to do something complex very quickly or in a limited space). Each vehicle's description includes a maneuver modifier that applies to Pilot checks made by the operator of the vehicle.

Special: A character can take 10 when making a Pilot check, but can't take 20. A character with the Vehicle Expert feat gets a +2 bonus on all Pilot checks. There is no penalty for operating a general-purpose fixed-wing aircraft. Other types of aircraft (heavy aircraft, helicopters, jet fighters, and spacecraft) require the corresponding Aircraft Operation feat, or else the character takes a –4 penalty on Pilot checks.

Time: A Pilot check is a move action.

READ/WRITE LANGUAGE (None) Trained Only

The Read/Write Language skill doesn't work like a standard skill.

•A character automatically knows how to read and write his or her native language; the character does not need ranks to do so.

•Each additional language costs 1 rank. When a character adds a rank to Read/Write Language, he or she chooses a new language that the character can read and write.

•A character never makes Read/Write Language checks. A character either knows how to read and write a specific language or doesn't.

•To be able to speak a language that the character can read and write, he or she must take the Speak Language skill for the appropriate language.

•A character can choose any language, modern or ancient. (See below for suggestions.) The GM might determine that a character can't learn a specific language due to the circumstances of the campaign.

Language Groups: There are thousands of languages to choose from when a character buys ranks in Speak Language or Read/Write Language. A few are listed here, sorted into their general language groups. A language's group doesn't matter when a character is buying ranks in Speak Language or Read/Write Language. This list is by no means exhaustive—there are many more language groups, and most groups contain more languages than those listed here.

Algic: Algonkin, Arapaho, Blackfoot, Cheyenne, Shawnee.

Armenian: Armenian.

Athabascan: Apache, Chipewyan, Navaho.

Attic: Ancient Greek*, Greek.

Baltic: Latvian, Lithuanian.

Celtic: Gaelic (Irish), Gaelic (Scots), Welsh.

Chinese: Cantonese, Mandarin.

Finno-Lappic: Estonian, Finnish, Lapp.

Germanic: Afrikaans, Danish, Dutch, English, Flemish, German, Icelandic, Norwegian, Swedish, Yiddish.

Hamo-Semitic: Coptic*, Middle Egyptian*.

Indic: Hindi, Punjabi, Sanskrit*, Urdu.

Iranian: Farsi, Pashto.

Japanese: Japanese.

Korean: Korean.

Romance: French, Italian, Latin*, Portuguese, Romanian, Spanish.

Semitic: Akkadian (aka Babylonian)*, Ancient Hebrew*, Arabic, Aramaic*, Hebrew.

Slavic: Belorussian, Bulgarian, Czech, Polish, Russian, Serbo-Croatian, Slovak, Ukrainian.

Tibeto-Burman: Burmese, Sherpa, Tibetan.

Turkic: Azerbaijani, Turkish, Uzbek.

Ugric: Hungarian (aka Magyar).

*This is an ancient language. In the modern world it is spoken only by scholars, or in some cases by small populations in isolated corners of the world.

Cybernetic implants can offer translations to most languages as well. (See later)

REPAIR (Int) Trained Only

Check: Most Repair checks are made to fix complex electronic or mechanical devices. The DC is set by the GM. In general, simple repairs have a DC of 10 to 15 and require no more than a few minutes to accomplish. More complex repair work has a DC of 20 or higher and can require an hour or more to complete. Making repairs also involves a monetary cost when spare parts or new components are needed.
If the GM decides this isn't necessary for the type of repair the character is attempting, then no price is needed.

Jury-Rig: A character can choose to attempt jury-rigged, or temporary, repairs. Doing this reduces the purchase price by 30% and the Repair check DC by 5, and allows the character to make the checks in as little as a

full-round action. However, a jury-rigged repair can only fix a single problem with a check, and the temporary repair only lasts until the end of the current scene or encounter. The jury-rigged object must be fully repaired thereafter.

A character can also use jury-rig to hot-wire a car or jump-start an engine or electronic device. The DC for this is at least 15, and it can be higher depending on the presence of security devices.

The jury-rig application of the Repair skill can be used untrained.

Repair Task (Example)	Purchase DC	Repair DC	Time
Simple (tool, simple weapon)	20	10	1 min.
Moderate (mechanical or electronic component)	55	15	10 min.
Complex (mechanical or electronic device)	120	20	1 hr.
Advanced (cutting-edge mechanical or electronic device)	275	25	10 hr.

Try Again?: Yes, though in some specific cases, the GM may decide that a failed Repair check has negative ramifications that prevent repeated checks.

Special: A character can take 10 or take 20 on a Repair check. When making a Repair check to accomplish a jury-rig repair, a character can't take 20. Repair requires an electrical tool kit, a mechanical tool kit, or a multipurpose tool, depending on the task. If the character do not have the appropriate tools, he or she takes a –4 penalty on the check. Craft (mechanical) or Craft (electronic) can provide a +2 synergy bonus on Repair checks made for mechanical or electronic devices (see Skill Synergy). A character with the Gearhead feat and at least 1 rank in this skill gets a +2 bonus on all Repair checks.

Time: See the table for guidelines. A character can make a jury-rig repair as a full-round action, but the work only lasts until the end of the current encounter.

R E S E A R C H (Int)

Check: Researching a topic takes time, skill, and some luck. The GM determines how obscure a particular topic is (the more obscure, the higher the DC) and what kind of information might be available depending on where the character is conducting his or her research. Information ranges from general to protected. Given enough time (usually 1d4 hours) and a successful skill check, the character gets a general idea about a given topic. This assumes that no obvious reasons exist why such information would be unavailable, and that the character has a way to acquire restricted or protected information.

The higher the check result, the better and more complete the information. If the character wants to discover a specific fact, date, map, or similar bit of information, add +5 to +15 to the DC.

Try Again?: Yes.

Special: A character can take 10 or take 20 on a Research check. A character with the Studious feat gets a +2 bonus on all Research checks. Computer Use can provide a +2 synergy bonus on a Research check when searching computer records for data (see Skill Synergy).

Time: A Research check takes 1d4 hours.

T R E A T   I N J U R Y (Wis)

Check: The DC and effect depend on the task attempted. Long-Term Care (DC 15): With a medical kit, the successful application of this skill allows a patient to recover hit points and ability points lost to temporary damage at an advanced rate—3 hit points per character level or 3 ability points restored per day of complete rest. A new check is made each day; on a failed check, recovery occurs at the normal rate for that day of rest and care. A character can tend up to as many patients as he or she has ranks in the skill. The patients need complete bed rest (doing nothing all day). The character needs to devote at least ½ hour of the day to each patient the character is caring for.

Restore Hit Points (DC 15): With a medical kit, if a character has lost hit points, the character can restore some of them. A successful check, as a full-round action, restores 1d4 hit points. The number restored can never exceed the character's full normal total of hit points. This application of the skill can be used successfully on a character only once per day.

Revive Dazed, Stunned, or Unconscious Character (DC 15): With a first aid kit, the character can remove the dazed, stunned, or unconscious condition from a character. This check is an attack action.
A successful check removes the dazed, stunned, or unconscious condition from an affected character. The character can't revive an unconscious character who is at –1 hit points or lower without first stabilizing the character.

Stabilize Dying Character (DC 15): With a medical kit, a character can tend to a character who is dying. As an attack action, a successful Treat Injury check stabilizes another character. The stabilized character regains no hit points, but he or she stops losing them. The character must have a medical kit to stabilize a dying character.

Surgery (DC 20): With a surgery kit, a character can conduct field surgery. This application of the Treat Injury skill carries a –4 penalty, which can be negated with the Surgery feat. Surgery requires 1d4 hours; if the patient is at negative hit points, add an additional hour for every point below 0 the patient has fallen.

Surgery restores 1d6 hit points for every character level of the patient (up to the patient's full normal total of hit points) with a successful skill check. Surgery can only be used successfully on a character once in a 24-hour period. A character who undergoes surgery is fatigued for 24 hours, minus 2 hours for every point above the DC the surgeon achieves. The period of fatigue can never be reduced below 6 hours in this fashion.

Treat Disease (DC 15): A character can tend to a character infected with a treatable disease. Every time the diseased character makes a saving throw against disease effects (after the initial contamination), the treating character first makes a Treat Injury check to help the diseased character fend off secondary damage. This activity takes 10 minutes. If the treating character's check succeeds, the treating character provides a bonus on the diseased character's saving throw equal to his or her ranks in this skill.

Treat Poison (DC 15): A character can tend to a poisoned character. When a poisoned character makes a saving throw against a poison's secondary effect, the treating character first makes a Treat Injury check as an attack action. If the treating character's check succeeds, the character provides a bonus on the poisoned character's saving throw equal to his or her ranks in this skill.

Try Again?: Yes, for restoring hit points, reviving dazed, stunned, or unconscious characters, stabilizing dying characters, and surgery. No, for all other uses of the skill.

Special: The Surgery feat gives a character the extra training he or she needs to use Treat Injury to help a wounded character by means of an operation. A character can take 10 when making a Treat Injury check. A character can take 20 only when restoring hit points or attempting to revive dazed, stunned, or unconscious characters. Long-term care, restoring hit points, treating disease, treating poison, or stabilizing a dying character requires a medical kit. Reviving a dazed, stunned, or unconscious character requires either a first aid kit or a medical kit. Surgery requires a surgery kit. If the character does not have the appropriate kit, he or she takes a –4 penalty on the check.

A character can use the Treat Injury skill on his or herself only to restore hit points, treat disease, or treat poison. The character takes a –5 penalty on your check any time he or she treats his or herself.
A character with the Medical Expert feat gets a +2 bonus on all Treat Injury checks.

Time: Treat Injury checks take different amounts of time based on the task at hand, as described above.

NEW FEATS

FEAT	Benefit	Prerequisite
Action Boost	On action points, you roll d8s instead of d6s	
Advanced Combat Martial Arts	A critical hit on with an unarmed strike deals triple damage.	Combat Martial Arts, Improved Combat Martial Arts, base attack bonus +8.
Advanced Firearms Proficiency	Fire any personal firearm on autofire without penalty	Personal Firearms Proficiency.
Aircraft Operations	Take no penalty on Pilot checks or attack rolls when operating an aircraft of the selected class.	Pilot 4 ranks.
Archaic Weapon Proficiency	Take no penalty on attack rolls when using any kind of archaic weapon.	
Armor Proficiency (Powered)	When wearing powered armor, add the armor's entire Hardness	Armor Proficiency (light) , Armor Proficiency (medium).
Attentive	+2 bonus on all Investigate checks and Sense Motive checks.	
Brawl	On an unarmed attack, receives a +1 competence bonus on attack rolls, & deal nonlethal damage = 1d6 + Strength modifier.	
Builder	2 of the skills: Craft (chemical), Craft (electronic), Craft (mechanical), and Craft (structural) gain +2 bonus.	
Burst Fire	Using an automatic firearm with 5 bullets loaded, the character may fire a short burst as a single attack against a single target.	Wisdom 13, Personal Firearms Proficiency, Advanced Firearms Proficiency.
Cautious	+2 bonus on all Demolitions checks and Disable Device checks.	
Combat Martial Arts	With an unarmed strike, deals lethal or nonlethal damage equal to 1d4 + Strength modifier.	Base attack bonus +1.
Combat Throw	+2 bonus on opposed Strength and Dexterity checks against trip or grapple attacks	Defensive Martial Arts.
Confident	+2 bonus on all Gamble checks and Intimidate checks, and on level checks to resist intimidation.	
Craft Cybernetics	You can construct cybernetic attachments.	Craft (electrical) 10 ranks, Craft (mechanical) 10 ranks, Knowledge (life sciences) 5 ranks.
Cybernetic Surgery	You can graft cybernetic attachments onto living tissue as well as safely remove them.	Treat Injury 8 ranks, Surgery.

FEAT	Benefit	Prerequisite
Dead Aim	Take a full-round action to line up your shot, granting +2 circumstance bonus next attack roll.	Wisdom 13, Far Shot.
Defensive Martial Arts	+1 dodge bonus to Defense against melee attacks.	
Double Tap	When using a semiautomatic firearm with at least two bullets loaded, fire two bullets as a single attack against a single target.	Dexterity 13, Point Blank Shot.
Drive by attack	Take no vehicle speed penalty when making an attack while in a moving vehicle.	
Educated	Pick two Knowledge skills. The character gets a +2 bonus on all checks with those skills.	
Elusive target	Other opponents attempting to target the character in melee with ranged attacks take a –4 penalty.	Dexterity 13, Defensive Martial Arts.
Exotic Firearms Proficiency	Makes attack rolls with the weapon normally.	Personal Firearms Proficiency, Advanced Firearms Proficiency.
Focused	+2 bonus on all Balance checks and Concentration checks.	
Force Stop	When attempting a sideswipe with a surface vehicle, you can force the other vehicle to a stop.	Drive 4 ranks, Vehicle Expert.
Frightful Presence	Instills Fear	Charisma 15, Intimidate 9 ranks.
Gearhead	+2 bonus on all Computer Use checks & Repair checks.	
Guide	+2 bonus on all Navigate checks and Survival checks.	
Heroic Surge	Take an extra move action or attack action in a round, either before or after the character's regular actions.	
Improved Brawl	Receive a +2 competence bonus on unarmed attack rolls & deals nonlethal damage equal to 1d8 + the Strength modifier.	Brawl, base attack bonus +3.
Improved Combat Martial Arts	Threat range on unarmed strikes improves to 19–20.	Combat Martial Arts, base attack bonus +4.
Improved Combat Throw	In melee, if an opponent attacks and misses the character, the character may immediately make a trip attack against the opponent.	Defensive Martial Arts, Combat Throw, base attack bonus +3.
Knockout Punch	Against a flat-footed opponent, treat a successful attack as a critical hit. Nonlethal damage.	Brawl, base attack bonus +3.
Improved Knockout Punch	Against a flat-footed opponent, treat a successful attack as a critical hit, dealing triple damage. Nonlethal damage.	Brawl, Knockout Punch, base attack bonus +6.
Low Profile	Reputation bonus decreases by 3 points.	
Jack of all Trades	You can use any skill untrained.	Prerequisite: Character power level 8th+.
Mastercraft	You are adept at creating mastercraft electronic and mechanical devices.	Craft (electrical) 8 ranks, Craft (mechanical) 8 ranks.
Medical Expert	+2 bonus on all Craft (pharmaceutical) checks and Treat Injury checks.	
Personal Firearms Proficiency	Fire any personal firearm without penalty.	
Point Blank Shot	+1 bonus on attack and damage rolls with ranged weapons against opponents within 30 feet.	
Quick Draw	Draw a weapon as a free action.	Base attack bonus +1.
Quick Reload	Reloading a firearm with an already filled box magazine or speed loader is a free action.	Base attack bonus +1.
Renown	Reputation bonus increases by +3.	
Salvage	Salvage electrical and mechanical parts from destroyed vehicles, mecha, robots, and cybernetic attachments.	
Skip Shot	Skip a bullet off a wall	Point Blank Shot, Precise Shot.
Speed Reprogram	Switch hacks in an attack profile faster	
Strafe	When using a firearm on autofire, affect an area four 5-foot squares long and one square wide.	Personal Firearms Proficiency, Advanced Firearms Proficiency.
Surface Vehicle Operation	Take no penalty on Drive checks or attack rolls made when operating a surface vehicle of the selected class.	Drive 4 ranks.
Surgery	Use the Treat Injury skill to perform surgery without penalty.	Treat Injury 4 ranks.
Trustworthy	+2 bonus on all Diplomacy checks and Gather Information checks.	

FEAT	Benefit	Prerequisite
Ultra Immune System	Less susceptible to the ravages of poison, disease, and radiation poisoning.	Constitution 13.
Unbalance Opponent	Designated opponent doesn't get to add his or her Strength modifier to attack rolls when targeting the character. The opponent's Strength modifier applies to damage, as usual. The character can select a new opponent on any action.	Defensive Martial Arts, base attack bonus +6.
Urban Tracking	Track down the location of missing persons or wanted individuals.	
Vehicle Dodge	Vehicle and everyone aboard it receive a +1 dodge bonus to Defense against attacks from that vehicle or opponent.	Dexterity 13, Drive 6 ranks, Vehicle Expert.
Vehicle Expert	+2 bonus on all Drive checks and Pilot checks.	

ACTION BOOST

You have the ability to alter your luck drastically in dire circumstances.

Benefit: When you spend an action point, you roll d8s instead of d6s for the action result.

ADVANCED COMBAT MARTIAL ARTS

Prerequisites: Combat Martial Arts, Improved Combat Martial Arts, base attack bonus +8.

Benefit: When the character scores a critical hit on an opponent with an unarmed strike, the character deals triple damage.

Normal: An unarmed strike critical hit deals double damage.

ADVANCED FIREARMS PROFICIENCY

Prerequisite: Personal Firearms Proficiency.

Benefit: The character can fire any personal firearm on autofire without penalty (provided, of course, that it has an autofire setting).

Normal: Characters without this feat take a –4 penalty on attack rolls made with personal firearms set on autofire.

AIRCRAFT OPERATION

Select a class of aircraft (heavy aircraft, helicopters, jet fighters). The character is proficient at operating that class of aircraft. The heavy aircraft class includes jumbo passenger airplanes, large cargo planes, heavy bombers, and any other aircraft with three or more engines. Helicopters include transport and combat helicopters of all types. Jet fighters include military fighter and ground attack jets.

Prerequisite: Pilot 4 ranks.

Benefit: The character takes no penalty on Pilot checks or attack rolls made when operating an aircraft of the selected class.

Normal: Characters without this feat take a –4 penalty on Pilot checks made to operate an aircraft that falls in any of these classes, and on attacks made with aircraft weapons. There is no penalty when the character operates a general-purpose aircraft.

Special: The character can gain this feat multiple times. Each time the character takes the feat, the character selects a different class of aircraft.

ARMOR PROFICIENCY (POWERED)

You are proficient with powered armor.

Prerequisites: Armor Proficiency (light) , Armor Proficiency (medium).

Benefit: When you wear powered armor, you may add the armor's entire hardness to the PCs total.

Normal: A character not proficient with powered armor adds only a portion of the armor's hardness to her total.

Special: A Soldier may select this feat as one of his bonus feats.

HACKING FEATS	Benefit	Prerequisite
Chain Hack	Chain a hack to multiple targets	none
Chain Hack Radius	Chain a hack to all targets in range	Chain Hack
Cooperative Hack	Team up to hack one target	
Cyberbrain Specialization	Computer Use and Hack-Craft skills have their maximum level raised by +2.	
Empower Hack	All numeric effects x2	
Extend Hack	Hacks last twice as long	
Extra Barrier	+1 Barrier Maximum	
The Gift	Move one down on the Hack Table	Int 16+
Hack Focus	+3 to the DC for all saving throws & +3 to accomplish that hack.	Int 14+
Greater Hack Focus	+2 to the DC for all saving throws & +2 to accomplish that hack.	Hack Focus
Hack Penetration	+2 to overcome opponents barrier	
Greater Hack Penetration	+2 to overcome opponents barrier	Hack Penetration
Hacking Aptitude	+2 bonus on all Hackcraft , Computer Use, and Hack checks.	
Hack Attack Increase	Number of Hack Attacks is one row lower on the Hack Table	
Hack Mastery	Attack profile increases by ½ their Int Bonus.	
Improved Back-Hack	Gain a +5 on a Back hack.	
Improved Barrier Defense	Add +4 Barrier Defenses	
Maximize Hack	Variable, numeric effects are maximized.	
Quicken Hack	Quickened hack is a free action	
Rapid Hack	Use the same type of hack again on the next round without penalty	

BRAWL

Benefit: When making an unarmed attack, the character receives a +1 competence bonus on attack rolls, and the character deals nonlethal damage equal to 1d6 + his or her Strength modifier.

Normal: Unarmed attacks normally deal nonlethal damage equal to 1d3 + Strength modifier.

BUILDER

Benefit: Pick two of the following skills: Craft (chemical), Craft (electronic), Craft (mechanical), and Craft (structural). The character gets a +2 bonus on all checks with those skills.

Special: The character can select this feat twice. The second time, the character applies it to the two skills he or she didn't pick originally. Remember that Craft (chemical), Craft (electronic), and Craft (mechanical) cannot be used untrained.

BURST FIRE

Prerequisites: Wisdom 13, Personal Firearms Proficiency, Advanced Firearms Proficiency.

Benefit: When using an automatic firearm with at least five bullets loaded, the character may fire a short burst as a single attack against a single target. The character receives EITHER a –4 penalty on the attack roll, but deals +2 dice of damage OR a +2 to the combat roll without additional dice damage. Firing a burst expends five bullets and can only be done if the weapon has five bullets in it.

Normal: Autofire uses ten bullets, targets a 10-foot-by-10-foot area, and can't be aimed at a specific target. Without this feat, if a character attempts an autofire attack at a specific target, it simply counts as a normal attack and all the extra bullets are wasted.

Special: If the firearm has a three-round burst setting, firing a burst expends three bullets instead of five and can be used if the weapon has only three bullets in it.

CAUTIOUS

Benefit: The character gets a +2 bonus on all Demolitions checks and Disable Device checks.

Special: Remember that the Demolitions skill and the Disable Device skill can't be used untrained.

CHAIN HACK

Benefit: A Hacker can chain a hack to multiple targets. For every target struck, the hacker receives –4 penalty to max # targets = her Int Bonus.

Normal: A hacker attempting to chain a hack to multiple targets takes a –8 for every target to max = her Int Bonus.

CHAIN HACK RADIUS

Benefit: A Hacker can sent out a radial hack to all available targets within 50 feet of the target. The Hacker must roll once for all of them with a –4 penalty.

Normal: A hacker cannot chain an attack to more than the number of target = to her Int Modifier.

Prerequisite: Chain Hack

COMBAT MARTIAL ARTS

Prerequisite: Base attack bonus +1.

Benefit: With an unarmed strike, the character deals lethal or nonlethal damage (the character's choice) equal to 1d4 + the character's Strength modifier. The character's unarmed attacks count as armed, which means that opponents do not get attacks of opportunity when the character attacks them unarmed. The character may make attacks of opportunity against opponents who provoke such attacks.

Normal: Without this feat, a character deals only 1d3 points of nonlethal damage. Unarmed attacks normally provoke attacks of opportunity, and unarmed combatants cannot normally make attacks of opportunity.

COMBAT THROW

Prerequisite: **Defensive Martial Arts.**

Benefit: The character gains a +2 bonus on opposed Strength and Dexterity checks any time the character attempts trip or grapple attacks, or when the character tries to avoid a trip or grapple attack made against him or her.

CONFIDENT

Benefit: The character gets a +2 bonus on all Gamble checks and Intimidate checks, and on level checks to resist intimidation.

COOPERATIVE HACK

Benefit: Anyone with Coop Hack can team up on a system. Each one that joins in using the same hack attack gives the primary hacker a +5 to all attempts to all rolls connected with that hack.

Normal: Teaming up only offers +2

CRAFT CYBERNETICS

You can construct cybernetic attachments.

Prerequisites: Craft (electrical) 10 ranks, Craft (mechanical) 10 ranks, Knowledge (life sciences) 5 ranks.

Benefits: You can build cybernetic attachments. You must first purchase the necessary components, then invest 24 hours in its construction. At the end of that time, you must succeed at a Craft (mechanical) check (DC 30) and a Craft (electrical) check (DC 30). If both Craft checks succeed, the cybernetic attachment functions properly and can be installed at any time (see the Cybernetic Surgery feat). If either or both checks fail, the attachment's design is flawed; another 24 hours must be spent fixing the problems, and two new checks must be made at the end of that time.

CREATIVE

Benefit: Pick two of the following skills: Craft (visual art), Craft (writing), Perform (act), Perform (dance), Perform (keyboards), Perform (percussion instruments), Perform (sing), Perform (stand-up), Perform (string instruments), and Perform (wind instruments). The character gets a +2 bonus on all checks with those two skills.

Special: A character can select this feat as many as five times. Each time, the character selects two new skills from the choices given above

CYBERBRAIN SPECIALIZATION

Benefit: Computer Use and Hack-Craft skills have their maximum level raised by +2.

Special: A character can select this feat as many as three times. Each time, the HackCraft and Computer Use Skill ranks increase an additional 2. This ability stacks with the Hacker class ability but they count as feat choices towards the three maximum.

CYBERNETIC SURGERY

You can graft cybernetic attachments onto living tissue as well as safely remove them.

Prerequisites: Treat Injury 8 ranks, Surgery.

Benefit: You can make a Treat Injury check (DC 20) to install or remove a cybernetic attachment. If you do not have a surgery kit or access to a medical facility, you take a –4 penalty on the check. Cybernetic surgery takes 1d4 hours. The consequences of failure are severe: If your check result fails by 5 or more, the installation or removal of the cybernetic attachment causes undue physical trauma to the patient, who suffers 1d4 points of Constitution damage. If the check result fails by 10 or more, the Constitution damage is treated as Constitution drain instead. A character who undergoes cybernetic surgery (successful or not) is fatigued for 24 hours. Reduce this time by 2 hours for every point above the DC the surgeon achieves. The period of fatigue can never be reduced below 6 hours in this fashion.

Normal: Characters without this feat take a –8 penalty on Treat Injury checks made to perform cybernetic surgery (–4 penalty if they have the Surgery feat).

DEAD AIM

Prerequisites: Wisdom 13, Far Shot.

Benefit: Before making a ranged attack, the character may take a full-round action to line up your shot. This grants the character a +2 circumstance bonus on his or her next attack roll. Once the character begins aiming, he or she can't move, even to take a 5-foot step, until after the character makes his or her next attack, or the benefit of the feat is lost. Likewise, if the character's concentration is disrupted or the character is attacked before his or her next action, the character loses the benefit of aiming.

DEFENSIVE MARTIAL ARTS

Benefit: The character gains a +1 dodge bonus to Defense against melee attacks.

Special: A condition that makes the character lose his or her Dexterity bonus to Defense also makes the character lose dodge bonuses. Also, dodge bonuses stack, unlike most other types of bonuses.

DOUBLE TAP

Prerequisites: Dexterity 13, Point Blank Shot.

Benefit: When using a semiautomatic firearm with at least two bullets loaded, the character may fire two bullets as a single attack against a single target. The character receives a –2 penalty on this attack, but deals +1 die of damage with a successful hit. Using this feat fires two bullets and can only be done if the weapon has two bullets in it.

DRIVE BY ATTACK

Benefit: The character takes no vehicle speed penalty when making an attack while in a moving vehicle. Also, if the character is the driver, he or she can take his or her attack action to make an attack at any point along the vehicle's movement.

Normal: When attacking from a moving vehicle, a character takes a penalty based on the vehicle's speed. Passengers can ready an action to make an attack when their vehicle reaches a particular location, but the driver must make his or her attack action either before or after the vehicle's movement.

EDUCATED

Benefit: Pick two Knowledge skills. The character gets a +2 bonus on all checks with those skills.

Special: A character can select this feat as many as seven times. Each time, the character selects two new Knowledge skills.

ELUSIVE TARGET

Prerequisites: Dexterity 13, Defensive Martial Arts.

Benefit: When fighting an opponent or multiple opponents in melee, other opponents attempting to target the character with ranged attacks take a –4 penalty. This penalty is in addition to the normal –4 penalty for firing into melee, making the penalty to target to character –8.

Special: An opponent with the Precise Shot feat has the penalty lessened to –4 when targeting the character.

EMPOWER HACK

Benefit: All variable, numeric effects of an empowered hack are multiplied by 2. Saving throws and opposed rolls are not affected, nor are hacks without random variables. One must pick one type of Hack that is permanently boosted every time the feat is taken. It can be taken multiple times. The hack's DC increases by +2 for the purposes of attempting the hack.

EXOTIC FIREARMS PROFICIENCY

Choose a weapon type from the following list: cannons, heavy machine guns, grenade launchers, and rocket launchers.

Prerequisites: Personal Firearms Proficiency, Advanced Firearms Proficiency.

Benefit: The character makes attack rolls with the weapon normally.

Normal: A character who uses a weapon without being proficient with it takes a –4 penalty on attack rolls.

Special: A character can gain this feat as many as four times. Each time a character takes the feat, he or she selects a different weapon group.

EXTEND HACK

Benefit: An extended Hack lasts twice as long as normal. A Hack with a duration of concentration, instantaneous, or permanent is not affected by this feat. One must pick one type of Hack that is permanently boosted every time the feat is taken. It can be taken multiple times. The hack's DC increases by +2 for the purposes of attempting the hack.

EXTRA BARRIER

Benefit: You gain +1 Barrier maximum.

Normal: You usually can only have your Wis = # of barriers (Min 2).

THE GIFT

Benefit: You move one more slot down on the Hack table. This can only be taken once.

Prerequisite: Int 16+

FORCE STOP

Prerequisites: Drive 4 ranks, Vehicle Expert.

Benefit: When the character attempts a sideswipe stunt with a surface vehicle, the character can force the other vehicle to a stop by nudging it into a controlled sideways skid. In addition to the normal requirements for attempting a sideswipe stunt, the character must have sufficient movement remaining to move a number of squares equal to the character's turn number. After succeeding on the check to attempt the sideswipe, the character makes a Drive check opposed by the other driver. If the character succeeds, turn the other vehicle 90 degrees across the front of the character's, so that they form a tee. Move them forward a distance equal to the character's turn number. The vehicles end their movement at that location, at stationary speed, and take their normal sideswipe damage.

If the character fails the check, resolve the sideswipe normally.

FRIGHTFUL PRESENCE

Prerequisites: Charisma 15, Intimidate 9 ranks.

Benefit: When the character uses this feat, all opponents within 10 feet who have fewer levels than the character must make a Will saving throw (DC 10 + ½ the character's level + the character's Charisma modifier). An

opponent who fails his or her save is shaken, taking a –2 penalty on attack rolls, saves, and skill checks for a number of rounds equal to 1d6 + the character's Charisma modifier. The character can use the feat once per round as a free action.

A successful save indicates that the opponent is immune to the character's use of this feat for 24 hours. This feat does not affect creatures with an Intelligence of 3 or lower.

If the character has the Renown feat, the Will saving throw's DC increases by 5.

GEAR HEAD

Benefit: The character gets a +2 bonus on all Computer Use checks and Repair checks.

Special: Remember that the Computer Use skill and the Repair skill can only be used untrained in certain situations.

GUIDE

Benefit: The character gets a +2 bonus on all Navigate checks and Survival checks.

HACK FOCUS

Choose a specific Hack

Benefit: Add +3 to the Difficulty Class for all saving throws against this specific hack and gain +3 to roll to successfully accomplish the hack.

Special: You can gain this feat multiple times. Its effects do not stack. Each time you take the feat, it applies to a new hack.

GREATER HACK FOCUS

Choose a type of Hack to which you already have applied the Hack Focus feat.

Benefit: Add +2 to the Difficulty Class for all saving throws against that Hack and gains a +2 to successfully accomplish that hack. This bonus stacks with the bonus from Hack Focus.

Special: You can gain this feat multiple times. Its effects do not stack. Each time you take the feat, it applies to a new Hack to which you already have applied the Hack Focus feat.

GREATER HACK PENATRATION

Prerequisite: Hack Penetration.

Benefit: You get a +2 bonus on checks made to overcome an opponent's barrier protection. This bonus stacks with the one from Spell Penetration.

HACKING APTITUDE

Benefit: You get a +2 bonus on all Hackcraft , Computer Use, and Hack checks.

HACK ATTACK INCREASE

Benefit: The Hacker is now faster with Barrier Breaking and Hack Actions. The Character's number of Hack Attacks is one row lower (not necessarily one number higher) on the Hack Table. (Eg: Int 18 or 19 has 2 actions. Now the actions increase to 3. However, this ability must be taken two more times before it increases to 4). This is a permanent increase. Increasing one's Int later keeps the Number Hack Attacks row one lower. This feat may be taken multiple times.

HACK MASTERY

Benefit: Your attack profile increases by ½ their Int Bonus. This does not stack with other suck abilities (like the Increased Profile Character ability)

Normal: Hackers can only have double their Int bonus of hacks in their cyberbrain at any one time. With this, a +4 Int bonus would mean 10 Hacks instead of 8

HACK PENATRATION

Benefit: You get a +2 bonus on checks made to overcome a barrier's resistance

HEROIC SURGE

Benefit: The character may take an extra move action or attack action in a round, either before or after the character's regular actions. The character may use Heroic Surge a number of times per day depending on his or her character level (as shown below), but never more than once per round.

Character Level	Times per Day
1st–4th	1
5th–8th	2
9th–10th	3

IMPROVED BACK–HACK

Benefit: When counterattacking a hacker, you gain a +5 on a Back hack.

IMPROVED BARRIER DEFENSE

Benefit: You get a +4 to your Barrier Defenses.
Special: You may only take this feat once.

IMPROVED BRAWL

Prerequisites: Brawl, base attack bonus +3.
Benefit: When making an unarmed attack, the character receives a +2 competence bonus on his or her attack roll, and the character deals nonlethal damage equal to 1d8 + the character's Strength modifier.
Normal: Unarmed attacks normally deal nonlethal damage equal to 1d3 + Strength modifier.

IMPROVED COMBAT MARTIAL ARTS

Prerequisites: Combat Martial Arts, base attack bonus +4.
Benefit: The character's threat range on an unarmed strike improves to 19–20.
Normal: A character without this feat threatens a critical hit with an unarmed strike only on a 20.

IMPROVED COMBAT THROW

Prerequisites: Defensive Martial Arts, Combat Throw, base attack bonus +3.
Benefit: In melee combat, if an opponent attacks and misses the character, the character may immediately make a trip attack against the opponent. This counts as an attack of opportunity.
Special: This feat doesn't grant the character more attacks of opportunity than he or she is normally allowed in a round.

IMPROVED KNOCKOUT PUNCH

Prerequisites: Brawl, Knockout Punch, base attack bonus +6.
Benefit: When making the character's first unarmed attack against a flat-footed opponent, treat a successful attack as a critical hit. This critical hit deals triple damage. The damage is nonlethal damage.
Special: Even if the character has the ability to treat unarmed damage as lethal damage, the damage from a knockout punch is always nonlethal.

KNOCKOUT PUNCH

Prerequisites: Brawl, base attack bonus +3.
Benefit: When making the character's first unarmed attack against a flat-footed opponent, treat a successful attack as a critical hit. This damage is nonlethal damage.
Special: Even if the character has the ability to treat unarmed damage as lethal damage, the damage from a knockout punch is always nonlethal.

JACK OF ALL TRADES

You've picked up a smattering of even the most obscure skills.
Prerequisite: Character level 8th+.

Benefit: You can use any skill untrained, even those that normally require training and those that are exclusive to classes you don't have. You cannot, however, gain ranks in a skill unless you are allowed to select it.

LOW PROFILE
Benefit: Reduce the character's Reputation bonus by 3 points.

MASTERCRAFTER
You are adept at creating mastercraft electronic and mechanical devices (including tools, vehicles, weapons, robot manipulators, and armor).

Prerequisites: Craft (electrical) 8 ranks, Craft (mechanical) 8 ranks.

Benefit: When successfully completed, a mastercraft electronic or mechanical object provides an equipment bonus on skill checks made to use the object (in the case of mastercraft vehicles, this includes Drive or Pilot checks). A mastercraft weapon provides a bonus on attack or damage rolls (your choice). A mastercraft suit of armor improves the armor's equipment bonus to Defense. In each case, the bonus can be +1, +2, or +3, and no single object can have more than one mastercraft feature. (For instance, you cannot build a mastercraft weapon that gains a bonus on attack rolls and damage rolls.)

On average, it takes twice as long to build a mastercraft object as it does to build an ordinary object of the same type. The cost to build a mastercraft object is equal to the purchase price for the object + the bonus provided by the mastercraft feature (+1, +2, or +3)x100.

You must also pay a cost in experience points equal to 250 × the bonus provided by the mastercraft feature. The experience points must be paid before making the Craft check. If the expenditure of these experience points would drop you below the minimum needed for your current level, then the experience points can't be paid and you can't make the mastercraft object until you have sufficient experience points to remain at your current level after the expenditure is made. If selling the item, add the cost of the experience points to the cost of the item.

Apply the following modifiers to the Craft check DC for mastercraft items:

You can add the mastercraft feature to an existing ordinary object or a lower-grade mastercraft object by paying the cost of upgrading and making the Craft check as though you were constructing the object from scratch.

Mastercraft Feature	DC Modifier
Mastercraft (+1)	+3
Mastercraft (+2)	+5
Mastercraft (+3)	+10

MAXIMIZE HACK
Benefit: All variable, numeric effects of a hack modified by this feat are maximized. Saving throws and opposed rolls are not affected, nor are hacks without random variables. One must pick one type of Hack that is permanently boosted every time the feat is taken. It can be taken multiple times. The hack's DC increased by +4 for the purposes of attempting the hack.

MEDICAL EXPERT
Benefit: The character gets a +2 bonus on all Craft (pharmaceutical) checks and Treat Injury checks.
Special: Remember that the Craft (pharmaceutical) skill can't be used untrained.

PERSONAL FIREARMS PROFICIENCY
Benefit: The character can fire any personal firearm without penalty.
Normal: Characters without this feat take a –4 penalty on attack rolls made with personal firearms.

POINT BLANK SHOT
Benefit: The character gets a +1 bonus on attack and damage rolls with ranged weapons against opponents within 30 feet.

QUICK DRAW
Prerequisite: Base attack bonus +1.
Benefit: The character can draw a weapon as a free action.
A character with this feat may throw weapons at his or her full normal rate of attacks.
Normal: A character can draw a weapon as a move action. If a character has a base attack bonus of +1 or

higher, the character can draw a weapon as a free action when moving.

QUICKEN HACK
Benefit: Casting a quickened hack is a free action. You can perform another action, even attempting another hack, in the same round as you engage in a quickened hack. You may attempt only one quickened hack per round. A hack whose time is more than 1 full round action cannot be quickened. One must pick one type of Hack that is permanently boosted every time the feat is taken. It can be taken multiple times. The hack's DC increased by +6 for the purposes of attempting the hack.

QUICK RELOAD
Prerequisite: Base attack bonus +1.
Benefit: Reloading a firearm with an already filled box magazine or speed loader is a free action. Reloading a revolver without a speed loader, or reloading any firearm with an internal magazine, is a move action.
Normal: Reloading a firearm with an already filled box magazine or speed loader is a move action. Reloading a revolver without a speed loader, or reloading any firearm with an internal magazine, is a full-round action.

RAPID HACK
Benefit: You may use the same type of hack again on the next round without as penalty and without a decrease in opponent DC.
Normal: Using the same hack in the immediate next round raises its Hack DC +4 and decreases the opponents Save DC by –4

RENOWN
Benefit: The character's Reputation bonus increases by +3.

SALVAGE
You can salvage electrical and mechanical parts from destroyed vehicles, mecha, robots, and cybernetic attachments.
Benefit: Salvaging a destroyed vehicle, mecha, robot, or cybernetic attachment takes time, as noted in Table: Salvage. At the end of this time, make a Search check. If the check succeeds, you may gain the amount indicated on the table, by either selling the salvaged parts for scrap or using them to offset the cost of future building projects.

Table: Salvage			
Salvaged Machine	**Time Required**	**Search Check DC**	**Salvage value**
Vehicle			
Huge or smaller	30 min.	15	+500
Gargantuan	1 hr.	20	+2000
Colossal	3 hr.	25	+3500
Mecha			
Small to Medium	30 min.	25	+1000
Large	1 hr.	30	+3500
Huge	3 hr.	35	+5500
Colossal	5 hr.	40	+10 000
Robot			
Tiny or smaller	10 min.	20	+500
Small to Large	30 min.	25	+2000
Huge or bigger	1 hr.	30	+4500
Cybernetic Attachment			
Replacement	10 min.	15	+500
Enhancement	30 min.	20	+1000

Special: A particular vehicle, mecha, starship, robot, or cybernetic attachment can be successfully salvaged only once. Any further attempts to salvage the wreckage fail automatically.

SKIP SHOT
Prerequisites: Point Blank Shot, Precise Shot.

Benefit: If the character has a solid, relatively smooth surface on which to skip a bullet (such as a street or a concrete wall), and a target within 10 feet of that surface, the character may ignore cover between the character and the target. However, the character receives a –2 penalty on his or her attack roll, and the character's attack deals –1 die of damage.

Special: The surface doesn't have to be perfectly smooth and level; a brick wall or an asphalt road can be used. The target can have no more than nine-tenths cover for A character to attempt a skip shot.

SPEED REPROGRAM
Benefit You can switch hacks in an attack profile faster. One program can be replaced in a full combat round.

Normal: To swap a program in a hacker's attack profile usually takes 10 full rounds.

STRAFE
Prerequisites: Personal Firearms Proficiency, Advanced Firearms Proficiency.

Benefit: When using a firearm on autofire, the character can affect an area four 5-foot squares long and one square wide (that is, any four squares in a straight line).

Normal: A firearm on autofire normally affects a 10-foot-by-10-foot area.

SURFACE VEHICLE OPERATIONS
Select a class of surface vehicle (heavy wheeled, powerboat, sailboat, ship, or tracked). The character is proficient at operating that class of vehicle.

The heavy wheeled class includes all kinds of semi-trucks and tractor-trailers, as well as wheeled construction vehicles (such as earth movers) and wheeled armored vehicles (such as some armored personnel carriers). Powerboats are engine-powered water vessels designed for operation by a single person and usually no more than 100 feet in length. Sailboats are wind-powered water vessels. Ships are large, multicrewed water vessels. Tracked vehicles include bulldozers and tanks and other military vehicles.

Prerequisite: Drive 4 ranks.

Benefit: The character takes no penalty on Drive checks or attack rolls made when operating a surface vehicle of the selected class.

Normal: Characters without this feat take a –4 penalty on Drive checks made to operate a surface vehicle that falls under any of these classes, and to attacks made with vehicle weapons. There is no penalty when you operate a general-purpose surface vehicle.

Special: A character can gain this feat as many as five times. Each time the character takes the feat, he or she selects a different class of surface vehicle.

SURGERY
Prerequisite: Treat Injury 4 ranks.

Benefit: The character can use the Treat Injury skill to perform surgery without penalty.

Normal: Characters without this feat take a –4 penalty on Treat Injury checks made to perform surgery.

TRUSTWORTHY
Benefit: The character gets a +2 bonus on all Diplomacy checks and Gather Information checks.

UNBALANCE OPPONENT
Prerequisites: Defensive Martial Arts, base attack bonus +6.

Benefit: During the character's action, the character designates an opponent no more than one size category larger or smaller than the character. That opponent doesn't get to add his or her Strength modifier to attack rolls when targeting the character. (If the opponent has a Strength penalty, he or her still takes that penalty.)

The opponent's Strength modifier applies to damage, as usual. The character can select a new opponent on any action.

ULTRA IMMUNE SYSTEM

You are less susceptible to the ravages of poison, disease, and radiation poisoning.

Prerequisite: Constitution 13.

Benefits: You gain a +2 bonus on Fortitude saving throws to resist poisons, diseases, and radiation sickness. Furthermore, any permanent ability drain inflicted upon you is treated as temporary ability damage instead.

URBAN TRACKING

You can track down the location of missing persons or wanted individuals.

Benefit: To find the trail of an individual or to follow it for 1 hour requires a Gather Information check. You must make another Gather Information check every hour of the search, as well as each time the trail becomes difficult to follow, such as when it moves to a different area of town.

The DC of the check, and the number of checks required to track down your quarry, depends on the community population and the conditions:

If you fail a Gather Information check, you can retry after 1 hour of questioning. The GM rolls the number of checks required secretly, so the player doesn't know exactly how long the task requires.

Population	DC	Checks Required
Fewer than 2,000	5	1d4
2,000–9,999	10	1d4+1
10,000–49,999	15	2d4
50,000–99,999	20	2d4+1
100,000–499,999	25	3d4
500,000+	30	3d4+1

Condition	DC Modifier
Every three creatures in the group being sought	–1
Every 24 hours the quarry has been missing or sought	+1
Tracked quarry "lies low"	+5

Normal: A character without this feat can use Gather Information to find out information about a particular individual, but each check takes 1d4+1 hours and doesn't allow effective trailing.

Special: You can cut the time per Gather Information check in half (to 30 minutes per check rather than 1 hour per check), but you suffer a –5 penalty on the check.

VEHICLE DODGE

Prerequisites: Dexterity 13, Drive 6 ranks, Vehicle Expert.

Benefit: When driving a vehicle, during the character's action the character designates an opposing vehicle or a single opponent. The character's vehicle and everyone aboard it receive a +1 dodge bonus to Defense against attacks from that vehicle or opponent. The character can select a new vehicle or opponent on any action.

VEHICLE EXPERT

Benefit: The character gets a +2 bonus on all Drive checks and Pilot checks.

GENERAL EQUIPMENT

Many of the items in this section are battery operated. Any device that uses batteries comes with them. As a rule, ignore battery life—assume characters are smart enough to recharge or replace their batteries between adventures, and that the batteries last as long as needed during adventures. If battery life is important in your game, roll 1d20 every time a battery-operated item is used. On a result of 1, the battery charge runs out and the item is useless. New batteries cost 10. General equipment is described through a number of stats (see Table: General Equipment).

Weight: This column gives the item's weight.

Purchase Price: This is the purchase price to buy the item.

Restriction: The restriction rating for the item.

Table: General Equipment 1				
Object	**Size**	**Weight**	**Cost**	**Restriction**
Bags and Boxes				
Aluminum travel case				
10 lb. Capacity	Med	5 lb.	100	--
40 lb. Capacity	Large	10 lb.	110	--
75 lb. Capacity	Large	15 lb.	120	--
Briefcase	Med	2 lb.	170	--
Contractor's field bag	Med	2 lb.	60	--
Day pack	Small	2 lb.	50	--
Handbag	Small	1 lb.	40	--
Range pac				
Standard	Small	2 lb.	70	--
Oversized	Med	3 lb.	90	--
Patrol box	Med	4 lb.	90	--
Clothing				
Clothing outfit				
Business	Med	3 lb.	220	--
Casual	Med	2 lb.	80	--
Formal	Med	3 lb.	250	--
Fatigues	Med	3 lb.	90	--
Ghillie suit	Med	5 lb.	60	--

Object	Size	Weight	Cost	Restriction
Uniform	Med	2 lb.	90	--
Outerwear				
Coat	Med	2 lb.	80	--
Fatigue jacket	Med	2 lb.	70	--
Overcoat	Med	3 lb.	90	--
Parka	Med	3 lb.	90	--
Photojournalist's vest	Med	1 lb.	90	--
Windbreaker	Med	1 lb.	60	--
Tool belt	Small	2 lb.	90	--
Computers and Consumer Electronics				
Camera (Digital)	Tiny	0.5 lb.	140	--
Cell phone	Dim	--	90	--
Computer Terminal	Med	5 lb	860	--
Digital audio recorder	Tiny	1 lb.	200	--
Image Curtain	Large	15 lbs	500	--
Over Ear Hands-Free	Tiny	1 lb.	300	--
Portable video camera	Small	2 lb.	160	--
Printer	Med	3 lb.	120	--
Walkie-talkie	Tiny	1 lb.	150	--
Surveillance Gear				
Bug sweeper	Med	4.5 lb.	1750	--
Metal detector	Small	2 lb.	110	--
Night vision goggles	Small	3 lb.	170	--
Acoustic Viewer	Small	3 lb.	1100	Res (+2)
Microphone				
Contact	Small	1 lb.	200	--
Laser	Small	3.5 lb.	1000	--
Parabolic	Small	4.5 lb.	350	--
Professional Equipment				
Bolt cutter	Med	5 lb.	60	--
Caltrops (25)	Small	2 lb.	50	--
Vehicle opening kit	Tiny	1 lb.	160	Lic (+1)
Chemical kit	Med	6 lb.	160	--
Demolitions kit	Med	5 lb.	130	Lic (+1)
Disguise kit	Med	5 lb.	120	--
Duct tape	Tiny	1 lb.	10	--
Electrical tool kit	Large	12 lb.	240	--
Evidence kit	Med	6 lb.	70	--
Fake ID	Fine	--	See text	Illegal (+4)
First aid kit	Small	3 lb.	100	--
Forgery kit	Small	3 lb.	240	--
Glasscutter, circular	Med	5 lb.	275	Res (+2)
Handcuffs	Tiny	0.5	150	--
Instrument, keyboard	Large	12 lb.	240	--
Instrument, percussion	Huge	50 lb.	240	--
Instrument, stringed	Large	7 lb.	230	--
Instrument, wind	Tiny	1 lb.	180	--
Jaws of life	Large	40 lb.	1200	Res (+2)
Lock pick set	Tiny	1 lb.	190	--
Lock release gun	Tiny	0.5 lb.	520	Res (+2)
Mechanical tool kit	Large	22 lb.	330	--
Multipurpose tool	Tiny	0.5 lb.	90	--
Ram, portable	Large	35 lb.	200	Res (+2)
Search-and-rescue kit	Med	7 lb.	120	--
Spike strip	Huge	22 lb.	130	--
Suspension Filament	Tiny	0.5 lb	200	--

Object	Size	Weight	Cost	Restriction
Therm-optic Coat	Med	5 lbs	2 000	Mil (+3)
Medical Gear				
Medical kit	Med	5 lb.	150	--
Pharmacist kit	Med	6 lb.	170	Res (+2)
Surgery kit	Med	5 lb.	160	Lic (+1)
Survival Gear				
Backpack	Med	3 lb.	50	--
Binoculars	Small	2 lb.	70	--
Chemical light sticks (5)	Tiny	1 lb.	20	--
Climbing gear	Large	10 lb.	210	--
Compass	Dim	0.5 lb.	25	--
Fire extinguisher	Med	3 lb.	50	--
Flash goggles	Tiny	2 lb.	250	--
Flashlight				
Penlight	Dim	0.5 lb.	20	--
Standard	Tiny	1 lb.	40	--
Battery flood	Small	2 lb.	90	--
Gas mask	Small	5 lb.	130	--
Portable stove	Tiny	1 lb.	90	--
Sleeping bag	Med	4 lb.	50	--
Tent				
2-person dome	Med	4 lb.	80	--
4-person dome	Med	7 lb.	120	--
8-person dome	Large	10 lb.	230	--
Trail rations (12)	Tiny	1 lb.	50	--
Battery Flare	Small	1lbs	100	--
Purifying Filter	Small	5lb.	35	--
Weapon Accessories				
Box magazine	Tiny	0.5 lb.	40	--
Detonator				
Blasting cap	Tiny	0.5 lb.	40	Lic (+1)
Radio controlled	Tiny	0.5 lb.	100	Lic (+1)
Timed	Tiny	0.5 lb.	70	Lic (+1)
Wired	Tiny	1 lb	60	Lic (+1)
Holster				
Hip	Tiny	1 lb.	50	--
Concealed carry	Tiny	0.5 lb.	80	--
HV Field Pack	Medium	8 lb.	500	Lic (+1)
Illuminator	Tiny	0.5 lb.	70	--
Laser sight	Tiny	0.5 lb.	150	--
Scope				
Standard	Tiny	0.5 lb.	110	--
Electro-optical	Small	3 lb.	180	--
Speed loader	Tiny	0.5 lb.	30	--
Suppressor				
Pistol	Tiny	1 lb.	120	Mil (+3)
Rifle	Small	4 lb.	140	Mil (+3)

Camera—Digital: A digital camera uses no film; instead, its pictures are simply downloaded to a computer as image files. No film developing is necessary. The resolution is 30 mega-pixel.

Digital Audio Recorder: These tiny recorders (about the size of a deck of playing cards) can record up to eight hours of audio and can be connected to a computer to download the digital recording. Digital audio recorders don't have extremely sensitive microphones; they only pick up sounds within 10 feet.

Walkie-Talkie: This high-end civilian model allows a character to program in twenty different frequencies from thousands of choices—making it likely that the character can find a frequency that not being used by anyone else within range. The device can be used with or without a voice-activated headset (included). It has a range of 15 miles.

Acoustic Viewer: An Acoustic Viewer is a headset similar to night sight optics except the acoustic viewer visually interprets subtle vibrations in the air. It sends out acoustic pulses beyond the range of human ears. This allows the viewer to see all invisible or concealed targets within 30 feet. It also reduces cover of an opponent by one level (75% becomes 50%, etc). However, the viewer restrictions vision, offering a –2 to hit and a –5 to all visual spot checks. To use the viewer, the user must activate the pulse (move action). After which, it takes a full round for information to be relayed back.

Battery Flare: A battery powered bright candle, the charge only lasts for one hour but illuminates are area more than 50 feet in radius.

Binoculars: Binoculars are useful for watching opponents, wild game, and sporting events from a long distance. Electro-optical binoculars function the same as standard binoculars in normal light. In darkness, however, users looking through them see in infrared.

Flash Goggles: These eye coverings provide total protection against blinding light. They work for one hour per charge.

Flashlight: Flashlights come in a wide variety of sizes and quality levels. Those covered here are professional, heavy-duty models, rugged enough to withstand the rigors of modern adventuring. Flashlights negate penalties for darkness within their illuminated areas.

Penlight: This small flashlight can be carried on a key ring. It projects a beam of light 10 feet long and 5 feet wide at its end.

Standard: This heavy metal flashlight projects a beam 30 feet long and 15 feet across at its end.

Battery Flood: Practically a handheld spotlight, this item projects a bright beam 100 feet long and 50 feet across at its end.

Image Curtain: An image curtain is a device popular in the advertising market, but soon became used in military applications. It erects a translucent holographic wall that any image (moving or otherwise) can be displayed. The area of effect is 20 feet by 40 feet. The image can be curved or made to be dome shaped. It is not a visual barrier as it cannot become totally opaque and the false image is obvious with a spot check (DC15). However, spotting anything specific past that curtain is harder (-5 to all Spot checks). And any attempts to fire ranged weapons to a target concealed by an image curtain get an automatic –5 penalty to hit.

Metal Detector: This handheld device provides a +10 equipment bonus on all Search checks involving metal objects. The Battery lasts one hour per charge.

Night Vision Goggles: Night vision goggles use passive light gathering to improve vision in near-dark conditions. They grant the user the ability to see in darkness, also called darkvision—but because of the restricted field of view and lack of depth perception these goggles provide, they impose a –4 penalty on all Spot and Search checks made by someone wearing them.

Night vision goggles must have at least a little light to operate. A cloudy night provides sufficient ambient light, but a pitch-black cave or a sealed room doesn't. For situations of total darkness, the goggles come with an infrared illuminator that, when switched on, operates like a flashlight whose light is visible only to the wearer (or anyone else wearing night vision goggles).

Portable Stove: This small stove works on kerosene or white gasoline, and can easily be broken down and carried for backpacking. The Battery lasts for one hour per charge.

Purifying Filter: This removes all impurities from water to make it drinkable. This includes sifting water from sludge or even from mud. The Filter can create fifty gallons of drinkable water before being saturated.

Suspension Filament: Often used in covert military applications, suspension filament is a super strong wire, virtually invisible to the naked eye. Only light reflection can detect it when it is being disturbed (DC15, DC 20 in daytime, DC30 at night). The wire supports more than 800 lbs before breaking. It also has the ability to disintegrate when not needed. When its taut status is loosened (no weight pulling), it disappears, leaving no trace. Each purchase supplies 500 feet of cable. Only the length that had force applied will disintegrate, not the whole roll. This function can be deactivated before use and also implemented in a grapple hook. Because of the thinness of the cable, handling it without protective gloves of cybernetic hands can be damaging. As a result, this cable found use in clandestine assassination. This is a Micromachined product.

Trail Rations: Trail rations come in a number of commercial options. They all provide the necessary energy and nutrition for survival. A case is 12 meals.

Thermoptic Coat: A coat that looks like a raincoat but when activated will cover the user in thermoptic camouflage. It is placed here and not under armor because it offers no protection. Like all therm-optics,

the character gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving (even though opponents can't see you, they might be able to figure out where you are from other visual clues plus therm-optics are not perfect). This bonus is cut in half if the character attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). If the target is aware of your existence (he detects you visually, aurally, or you attack him), you still receive a 20% blur ability. Water interference has a 65% chance of shorting out the coat for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the coat for 2d6 rounds. Its total built in power source lasts for 5 minutes (50 rounds) before draining. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.

Electro-Optical: An electro-optical scope functions the same as a standard scope in normal light. In darkness, however, the user sees through it as if he or she had the darkvision ability granted by night vision goggles.

HV Field Pack: The HV Field Pack must be purchased for a specific Mastercraft Longarm and can only be used for that specific Mastercraft Longarm. That weapon can now use High Velocity rounds with lessened risk of damage. It cannot explode now. Single Shots don't overheat and bursts only melt the mechanism 10% of the time (the percentage does not increase)

Illuminator: An illuminator is a small flashlight that mounts to a firearm, freeing up one of the user's hands. It functions as a standard flashlight.

Laser Sight: This small laser mounts on a firearm, and projects a tiny red dot on the weapon's target. A laser sight grants a +1 equipment bonus on all attack rolls made against targets no farther than 30 feet away. However, a laser sight can't be used outdoors during the daytime.

LIFESTYLE

Lifestyle items include travel expenses, entertainment and meals beyond the ordinary, and housing, for those characters interested in buying a home rather than renting. Lifestyle items are shown on the table below.

Housing	Cost
Small condo	5000
Large condo	10000
Small house	30000
Medium house	35000
Large house	40000
Mansion	100000

Entertainment	Cost
Movie ticket	10
Theater ticket	20
Sporting event ticket	50

Meals	Cost
Fast food	10
Family restaurant	20
Upscale restaurant	50
Fancy restaurant	100

Transportation	Cost
Airfare	
Domestic, coach	50
Domestic, first class	100
International, coach	500
International, first class	1000

Transportation	Cost
Vehicle rental	
Economy	60
Mid-size or cargo trans	100
Luxury	200

Lodging	Cost
Budget motel	70
Average hotel	100
Upscale hotel	150

Item	Cost
Auto repair	
1 to 10 hp damage	150
11 to 20 hp damage	250
21 to 30 hp damage	350
30+ hp damage	500
Towing	80
Bail bonds	
Property crime	200
Assault crime	500
Death crime	10000
Bribery	
Bouncer	20
Bureaucrat	100
Informant	200
Police officer	500

Item	Cost
Legal services	100 x lawyer's Knowledge (civics) ranks
Medical services	
Long-term care	100 x doctor's Treat Injury ranks
Restore hit points	120 x doctor's Treat Injury ranks
Surgery	150 x doctor's Treat Injury ranks
Treat poison/disease	100 x doctor's Treat Injury ranks

Glasscutter, Circular: This special device allows a person to cut through glass panes without cracking or shattering them in the process. It fits onto the glass with a suction cup and has a rotating arm that cuts a hole from 3 to 12 inches in diameter. Once the hole is cut, the suction cup is tugged, pulling out the circle of glass. The user makes a Dexterity check (DC 10) to create a hole without shattering the glass. If the check fails, the glass shatters with a loud crash.

Jaws of Life: This rescue tool is used by firefighters and aid personnel to pry open the mangled doors of auto accidents. It requires a hydraulic compressor to work, but gives a +10 equipment bonus on Strength checks to open doors, bust through gates, and the like.

Ram, Portable: This modern ram is the perfect tool for battering down doors. Not only does it give you a +4 circumstance bonus on your Strength check to break open a door, but also it allows a second person to help you without having to make an aid another check, adding +2 bonus to your check.

RESTRICTIONS

Some objects require licenses to own or operate, or are restricted in use to qualifying organizations or individuals. In such cases, a character must purchase a license or pay a fee to legally own the object. A license or fee is a separate item, purchased in addition to (and usually before) the object to which it applies. The four levels of restriction are as follows.

Licensed: The owner must obtain a license to own or operate the object legally. Generally, the license is not expensive, and obtaining it has few if any additional legal requirements.

Restricted: Only specially qualified individuals or organizations are technically allowed to own the object. However, the real obstacles to ownership are time and money; anyone with sufficient patience and cash can eventually acquire the necessary license.

Military: The object is sold primarily to legitimate police and military organizations. A military rating is essentially the same as restricted (see above), except that manufacturers and dealers are generally under tight government scrutiny and are therefore especially wary of selling to private individuals.

Illegal: The object is illegal in all but specific, highly regulated circumstances.

Purchasing a License: The license is issued to the character after the number of days indicated. To speed the process, the hero can make a Knowledge (business) check against a DC (Lic 15, Rest 20, Mil 25, Ill 30). Success results in the license being issued in 1d6 hours. (During the process of character creation, a character just needs to purchase the license or pay the fee; the time required takes place before game play begins.)

As a general rule, a character must obtain the appropriate license before buying a restricted object. Legitimate dealers will not sell restricted objects to a character who does not have the necessary license. However, a character may be able to turn to the black market (see below) to obtain restricted objects without a license.

Table: Restricted Objects			
Registration Rating	License or Fee Price	Black Market Price Increase	**Time Required**
Licensed	100	+50%	1 day
Restricted	500	+100%	2 days
Military	2000	+150%	3 days
Illegal	5000	+200%	4 days
1 Add to the object's purchase price if the character tries to buy it on the black market without first obtaining a license; see The Black Market, below.			

The Black Market: Sometimes a character wants to obtain an object without going through the hassle of getting a license first. Almost anything is available on the black market. Knowledge (streetwise) checks can be used to locate a black market merchant. The DC is based on the location in question: 15 to find a black market merchant in a big city, or 20, 25, or higher in small towns and rural areas.

Objects purchased on the black market are more expensive than those purchased legally. Add the black market purchase modifier from Table: Restricted Objects to the object's purchase price. Obtaining an object on the black market takes a number of days according to the Time Required column on Table: Restricted Objects. The process can be hurried, but each day cut out of the process (to a minimum of one day) increases the purchase price by an additional 20%.
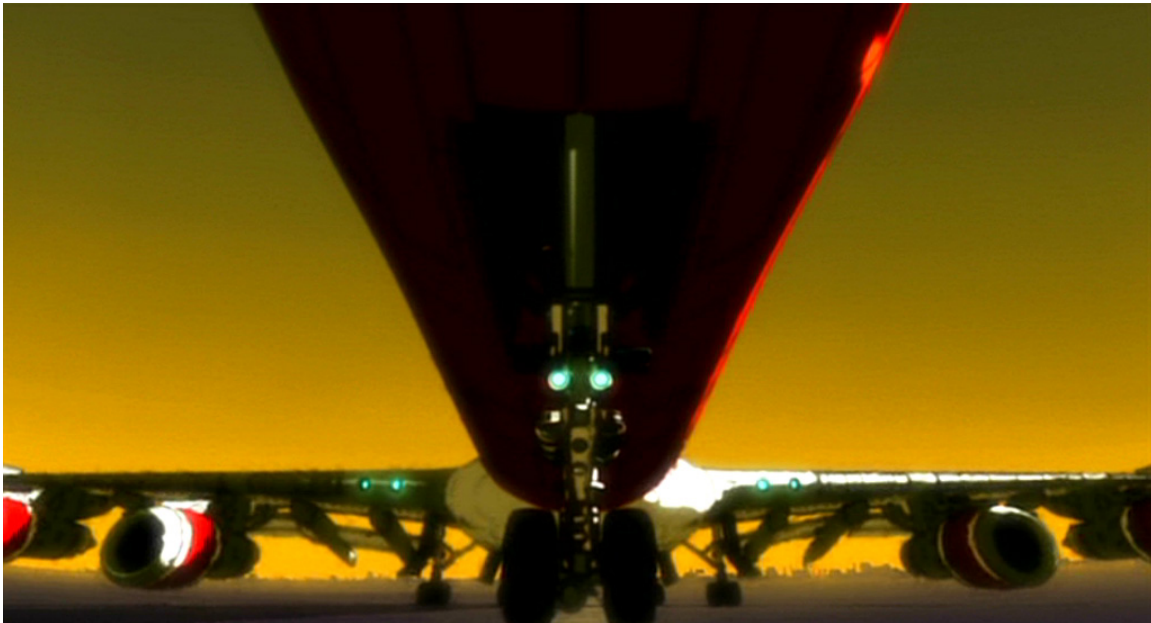
VEHICLES

NOTE: All Vehicles only have their base 20 for Defense. A few have modifiers listed in their description.

Crew: The standard number of crew. In most cases, only one person is needed to drive the vehicle; other crewmembers serve as gunners or copilots. Virtually all vehicles have the capacity to be cyberlinked directly. They also often have transmitters to broadcast. If one directly links to their vehicle, they gain a +2 to all drive checks and the Max Dex Bonus increases by +1

Some have built in Ais. The base stats of AI piloting are as follow unless stated otherwise.

Initiative/Barrier:	+6	-4	+10 (+6 Dex, +4 Improved Initiative*)	+2
Barrier Defense	18 – 30 (+8 - +20 barrier)		25-37 (+12 - +24 barrier, +3 Wisdom)	
Special Barriers:	None		Military Attack Levels 1-4, Attack Rank 20-26	
Base Attack:	+0 /		+1	
Saves:	Fort +2, Ref +9, Will +0		Fort +2, Ref +9, Will +4	
Abilities:	Dex 22, Con --, Int 4, Wis 3, Cha 10		Dex 22, Con --, Int 14, Wis 10, Cha 10	
Skills:	Balance +10, Climb +10, Jump +33, Knowledge Events +10, Knowledge History +7, Listen +5, Navigate +5, Spot +6, Tumble +11, Drive +15		Balance +10, Climb +10, Computer Use +9, Demolitions +3, Jump +33, Knowledge Events +10, Knowledge History +7, Knowledge Tactics +8, Listen +5, Navigate +5, Spot +6, Tumble +11, Drive +15	
Barrier	Passive Level 1 – 4, Attack Barrier 1 – 4*			

Passengers: The number of passengers (in addition to the crew) the vehicle is designed to carry. Vehicles that carry passengers can use that space to carry additional cargo when passengers aren't present. Each unused passenger slot allows the vehicle to carry an additional 100 pounds of cargo.

Cargo Capacity: The amount of cargo the vehicle is designed to carry. Many vehicles can carry extra passengers instead of cargo, but doing so is usually a cramped, uncomfortable, and often unsafe experience for those passengers. As a rule of thumb, one additional passenger can be carried for each 250 pounds of unused cargo capacity.

Initiative: The modifier added to the driver's or pilot's initiative check when operating the vehicle.

Size	Max Dex Bonus
Colossal & Colossal +	0
Gargantuan	+1
Huge	+2
Large	+3
Medium-size	+4

Name	Crew	Pass.	Cargo (lbs.)	Init.	Man.	Top Speed	Hardness	Hit Points	Size	Cost	Rest.	Flight Man.
Aircraft												
Buzzboy	1	0	0	-2	-2	245 (25)	5	20	M	10000	Res(+2)	Perfect
Light Helicopter	1	4	250	-4	-4	245(25)	5	28	G	15500	Lic(+1)	Perfect
Medium Helicopter	2	13	5000	-4	-4	200(20)	5	36	G	35000	Res(+2)	Good
Light Fixed Wing	1	3	120	-4	-4	210(21)	10	30	G	95600	Lic (+1)	Poor
Large Fixed Wing	2	10	1500	-4	-4	1,100(110)	10	44	G	115000	Lic (+1)	Clumsy
Noa High-Speed Tilt	1	20	500	-3	-3	1000 (100)	10	35	G	80000	Lic (+1)	Good
Maiku General Tilt	2	30	500	-4	-4	850 (85)	10	44	G	80000	Lic (+1)	Good
Kuritso Jet Tilt	2	20	500	-4	-4	800 (80)	10	55	G	100000	Lic (+1)	Perfect
Cars												
Sedan	1	4	300	–2	–1	265 (26)	5	34	H	15000	Lic (+1)	
Basic Electric	1	4	100	-3	-2	150 (15)	5	30	H	8 000	Lic (+1)	
Sports Car	1	1	250	–2	+0	310 (31)	5	32	H	30000	Lic (+1)	
Super Car	1	1	50	-1	+1	350 (35)	5	25	H	80000	Lic (+1)	
Motorcycles												
Racing Bike	1	0	0 lb.	+0	+3	370 (37)	5	18	M	3700	Lic (+1)	
Scooter	1	0	0 lb	-1	+1	150 (15)	5	15	M	1500	Lic (+1)	
Regular Bike	1	1	5 lbs	+0	+2	250 (25)	5	18	M	2500	Lic (+1)	
Trucks												
General Wheeled Transport (SUV)	1	3	1,000 lb.	-2	-2	140 (14)	5	38	H	34000	Lic (+1)	
Heavy Transport Wheeled	1	2	1,700 lb	-2	-2	175 (17)	5	36	H	28000	Lic (+1)	
Water Vehicles												
Runabout	1	5	2,100 lb	-2	-2	55 (5)	5	28	H	28000	Lic (+1)	
Cabin cruiser	1	3	2,100 lb	-4	-4	80 (8)	5	40	G	32000	Lic (+1)	
SDV Laminar Submersible	1*	4	200	-4	-2	100 (10)	10	30	H	80000	Lic (+1)	
PSS Submarine	2	20	10000	-6	-4	50 (5)	10	100	C	100000	(Res+2)	
Military Ground Vehicles												
Armored truck	2	0	3,600 lb	–2	–2	175 (17)	10	36	H	34000	Res(+2)	
EW-204 Multiped Tank	1*	2	425 lb.	-2	-1	150 (15)	30	90	C@	150000	Mil (+3)	
Fuchikoma, Standard	1	0	50 lb.	-1	0	200 (20)	10	30	M@	50000	Mil (+3)	
Fuchikoma, Military	1	0	50 lb.	0	+1	265 (26)	15	55	L@	70000	Mil (+3)	
SLW Multi-Ped Tank	1	2	425 lb.	-2	-2	80 (8)	20	60	C@	100000	Mil (+3)	
Tracked APC	3	7	250 lb.	-2	-2	70 (7)	15	52	H	40000	Mil (+3)	
Tracked Tank	4	0	425 lb.	-4	-4	80 (8)	20	64	G	50 000	Mil (+3)	
Type-18 Tank	1*	2	800 lb.	-3	-2	100 (10)	20	80	C@	125000	Mil (+3)	
Tachikoma	1	0	50 lb	0	+1	265 (26)	15	50	M@	65000	Mil (+3)	
Think Tank	1	0	50 lb.	-1	0	150 (15)	10	30	M@	45000	Mil (+3)	
Military Aircraft												
AWACS Copter	2	10	2000	-3	-3	250 (25)	15	40	G @	45000	Mil (+3)	Perfect
Botanachi DRHC Tilt Rotor	2	10	2000	-4	-4	650 (65)	10	44	G	80000	Lic (+1)	Good
Wasp Advance	1*	10	5000	-2	-2	275 (27)	25	55	C @	135000	Mil (+3)	Good
Jigabachi – AHV-01 Anti-Tank Copter	1	10	5000	-2	-2	250 (25)	25	60	C@	100000	Mil (+3)	Good
Nakazawa Transport Helicopter	2	14	9,000 lb.	-4	-4	325 (32)	10	46	G	47000	Mil (+3)	Poor
Oniyama attack chopper	2	10	1000	-4	-4	500 (50)	20	45	G@	65000	Mil (+3)	Perfect
Sniping Copter	1*	5	2000	-4	-4	200(20)	15	40	G @	35000	Mil (+3)	Perfect
Yamadori Transport	1	2 / spcl	500 / special	-4	-3	450 (45)	15	40	G@	35000	Res(+2)	Perfect

Size	Max Dex Bonus
* Direct Cyberbrain or Neurochip implantation possible.	
@ Technology has allowed a higher Max Dex Bonus.	
Colossal & Colossal +	+3
Gargantuan	+4
Huge	+5
Large	+6
Medium-size	+7

Maneuver: The modifier added to any Drive or Pilot checks attempted with the vehicle. It is also the penalty to hit with any fixed mounted weapons built onto the craft. Weapons that are turret mounted loose this penalty but can only fire at targets in the turret's view.

Top Speed: The maximum number of squares the vehicle can cover in 1 round at character scale (with the number of squares at chase scale in parentheses). This is the fastest the vehicle can move.

Please note the vehicle must be moving at least at half speed for whatever bonus to be in effect.

Hardness: The vehicle's hardness. Subtract this number from any damage dealt to the vehicle.

Hit Points: The vehicle's full normal hit points.

Size: Vehicle size categories are defined differently from the size categories for weapons.

Cost: This is the purchase price to acquire the vehicle. This number reflects the base price and doesn't include any modifier for purchasing the vehicle on the black market.

Restriction: The restriction rating for the vehicle, if any.

Flight Man: Applying to aircraft, this explains their flight maneuverability as on page 69 of the DMG. Most aircraft have autopilot AI that can emergency land in case of pilot fatality

SPECIAL RULES ABOUT CYBERIZED VEHICLES

All Vehicles in this time have cellular links for the Internet and cyberbrain control access through wire plug. All vehicles have manual override over its remote access, making it impossible for anyone to take control of a vehicle from physical input at the controls. Inbuilt Ais sit between those two levels, overriding remote access but not being able to override the driver/pilot. All licensed vehicles have tracking devices implanted (being it on the black market increases the value but remove the trackers) and if reported stolen by the licensed owner, the vehicle disables itself at the next safest opportunity. All civilian craft have passive stage 1 barriers implanted but since no one can override the controls from the pilot or the inbuilt AI (if with one) there is little once can do to the vehicle other than alter its perception of the world outside. Vehicles all have in built GPS navigators and traffic control systems (for ground vehicles). Hackers attacking can override radios, alter the GPS map or even give the illusion the car is heading for a construction site that does not really exist. If one directly links to their vehicle, they gain a +2 to all drive/pilot checks and the Max Dex Bonus increases.

AIRCRAFT

All aircraft, from one-seaters to jumbo jets, are controlled by the use of the Pilot skill. A few examples are provided here from the variety of air going vehicles that might be available to characters. Of all the aircraft, the tilt-rotor emerged the transportation of choice. Several reliable designs appeared after the last World War that outmatched the defective models of the previous century.

Buzzboy: The Buzzboy is a nicknamed assigned to a variety of one man copters developed from Megatech, Kenbishi, and Poseidon. They are used in Law Enforcement, Traffic

Control, and the JSDF. They are sometimes fitted with a medium machine cannon but most are simply reconnaissance craft. They can also be totally automated. The have no room for any passengers or cargo. The craft wraps around its user. Cyberlink is also a standard feature. (Features not incorporated). The vehicle carries a standard +4 Dodge Bonus to Defense.

Kenbishi Noa TR-01 High Speed Tilt-Rotor: A later design, the high-speed Tilt carries no heavy cargo, only passengers. It's proven popular with corporations when transporting important individuals. It has seldom use in military applications.

Kenbishi GRP-01 Maiku Standard Tilt Rotor: One of the most common transports around Japan, the GRP-01 has limited cargo room but can freely transport up to 30 passengers. It found use in Section 9
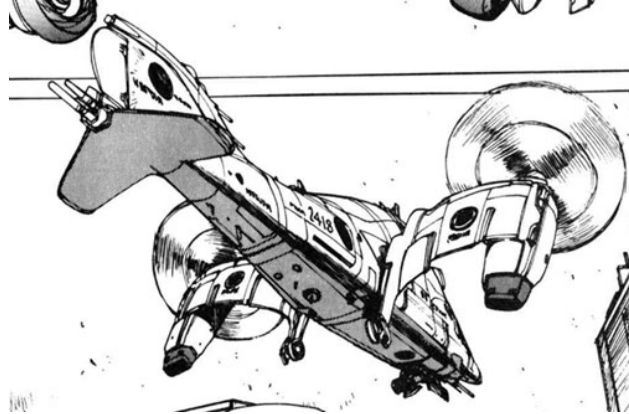
for some time until replaced with the Botanachi. Dual rotors on each engine provide maximum power. However, reliability issues arose with the design and the trustworthier single rotor design replaced it.

Kenbishi ADV Kuritso Tilt-Jet: The pinnacle of technology, the Kuritso is one of the fastest tilt-wings available but the latest technology can also be the most unreliable and the Kuritso has yet to find an extensive distribution contract outside of the major corporations. It is mostly reserved for company presidents. It is equipped with a normal dual rotor mounted atop which keeps the craft vertical while VTOL jets handle the rest. The Jets drop for quick take-offs and offer up to 200% increased horizontal acceleration over regular helicopters. The Kuritso's design is actually somewhat old, and was considered the future of VTOL transportation until Tilt-Rotor aircraft gained prominence.

C A R S

Unless otherwise noted, civilian cars provide three-quarters cover for their occupants (although passengers who lean out of windows or sunroofs, perhaps to fire weapons, may be reduced to one-half or even one-quarter cover).

The average car of 2029. Alcohol powered, all-wheel-drive and steering, cybernetic linkage, GPS, heads-up-display and

cup holders. Special Equipment: environment control, cellular phone, GPS, mini-comp, HUD, cybernetic linkage, entertainment system, crash control. Please note there are still thousands of vehicles on the road without cyberbrain links. Most automobiles are electric but some are still gas powered. A purchaser wanting an old car can opt for one, increasing its price by 10% for a regular car, 50% for a sports car. At that point, all its standard gear are optional.

MOTORCYLES

Unlike getting into a car, mounting a motorcycle is a free action. Motorcycles tend to perform better than automobiles, but they provide no cover to their occupants. Motorcycles have no cyberbrain link capacity.
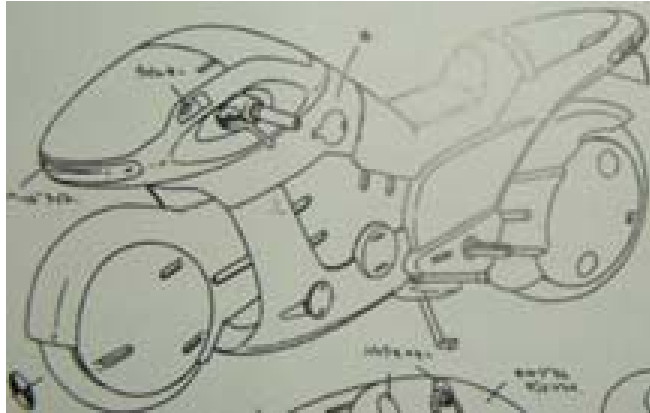
TRUCKS

Trucks include pickups, sport utility vehicles, vans, and minivans. They generally have the same features as civilian cars.

Like cars, trucks generally provide three-quarters cover to their occupants. The rear bed of a pickup truck, however, provides only one-half cover.
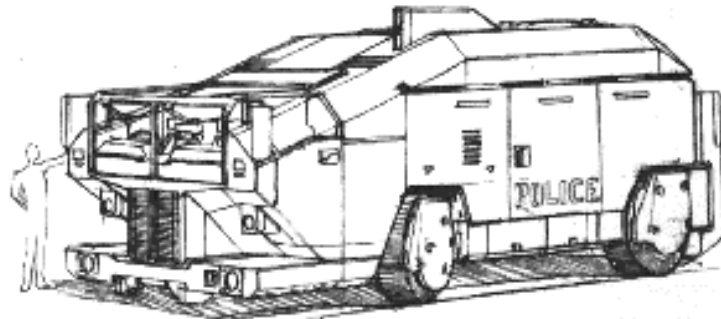
WATER VEHICLES

SDV Laminar Submersible: This submersible carries combat swimmers and their cargo inside a fully flooded compartment. The vehicles launch and return to dry-deck shelters installed on host submarines. A pilot, who is aided by an AI, operates the SDV from a non-flooded chamber. In the event of a failure, the SDV can be remote controlled or a swimmer can jack in to the standard cyber-linkage system from the outside. The most startling feature of the SDV is the completely malleable tail end, which has been built to copy the tail of a dolphin. This provides extremely efficient propulsion and maneuverability. Special Equipment includes environment control, life support for 8 hours, military radio, navigational AI, and full spectrum viewing cybernetic linkage.

Public Security Section Custom Submarine: The Submarine Section 9 utilizes is a custom model but the original design is off of a SFS military model released only a few years ago. The transport carries a complete tactical computer system with multiple dive units and total immersion systems. The cargo area is large enough to fit four Tachikomas.
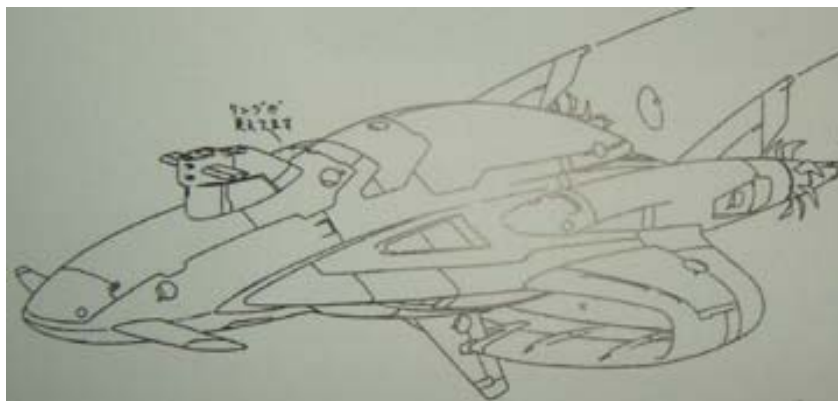
MILITARY VEHICLES

Armored Truck: Used to transport money between businesses and financial institutions, armored trucks are designed to deter would-be thieves. The truck has three doors and firing ports that allow the crew to use their firearms without leaving the vehicle. The armored truck is two squares wide and four squares long. It provides nine-tenths cover for its occupants. It is equipped with puncture-resistant tires.

Fuchikomas, Standard: Initial Fuchikoma designs were not intended to operate independently. They were never designed to incorporate the advanced Neurochips of the later models. In addition, the early Fuchikomas were primarily slaved to manual override by pilots in the rear cockpit. Modern Fuchikomas do possess their own AI and can act as backup or support on their own recognizance, but not to the extent of the Tachikomas. During a the course of the day, an individual Fuchikoma will have its own individual experiences, but at the end of the day all Fuchikoma's under the same ownership will assimilate their data into a mainframe, and then extract the information downloaded by their fellow Fuchikomas.

Standard Equipment and abilities:
-- Thermoptic Camouflage. Same as the Multi-Ped Tank.
--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.
-- Fuchikomas also have dive cables to interface directly with computers but, like Ais, they cannot transmit or Ghost Dive.
--Fuchikomas are able to walk along walls, even roofs, with their wheel pads. The trade off is their lack of Tachikoma wires.
-- 12.7mm gattling gun with 1000 rounds
--10 Smoke canisters.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 24
--They have wheeled movement of 200 but are then classified as a vehicles for vehicle combat but can stop on a dime.

Military Style Fuchikoma: Much like the original Fuchikoma, only beefed up for military combat duty. This military Fuchikoma is available in two different models: The anti-personnel model and the tank hunter model. The anti-personnel model is equipped with dual 20mm auto grenade launchers while the tank hunter has twin 20mm Machine cannons. Both have the standard 7.62mm minigun. Other than that, they have the same capabilities of the standard Fuchikoma. These new models replaced the Tachikomas within Section 9 and became the primary weapon of choice in areas where the Tachikomas were popular.

Standard Equipment and abilities:
-- Thermoptic Camouflage. Same as the Multi-Ped Tank.
--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.

-- Fuchikomas also have dive cables to interface directly with computers but, like Ais, they cannot transmit or Ghost Dive.

--Fuchikomas are able to walk along walls, even roofs, with their wheel pads. The trade off is their lack of Tachikoma wires.

--Dual 20mm auto grenade launchers OR Twin 20mm Machine cannons.

--7.62mm minigun.

--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.

--Cold, Fire, Electric Resistance 20

--Nightvision 100 ft.

--Arms and legs have Str 28

--They have wheeled movement of 265 but are then classified as a vehicles for vehicle combat but can stop on a dime.

Military Fuchikoma Think Tank Stats (Capabilities above incorporated)
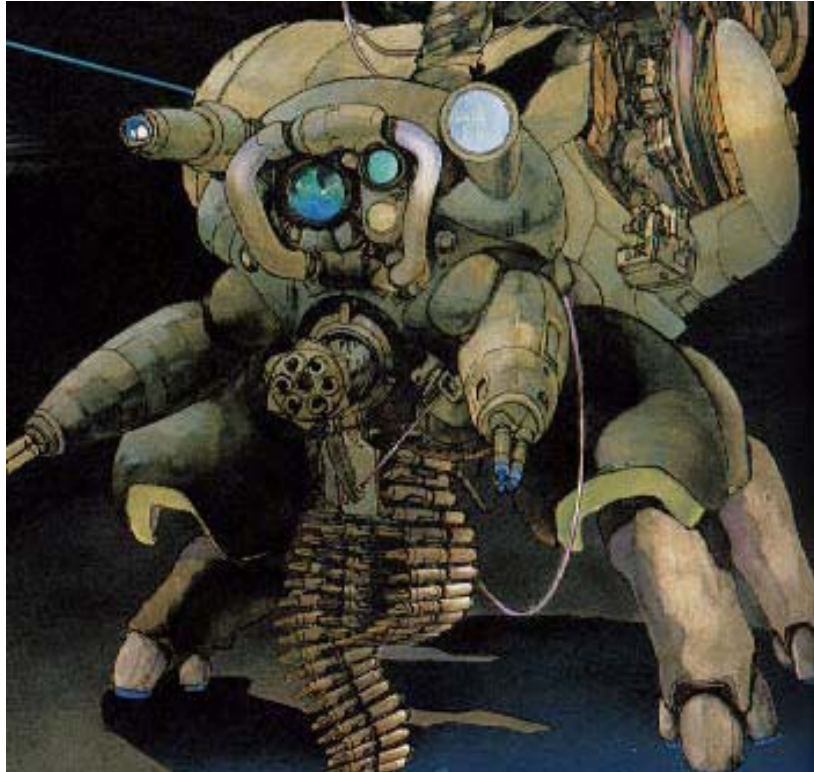
Kenbishi Industries EW-204 Multiped Tank: After the Type 18's success in World War IV, Kenbishi began developing the next generation of Multi-Ped Tank. Increased armor and weaponry were mandatory. Two legs were removed from the SLWT design. However, the most prominent advancement came in the from its cyberbrain warfare capacity. The Prototype allowed its user to initiate cyberbrain attacks on opponents, both for offensive and defensive purposes. It can hack into targeting systems attempting a lock on and even hack into satellites to configure its defenses optimally. Most of these functions require a direct link via neuro cable or Cyberbrain implantation. Built in wheels add to maneuverability but its size limits where it can go. The initial prototype was stolen from Kenbishi's test field but was later recovered.

EW-204 Prototype Tank Specs
'Prototype EW-204 Tank Exercises Report'

Our company's EW-204 multiped tank, which we put thought test maneuvers the other day, is a heavily armored, long-range support tank that presupposes traditional open-field combat. We received a response from the JGSDA that it is unsuited for the sort of front-line usage in urban areas that have begun to skyrocket recently. Having received this, I propose a fourth round of tests exercises for our new EW-206 multiped tank, which assumes front-line activity.
Chief Developer, Takeshi Kago

Capabilities:

--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.

--Cold, Fire, Electric Resistance 20

--Resistant to EMP.

--Direct linked controllers gain a +5 inherent bonus to Defense.

--All attack bonuses on the Type 18 from enhanced targeting systems (laser systems, satellite link-up, cyber-eyes) do no apply. The firer must fire with normal attack bonuses.

--Active targeting missiles (guided) can get hacked into and redirected to their firer with the Type 18's built in laser defense.

--12.7mm Gattling guns in the manipulators.

--120mm Tank Gun in the rear (15 round capacity) with unique ammunition. If the shell penetrates through armor <if it had any>, i.e. getting through hardness, the remaining damage is doubled from explosive.

--Nightvision 100 ft, See Invisible 30 feet.

--Main arms have Str 34 but the claws can crush with Str 38.

--Legs have Str 42.

-- Thermoptic Camouflage. Same as the Multi-Ped Tank.

Kenbishi Industries HAW-206 Type-18 Tank:

A multiped tank constructed by Kenbishi Heavy Industries during WWIII at the request of the JGSDA, it is still used in official service to this very day. The Type 18 became the standard tank of choice for the United Nation and the GSDF during World War IV. It found applications in every combat area, from jungle warfare to urban conflicts. It paved the way for the EW-204 prototype that came out later. Each of its four legs is equipped with an independently driven caterpillar tread, so it is capable of ambulatory locomotion in addition to caterpillar locomotion, making it an all-purpose tank that is suitable for all terrain. Its prominent feature is its 105 mm Howitzer and dual 20 mm gattling canons, one mounted in each manipulator. However, its cumbrous weight prevented graceful maneuverability. Its legs, because of the added weight of the treads, could not articulate as well as the SLWT or the 206 Prototype. It also did not feature the type of cyberbrain defenses its prototype would later feature. However, in World War IV, it proved the primary front line assault choice for allies in combat. In present-day 2030, plans had been made to transition to the candidate for the next main-force tank, the Kenbishi EW-205, with its beefed-up cyberbrain defenses, but due to the Techno-line runaway incident, the introduction of the EW-205 is now up in the air. Because of this, the Type-18 is still in use at this time.

Capabilities:

--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.

--Cold, Fire, Electric Resistance 20

--105 mm Howitzer

--Dual 7.62 mm gattling canons.

--Nightvision 100 ft

--Main arms have Str 32 but the claws can crush with Str 34.

--Legs have Str 40.
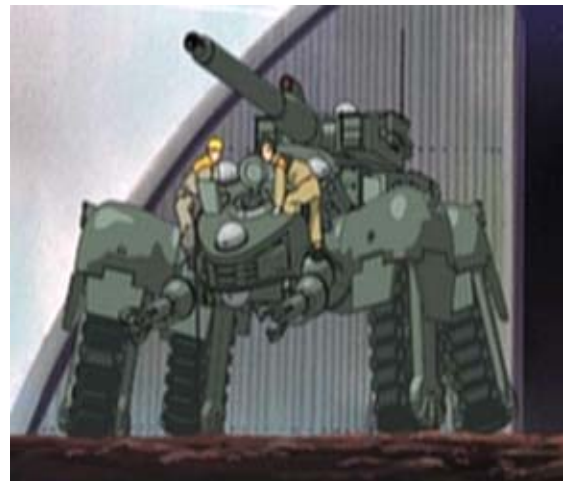
Kenbishi Standard Light Weight Tank – Multi-Ped: Equipped with crab-type running gear for high speed and maneuverability over almost any terrain, this is a state of the art light weight tank found use in urban deployment. This allowed its distribution in almost any arena during World War IV. The design is now dated but still finds use in almost every army. It is equipped with therm-optic camouflage and a cybernetic linkage. Special Equipment include Composite Armor, amphibious modifications, environment control, fire extinguishers, cybernetic linkage, 12 hours life support, IR smoke dispensers, a military radio, laser and visual rangefinders, military radar, satellite uplink, thermograph and image enhancement. Its only drawback is its lack of high-speed movement via wheels or treads.
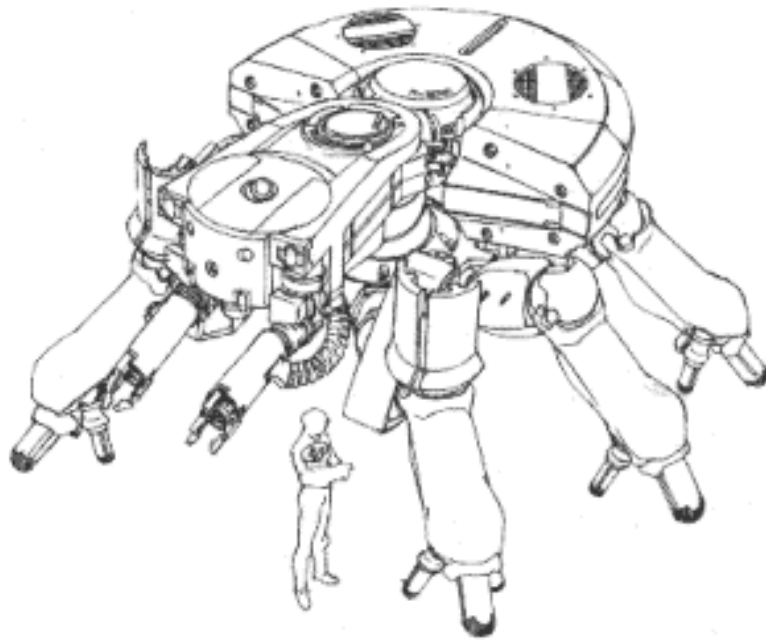
This design was ratified with the Type 18 tank, which came later. However, the Type 18's substantial size still allowed the SLWT's use in more condensed areas. It was the weapon of choice during the urban conflicts in Central America.

Capabilities:

--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.

--Cold, Fire, Electric Resistance 10

--Nightvision 100 ft, See Invisible 30 feet.

--+3 computer targeting on the 7.62mm Rotary

--2 micro-manipulator arms (Str 15)

--Twin 7.62mm Rotary (Gattling) Guns that can fire HV ammo with no problems.

--2 5.56mm machineguns for anti-personnel use which fold out of the tops of the two front legs (100 round capacity).

--If directly linked to the tank, they gain a +2 to all drive checks and the Max Dex Bonus increases by +1.

--Main arms have Str 30 but the claws can crush with Str 34.

--Legs have Str 28.

--Thermoptic Camouflage. The tank gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving. This bonus is cut in half if the tank attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). Water interference has a 65% chance of shorting out the system for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the system for 2d6 rounds. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning optics on or off is a move action.
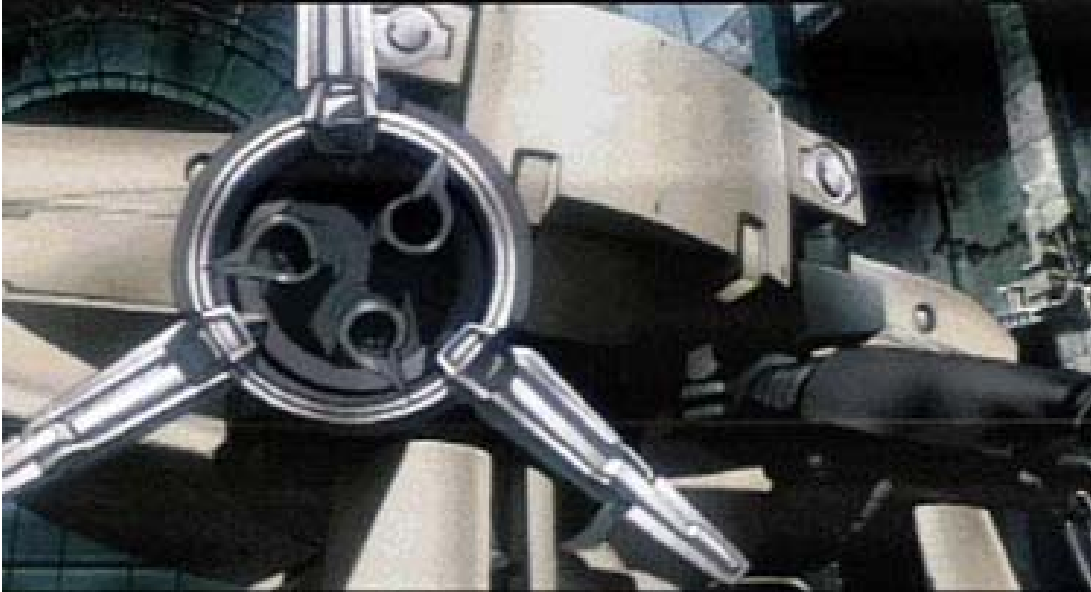
SPECIAL NOTE: Tachikomas and Fuchikomas have a triple role. They are robots and powered armor and normal vehicles. For ease, they are reprinted in each section for reference. Although MultiPed tanks seem related, they are too big to be classed the same. Fluff is not repeated.

Tachikoma: Kenbishi heavy Industries began developing a miniature tank design after World War IV as a solution to the tight environments of modern day congested cities. The prototype Spider Tanks began from a German corporation, which first penned the term "Intelligent Tank". Their initial design, known only as the "German Think Tank" never moved past its initial prototype phase. Kenbishi purchased the design and perfected the model, releasing the prototype intelligent spider tank, codenamed Tachikoma, several years later. The model purpose meant to fill a void empty in the Public defense sector.
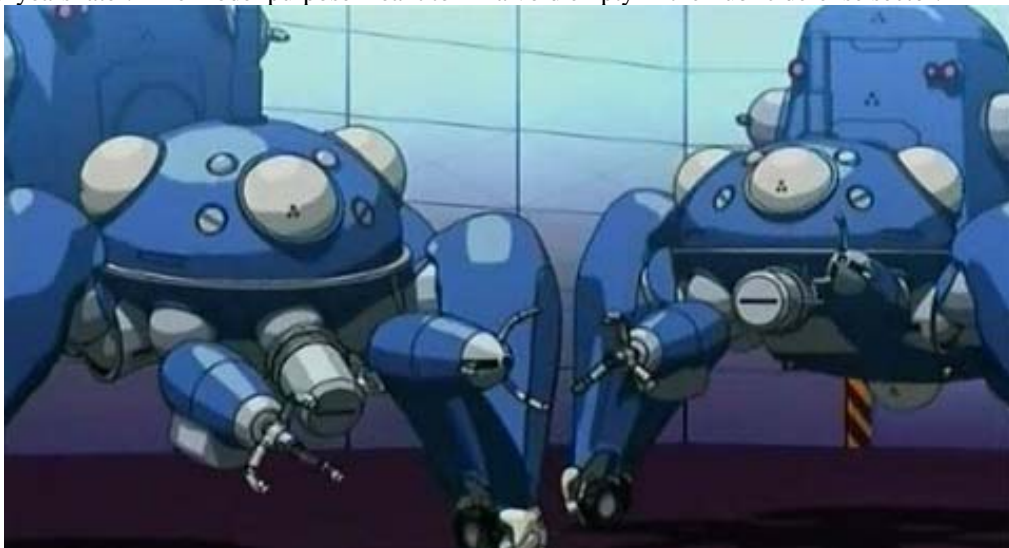
The military designs could not translate to the civilian sectors like law enforcement and public security. It proved somewhat unsuccessful in law enforcement circles. Then the Neurochip was developed. This advanced the intelligence of the Tachikoma ten-fold. Now it was a truly learning

machine. The neurochip, patented by Kenbishi, allowed on-the-spot decision making skills with the potential of easing future decision based on past encounters. The machines were also equipped with a manual override cockpit built into the rear. Their first contract came from Public Security, when they were commissioned to be used for Section 9. There are currently eight Tachikoma model robots in the command of Section 9. These highly maneuverable, spider-like machines possess an advanced Artificial Intelligence that allows them a great degree of autonomous activity. Highly mobile and equipped with numerous helpful devices and weapons, including therm-optic camouflage, the Tachikomas operate as mobile, sentient "Swiss Army knives."

All of the input the Tachikoma's learn throughout the day is retained, then uploaded into the master server and then downloaded to all the Tachikoma's during their "sleep state", thus unifying their memories and experiences.

They are a single AI starting in the morning, or upon commencing a job, different experiences, result in individual differences among units. At night, or after a job is completed, however, all units have their memories or records of external stimuli, individual unit conditions, actions, thoughts networked and data-linked, so that by next morning or when the next job is performed, their memories are all unified. In terms of equipment, the Tachikoma units do posses a certain amount of individuality, but this individuality is unrelated to the uniformity of their AI.

Batou is unique among team members in that he likes to use a particular Tachikoma unit as his own.

Standard Equipment and abilities:
-- Thermoptic Camouflage. Same as the Multi-Ped Tank.
--7.62 Chain gun
--40mm grenade launcher (swappable for a 12.7 Gattling Cannon)
--Wires. Tachikomas shoot out a semi-liquid material, which can latch onto walls or grapple opponents. The material solidifies almost instantly after firing. Tachikomas can fire up to 4 wires in a combat round (Range Inc 30, Max Range 100, Def 25, Hit Points 10, Hard 2). They need at least two connected to stay supported.
--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.
--Tachikomas also have dive cables to interface directly with computers but, like Ais, they cannot transmit or Ghost Dive.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 28
--They have wheeled movement of 265 but are then classified as a vehicles for vehicle combat but can stop on a dime.

Think Tank: The initial think tanks prototypes emerged not from Japan, but from Germany. A contracted engineering firm released the test model of a miniature, automated urban tank and that design found circulation across the world in several different combat areas, from dense jungles to urban sprawls. Since the initial release, almost every major country has designed their own variation of think tank but the original title still falls to the original German production. This model was sold to mercenary groups and small countries around the world.
Standard Equipment and abilities:
--+5 to climb checks
--+10 to Jump checks

--+5 to Balance and Tumble.
-- 12.7mm gattling gun with 1000 rounds
--10 Smoke canisters.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 24
--They have wheeled movement of 150 but are then classified as a vehicles for vehicle combat but can stop on a dime.

MILITARY AIRCRAFT

All aircraft have the following abilities: *Capabilities:*
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 10
--Nightvision 100 ft

AWACS Helicopter: This vehicle is the helicopter equivalent to the AWACS airplanes. It is loaded with every sensor, radar type and ECM device imaginable. It can be used for a variety of applications such as locating ground based drug labs, hidden chemical weapons etc. It can also be used as ECM and ECCM support for a ground or air based team. One of its most prominent roles is that of an airborne command and support center. Any targeting system (cybernetic or not) attempting to fire on the AWACS (guided or not) gains a –4 penalty to hit.
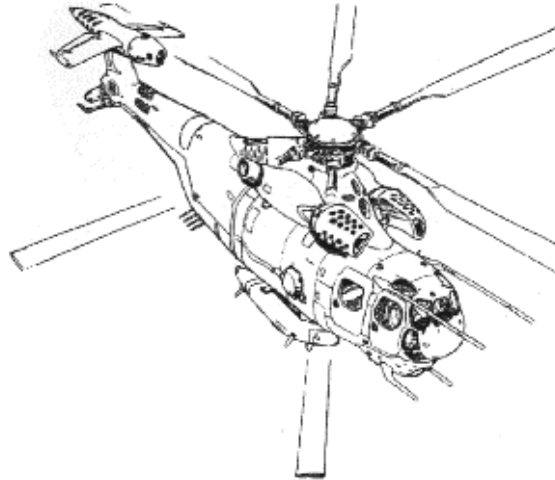
Botanachi DRHC Tilt Rotor: The Botanachi soon became the primary method of military transport for Public Security and urban military divisions. The tilt-rotor design, unreliable decades ago, went through several incarnations until the final model, released by Kenbishi, revolutionized ariel transportation from then on. The issue of dependability never arose again and the Tilt Rotor fad spread throughout the globe but nor more did it find roots, then in Japan. Of them, the Botanachi arose the clear victor. Mostly seen in military applications, its simple design kept costs down. No jets, no dual rotors, the vehicle does not delve into any complicated technology. It has the largest cargo capacity of any tilt-rotor. It is the craft of choice for Section 9.
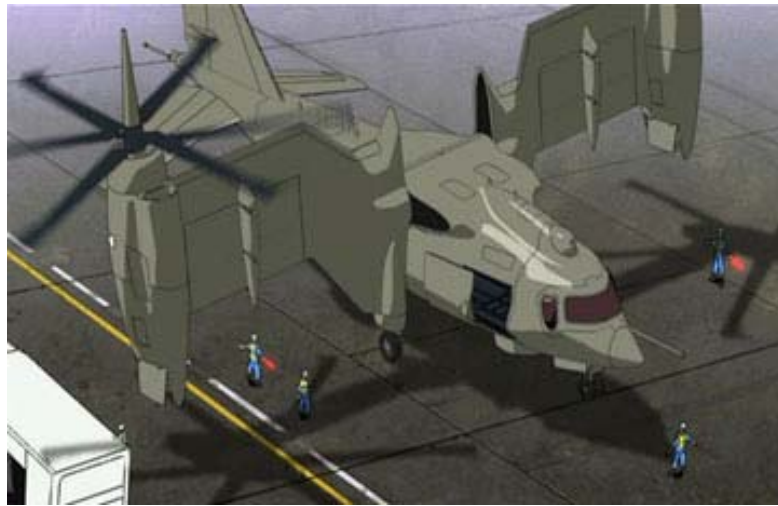
Kenbishi Jigabachi AHV-01 Anti-Tank Copter (Wasp): The Wasp, as its name translates, packs the largest punch of any attack helicopter in the world It is so advanced, it requires neural backup from its pilot just to control properly. More than 65% of its mass is taken up by its single weapon, the main armament is a 120mm smooth bore cannon, which replaced the 105mm gun on the initial prototype. It has day/night fire on the move capability that is provided by a laser range finder, thermal imaging night sight, optical day sight, and a digital ballistic computer, all controlled by its neural-linked pilot. Both the fuel and ammunition are compartmented to enhance survivability. The hull and turret are protected by advanced armor similar to the Chobam armor developed by the British Ministry of Defense.

When required, the Jigabachi may be fitted with "reactive armor" to thwart armor-defeating munitions. This primary weapon can sometimes be replaced with the 30 mm Gattling gun system also found on the Oniyama, but while the Oniyama provides low ground covering fire, the Jigabachi, with the same weapon load out, would be reserved for tactical enemy termination. The Jigabachi features superior targeting for such a firing system. Beyond is primary weapon system, the Jigabachi also sports two stubby wings with four hard points to which usually go rocket packs or guided missiles, either from onboard laser tracking or intelligent remote tracking via the pilot. With all the weapon systems controlled by cyberlink, the need for additional copilot or passengers is moot. The pilot of the Jigabachi receives a +2 Inherent bonus to hit with any of the weapon systems on board. If a round is spent aiming, he receives an additional +4, but only with the primary weapon (either the Tank Cannon or 30 mm Gattling)

Kenbishi Jigabachi Advance: Virtually identical in almost every way to the Jigabachi, the Wasp Advance found limited use in the past few years but has yet to justify its development cost. It arose from the need to slowly move humans away from danger by replacing them in the most complicated weapon systems with incorporated Ais. This already found limited success with the Kenbishi Think Tanks (Tachikoma / Fuchikoma). Kenbishi started applying that same technology to other military fields. The first was with larger scale tanks (the Multi-Ped Prototype), then recently with Attack Helicopters. Both AWACS and Oniyama class choppers have been fitted with relative success but it's the Jigabachi where it found its true calling. Its complicated weapon systems and adaptive multi-role purpose seemed perfectly suited for AI incorporation. The result was penned the Digger Wasp Advance. It still has a cockpit and initial trials still insist on a pilot on manual override. The AI can assist with alternative weapons systems or flight control, target acquisition assistance, or even full control of the craft if the pilot is incapacitated or killed.
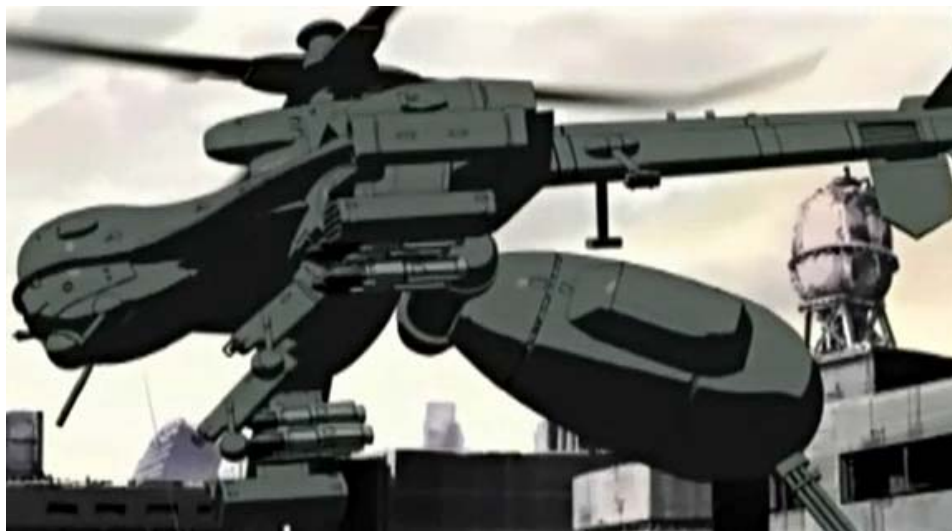
Megatech Hekatoncheires Sniping Helicopter: The unique sniping helicopter is Section 6's premier piece of equipment. This chopper is designed specifically for sniping targets at extreme ranges from an airborne position. When the helicopter is in position, the sides fold out and the floor lowers creating a platform for four snipers, two on each side. The snipers jack into "device drivers" which control their cardiovascular functions and ensure weapon stabilization. Once jacked in, the snipers and their "Ultima Ratio" rifles become a part of the helicopter. They use its small targeting pods for extremely accurate target acquisition. There is no more precise sniping system in the world, and with the aid of the AWACS helicopter, the two are an almost unstoppable team. Special Equipment include chaff and flare dispensers, military radio with scrambler and laser communicator, auto pilot and navigation, cybernetic linkage, military radar, terrain-following radar, laser detector, telescopic optics, thermal imaging and microwave rangefinder. It has no weapons except for four snipers armed with "Ultima Ratio" Full-Sensing sniping rifles. All snipers using this system operate as if using the Hawkeye cybernetic eye (+4 bonus second round, +6 third round, +20 2d4 rounds later) except they also gain +1 critical threat rating and the range increment increases by x2. Also, if the shooter fires more than once in a round, his bonus to hit applies to every shot that round. The next round requires a new aiming cycle.
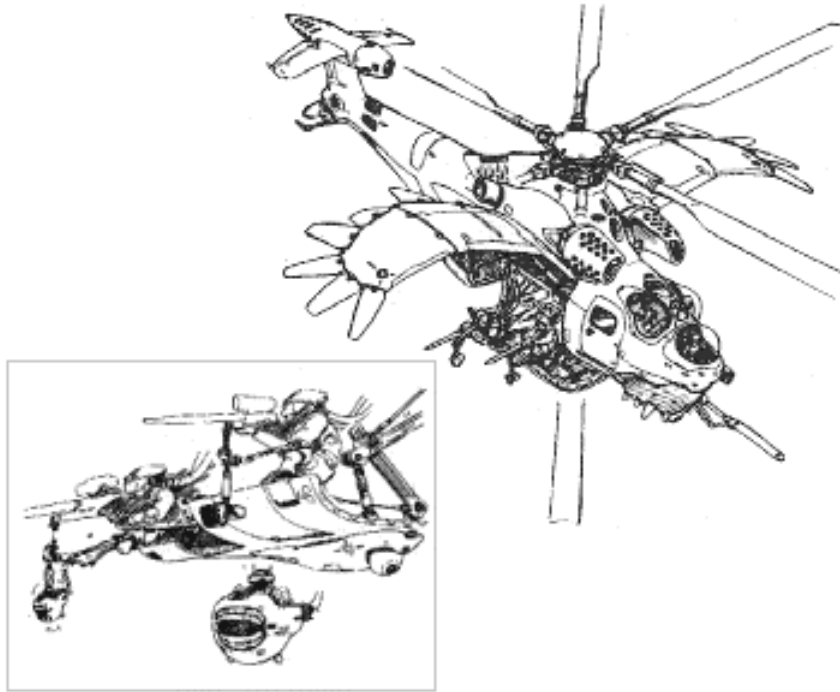
Kenbishi Nakazawa Military Transport Copter: The Kenbishi Nakazawa is a highly maneuverable transport copter. It found uses in both in the military and Public Security. It does not come standard with weapon load out but gains its use with its speed and maneuverability. Dual, counter-rotating rotors keep the aircraft aloft. It can often be seen with pindel mounted machine gun or sniper rifle. Its massive engine offers the capability to keep the craft maneuverable, even with its massive cargo bay filled to capacity.
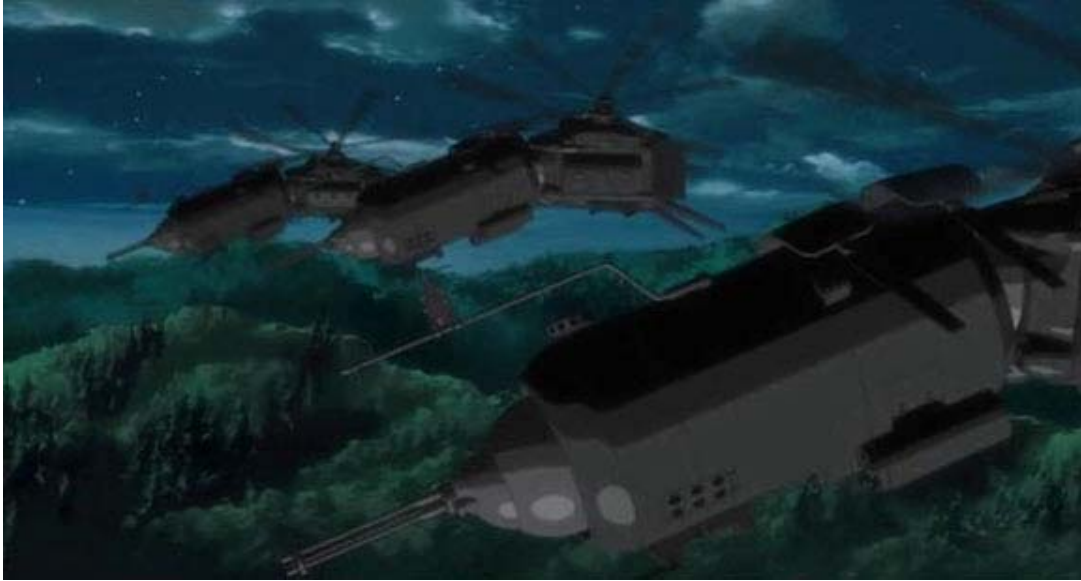
Kenbishi Oniyama (attack chopper):   Kenbishi took a real chance with the design of the Oniyama. By all respects, it shouldn't be able to fly…but it does. Twin rotors intersect at 30-degree angles from each other on either side of this gargantuan helicopter. It is the only helicopter than can be coined a "Flying Fortress." Increased armor makes it impenetrable to ground small arms fire and it can still land even if one of its rotors were taken out. The rear cargo area can hold up to 10 fully armed soldiers or 4 Arm Suit or, as it is also known, a fully spec-ed cyber-sniping system. It features side mounted 7.62 mm gattling cannons but its primary weapon is its 30 mm Gattling cannon. Only the old A-10 Thunderbolt could boast such a weapon. The Kenbishi Aircraft Armament Subsystem A/A49E-6 (30 millimeter Gun System) is located in the forward nose section of the fuselage. The front of the helicopter consists of the 30mm Gattling gun mechanism, double-ended linkless ammunition feed, storage assembly and hydraulic drive system. The seven-barrel gattling gun is used primarily in the air to ground role as a soft target killer and tank buster. This aircraft is used for close-air support in attacking ground threats such as armored tanks and vehicles, and serves as a forward air control observer for sighting ground threats and directing air strikes against enemy targets. The gun originally could fire 1,800 rounds per minute, with the higher 4200 rd/min rate having been deleted after overheating problems with the Prototype. However, the Oniyama can only fire in high rate, 3900 rounds per minute. The gun fires a mix of both high explosive incendiary (HEI) and armored piercing incendiary (API) ammunition. The PGU-13/B HEI High Explosive Incendiary round employs a standard M505 fuse and explosive mixture with a body of naturally fragmenting material that is effective against lighter vehicle and material targets. The PGU-14/B API Armor Piercing Incendiary round has a lightweight body that contains a sub-caliber high-density penetrator of Depleted Uranium (DU). In addition to its penetrating capability, DU is a natural pyrophoric material, which enhances the incendiary effects.

Weapon Load out Summary:
30 mm Gattling cannon.

2 6-barreled Guided Rocket launchers.

Yamadori Multi-Purpose Transport: Often seen over the skies of Etorofu, the Yamadori speed and agility proves useful in the steel landscapes of the industrial island. The Yamadori sports an advanced cyberlink system (Its Max Dex bonus follows one size class lower on the cyberlink table…that's +5 for those not bothering to check). Its origin probably dates back to the last war. Even though employing an antique propeller format, it utilizes them in a dual counter-rotating, bent-prop design.

This produces an amazing amount of lift from two already powerful engines. If placed on a small, interceptor, the engine/propeller design could push the sound barrier. As it is, the designers approached the final purpose to sustain weight and torque over speed. Beyond the unique thrust design, the greatest visual feature of the Yamadori remains its control surface. The primary wings sits atop of a large hydraulic control assembly, allowing the wing / engine assembly to pivot up to 70 degrees from its normal plane. Even further, the entire wing surface is actually comprised of a dozen smaller segments. When detached and extended, the massive surface is totally articulate in ever segment. This increases maneuverability by a substantial margin, especially at slower speeds. The cyberlink is absolutely required to take advantage of this advanced control surface.

The Yamadori features no weapons and its primary purpose resides in troop and cargo transportation. This is accomplished with detachable modules that hook into the undercarriage of the craft. Different modules employ different capabilities dependant on mission profiles.

Submersible Module: A standard floatation capable of depths up to 500 feet.

Crew	Pass.	Cargo (lbs.)	Init.	Man.	Top Speed	Hardness	Hit Points	Size	Cost	Rest.	Flight Man.
1	5	2,100 lb	-2	-2	55 (5)	5	28	L	28000	Lic (+1)	--

Weapons Module: 6 30mm Gattling Cannons (3 on each side)

Crew	Pass.	Cargo (lbs.)	Init.	Man.	Top Speed	Hardness	Hit Points	Size	Cost	Rest.	Flight Man.
6	0	0	--	--	--	10	30	L	28000	MIL(+3)	--

Crew Module: A passenger module capable with retrofit to hold 6 people in luxury or up to 20 people cramped. With weapons and gear, the maximum capacity is 10.

Crew	Pass.	Cargo (lbs.)	Init.	Man.	Top Speed	Hardness	Hit Points	Size	Cost	Rest.	Flight Man.
0	6-20	0 lb	--	--	--	10	20	H	10000	--	--

Cargo Module: An open cargo module that could hold 30 people in no comfort but its primary purpose is for cargo transport.

Crew	Pass.	Cargo (lbs.)	Init.	Man.	Top Speed	Hardness	Hit Points	Size	Cost	Rest.	Flight Man.
0	--	5000 lbs	--	--	--	10	20	H	10000	--	--

Flyer: This module unfolds a separate wing surface that allows limited, short duration flight. It only offers 100 km before running out of fuel. It cannot take off again under its own power. Its stats are identical to the Light Fixed Wing Aircraft at a cost of 15000.
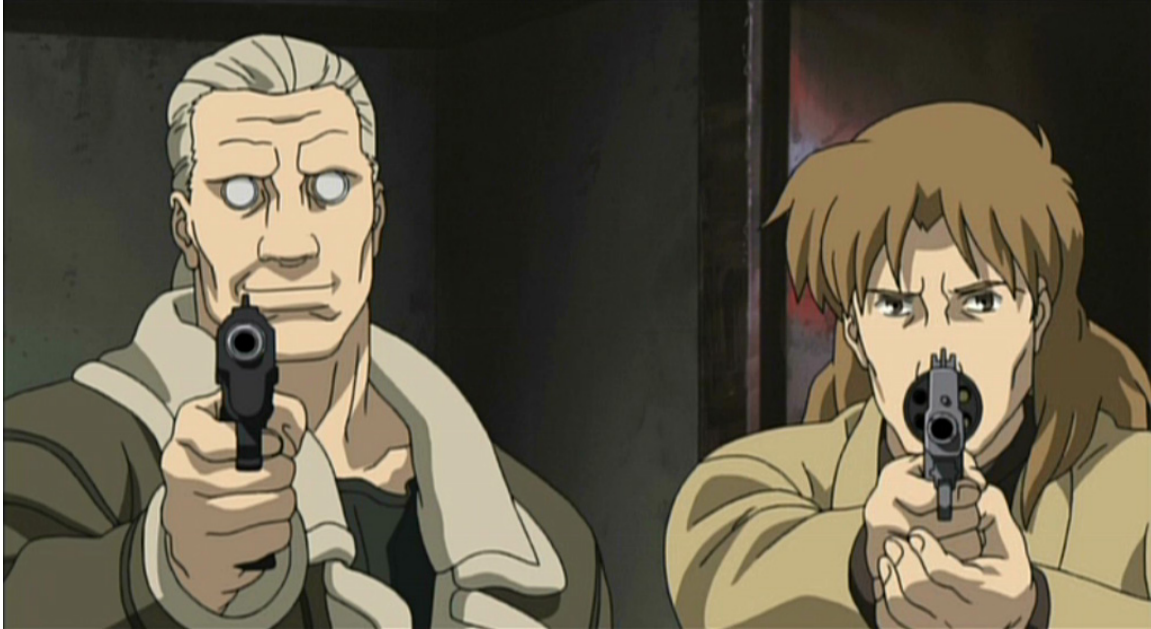
WEAPONS

The weapons covered here are grouped into several categories based on their general utility: ranged weapons, explosives, and splash weapons. Ranged weapons fall into two general groups: handguns and longarms. When using a ranged weapon, the wielder applies his or her Dexterity modifier to the attack roll. Handguns and longarms are personal firearms. A personal firearm is any firearm designed to be carried and used by a single person.

Damage: The damage the weapon deals on a successful hit.

Critical (Crit): The threat range for a critical hit.

Damage Type (DT): Ranged weapon damage is classified according to type: ballistic (all firearms), energy (of a specific type), piercing (some simple ranged weapons), or slashing (a whip). Some may be resistant or immune to some forms of damage.

Range Increment (Rang Inc.): Any attack at less than this distance is not penalized for range. However, each full range increment causes a cumulative –2 penalty on the attack roll. Ranged weapons have a maximum range of ten range increments, except for thrown weapons, which have a maximum range of five range increments.

Rate of Fire (ROF): Some ranged weapons have a rate of fire of 1, which simply means they can be employed once per round and then must be reloaded or replaced. Firearms, which operate through many different forms of internal mechanisms, have varying rates of fire. The three possible rates of fire for handguns, longarms, and heavy weapons are single shot, semiautomatic, and automatic.

Single Shot: A weapon with the single shot rate of fire requires the user to manually operate the action (the mechanism that feeds and cocks the weapons) between each shot. Pump shotguns and bolt-action rifles are examples of firearms with single shot rates of fire. A weapon with the single shot rate of fire can fire only one shot per attack, even if the user has a feat or other abilities that normally allow more than one shot per attack.

Semiautomatic (S): Most firearms have the semiautomatic rate of fire. These firearms feed and cock themselves with each shot. A semiautomatic weapon fires one shot per attack (effectively acting as a single shot weapon), but some feats allow characters armed with semiautomatic weapons to fire shots in rapid successions, getting in more than one shot per attack.

Automatic (A): Automatic weapons fire a burst or stream of shots with a single squeeze of the trigger. Only weapons with the automatic rate of fire can be set on autofire or be used with feats that take advantage of automatic fire.

Weapon	Dam	Critical	Type	Range	ROF	Mag	Size	Wt.	Cost	Rest.	Str
Handguns (require the Personal Firearms Proficiency feat)											
9mm Autoloader	2d6	X2	Ballistic	40	S	15 box	Small	3 lb.	250	Lic(+1)	--
9mm Machine Pistol	2d6	X2	Ballistic	30	S,A	20 box	Med	3 lb.	400	Res(+2)	--
10mm Autoloader	2d6+2	X2	Ballistic	30	S	9 box	Small	3 lb.	600	Lic (+1)	--
.454 Revolver	3d6	X2	Ballistic	30	S	5 Cyl	Med	5 lb	900	ILL (+4)	--
.45 Autoloader	2d6+2	X2	Ballistic	30	S	7 box	Small	3 lb.	550	Lic (+1)	--
.50AE Autoloader	2d8	X2	Ballistic	40	S	9 box	Med	4 lb.	650	Lic (+1)	--
9mm Autoloader[1]	2d6	X2	Ballistic	30	S	17 box	Small	2 lb.	750	Lic (+1)	--
10mm Autoloader[1]	2d6	X2	Ballistic	40	S	15 box	Small	3 lb.	700	Lic (+1)	--
.45 Machine Pistol	2d6	X2	Ballistic	40	S, A	30 box	Med	6 lb.	550	Res(+2)	--
.32 Machine Pistol	2d4	X2	Ballistic	40	S, A	20 box	Med	4 lb.	650	Res(+2)	--
.32 Autoloader	2d4	X2	Ballistic	30	S	7 box	Small	1 lb.	300	Lic (+1)	--
.50 Hand Cannon	3d6	X2	Ballistic	20	S	3 Box	Med	6 lb.	900	ILL (+4)	--
Falcon .45	2d6	X2	Ballistic	40	S, A	20 box	Med	2.5 lb	450	Lic (+1)	--
Special Handguns (require the Personal Firearms Proficiency feat) -- Mastercraft weapons (+1 to hit)											
Mateba Model 207	2d6	19-20/X2	Ballistic	15	S	6 Cyl	Small	3 lb	800	Res(+2)	--
Zastaba CZ-M100	2d6	19-20/x2	Ballistic	30	S	15 box	Small	4 lb	1000	Res(+2)	--
Jericho 942FS	3d6	19-20/x2	Ballistic	20	S	8 box	Med	6 lb.	1400	Mil (+3)	--
Beletta Cougar	2d6	X2	Ballistic	40	S	15 box	Small	3 lb.	700	Res(+2)	--
Seburo M-5 Automatic	2d4+1	X2	Ballistic	20	S	21 box	Small	3 lb.	800	Lic (+1)	--
Seburo BoBson S	2d4	X2	Ballistic	10	S	10 box	Small	2 lb.	600	Lic (+1)	--
G33 Advance	3d6	X2	Ballistic	20	S	12 Box	Med	6 lb.	1500	Mil (+3)	--
Longarms (require the Personal Firearms Proficiency feat)											
7.62mm Assault Rifle	2d8	X2	Ballistic	70	S, A	30 box	Large	10 lb	700	Res(+2)	8
.50 Sniper Rifle*	2d12	19-20/ x2	Ballistic	120	S	11 box	Huge	35lb.	1600	Lic (+1)	8
12-Gauge Shotgun	2d8	X2	Ballistic	30	S	5 box	Large	9 lb.	900	Lic (+1)	8
10-Gauge Shotgun	2d10	X2	Ballistic	30	S	5 int.	Large	11 lb	800	Lic (+1)	8
9mm Submachine Gun[1]	2d6	X2	Ballistic	50	S, A	30 box	Large	7 lb.	1000	Res(+2)	8
7.62mm Sniper Rifle[1]	2d10	X2	Ballistic	90	S	5 box	Large	16lb.	1400	Lic(+1)	10
OICW assault rifle	2d8	20	Ballistic	70	S	30 box	Large	18 lb.	2000	Mil (+3)	10
20 mm Undermount	3d12+12	20	Ballistic	40	S	10 box	Large	5 lb	500	Mil (+3)	10
Seburo J9	2d4	20	Ballistic	50	S, A	50 box	Med	15 lb.	800	Res(+2)	8
Seburo cMN-23	2d8	X3	Ballistic	50	S,	30 box	Med	15 lb.		Res(+2)	8
Special Longarms (require the Personal Firearms Proficiency feat) -- Mastercraft weapons (+1 to hit)											
WLBC Sensor Rifle 3	2d8	X2	Ballistic	70	S, A	30 box	Large	10 lb	1100	Mil(+3)	8
Stear TMP SMG	2d6	X2	Ballistic	50	S, A	40 box	Large	8 lb.	1600	Mil(+2)	8
Zastaba Nosle CZN-M22 "9Weapon"	2d6	X2	Ballistic	40	S, A	40 box	Large	10 lb.	1700	Mil (+2)	8
Camouflaged SMG	2d6	X2	Ballistic	50	S, A	40 box	Large	8 lb.	2100	ILL(+4)	8
Ultima Ratio	2d8+8	X2	Ballistic	100	S	10 box	Large	19 lb	2200	Mil(+3)	10
SIG 541 Assault Rifle	2d6	X2	Ballistic	50	S, A	30 box	Large	6 lb.	1300	Mil (+3)	8
Seburo C25S Anti Cyborg Sniper Rifle	1d8+8	18-20/x2	Ballistic	100	S	10 Box	Large	10 lb	1700	Mil (+3)	10
Seburo X74 Shotgun	1d10+10	X2	Ballistic	30	S	20 box	Large	13 lb.	1300	Mil (+3)	8
Seburo C-25A	2d6	X2	Ballistic	40	S, A	50 box	Med	10 lb.	2100	Mil (+3)	8
Heavy Weapons (each requires a specific Exotic Firearms Proficiency feat)											
Med. Machine Gun	1d8+8	X2	Ballistic	100 ft.	A	Linked	Huge	22lb.	1700	Mil (+3)	14
Hvy. Machine Gun	1d12+12	X2	Ballistic	110 ft.	A	Linked	Huge	75lb.	2200	Mil (+3)	16
Rocket Launcher	4d6+30	—	—	150	1	1 int.	Large	5 lb.	1100	Mil (+3)	14
Guided Rocket Launcher	5d6+30	--	--	200ft	1 / Spcl	1 Int.	Large	10 lb.	1700	Mil (+3)	14
Grenade Launcher	Varies[2]	—	—	70	1	1 int.	Large	7 lb.	900	Mil (+3)	14
Weapon	**Dam**	**Critical**	**Type**	**Range Inc.**	**ROF**	**Mag**	**Size**	**Wt.**	**Cost**	**Rest.**	**Str.**
Railgun*	2d10+10	16-20/x3	Ballistic	100ft	Single	Slug / H5	Large	45lb.	17000	ILL (+4)	16
7.62mm Rotary (Gattling) Cannon*	2d12 / 3d12 / 4d12	X2	Ballistic	100ft	A / spcl	Linked (rec: 500)	Huge	80 lb	12000	Mil (+3)	16
30 mm Sniper Cannon	2d12+12	18-20/x2	Ballistic	100	S	5 Box	Large	25 lb	3 000	Mil (+3)	16
Other Ranged Weapons (Weapons Proficiency feat needed given in parentheses)											
Flamethrower (no feat needed)[3]	3d6	—	Fire	—	1	10 int.	Large	50lb.	1600	Mil (+3)	10
Pepper spray (Simple)	Spcl[2]	—	Spcl[2]	5	1	1 int.	Tiny	0.5lb	50	—	--
Tazer (Simple)	1d4[2]	—	Electricity	5	1	1 int.	Small	2 lb.	100	—	--
NetGun	Special	--	Special	5	1	5 shots	Med	20lb.	1125	Lic (+1)	8
Mounted Weapons (each requires a specific Exotic Firearms Proficiency feat)											
20mm Machine Cannon	3d12+12	X2	Ballistic	150 ft	A	Linked	Huge	150 lb.	20500	Mil(+3)	20

Weapon	Dam	Critical	Type	Range	ROF	Mag	Size	Wt.	Cost	Rest.	Str
Twin thunder machine gun	2d10	X2	Ballistic	100 ft	S, A	Linked	Huge	42 lb.	3000	Mil (+3)	20
5.56 Machine Cannon[1]	1d6+6	X2	Ballistic	50	A	300 box	Large	70 lb.	1700	Mil(+2)	18
12.7 mm Rotary (Gattling) Cannon*	2d12+12 3d12+12 4d12+12	X2	Ballistic	100ft	A / spcl	Linked (rec: 500)	Huge	80 lb	12000	Mil (+3)	22
30 mm Gattling cannon	4d12+24 5d12+24	X2	Ballistic	100 ft	A / spcl	Linked (rec: 1500)	Huge	180 lb	22000	Mil (+3)	24
35 mm Anti Aircraft	5d12+24	X2	Ballistic	200 ft	A	Linked 1000	Huge	250lb	25000	Mil(+3)	26
7.62mm Machine / Chain Cannon	1d8+8	X2	Ballistic	70	A	300 box	Large	50 lb	2200	Mil (+2)	20
40 mm Tank cannon	4d12+12	20	Ballistic	150 ft.	S	1	Huge	550lb	27300	ILL(+4)	24
40mm Grenade Launcher	4d12+12	20	Explosive	70	S	1 int.	Large	70 lb.	9000	Mil (+3)	24
105 mm Tank cannon	5d12+36	20	Ballistic	150 ft.	S	1	Huge	550lb	30300	ILL(+4)	30
120mm smooth bore cannon	5d12+48	20	Ballistic	150ft	S	1	Huge	650lb	40000	ILL(+4)	30
Railcannon	3d10+20	16-20/x3	Ballistic	200ft	S	Slug/H5	Huge	350	40000	ILL(+4)	26
Anti-Ped Glue Gun	Special	20	Ballistic	50	S	5 Box	Large	25 lb.	20 000	Lic (+1)	18
Melee Weapons (Simple Weapons (require the Simple Weapons Proficiency feat)											
Brass knuckles	1	20	Blud	---	--	--	Tiny	1 lb	50	--	--
Cleaver	1d6	19–20	Slashing	--	--	--	Small	2 lb	10	--	--
Club	1d6	20	Blud	--	--	--	Med	3 lb.	20	--	--
Knife	1d4	19–20	Piercing	10 ft.	--	--	Tiny	1 lb.	50	--	--
Metal baton	1d6	19–20	Blud	--	--	--	Med	2 lb.	60	--	--
Pistol whip	1d4	20	Blud	--	--	--	Small	--	--	--	--
Rifle butt	1d6	20	Blud	--	--	--	Large	--	--	--	--
Buzz Knucks	1	20	Blud 2	---	--	--	Tiny	1 lb	250	--	--
Buzz Baton	1d6	19–20	Blud 2	--	--	--	Med	2 lb.	360	--	--
Archaic Weapons (require the Archaic Weapons Proficiency feat)											
Hatchet	1d6	20	Slashing	10 ft.	--	--	Small	4 lb.	10	--	--
Longsword	1d8	19–20	Slashing	—	--	--	Med	4 lb.	175	--	--
Machete	1d6	19–20	Slashing	—	—	—	Small	2 lb.	90	--	--
Rapier	1d6	18–20	Piercing	—	—	—	Med	3 lb.	120	--	--
Spear	1d8	20	Piercing	—	—	—	Large	9 lb.	20	--	--
Straight razor	1d4	19–20	Slashing	—	—	—	Tiny	0.5 lb	10	--	--
Sword cane	1d6	18–20	Piercing	—	—	—	Med	3 lb.	90	--	--
Exotic Melee Weapons (each requires a specific Exotic Melee Weapon Proficiency feat)											
Chain	1d6/1d6	20	Blud	—	—	—	Large	5 lb.	20	--	--
Chain saw	3d6	20	Slashing	—	—	—	Large	10 lb.	150	--	--
Kama	1d6	20	Slashing	—	—	—	Small	2 lb.	30	--	--
Katana	2d6	19–20	Slashing	—	—	—	Large	6 lb.	200	--	--
Kukri	1d4	18–20	Slashing	—	—	—	Small	1 lb.	30	--	--
Nunchaku	1d6	20	Blud	—	—	—	Small	2 lb.	20	--	--

1 This mastercraft weapon grants a +1 bonus on attack rolls.
2 This weapon does special damage. See the weapon description.
3 See the description of this weapon for special rules.
* Must be braced or mounted on a turret or tri-pod OR have STR 18+ or suffer a –4 to hit.

Magazine: The weapon's magazine capacity and type are given in this column. The amount of ammunition a weapon carries, and hence how many shots it can fire before needing to be reloaded, is determined by its magazine capacity. How the firearm is reloaded depends upon its magazine type. The number in this entry is the magazine's capacity in shots; the word that follows the number indicates the magazine type: box, cylinder, or internal. A fourth type, linked, has an unlimited capacity; for this reason the entry does not also have a number. Weapons with a dash in this column have no magazines; they are generally thrown weapons, or weapons (such as bows) that are loaded as part of the firing process.

Box: A box magazine is any type of magazine that can be removed and reloaded separately from the weapon.

Cylinder: A revolver keeps its ammunition in a cylinder, which is part of the weapon and serves as the firing chamber for each round as well. Unlike box magazines, cylinders can't be removed, and they must be reloaded by hand. However, most revolvers can be used with a speed loader. Using a speed loader is much like inserting a box magazine into a weapon. Without a speed loader, a firearm with a cylinder magazine must be loaded by hand.

Internal: Some weapons keep their ammunition in an internal space, which must be loaded by

hand. This is the case with most shotguns, as well as some rifles.

Linked: Some machine guns use linked ammunition. The bullets are chained together with small metal clips, forming a belt. Typically, a belt holds 50 bullets; any number of belts can be clipped together. In military units, as the gunner fires, an assistant clips new ammunition belts together, keeping the weapon fed.

Size: Size categories for weapons and other objects are defined differently from the size categories for creatures. The relationship between a weapon's size and that of its wielder defines whether it can be used one-handed, if it requires two hands, and if it is a light weapon.

A Medium-size or smaller weapon can be used one-handed or two-handed. A Large weapon requires two hands. A Huge weapon requires two hands and a bipod or other mount.

A Small or smaller weapon is considered a light weapon. It can be used one-handed and, as a light weapon, is easier to use in your off hand.

Weight (Wt.): This column gives the weapon's weight when fully loaded.

Cost: This is the price to acquire the weapon. This number reflects the base price and doesn't include any modifier for purchasing the weapon on the black market.

Restriction (Rest.): The restriction rating for the weapon, if any, and the appropriate black market modifier.

Str: The minimum strength required to use the weapon as a side arm. This turns the weapon into a sidearm if it was mounted original. Obviously the higher Street weapons are reserved for full cyborgs and power armor.

SIMPLE MELEE WEAPONS

Brass Knuckles: These pieces of molded metal fit over the outside of a character's fingers and allow him or her to deal lethal damage with an unarmed strike instead of nonlethal damage. A strike with brass knuckles is otherwise considered an unarmed attack. When used by a character with the Brawl feat, brass knuckles increase the base damage dealt by an unarmed strike by +1 and turn the damage into lethal damage. The cost and weight given are for a single item.

Buzz Baton: A baton with a electric prod at the end of it used to subdue hostiles. It deals an additional 1d6 points of electrical damage. Anyone struck must made a fort save. A fail at DC18 results in incapacitation for 2d4 rounds. A fail as DC20 results in stunning for 2d4 rounds (One roll for both). Against cyborgs, the DC starts at DC20 & DC22. Only roll the Fort DC for incapacitation if the damage doesn't succeed on the same task.

Buzz Knucks / Shock Gloves: A glove that will discharge a crippling shock when used on someone. The shock comes from metal pads on the knuckles of the glove. It deals an additional 1d6 points of electrical damage

Anyone struck must made a fort save. A fail at DC18 results in incapacitation for 2d4 rounds. A fail as DC20 results in stunning for 2d4 rounds (One roll for both). Against cyborgs, the DC starts at DC20 & DC22. Only roll the Fort DC for incapacitation if the damage doesn't succeed on the same task.

Cleaver: Heavy kitchen knives can be snatched up for use as weapons in homes and restaurants. These weapons are essentially similar to the twin butterfly swords used in some kung fu styles.

Club: Almost anything can be used as a club. This entry represents the wooden nightsticks

sometimes carried by police forces.

Knife: This category of weapon includes hunting knives, butterfly or "balisong" knives, switchblades, and bayonets (when not attached to rifles). A character can select the Weapon Finesse feat to apply his or her Dexterity modifier instead of Strength modifier to attack rolls with a knife.

Metal Baton: This weapon can be collapsed to reduce its size and increase its concealability. A collapsed baton is Small and can't be used as a weapon. Extending or collapsing the baton is a free action.

Pistol Whip: Using a pistol as a melee weapon can deal greater damage than attacking unarmed. No weight or purchase price is given for this weapon, since both vary depending on the pistol used.

Rifle Butt: The butt of a rifle can be used as an impromptu club.

ARCHAIC MELEE WEAPONS

Most of these weapons deal damage by means of a blade or a sharp point. Some of them are moderately expensive, reflecting their archaic nature in modern-day society.

Hatchet: This light axe is a chopping tool that deals slashing damage when employed as a weapon.

Longsword: This classic, straight blade is the weapon of knighthood and valor.

Machete: This long-bladed tool looks much like a short, lightweight sword.

Rapier: The rapier is a lightweight sword with a thin blade. A character can select the Weapon Finesse feat to apply his or her Dexterity modifier instead of Strength modifier to attack rolls with a rapier.

Spear: This primitive device is a reach weapon. A character can strike opponents 10 feet away with it, but can't use it against an adjacent foe.

Straight Razor: Favored by old-school organized crime "mechanics," this item can still be found in some barbershops and shaving kits.

Sword Cane: This lightweight, concealed sword hides its blade in the shaft of a walking stick or umbrella. Because of this special construction, a sword cane is always considered to be concealed; it is noticed only with a Spot check (DC 20). (The walking stick or umbrella is not concealed, only the blade within.)

EXOTIC MELEE WEAPONS

Most exotic weapons are either atypical in form or improved variations of other melee weapons. Because each exotic weapon is unique in how it is manipulated and employed, a separate Exotic Melee Weapon Proficiency feat is required for each one in order to avoid the –4 nonproficient penalty.

Chain: Also called the manriki-gusari, this is a simple chain with weighted ends. It can be whirled quickly, striking with hard blows from the weights. One end can also be swung to entangle an opponent. The chain can be used either as a double weapon or as a reach weapon. A character can fight with it as if fighting with two weapons, incurring all the normal attack penalties as if using a one-handed weapon and a light weapon. In this case, the character can only strike at an adjacent opponent.
If a character uses the chain as a reach weapon, he or she can strike opponents up to 10 feet away. In addition, unlike other weapons with reach, the character can use it against an adjacent foe. In this case, the character can only use one end of the chain effectively; he or she can't use it as a double weapon.
Because a chain can wrap around an enemy's leg or other limb, a character can make a trip attack with it by succeeding at a melee touch attack. If the character is tripped during his or her own trip attempt, the character can drop the chain to avoid being tripped.

When using a chain, the character gets a +2 equipment bonus on his or her opposed attack roll when attempting to disarm an opponent (including the roll to avoid being disarmed if the character fails to disarm the opponent).

A character can select the Weapon Finesse feat to apply his or her Dexterity modifier instead of Strength modifier to attack rolls with a chain.

Chain Saw: Military and police units use powered saws to cut through fences and open doors rapidly. They are sometimes pressed into service as weapons, often by people who watch too many movies.

Kama: A Kama is a wooden shaft with a scythe blade extending at a right angle out from the shaft. Kama are traditional weapons in various styles of karate.

Katana: The katana is the traditional Japanese samurai sword. When used with the Exotic Melee Weapon Proficiency feat, it can be used with one hand. For a wielder without the feat, the katana must be used with two hands, and the standard –4 non-proficiency penalty applies.

Kukri: This heavy, curved dagger has its sharp edge on the inside of the curve.

Nunchaku: A popular martial arts weapon, the nunchaku is made of two wooden shafts connected by a short length of rope or chain.

HANDGUNS

A handgun is a personal firearm that can be used one-handed without penalty. This includes all pistols and some submachine guns and shotguns. All handguns require the Personal Firearms Proficiency feat. Using a handgun without this feat imposes a –4 penalty on attack rolls.

Handguns can be broken down into three smaller groups: autoloaders, revolvers, and machine pistols. Autoloaders (sometimes called "automatics") feature removable box magazines, and some models hold quite a lot of ammunition. They work by using the energy of a shot fired to throw back a slide, eject the shot's shell casing, and scoop the next round into the chamber. They are more complex than revolvers, but have become increasingly popular in the modern age.

Revolvers are relatively simple firearms that store several rounds (usually six) in a revolving cylinder. As the trigger is pulled, the cylinder revolves to bring the next bullet in line with the barrel.

Machine pistols are automatic weapons small enough to be fired with one hand. Some are autoloader pistols modified to fire a burst of bullets in a single pull of the trigger, while others are modified submachine guns, cut down in size and weight to allow one-handed use. Ranged weapons that use box magazines come with one full magazine.

.454 Cussul Revolver: The most powerful revolver ever made, the .454 is an archaic weapon, more than 60 years sold that still finds circulation because of its immense stopping power. Its range is drastically limited though but it has been effective against cybernetic targets.

Beletta Cougar FN High Power M7 Handgun: Automatic 9mm handgun, used worldwide due to high reliability and rigidity. A mastercraft weapon, the Beletta offers a +1 to hit. Batou substitutes his Jericho for the M7 occasionally.

Falcon .45: The law enforcement response to the ever-growing firepower found in the hands of criminals and gang members, the Falcon pistol not only possesses increased stopping power but also integrates the ability to fire in full automatic mode. Additionally, the Falcon is lightweight and easy to carry.
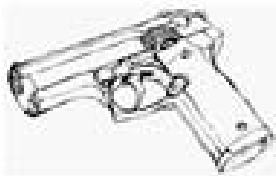
Jericho 942FS Handgun: The Jericho 942FS is an Israeli manufactured handgun. It may, in fact, be a direct descendant of the IMI "Desert Eagle." This weapon is chambered to .50AE (12.7mm), so it packs one hell of a punch. The Jericho 942FS seems to be a popular large frame handgun, and it is used in several organizations throughout Japan. This autoloader also sports hexagonal shaped rifling for greater control. It's a favored weapon to most military cyborgs. A mastercraft weapon, the Jericho offers a +1 to hit. A clip holds 8 rounds.

its design causes problems with loading, making it less than an ideal choice in situations where a lot of ammo is being expended. Features ergonomic grips and interchangeable barrels.

Seburo M-5 Automatic: A common, law enforcement issue, 5mm, 21 round capacity handgun.
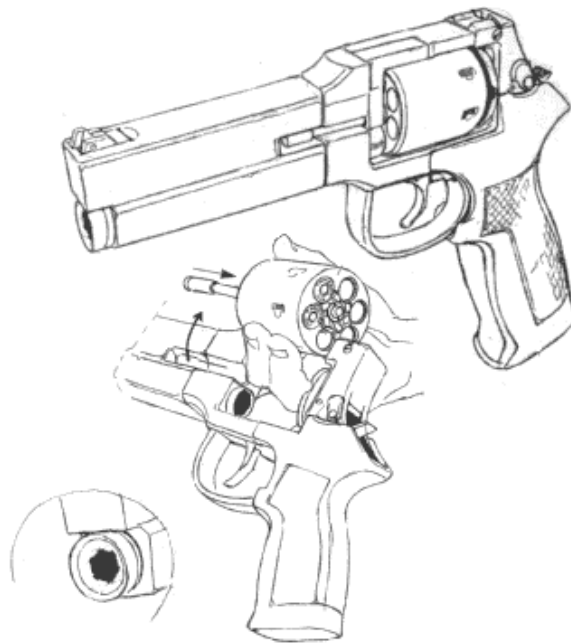
Mateba Model 207 Handgun: The Mateba is a Revolver-type handgun with counter weight, hexagonal-shaped rifling. This strange revolver, built sometime in the 1990s, is Togusa's weapon of choice. It is chambered for the 9mm Parabellum cartridge and its six round cylinder is hinged at the top of the frame rather than the bottom. The M207's hexagonal barrel is lined up with the bottom-most chamber for greater accuracy and the weapon's strange design is counter-balanced by a top mounted weight. It should be noted that the Mateba's greatest feature is its accuracy. Unfortunately, it is not as quick or as high powered as most automatics. Additionally,

Seburo BoBson S: A compact sidearm popular because of its concealability.

Zastaba CZ-M100 Handgun: The CZ-100 is rigid polymer-frame 9mm handgun manufactured in the Czech Republic. Originally designed for law enforcement personnel, the CZ-100 sports a hexagonal barrel for better reliability and accuracy. This pistol can also be fitted with a quick release laser aiming system. A mastercraft weapon, the Zastaba offers a +1 to hit. The laser adds an additional +1 but only after a round of aiming (in additional to normal aiming bonuses). It holds 15 rounds in the clip.
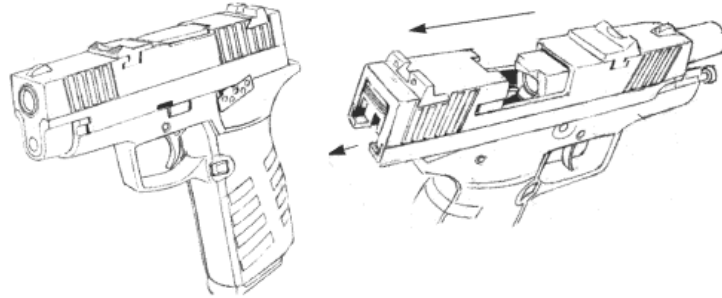
G33 Advance: Another high caliber weapon designed usually for prosthetic limbs. It is the sequel model for the G26 AV.

LONGARMS

Longarms are personal firearms that require two hands to be fired without penalty. This group includes hunting and sniping rifles, assault rifles, shotguns, and most submachine guns. The basic longarm is the rifle, a group that includes both hunting rifles and sniper rifles. Most rifles are autoloaders, and they function internally in a manner very similar to autoloader pistols. Some models are operated manually, with the user having to work a bolt or lever between each shot. Assault rifles are rifles designed for military use and feature automatic as well as semiautomatic fire.
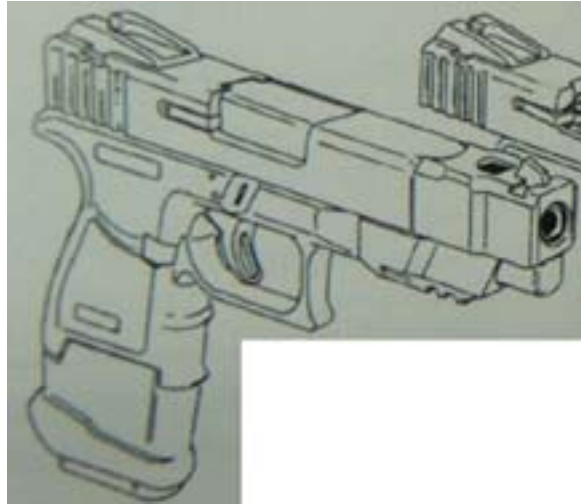
Shotguns are large-bore weapons that primarily fire shells full of small projectiles. They tend to be powerful, but only at short range. Reduce shotgun damage by 1 point for every range increment of the attack.

Submachine guns are relatively compact longarms that generally fire pistol ammunition. They can fire on automatic.

All longarms are covered by the Personal Firearms Proficiency feat.

Longarms are not well suited to close combat. A character takes a –4 penalty on the attack roll when firing at an adjacent target.

Camouflaged SMG: This SMG is a camouflaged 5.56mm weapon that was built into the briefcase. A switch on the handle drops the bulk of the briefcase off revealing a Stear TMP with two attached 15 round clips of ammunition. The case itself is armored with hardness 5 and 10 hit points for use as a sort of last-ditch effort shield. Although the Stear TMP was used, many other SMGs can be used for this type of concealment. To reveal the weapon takes a move equivalent action.
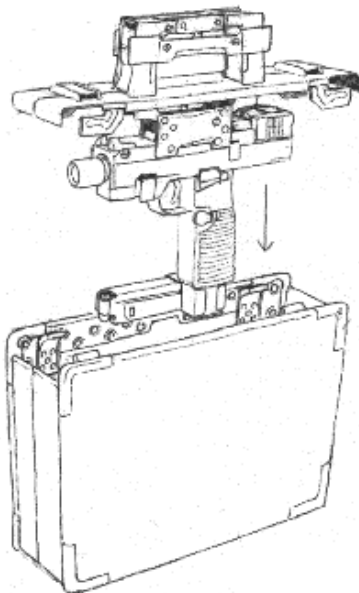
Stear TMP Submachine Gun: The stear is a lightweight weapon with laser aiming system and is a standard light SMG used by Section 6. A rugged 9mm SMG with many
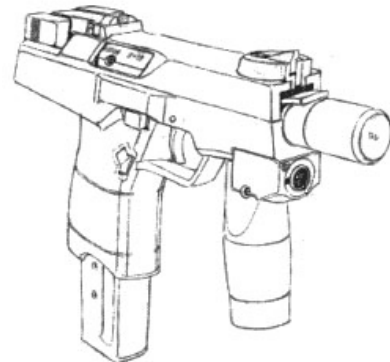
features, such as ambidextrous cocking, this common SMG is used the world over. The Section 6 version includes a laser aiming system. (+1 to hit, Costs 300)

OICW Assault Rifle: One of the most technologically advanced weapons to ever reach production during the Information Age, the OICW (Objective Individual Combat Weapon) assault rifle is a combination weapon. The weapon houses a 5.56mm compact assault rifle as well as a 20mm grenade launcher (the weapon uses the alternate weapon gadget to add a mini- grenade launcher). The grenade launcher features multiple detonation modes, including detonate-on-impact mode (in which the grenade explodes on impact) and air burst mode (in which the grenade explodes in the air after traveling a certain distance). The setting must be configured before firing. The weapon can be configured to be a 20 mm Grenade Launcher solid slug or as a Grenade blast per Grenade rules.

The rifle includes a combat-capable scope with built-in targeting computers that are designed to link into the Land Warrior combat system. This system, known as TA/FCS (Target Acquisition/Fire Control System), functions as a built-in night vision scope as well as a range finding scope (the scope, range finding laser gadget). Additionally, the weapon has an integrated computer link that can hook directly into the Land Warrior armor and transmit images and data to the armor's onboard computer system. On its own, separate from the Land Warrior system, the OICW assault rifle is one of the most dangerous and effective weapons on the market.

This weapon has a two-round burst setting. When the Burst Fire feat is used with this weapon, the penalty on the attack roll is lessened to –2 instead of –4. Also, the weapon fires only two bullets instead of five and can be used with only two bullets in the weapon. However, the weapon only deals +1 die of damage instead of +2 dice of damage. (In effect, using the Burst Fire feat with this weapon results in the effect of the Double Tap feat.) This setting does not grant the ability to make burst fire attacks without the Burst Fire feat; if you use the setting without the feat, you make a normal attack, and the extra two bullets not have the automatic rate of fire, this weapon cannot be used to make autofire attacks.

Seburo C-25A: The C25's 6mm ammo stands a unique feature. The bulky design at first never found popularity. However, its 50 round clip capacity found a home in certain fields. Seburo recalled the design and attempted a new angle. The greatest capacity of the new C25A is its in-built
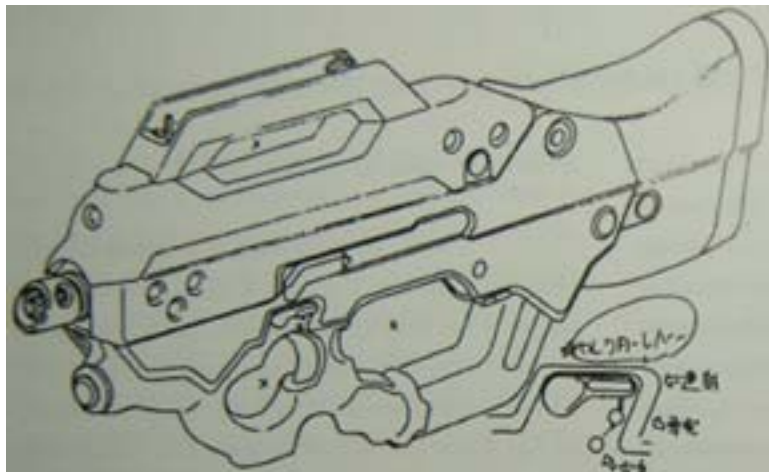
option to use High Velocity rounds without overheating. However, it is not totally immune and still has a 5% chance of overheating every time a HV clip is used. But it does not wear down over time.

Seburo cMN-23: Taking FA-MAS 5.56mm ammunition, made by TokyoMarui, the cMN-23 became the heavy longarm of choice for all non-military units in the public sector. The weapons comfortable design made it an easy weapon to hold, carry, and fire.
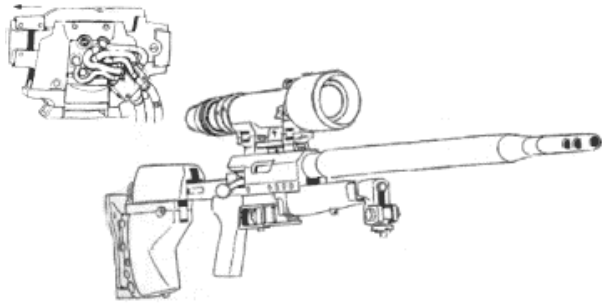
Seburo C-X: The most advanced machine pistol on the market, this 5.7mm autoloader carries a magazine capacity of 30 shots. The laser sight is standard. The prototype design was an instant success and the development team in the Seburo Company found work designing every subsequent model. However, the C-X never found massive circulation because of its inflated cost and is usually only seen in elite mercenary groups and in corporate security.

Seburo C25S Anti Cyborg Precision Sniper Rifle: A very maneuverable sniper rifle light enough to be used by a human. The rifle chambers ten 5.7mm rounds that can reach up to ranges of 1000 yards.

Seburo J9: The J9 is a lesser-known 5.56 mm Sub-Machine gun. Its front heavy design makes it popular mostly in cybernetic circles. The lack of much behind the grip prevents interference when held by less human hands. It has a built-in flash suppressor to prevent giving away its location when firing.

Seburo X74/AS17 Shotgun: Though shotguns won't be able to damage high-class cyborg bodies they can still cause a lot of damage to regular cyborg bodies. The X74 can be loaded with twenty buckshot or twenty slugs.

SIG 541 Assault Rifle: The SIG 541 is the standard assault weapon of NATO special forces (and section 6). It uses 30 standard 5.56mm rounds, and features a shorter length than most full size assault rifles. The SIG 541 also features a selector switch that allows you to choose between single shot, three round bursts and full-auto. This is a common weapon the world over, and can be found in most major countries.

Seburo CSR29 Ultima Ratio: This hyper advanced 7.62 mm was first utilized by section 6 to disable cyborg bodies. The "Ultima Ratio" is Public Security's premier sniper system. This weapon fires 6 Armor-Piercing Fin-Stabilized Discarding Sabot rounds, which consists of a depleted uranium sub-caliber round that easily punches through armor. It also features a recoil absorbing stock and a gyrostabilized mount. However, the real beauty of this weapon is its targeting system. The "Full Sensing" version is equipped with a full spectrum, computer controlled targeting system, which offers unparalleled accuracy. This system can see through walls as well as detect therm-optic camouflage. The "Full Sensing" scope must be interfaced with the sniper via cyberbrain. If in use, the target gains no benefits from concealment (unless total) or therm-optic camouflage. If the total concealment carries a hardness less that the damage dealt, it passes through to strike the target, remove the hardness from the total concealment, passing the remaining damage on to the target.   The UR is can be fitted with HV high explosive rounds. The UR is a tracking weapon. After 4 rounds of tracking a target, target is denied his Dex bonus to Defense, regardless if they are aware of the attack or not. Also, because of advanced critical sensing systems, the Ultima Ratio increases its critical threat rating for every round aiming past the first round to a maximum of 12-20/x2 (Round 1=20, Round 2=19-20, Round 3=18-20, Round 4=17-20, etc).

WLBC Sensor Rifle: The sensor rifle links up to a target's cyberbrain. A direct link with the user can offer bonuses to specific ranges installed. Only one range can be installed at a time and to swap out a Range Inc takes a full minute. The Range Inc installed offers a +4 to hit to any target within that Increment.   The weapon is a popular choice among snipers. It does not offer the +4 bonus in the first range Inc.

Zastaba Nosle CZN-M22 "9Weapon": The CZN-M22 is Section 9's standard issue weapon. I direct descendent of the FN P90 and like its predecessor, it is chambered to the 5.7mm round. It features a selector switch that allows you to choose between single shot, three round bursts and full-auto. The "9Weapon" also comes with a field kit, which includes interchangeable
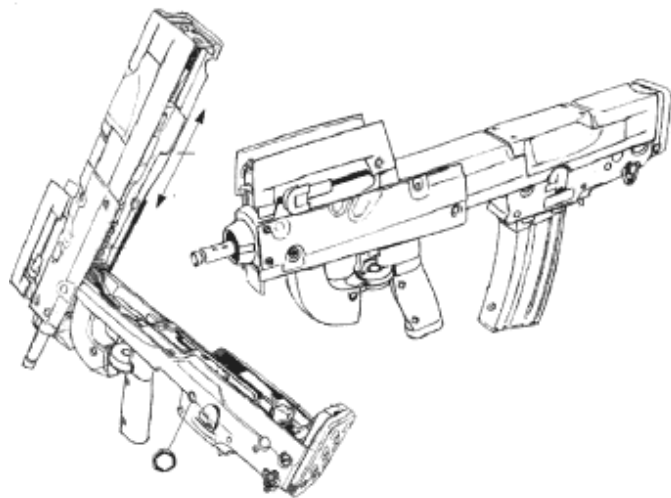
barrels for firing HV loads without adverse effects and a single shot 20mm grenade launcher (see Militech 25mm grenade launcher for stats). It holds 30 rounds.

HEAVY WEAPONS

The weapons covered in this section fall under the Exotic Firearms Proficiency feat. Someone who wields a heavy weapon without the appropriate proficiency takes a –4 penalty on all attack rolls with the weapon.

7.62mm Rotary (Gattling) Cannon:
Six barrels spin around, keeping cooling down and increasing the fire rate, allowing the Rotary to fire twice as fast as any other weapon. Therefore, the firer can allot to fire more shots in a round instead of ten. This increases the Ref save to and increases damage:

*A success roll will still strike for half damage.

Bullet	Ref DC	Damage
10 Shots	15	2d12
20 Shots	16	3d12
30 Shots	17	4d12
40 Shots	20*	4d12
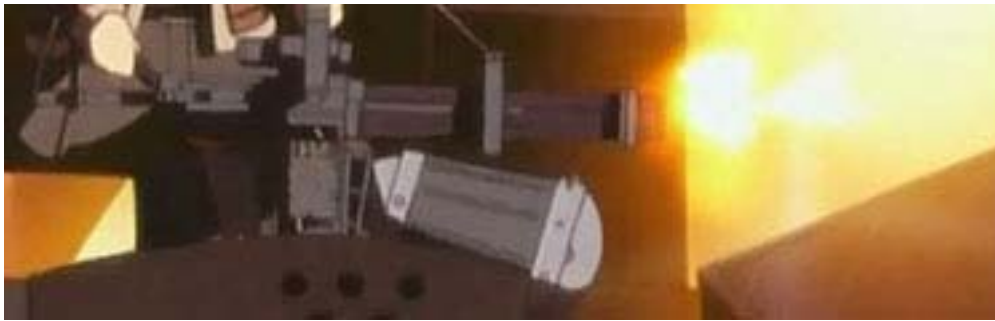
30 mm Sniper Cannon: The most powerful Sniper weapon ever fires HV AP rounds that can penetrate the armored cockpit of a Jigabachi with ease. Clumsy in design, it requires a heavy weapon mount to fire properly. It offers no additional aiming systems like other sniping weapons, requiring Hawkeye data or plain old skill to target itself. However, its punch is its selling point. The target's hardness only counts as half when absorbing the Sniper Cannon's damage.

MMP-A2-Guided Rocket Launcher: The same as a regular rocket launcher except for the next two rounds, it makes an additional attempt to strike the target without the firer's need to guide it. Its base bonus is +10. It, like the rocket, has an AC of 25, a hardness of 5, and 5 hit points. It strikes at the same initiative of the firer. If the firer's base hit bonus is less than +10, than the firer may opt to let the weapon track is target on the first turn.

Kenbishi AMPT Sticky Gun: Kenbishi revolutionized the Multi-Ped Tank Industry more than a decade ago. Since then, they have perfected the technology, making once a far-fetched and impracticable technology feasible and effective on the battlefield. However, as Kenbishi's designs spread throughout the globe, the executives knew there would emerge a market combat these very same machines. Its not like Kenbishi to leave a stone unturned—better they create the technology before another company makes money developing it themselves. The AMPT Sticky Gun is huge, clumsy, and virtually 100% effective for what it does. It sends out a huge dollop of goop from an explosive shell loaded from behind called a mousse shell. It creates a disc of super sticky glue 10 feet in diameter. Anything caught even touching will be held and will become entangled. The Ref DC for targets caught in the radius is 25. Targets struck directly cannot dodge. The target struck can break free and move half its normal speed by using a full-round action to make a DC 20 Strength check or a DC 20 Escape Artist check. If it is struck again before breaking free of the previous round, the DC rises from DC20 to DC25. Every additional shot increases the DC +5.

Railgun / Railcannon: Magnetically accelerate iron flachette launch at such velocities, they penetrate most armor without even slowing down. This is reflected in the weapon high critical rate. It ignores the first 5 points of hardness as well.

RP18-AS – Rocket Launcher: The rocket can be struck if its target is more than 200 feet away. Its AC is 25, has a hardness of 5 and 5 hit points.

SPIW Mini 14 "Penetrator": The SPIW 2020 mini 14 Penetrator anti-tank launcher's official name is "getymono". It is known affectionately by Batou as "your standard issue big gun", the "Penetrator" is truly a monstrous weapon. An armor buster, the weapons takes out even the toughest of opponents. This semiautomatic fires 14.5mm HEAT shells from an over-the-shoulder position. It uses an advanced long-travel recoil absorption system, but even still, the recoil for this weapon is tremendous, and only the toughest troops can manage it. A STR check of 15 is required to avoid taking 1d4 pts of non-lethal damage to the firing arm. All hardness is half when dealing damage from the Penetrator.
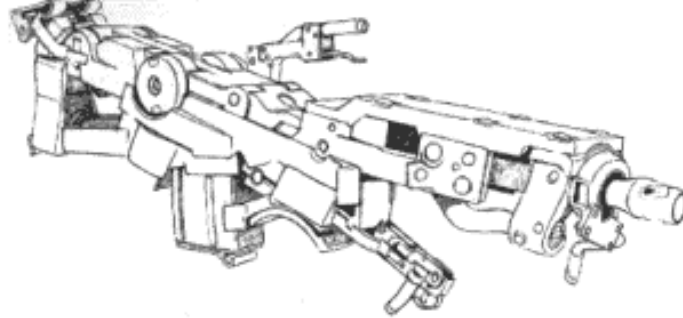
OTHER RANGED WEAPONS

Ranged weapons that are not firearms include such diverse objects as crossbows, tazers, and pepper spray. The feat that provides proficiency with these weapons varies from weapon to weapon, as indicated on Table: Ranged Weapons.

Flamethrower: A flamethrower consists of a pressurized backpack containing fuel, connected to a tube with a nozzle. It shoots a 5-foot-wide, 30-foot-long line of flame that deals 3d6 points of fire damage to all creatures and objects in its path. No attack roll is necessary, and thus no feat is needed to operate the weapon effectively. Any creature caught in the line of flame can make a Reflex save (DC 15) to take half damage. Creatures with cover get a bonus on their Reflex save.

A flamethrower's backpack has hardness 5 and 5 hit points. When worn, the backpack has a Defense equal to 9 + the wearer's Dexterity modifier + the wearer's class bonus. A backpack reduced to 0 hit points ruptures and explodes, dealing 6d6 points of fire damage to the wearer (no save allowed) and 3d6 points of splash damage to creatures and objects in adjacent 5-foot squares (Reflex save, DC 15, for half damage).

Any creature or flammable object that takes damage from a flamethrower catches on fire, taking 1d6 points of fire damage each subsequent round until the flames are extinguished. A fire engulfing a single creature or object can be doused or smothered as a full-round action. Discharging a fire extinguisher is a move action and instantly smothers flames in a 10-foot-by-10-foot area.

A flamethrower can shoot 10 times before the fuel supply is depleted. Refilling or replacing a fuel pack costs 500.

NetGun: A short-range weapon with only 5 shots, a strike entangles the target. The victim receives –2 to attack rolls, -4 to Dex. The victim also cannot move. The victim needs to beat a Strength DC of 20 or an Escape Artist check (DC25) to escape. The web lasts 60 minutes.

Pepper Spray: A chemical irritant that can temporarily blind a target, pepper spray comes in a single-shot container. To use it, make a ranged touch attack against the target. The target must make a Fortitude saving throw (DC 15) or be blinded for 1d4 rounds.

Tazer: A tazer uses springs or compressed air to fire a pair of darts at a target. On impact, the darts release a powerful electrical current. On a successful hit, the darts deal 1d4 points of electricity damage and the target must make a Fortitude saving throw (DC 15) or be paralyzed for 1d6 rounds. Reloading a tazer is a full-round action that provokes attacks of opportunity.

SUPER HEAVY MOUNTED WEAPONS

Mounted weapons MUST be mounted on a brace and cannot be hand held. Even still, these weapons incur an automatic –4 to hit while on turrets because of their clumsy nature. Super Heavies on fixed mounts only receive this penalty if the –4 is greater than vessels maneuverability penalty (which penalizes aiming). Super heavies cannot take alternative ammunition.

(EG: A vessel's maneuver penalty is –4. Therefore, a Super Heavy Weapon would receive a –4

penalty on a turret and fixed. The advantage of having fixed is for firing arc.   A vessel with a Penalty of –8 receives a –8 for firing a weapon fixed or –4 if its turret mounted. A vessel with a +4 Maneuverability balances out. Both Turret and fixed mounts receive 0 penalties.)

12.7 mm Rotary (Gattling) Cannon: Six barrels spin around, keeping cooling down and increasing the fire rate, allowing the Rotary to fire twice as fast as any other weapon. Therefore, the firer can allot to fire more shots in a round instead of ten. This increases the Ref save to and increases damage:

*A success roll will still strike for half

Bullet	Ref DC	Damage
20 Shots	17	2d12+12
30 Shots	19	3d12+12
40 Shots	22	4d12+12
50 Shots	24*	4d12+12

30 mm Gattling cannon: Six barrels spin around, keeping cooling down and increasing the fire rate, allowing the Rotary to fire twice as fast as any other weapon. Therefore, the firer can allot to fire more shots in a round instead of ten. This increases the Ref save to and increases damage:

*A success roll will still strike for half

Bullet	Ref DC	Damage
30 Shots	22	4d12+24
40 Shots	24	5d12+24
50 Shots	26*	5d12+24

Gun-type Anti-aircraft 35mm Autonomous Anti-Aircraft Machine Cannon: Usually unmanned anti-aircraft machinegun that is standard issue by the JGSDA. It is also possible to control these autonomous units by direct link.

Twin Thunder Machine Gun: The Twin Thunder is a reduced-recoil .50 caliber machine gun capable of dispensing roughly 260 rounds per minute. The machine gun is designed for use in combat by two soldiers, a single gunner and an aide to feed the ammunition belt into the weapon. What makes the Twin Thunder unique from other modern machine guns is that its reduced recoil allows for greater accuracy over longer distances with less variance in the aim of the user. Later on, it was adapted with Cyberbrain remote access to it could operate from a distance from the controller. However, using this option incurs a –2 penalty to hit.

C O N C E A L E D   W E A P O N S   A N D   O B J E C T S
It's assumed that, when attempting to conceal a weapon or other object, a character is wearing appropriate clothing. Drawing a concealed weapon is more difficult than drawing a regularly holstered weapon, and normally requires an attack action. Keeping the weapon in an easier-to-draw position makes concealing it more difficult.

Sleight of Hand Checks: To conceal a weapon or other object, make a Sleight of Hand check. A character concealing an object before he or she heads out into public can usually take 10 unless he or she is rushed, trying to conceal it when others might see, or under other unusual constraints. Sleight of Hand can be used untrained in this instance, but the character must take 10.

Size and Concealment: The object's size affects the check result, as shown on Table: Concealing Weapons and Objects. The type of holster used or clothing worn, and any attempt to make a weapon easier to draw, can also affect the check.

Spotting Concealed Objects: Noticing a concealed weapon or other object requires a Spot check. The DC varies: If the target made a roll when concealing an object, the DC of the Spot check to notice the object is the same as the target's check result (an opposed check, in other words). If the target took 10 on his or her Sleight of Hand check, use this formula:

Spot DC = Target's Sleight of Hand skill modifier (including modifiers from Table: Concealing Weapons and Objects) + 10

An observer attempting to spot a concealed object receives a –1 penalty for every 10 feet between him or herself and the target, and a –5 penalty if distracted. Patting someone down for a hidden weapon requires a similar check. However, the skill employed in Search, and the searcher gets a +4 circumstance bonus for the hands-on act of frisking the target. Some devices may also offer bonuses under certain circumstances (a metal detector offers a bonus to Search checks to find metal objects, for example).

Table: Concealing Weapons and Objects	
Condition	Sleight of Hand Modifier
Size of weapon or object	
Fine	+12
Diminutive	+8
Tiny	+4
Small	+0
Medium-size	–4
Large	–8
Huge or larger	can't conceal
Clothing is tight or small	–4
Clothing is especially loose or bulky	+2
Clothing is specifically modified for concealing object	+2
Weapon is carried in concealed carry holster	+4
Weapon can be drawn normally	–2
Weapon can be drawn as free action with Quick Draw feat	–4

Spotting Concealable Armor: Concealable armor can be worn under clothing if the wearer wants it to go unnoticed. Don't use the modifiers from Table: Concealing Weapons and Objects when wearing concealable armor. Instead, anyone attempting to notice the armor must make a Spot check (DC 30).

RELOADING FIREARMS

Reloading a firearm with an already filled box magazine or speed loader is a move action. Refilling a box magazine or a speed loader, or reloading a revolver without a speed loader or any weapon with an internal magazine, is a full-round action. Loading a belt of linked ammunition is a full-round action. Linking two belts together is a move action.

AMMUNITION

Seburo Rounds: Seburo manufactures most ammunition in the future, both for their weapons and for other companies. Seburo is the largest weapons manufacturer in the world. Ammunition for firearms and other ranged weapons is covered on Table: Ammunition.

5.56mm, 7.62mm, 7.62mmR, .444, .50: These calibers of ammunition are generally used in rifles, assault rifles, or machine guns, and are sold in boxes of 20 bullets each. The .50 caliber is a huge cartridge generally fired from heavy machine guns, but also adapted to a few models of powerful sniper rifles.

9mm, 10mm, .22, .32, .38 S, .357, .44, .45, .50AE: These calibers are generally used in pistols or submachine guns, and are sold in boxes of 50 bullets each. The .50AE pistol round is not compatible with the much larger .50 rifle-caliber cartridge (see above).

10-gauge Buckshot, 12-gauge Buckshot: Shotgun cartridges, also known as buckshot, are sold in boxes of ten. All other ammunition quantities are listed. If unsure of the weapon's ammo type, refer to the closest weapon in range and damage.

High Velocity rounds: HV ammunition looks the same as its identical counterpart but costs **five (x5)** times as much. "HV" refers to actual ultra-high performance high-velocity armor-piercing shells. These shells were developed for handguns and submachine guns. HV bullets carry much high penetration

power, but they do not have very good stopping potential against normal humans because they go right through them. Since these bullets are very effective against bulletproof vests, light armor, cyborgs, etc., they are fairly common but generally are not available to civilians. Each boxes comes with a warning label, indicating the weapon being fitted with HV ammo <u>must</u> be retrofitted with the appropriate components or risk damage to the firing mechanism or even the holder of the weapon. HV ammo fires faster and causes more damage upon impact. HV ammo ignores the first 5 points of hardness with every shot. The increased damage of HV ammo = the maximum roll of a single die of the original damage.   If the original weapon does 3d6, it can now dish out 3d6+6. If the weapon was 4d12, it now strikes with 4d12+12! However, there is a drawback. Most handguns can fire HV ammo without problems, as long as they are mastercraft.

Ones taking HV ammo that are not Mastercraft risk a 10% chance the bullet will melt the fire mechanism, rendering the weapon useless, every time it is discharged.

Table: Ammunition		
Ammunition Type (Quantity)	Cost	Rest
5.00 mm (20)	30	Lic (+1)
5.56mm (20)	30	Lic (+1)
5.7 mm (50)	70	Lic (+1)
6 mm (50)	70	Lic (+1)
7.62mm (20)	30	Lic (+1)
7.62mm Rotary (50)	90	Res (+2)
.454 caliber (20)	50	Res (+2)
.50 caliber (20)	50	Res (+2)
9mm (50)	70	Lic (+1)
10mm (50)	100	Res (+2)
30 mm Sniper (5)	50	Mil (+3)
12.7 mm Rotary (100)	400	Mil (+3)
30 mm Rotary (100)	700	Mil (+3)
35 mm (100)	700	Mil (+3)
.22 caliber (50)	60	Lic (+1)
.32 caliber (50)	60	Lic (+1)
.38 special (50)	60	Lic (+1)
.357 caliber (50)	80	Lic (+1)
.44 caliber (50)	100	Lic (+1)
.45 caliber (50)	120	Lic (+1)
.50AE caliber (50)	80	Res (+2)
10-gauge buckshot (10)	40	Lic (+1)
12-gauge buckshot (10)	40	Lic (+1)
Railgun Slug (10)	200	Lic (+1)
14.5 HEAT (1)	100	Mil (+3)
Sticky Gun (1)	100	Res (+2)
Napalm Cylinder (Flamethrower)	500	Mil (+3)
Net Gun (1)	50	Lic (+1)
New Gun (Stun) (1)	75	Lic (+1)

With Longarms, the same rules apply. However, if set on anything other than single-shot, things get interesting.   Every burst that fires has a 25% chance of melting the firing mechanism. Emptying the clip also carries a 50% chance of melting the mechanism. On that same roll, there is a 5% chance the gun will explode, dealing the weapon's normal damage to the wielder.

Important NOTE: The additional damage only applies to structures, vehicles, and cyborgs, and not organics (normal humans).

Armor Piercing rounds: AP ammo costs **three (x3)** times as much as regular ammunition and is available in all forms except railguns. It ignores the first 5 points of hardness when striking its target.

Anti-Cyborg Sabot rounds: ACS ammunition is available in all size ammunition below and including 20mm and above and including 5.7 mm (.38 caliber to .50 caliber). It cannot be used in any settings above single shot or it will jam its weapon on the second bullet if attempted. The ACS Sabot's killing damage is half its normal dice (rounded down). The half remaining dice are delivered for electrical stun damage. (Eg: A Jericho deals 3D6 damage. It now deals 1d6 lethal damage and 2d6 Electrical stun damage. Anyone struck with an ACS Sabot must make a fort save. A fail at DC10 results in incapacitation for 2d4 rounds. A fail as DC15 results in stunning for 2d4 rounds. Every additional bullet that hits within 4 rounds of the previous bullet increases the DC by +1 to both DCs. If more than 4 rounds pass between strikes, the DC remains unchanged. Against cyborgs, the DC starts at +2 (DC12 & DC17)

The cost of ACS Sabot weaponry is x3 the normal price of ammunition.

EXPLOSIVES & SPLASH WEAPONS

These weapons explode or burst, dealing damage to creatures or objects within an area. Explosives can be thrown or set off in place, depending on the type of explosive device. Dynamite and hand grenades are examples of these weapons.

All explosives must be detonated. Some, such as grenades, include built-in detonators. (Pulling

the pin on a grenade is a free action.) Others require timers or other devices to set them off. Detonators are covered in Weapon Accessories.

A splash weapon is a projectile that bursts on impact, spewing its contents over an area, and damaging any creature or object within that area. Generally, creatures directly hit by splash weapons take the most damage, while those nearby take less damage. Splash weapons usually must be thrown to have effect. Explosives and splash weapons require no feat to use with proficiency unless they are fired or propelled from some sort of launcher or other device, in which case the appropriate Weapon Proficiency feat for the launcher is necessary to avoid the –4 nonproficient penalty.

Explosives and Splash Weapons Table: Explosives and splash weapons are described by a number of statistics, as shown on Table: Explosives and Splash Weapons.

Damage/Direct Hit Damage: The primary damage dealt by the weapon. For explosives, the Damage column shows the damage dealt to all creatures within the explosive's burst radius. For splash weapons, the Direct Hit Damage column is used for a target directly struck by the weapon.

Burst Radius/Splash Damage: For explosives, the burst radius is the area affected by the explosive. All creatures or objects within the burst radius take damage from the explosive.
For splash weapons, all creatures within 5 feet of the weapon's impact point take splash damage equal to the amount shown in this column.

Damage Type: Damage from explosives and splash weapons is classified according to type: energy (of a specific type) or slashing. Some creatures or characters may be resistant or immune to some forms of damage.

Critical: The threat range for a critical hit. If the threat is confirmed, a weapon deals double damage on a critical hit (roll damage twice, as if hitting the target two times).

Reflex DC: Any creature caught within the burst radius of an explosive may make a Reflex save against the DC given in this column for half damage.

Range Increment: If the weapon can be thrown, its range increment is shown in this column. Explosives with no range increment must be set in place before being detonated. (See the Demolitions skill)

Size: Size categories for weapons and other objects are defined differently from the size categories for creatures. The relationship between a weapon's size and that of its wielder defines whether it can be used one-handed, if it requires two hands, and if it is a light weapon. A Medium-size or smaller weapon can be used one-handed or two-handed. A Small or smaller weapon is considered a light weapon. It can be used one-handed and, as a light weapon, is easier to use in a character's off hand.

Weight: This column gives the weapon's weight.

Cost: This is the purchase price of the weapon. This number reflects the base price and doesn't include any modifier for purchasing the weapon on the black market.

Restriction: The restriction rating for the weapon, if any.

Scaling: Some weapons can be scaled. This increases their damage, size, and cost. All scaled explosives are immediately Illegal (+4) if not already. Levels do not stack.

Level 1: Standard

Level 2: Enlarged – 50% increase in damage dice and blast radius (round down). REF DC increases +2. Range Inc drops –5 feet (min 0). One size scale up. Weight doubles. Cost Doubles.

*Level 3: Specialized Replacement—*Replacements for tank shells, Mortar rounds, or small bombs. 100% increase in damage dice and blast radius. REF DC increases +4. Cannot be thrown at all. Must be fired from an external launcher. One size scale up. Weight triples. Cost increases x4. *Note:* The 40 mm Grenade launcher falls under this category.

Level 4: Warhead – 150% increase in damage dice and blast radius (round down). REF DC increases +4. Weapons MUST be warhead mounted or Bomb dropped. Two sizes scale up. Weight quadruples. Cost increases x8.

Level 5: Bomb -- 200% - 250% increase in damage dice and blast radius (round down). REF DC increases +8. Weapon must be a dropped bomb. Three size scales up. Weight increases x5. Cost increases by x10.

GRENADES

Many explosives require detonators, which are described in Weapon Accessories.

C4/Semtex: So-called "plastic" explosives resemble slabs of wax. Hard and translucent when cold, these explosives warm up when kneaded, and then can be coaxed to take various shapes. The

Weapon	Dam	Dam. Type	Crit	Burst Radius	Reflex DC	Range Inc.	Size	Wt.	Rest.	Cost
Det cord	3d6	Fire	—	See text	12	—	Med	2 lb.	Res(+2)	150
EMP *	4d6	Lightning	--	2- ft	18	10 ft	Small	2 lb.	Mil(+3)	350
Fire Grenade*	10d8	Fire	--	20ft	18	10ft	Small	5lb.	ILL(+4)	550
Flash Grenade.*	Special	Special	--	10ft	Fort 18	10ft	Small	2lb.	Res(+2)	100
Fragmentation* grenade	4d6	Slashing	—	10 ft.	15	—	Tiny	1 lb.	Mil(+3)	200
High Intensity Discharge*	2d10+10	Concussion	--	10 ft.	15	10 ft	Lrg	10lb	Mil(+3)	600
Nerve Toxin Grenade*	Special	Gas	--	10ft	Fort 20	10ft	Small	3lb	ILL(+4)	500
Smoke grenade*	—	See text	—	10 ft.	—	—	Small	2 lb.	—	100
Sonic Grenade*	Special	Sonic	--	20ft	Fort 18	10ft	Small	3lb.	Res(+2)	150
Sonic pulse Grenade	3d6 special[1]	Sonic	--	15 ft.	12	10 ft.	Tiny	1 lb.	Res(+2)	200
Tear Gas Grenade*	SeeText	—	—	10 ft.	SeeText	—	Small	2 lb.	Res(+2)	150
Thermite grenade*	7d6	Fire	—	5 ft.	12	10 ft.	Small	2 lb.	Mil (+3)	300
White Phosphorus* grenade	3d6	Fire	—	20 ft.	12	10 ft.	Small	2 lb.	Mil (+3)	200
Gertex	5d6	Concussion	—	10 ft.	18	—	Small	1 lb.	Mil(+3)	250
Semtex	6d6	Concussion	—	10 ft.	18	—	Small	1 lb.	Mil(+3)	250
* Can be scaled (see below)										

information on the table represents a 1-pound block. Additional blocks can be wired together, increasing the damage and burst radius; each additional block increases the damage by +2d6 and the burst radius by 2 feet, and requires a Demolitions check (DC 15) to link them. Although the damage statistics on the table represent a 1-pound block, C4 is sold in 4-block packages. The price given represents a package of 4 blocks. C4/Semtex requires a detonator to set off. It is considered a moderate explosive for using a Craft (chemical) check to manufacture it.

Gertex: Gertex is a coined term. It's a Czech-manufactured plastic explosive (PE), second in popularity only to Semtex. A real headache for security, it can't be detected by sensors at airports, yet only 10 ounces of it can blow a 747 to smithereens. Additional blocks can be wired together, increasing the damage and burst radius; each additional block increases the damage by +2d6 and the burst radius by 2 feet, and requires a Demolitions check (DC 15) to link them. Although the damage statistics on the table represent a 1-pound block, C4 is sold in 4-block packages. The price given represents a package of 4 blocks. C4/Semtex requires a detonator to set off. It is considered a moderate explosive for using a Craft (chemical) check to manufacture it.

Det Cord: Det cord is an explosive in a ropelike form. Technically, det cord doesn't explode— but it burns so fast (4,000 yards per second) that it might as well be exploding. Normally used to string multiple explosive charges together for simultaneous detonation (allowing a single detonator to set them all off), det cord can also be looped around a tree or post or other object to cut it neatly in half. The information on the table represents a 50-foot length. A length of det cord can be spread out to pass through up to ten 5-foot squares. When this is the case, it deals the indicated damage to all creatures in each 5-foot square through which it passes. It can also be doubled up; for each additional 5 feet of cord within a single 5-foot square, increase the damage by +1d6 to a maximum increase of +4d6. Det cord requires a detonator to set it off. It is considered a simple explosive for using a Craft (chemical) check to manufacture it.

EM402 – Electro-magnetic grenade: This grenade sends out large bursts of lightning which causes damage to everyone, even though it effects Cyborgs, electronics, and cybernetic components more.

Fire Grenade: A powerful napalm blast.

Flash Grenade: Those struck inside the blast radius must make a Fort save of DC 18 or be blinded for 1d6 hours.

M688 Fragmentation Grenade: This small explosive device must be fired from a 40mm grenade launcher, such as the M79. It sprays shrapnel in all directions when it explodes. The 40mm fragmentation grenade has a minimum range of 40 feet. If fired against a target closer than 40 feet away, it does not arm and will not explode. The purchase price given is for a box of 6 grenades.

High Intensity Discharge: The HID Grenade is the most common grenade used in Section 9 Tachikomas. It is not available in standard scale.

Nerve Toxin Grenade: A deadly and illegal weapon. Under 3HD of creatures die instantly if caught in the blast. 4-6 HD of creature need a Fort save against 20 or die. Above 6HD must save or take 1d10 damage per round in the gas.

Smoke Grenade: Military and police forces use these weapons to create temporary concealment. On the round when it is thrown, a smoke grenade fills the four squares around it with smoke. On the following round, it fills all squares within 10 feet, and on the third round, it fills all squares within 15 feet. The smoke obscures all sight, including the ability granted by night vision goggles. Any opponent within the area has total concealment (attacks suffer a 50% miss chance, and the attacker can't use sight to locate the target). It disperses after 10 rounds, though a moderate wind (11+ mph) disperses the smoke in 4 rounds and a strong wind (21+ mph) disperses it in 1 round. Smoke grenades are available in several colors, including white, red, yellow, green, and purple. As such, they can be used as signal devices. The price given is for a box of 6 grenades.

Sonic Grenade: Those struck inside the blast radius must make a Fort Save DC 18 or be deaf for 1d6 hours.

Tear Gas Grenade: Military and police forces use these weapons to disperse crowds and smoke out hostage takers. On the round that it is thrown, a tear gas grenade fills a 5-foot radius with a cloud of irritant that causes eyes to fill with tears. On the following round, it fills a 10-foot radius, and on the third round, it fills a 15-foot radius. It disperses after 10 rounds, though a moderate wind (11+ mph) disperses the smoke in 4 rounds and a strong wind (21+ mph) disperses it in 1 round. A character caught in a cloud of tear gas must make a Fortitude save (DC 15) or be nauseated. This effect lasts as long as the character is in the cloud and for 1d6 rounds after he or she leaves the cloud. Those who succeed at their saves but remain in the cloud must continue to save each round. A gas mask renders the target immune to the effects. A wet cloth held over the eyes, nose, and mouth provides a +2 bonus on the Fortitude save.

Thermite Grenade: Thermite does not technically explode. Instead, it creates intense heat meant to burn or melt through an object upon which the grenade is set. Military forces use thermite grenades to quickly destroy key pieces of equipment. The price given is for a box of 6 grenades.

White Phosphorus Grenade: White phosphorus grenades use an explosive charge to distribute burning phosphorus across the burst radius. Any target that takes damage from a White Phosphorus grenade is dealt an additional 1d6 points of fire damage in the following round and risks catching on fire. In addition, a WP grenade creates a cloud of smoke. Treat a white phosphorus grenade as a smoke grenade (see above), except that it only fills squares within 5 feet of the explosion point. The purchase price is for a box of 6 grenades.

Sonic Pulse: A sonic pulse grenade deals 3d6 points of nonlethal sonic damage to any living creature in the burst radius. (Robots and other nonliving creatures are not affected.) In addition, creatures that take damage from the sonic pulse grenade must also succeed on a Fortitude save (DC 12) or be shaken for 1d4 rounds.

Grenades, Missiles, and Mines: Most explosives are given in the form of grenades. These grenades provide the base form for these weapons, but equivalent missiles or mines can also exist.   To create a missile from a grenade covered here, simply take the base statistics of the grenade and use them as the statistics for ammunition for a missile launcher. Be sure to adjust the range increment, since missiles travel much farther than thrown grenades. Mines are treated in almost the opposite way; their range increment is eliminated. A mine must be placed to be effective. Despite differences in their form, missiles, mines, and grenades all have the same primary effect regardless of the method of delivery for their payloads.

ARMOR

Body armor comes in a variety of shapes and sizes, providing varying degrees of coverage and varying heaviness of materials. Three feats cover proficiency in the use of armor: Armor Proficiency (light), Armor Proficiency (medium), and Armor Proficiency (heavy).

Armor Table: Armor is described by a number of statistics, as shown on the table below.

Type: Armor comes in four types: impromptu, concealable, tactical, and advanced. Impromptu armor includes items that provide protection even though they weren't designed for that purpose, such as leather biker's jackets and football pads. Concealable armor is modern body armor designed to fit underneath regular clothing. It can be worn for extended periods of time without fatiguing the wearer. Tactical armor is modern body armor that fits over clothing and can't be easily concealed. Its weight and bulk make it impractical to wear all the time, and it is generally only donned when a specific dangerous confrontation is likely. Because it is worn over clothing in tactical situations, tactical armor often has pockets, clips, and Velcro attachment points for carrying weapons, grenades, ammunition, flashlights, first aid kits, and other items. Advanced armor progresses past the previous three types with additional features, some obvious, some beyond the realm of imagination.

Damage Resistance: The protective value of the armor against firearms. Any additional protection is listed as well.

Nonproficient Bonus: The maximum amount of the armor's Hardness that can be applied to the wearer's if the wearer is using armor with which he or she isn't proficient (doesn't have the appropriate feat).

Maximum Dex Bonus: This number is the maximum Dexterity bonus to Defense that this type of armor allows. Heavier armor limits mobility, reducing a character's ability to avoid attacks. Even if a character's Dexterity bonus drops to +0 because of armor, the character is not considered to have lost his or her Dexterity bonus.

Armor Penalty: The heavier or bulkier the armor, the more it affects certain skills. This penalty applies to checks involving the following skills: Balance, Climb, Escape Artist, Hide, Jump, Move Silently, and Tumble.

Speed: Medium and heavy armor slows a character down. The number in this column is the character's speed penalty while in armor. Normal speed for unaltered human being is 30ft. *SPECIAL:* For Powered Armor, this number flips to the machine's top speed, not speed penalty. For additional speed benefits (wheels), see the armor's description.

Weight: This column gives the armor's weight.

Cost: This is the purchase price to acquire the armor. This number reflects the base price and doesn't include any modifier for purchasing the armor on the black market.

Armor	Type	Damage Resistance (DR)	Nonprof. Bonus	Max Dex Bonus	Armor Penalty	Spd.	Wt.	Cost	Rest.
Light Armor									
Flight Suit and helmet	Tactical	2, 5/Fire	1	+4	–0	0	2 lb.	180	Lic (+1)
Leather jacket	Impromptu	1	1	+6	–0	0	4 lb.	150	—
Light Undercover Shirt	Concealable	2	1	+5	–0	0	2 lb	200	Lic(+1)
Metal Lace	Concealable	4	1	+6	0	0	2lb.	5 500	Res(+2)
Skin Suit	Concealable	1	1	+10	-0	0	2lb.	5000	Mil(+3)
Sticky Suit	Tactical	3	1	+10	-0	0	4 lb.	2000	Lic (+1)
Medium Armor									
Concealable Vest	Concealable	4	2	+4	–3	-5	4 lb.	200	Lic(+1)
Flack Longcoat	Tactical	5	2	+3	-4	-5	10lb.	2200	Lic(+1)
Light-duty vest	Tactical	4, 5/Fire, Electrioity	2	+3	–4	-5	8 lb.	250	Lic(+1)
Pressure Suit	Tactical	5	0	+0	-4	-5	20lb.	1500	Lic(+1)
SWAT Raid	Tactical	5	2	+4	-4	-5	20 lb	3000	Res(+2)
Tactical vest	Tactical	6	2	+2	–5	-5	10lb.	250	Lic(+1)
Type 2902	Tactical	5, 5/Fire	2	+8	-2	0	15 lb	8000	Mil(+3)
Heavy Armor									
Armored Spacesuit	Tactical	7, 10/Fire, Electricity	3	+1	-6	-10	25 lb	5 000	Mil(+3)
Forced Entry Unit	Tactical	9	3	+0	–8	-10	20lb.	300	Lic(+1)
Land warrior armor	Tactical	6	3	+3	–3	-10	10 lb	2000	Lic (+1)
Special Response Vest	Tactical	7	3	+1	–6	-10	15lb.	250	Lic(+1)

Powered Armor (All powered armor are classed as advanced)

Armor	Hardness	Max Dex Bonus	Hit Points	Armor Penalty	Spd.	Critical Defense	Cost	Str.	Rest.
Dazhdbog Arm Suit	20	0	70	-10	30	40	35000	34	ILL(+4)
Forced Entry Arm-Slave	15	2	40	-4	45	20	35000	28	Mil(+3)
Fuchikoma. Standard	10	4	30	Spcl	30/200	20	50000	24	Mil (+3)
Fuchikoma, Military	15	4	55	Spcl	30/265	30	70000	28	Mil (+3)
GSDF RCPS Armored Suit	15	1	50	-5	40	30	35000	28	Mil (+3)
GSDF Tactical Arm-Slave X100	20	1	70	-8	30	30	40000	34	Mil (+3)
Tachikoma	15	4	50	Spcl	30/265	30	65000	26	Mil (+3)
Think Tank	10	3	30	Spcl	15/150	15	45000	24	Mil (+3)

Restriction: the restriction rating for the armor, if any and the appropriate black market purchase modifier.

Power Suits: Powered armor has their own additional rules for physical abilities as well as their own hit points. See each suit for their own abilities.

Hit Points: The Hit Points of the suit.

Armor Penalty: A suit cannot pick pockets. Swim and Hide difficulty is –10 more than the number listed. Suits are waterproof but they don't float. They are also all large.

Critical Defense: The suit will absorb this much amount of damage before translating the rest to the pilot.

Cost: The value on the open market.

Strength Bonus: The strength of the Power Suit.

LIGHT ARMOR

For the character that doesn't want to be bogged down by more cumbersome armor types, a leather garment or some sort of concealable armor is just the ticket.

Leather Jacket: This armor is represented by a heavy leather biker's jacket. A number of other impromptu armors, such as a football pads and a baseball catcher's pads, offer similar protection and game statistics.

Light Undercover Shirt: Designed for deep undercover work in which it's critical that the wearer not appear to be armed or armored, this garment consists of a T-shirt with a band of light protective material sewn in around the lower torso.

Skin Suit: The skin suits offers little protection. What it does offer, however, is therm-optic camouflage. They require the subject not have any more clothing to disrupt the signal. Wearing clothing halves its abilities. The Skin suit works in harsh environments and even works when wet. Like all therm-optics, the character gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving (even though opponents can't see you, they might be able to figure out where you are from other visual clues plus therm-optics are not perfect). This bonus is cut in half if the character attacks another in melee or ranged. If the target is aware of your existence (he detects you visually, aurally, or you attack him), you still receive a 20% blur ability. A built in power source lasts for 5 minutes (50 rounds) before draining. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.

Sticky Suit: Basically, this suit gives the wearer the capacity to scale walls with ease. Nano – filaments give the suit the capacity to stick to any surface and hold there with reliability. It attaches itself on its own power with Str 18. For the wearer, it offers a +30 competency bonus to all climb checks.

Undercover Vest: Covering a larger area of the torso, this vest provides better protection than the light undercover shirt—but it is also more easily noticed. It is best used when the armor should remain unseen but the wearer doesn't expect to face much scrutiny, granting a +2 bonus on Spot checks to notice the armor.

MEDIUM ARMOR

Most medium armor (except for the archaic chain mail shirt) is not terribly heavy, but nonetheless provides a significant amount of protection—at the expense of some speed.

Concealable Vest: Standard issue in many police forces, this vest provides maximum protection in a garment that can be worn all day long under regular clothing. While it may go unnoticed by a quick glance, it is usually visible to anyone looking closely for it, granting a +4 bonus on Spot checks to notice the armor.

Light-Duty Vest: A lightweight tactical vest designed for extended use by riot police and forces on alert for potential attack, this armor sacrifices a degree of protection for a modicum of comfort— at least compared to other tactical body armors.

SWAT Raid: Similar to the 2902, the SWAT Raid does not have Therm-Optics but it is a medium incursion defense setup with good stopping power. Its full cover helmet contains a guided camera that extends from the side. It can look around corners or peer through vents. It can extend up to three feet and requires a DC25 Spot with a casual check. Built in encryption maintains security with communication.

Tactical Vest: The standard body armor for police tactical units, this vest provides full-torso protection in the toughest flexible protective materials available.

Type 2902: A more effective combat suit with equipped therm-optic, it became the main combat choice for members of Section 9. Like all therm-optics, the character gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving (even though opponents can't see you,

they might be able to figure out where you are from other visual clues plus therm-optics are not perfect). This bonus is cut in half if the character attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). If the target is aware of your existence (he detects you visually, aurally, or you attack him), you still receive a 20% blur ability. Water interference has a 65% chance of shorting out the coat for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the coat for 2d6 rounds. A built in power source lasts for 30 minutes (50 rounds) before draining. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.

HEAVY ARMOR

For the best protection money can buy, go with heavy armor, but watch out for the armor penalty.

Forced Entry Unit: The most powerful basic protection available is built into this suit, which consists of a heavy torso jacket with ceramic plates over the chest and back, neck and groin guards, arm protection, and a helmet. Heavy and cumbersome, this armor is generally only donned by tactical officers heading into a dangerous assault.

Special Response Vest: Built like the tactical vest, but incorporating groin and neck protection as well as a ceramic plate over the chest, this armor provides additional protection in battles against heavily armed opponents.

Land Warrior Armor: The Land Warrior combat system was a major Information Age step in the ongoing effort to increase the efficiency of the individual solder. The primary benefits of Land Warrior armor are found in its communications and sensor gear; each Land Warrior armor has a built-in computer that is capable of sending and receiving text and image transmissions (via a display built into the armor), including images captured from the scope of a linked OICW assault rifle or TacMil sniper rifle. Additionally, the display can be linked to the scopes on those weapons to provide real-time representations of what the scope can see, allowing the wearer to fire around corners with ease. In addition to the communications and data equipment, the armor functions as standard infantry battle armor complete with bullet-resistant plating and Kevlar protective gear. The armor allows for instantaneous transmission of coordinates and targeting information, allowing teams of Land Warrior-capable soldiers to communicate and coordinate with ease and efficiency.

Space Suit: The standard space suit used by NASA and other space programs is a completely enclosed environment suit capable of sustaining life in extremes of temperature and a lack of breathable air. The suit is large and bulky, composed of a thick body suit and helmet with a transparent mask, all parts of which are capable of deflecting micro-meteors and other space-borne projectiles. Inside the suit, internal air tanks and environmental filters maintain temperature and pressure. Additionally, a communications system not only allows for radio transmissions to the space shuttle but also allows internal sensors to monitor biological functions that can be observed from mission control. The space suit is poor combat armor, but allows for movement and action in space.

POWERED ARMOR

Power armor possesses advanced built in sensors. Its standard capabilities include:
--Infrared at 120 feet
--See invisible objects at 30 feet.
--While Powered armor operate, they separate the pilot from the outside world. As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Acid, cold, fire and lightning resistance 10
--They must have direct input from manual controls. Even though the pilots may be hacked, the machine's control cannot by wrested from them from outside sources.
--Pilots cannot wear any armor heavier than light while in a suit. Their suits are form fitting and tight.
--As a full action, the Pilot can eject. The pilot can auto destruct the suit or it falls prone at that point.
--Any PC in power armor receives combat experience as his PC power level +1.
--Except for the Tachikomas/Fuchikomas and the Dazhdbog, Powered armor have normal hands for holding weapons.

Combat with Powered Armor: If the attacker scores a critical hit on a powered armor, the Critical Defense is halved. The moment the suit's hit points are at half, the next hit that deals damage to

the Pilot in any amount compromises the integrity of the sealed environment and is susceptible to gas and poison attacks. All further attacks until it is repaired that penetrate to the pilot also can affect him if there are additional rules to the strike

For someone to hurt the Pilot, they must strike the suit, do enough to penetrate the hardness, and overcome the critical defense.

When Powered Armor's Hit Points reaches zero, it still works but no longer protects its pilot as well. Note: If an armor had 1 HP and is struck, it gets all the advantages and defenses of THAT attack and these penalties occur after that attack is resolved.

Critical Defense is 0
Speed is ½ of listed.
Hardness is reduced by 5 (min 0).
Max Dex Bonus is ½ of listed.
Strength is reduced by 5.
All weapon bonuses are reduced to 0

When the powered armor is reduced to –20 hit points, it stops working altogether. It falls prone, non-functioning. At –30, it explodes, causing 10d10 of physical and fire damage (one damage, two types) to the pilot if she is inside (REF DC 30) and 5d10 to everything within 20 feet (REF DC 25). Hopefully, the pilot has ejected before this happens.

Dazhdbog Arm Suit: Based on the Type 1 GSDF, the Dazhbog designers (from Sagawa under contract from the Russian Government) made no attempt to emulate the human body with the design. The suit has found expanded circulation in Japan and in Russian. The GSDF still operate units but mostly in Bertarve. It features huge arms, secondary rear mounted appendages for accelerated movement and an external mounted weapon system. The Dazhbog cannot hold weapons like the other suits with its oddly shaped hands. However, its arm length gives it an additional +5 foot reach. On its back is a mounted 7.62 Gattling Cannon that spins around to fire between the two massive legs. Because of the shape of the suit, the suit is not controlled through a slave-system like the 303 but is piloted exclusively from controls in the large torso. Its rear appendages contain support arms for the main gun. When braced, the weapon has no firing difficulty. However, if not braced or if the suit is moving, it incurs a –4 penalty when firing the cannon.
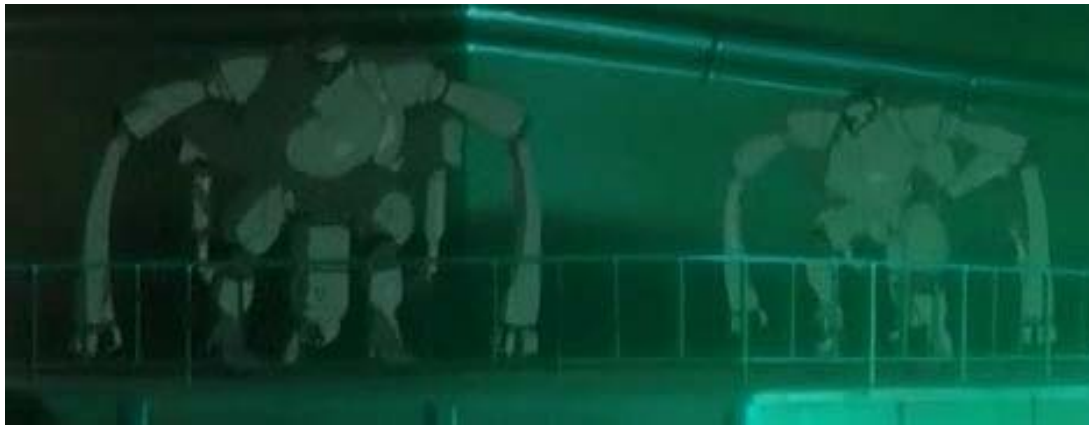
Jet assists allow momentary boosts of speed. Every ten rounds the suit can accomplish one of the following:
--A +15 inherent bonus to Jump rolls
--A 40 foot speed increase that lasts for one full combat round. This does not stack with the running action.
--A +3 Dodge bonus to Defense. This must be done on the pilots combat round and lasts until their next round.

Forced Entry Arm-Slave: The most widely used arm-suit in the Public Sector is the Forced Entry unit, widely used by Public Security and Law Enforcement SWAT teams. The military also found uses for the model in certain areas, especially in urban environments. Its small, mobile design proved especially useful. It was original, most likely, designed to combat the compact think tanks from Kenbishi. The FE unit's most striking feature is its arm shield. It offers an additional +2 to Hardness. The shield has 30 Hit Points. If the shield takes more than 30 points of damage, it is rendered useless and can no longer offer its +2 bonus to Hardness

The Force Entry's standard load out is a built-in 20 mm Machine Cannon.

Fuchikomas: *Standard Equipment and abilities:*

--Thermoptic Camouflage. The suit gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving. This bonus is cut in half if the character attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). If the target is aware of the tanks existence (he detects it visually, aurally, or if the tank attacks him), it still receives a 20% blur ability. Water interference has a 65% chance of shorting out the camo for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the camo for 2d6 rounds. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.

--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.
--Fuchikomas are able to walk along walls, even roofs, with their wheel pads. The trade off is their lack of Tachikoma wires.
-- 12.7mm gattling gun with 1000 rounds
--10 Smoke canisters.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 24
--They have wheeled movement of 200 but are then classified as a vehicles for vehicle combat but can stop on a dime.

Military Style Fuchikoma: *Standard Equipment and abilities:*

--Thermoptic Camouflage. The suit gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving. This bonus is cut in half if the character attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). If the target is aware of the tanks existence (he detects it visually, aurally, or if the tank attacks him), it still receives a 20% blur ability. Water interference has a 65% chance of shorting out the camo for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the camo for 2d6 rounds. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.

--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.
--Fuchikomas are able to walk along walls, even roofs, with their wheel pads. The trade off is their lack of Tachikoma wires.
--Dual 20mm auto grenade launchers OR Twin 20mm Machine cannons.

--7.62mm minigun.

--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.

--Cold, Fire, Electric Resistance 20

--Nightvision 100 ft.

--Arms and legs have Str 32

--They have wheeled movement of 265 but are then classified as a vehicles for vehicle combat but can stop on a dime.

GSDF Combat Suit Type 303:

The 303 is used by the Japanese Coast Guard and Navy. The suit is equipped with one 20mm Machine Cannon and one 40mm Grenade Launcher. This 303 is the premier top Arm-Slave model in service in the GSDF and found circulation throughout the globe. It's weapons are hand held and, as a result, can be swapped with relative ease. The suit is controlled from direct physical input through mimicking identical appendages the pilot's arm goes through. These smaller appendages have hands as well and the "strings" can be cut from the slave arms to control just the small master ones. There is no strength bonus to the smaller masters. The suit also has therm-optic camo. The suit gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving. This bonus is cut in half if the character attacks another in melee or ranged or if there are any adverse weather effects (snow, heavy wind, etc). If the target is aware of the tanks existence (he detects it visually, aurally, or if the tank attacks him), it still receives a 20% blur ability. Water interference has a 65% chance of shorting out the camo for 2d6 rounds. Physical disturbances (attack or debris) have a 40% to short the camo for 2d6 rounds. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.   Jet assists allow momentary boosts of speed. Every ten rounds the slave can accomplish <u>one</u> of the following:

--A +20 inherent bonus to Jump rolls

--A 60-foot speed increases that lasts for one full combat round. This does not stack with the running action.

--A +4 Dodge bonus to Defense. This must be done on the pilots combat round and lasts until their next round.

        Other than that, the 303 has no high-speed motive system, requiring it to transport over long distances by truck.

        GSDF Type 1 Armored Suit: The Type 1 was a later slave model, known for its capacity of remote control operation. This option proved unpopular and eventually, all Arm-slaves had this option removed. The Type 1 was the last model produced with this capacity. It can be remote operated by cyberbrain link up or by manually entered remote control. Even though remote control robots still find circulation, large, armed ones, did not.   Any damage dealt past the critical defense is still removed from the robot's hit points. Piloting from remote hampers its abilities. Cyberbrain control incurs no penalties but manual remote suffers a –4 penalty to all rolls. The GSDF has no standard weapon load out. The Type 1 is also known for extended appendages, a design characteristic copied by the Russian Dazhbogs. The Type 1 has an additional 5-foot reach with its arms. Other wise, it has standard Power Armor abilities.

Tachikoma: *Standard Equipment and abilities:*
--Thermoptic Camouflage. The suit gains a +10 bonus on Hide checks if moving, or a +20 bonus on Hide checks when not moving. This bonus is cut in half if the character attacks another in melee or ranged. Water contamination or physical attack on the tank has a 40% chance of shorting out the camo for 2d10 minutes. Anyone attacked by an invisible target is denied their Dexterity bonus to Defense. Turning therm-optics on or off is a move action.
--7.62 Chain gun
--20mm grenade launcher (swappable for a 12.7 Gattling Cannon)
--Wires. Tachikomas shoot out a semi-liquid material, which can latch onto walls or grapple opponents. The material solidifies almost instantly after firing. Tachikomas can fire up to 4 wires in a combat round (Range Inc 30, Max Range 100, Def 25, Hit Points 10, Hard 2). They need at least two connected to stay supported.
--+10 to climb checks
--+15 to Jump checks
--+5 to Balance and Tumble.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 24
--They have wheeled movement of 265 but are then classified as a vehicles for vehicle combat but can stop on a dime.

Think Tank: The initial think tanks prototypes emerged not from Japan, but from Germany. A contracted engineering firm released the test model of a miniature, automated urban tank and that design found circulation across the world in several different combat areas, from dense jungles to urban sprawls. Since the initial release, almost every major country has designed their own variation of think tank but the original title still falls to the original German production. This model was sold to mercenary groups and small countries around the world.
Standard Equipment and abilities:
--+5 to climb checks
--+10 to Jump checks
--+5 to Balance and Tumble.
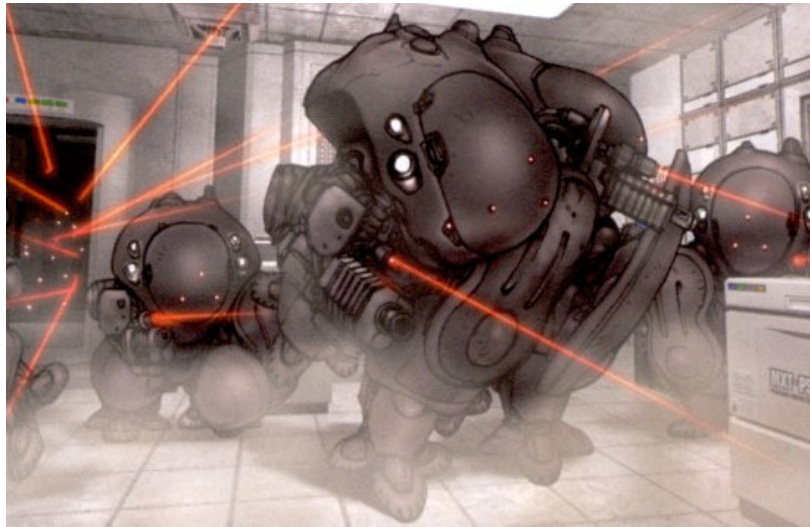-- 12.7mm gattling gun with 1000 rounds
--10 Smoke canisters.
--As long as the hull is "unbroken", the Pilot is immune to all Poisons and Gas effects.
--Cold, Fire, Electric Resistance 20
--Nightvision 100 ft.
--Arms and legs have Str 24
--They have wheeled movement of 150 but are then classified as a vehicles for vehicle combat but can stop on a dime.

C O M B A T (alterations and additions)

D E F E N S E

Defense represents how hard it is for opponents to land a solid, damaging blow on a character (or object). It's the attack roll result that an opponent needs to achieve to hit a target. The average civilian has a Defense of 15. A hero's Defense is equal to:

15 + Dexterity modifier + class bonus + size modifier

Dexterity Modifier: If the character's Dexterity is high, the character is particularly adept at dodging blows or gunfire. If the character's Dexterity is low, the character is particularly inept at it.

Sometimes the character can't use his or her Dexterity bonus. If the character can't react to a blow, he or she can't use his or her Dexterity bonus to Defense.

Class Bonus: A character's class and level grant an innate bonus to Defense. This bonus measures the character's combat savvy and applies in all situations, even when the character is flat-footed or would lose his or her Dexterity bonus for some other reason.

Size Modifier: The bigger an opponent is, the easier it is to hit in combat. The smaller it is, the harder it is to hit. Size modifiers are shown on the Table below.

Other Modifiers: Other factors can add to Defense.
Feats: Some feats give a bonus to Defense.

Dodge Bonuses: Some other Defense bonuses represent actively avoiding blows. These bonuses are called dodge bonuses. Any situation that denies the character his or her Dexterity bonus also denies the character dodge bonuses. Unlike most sorts of bonuses, dodge bonuses stack with each other.

Table: Size Modifiers	
Size	**Size Modifier**
Colossal	–8
Gargantuan	–4
Huge	–2
Large	–1
Medium-size	+0
Small	+1
Tiny	+2
Diminutive	+4
Fine	+8

Hardness (Revised Rule): Hardness denotes the resistance of armor to absorb impacts. Usually, hardness is a fixed number, unadjusted for incoming damage. There are other ways to remove hardness…

A hit of massive damage (50+ points), also causes 2d4 points of hardness, regardless of penetration.

A successful Critical Strike will remove 1 point of hardness.

…1 point of hardness can be repaired later with an hour an proper parts and skills.

Damage Reduction (Revised Rule): In traditional D&D, there are many classes of Damage Reduction that causes a target to absorb damage unless struck with a certain type of weapon (Magic, Adamantine, etc). Damage Reduction here resists a specific type of damage. Unless specified, the DR will resist ballistics/penetration (bullets/melee). It will not resist against physical force, electricity,

falling, or fire damage. DR compounds with Hardness so something that reduces Hardness reduces DR first. A target with both DR and Hardness that takes a critical hit looses a point of DR before loosing Hardness as the DR will be overtop.

This allows a target to be resistant to bullet fire or from a melee attack but not from a brunt physical attack from a punch or kick.

The Only attack attribute (Rule Change)

In traditional D&D, Strength was the attribute of choice to strike with all melee weapons. Archery was exclusive to Dexterity but swords remained part of Strength. Although Strength would help increasing damage, being able to hit better made little sense. In the world of firearms, keeping this rule was pointless. Dexterity is the only attribute for striking in both ranged and in close combat.   You will notice Dexterity has been capped in Cybernetics to keep hit bonuses in balance with those who prefer to remain organic.

FIREARMS

The most basic form of attack with a firearm is a single shot. One attack is one pull of the trigger and fires one bullet at one target. The Personal Firearms Proficiency feat allows a character to make this sort of attack without penalty. If a character isn't proficient in personal firearms, he or she takes a –4 penalty on attacks with that type of weapon.

A number of other feats allow a character to deal extra damage when he or she fires more than one bullet as part of a single attack at a single target. (If a character doesn't have those feats, he or she can still fire more than one bullet—but the extra bullets don't have any effect, and are just wasted ammunition.) As with all forms of ranged weapons, attacking with a firearm while within a threatened square provokes an attack of opportunity.

Because of the weapon's unwieldy shape and size, an attacker using a longarm takes a –4 penalty on attacks against adjacent opponents.

AUTOFIRE

If a ranged weapon has an automatic rate of fire, a character may set it on autofire. Autofire affects an area and everyone in it, not a specific creature. The character targets a 10-foot-by-10-foot area and makes an attack roll; the targeted area has an effective Defense of 15. (If the character does not have the Advanced Firearms Proficiency feat, he or she takes a –4 penalty on the attack roll.) If the attack succeeds, every creature within the affected area must make a Reflex save (DC 15) or take the weapon's damage. Autofire shoots 10 bullets, and can only be used if the weapon has 10 bullets in it.
Autofire is not the same thing as burst fire, which involves firing a short burst at a specific target. Firing a burst requires the Burst Fire feat. If a character fires a blast of automatic fire at a specific target without the Burst Fire feat, it's treated as a standard attack. The attack, if successful, only deals normal damage—all the extra ammunition the character fired is wasted.

Some firearms—particularly machine guns—only have autofire settings and can't normally fire single shots.

GRENADES AND EXPLOSIVES

An explosive is a weapon that, when detonated, affects all creatures and objects within its burst radius by means of shrapnel, heat, or massive concussion. Its effect is broad enough that it can hurt characters just by going off close to them. Some explosives, such as grenades, can be thrown, and they explode when they land. Others are planted, with fuses or timers, and go off after a preset amount of time elapses.

Thrown Explosives: An attack with a thrown explosive is a ranged attack made against a specific 5-foot square. (A character can target a square occupied by a creature.) Throwing the explosive is an attack action. If the square is within one range increment, you do not need to make an attack roll. Roll 1d4 and consult the table to see which corner of the square the explosive bounces to.

Roll on d4	Corner of targeted square
1	Upper Left
2	Upper Right
3	Lower Right
4	Lower Left

If the target square is more than one range increment away, make an attack roll. The square has an effective Defense of 10. Thrown weapons require no weapon proficiency, so a character doesn't take the –4 nonproficient penalty. If the attack succeeds, the grenade or explosive lands in the targeted square. Roll 1d4

and consult the table above to see which corner of the square the explosive bounces to. If the character misses the target, the explosive lands at a corner of a square nearby in a random direction. Consult the tables below to determine where the explosive lands. If the weapon was thrown two to three range increments (11 to 30 feet), roll 1d8.

Roll on d8	Location Struck
1	upper left corner, one square beyond target
2	upper right corner, one square beyond target
3	upper right corner, one square right of target
4	lower right corner, one square right of target
5	lower right corner, one square short of target
6	lower left corner, one square short of target
7	lower left corner, one square left of target
8	upper left corner, one square left of target

For ranges of up to five range increments (31 to 50 feet), roll 1d12.

Roll on d12	Location Struck
1	upper left corner, two squares beyond target
2	upper right corner, two squares beyond target
3	upper right corner, one square beyond and right of target
4	upper right corner, two squares right of target
5	lower right corner, two squares right of target
6	lower right corner, one square short and right of target
7	lower right corner, two squares short of target
8	lower left corner, two squares short of target
9	lower left corner, one square short and left of target
10	lower left corner, two squares left of target
11	upper left corner, two squares left of target
12	upper left corner, one square beyond and left of target

After determining where the explosive landed, it deals its damage to all targets within the burst radius of the weapon. The targets may make Reflex saves (DC varies according to the explosive type) for half damage.

Planted Explosives: A planted explosive is set in place, with a timer or fuse determining when it goes off. No attack roll is necessary to plant an explosive; the explosive sits where it is placed until it is moved or goes off. When a planted explosive detonates, it deals its damage to all targets within the burst radius of the weapon. The targets may make Reflex saves (DC varies according to the explosive type) for half damage.

Splash Weapons: A splash weapon is a ranged weapon that breaks apart on impact, splashing or scattering its contents over its target and nearby creatures or objects. Most splash weapons consist of liquids in breakable containers. To attack with a splash weapon, make a ranged touch attack against the target. Thrown weapons require no weapon proficiency, so characters don't take the –4 nonproficient penalty. A hit deals direct hit damage to the target and splash damage to all other creatures within 5 feet of the target.

A character can instead target a specific 5-foot square, including a square occupied by a creature. Use the rules for thrown explosives. However, if a character targets a square, creatures within 5 feet are dealt the splash damage, and the direct hit damage is not dealt to any creature.

If the character misses the target (whether aiming at a creature or a square), check to see where the weapon lands, using the rules for thrown explosives. After determining where the object landed, it deals splash damage to all creatures within 5 feet.

VEHICLE MOVEMENT AND COMBAT

For simply traveling from point to point, the vehicle used is largely a matter of personal style and finances. Skill checks are only required in extraordinary circumstances. These rules are primarily focused on ground vehicles—cars, trucks, and light military vehicles. The rules can be modified for boats, heavier

armored vehicles, and aircraft.

Characters in Vehicles: A character in a vehicle fills one of several possible roles, which determines what the character can do.

Driver: The driver of the vehicle controls its movement. Most vehicles have only one position from where the vehicle can be driven, so the person seated there is the driver. Driving a vehicle is, at a minimum, a move action, which means that the driver may be able to do something else with his or her attack action. There can be only one driver in a vehicle at one time.

Copilot: A copilot can help the driver by taking an aid another action. The copilot must be seated in a location where he or she can see the road and advise the driver (in a car, this generally means the front passenger seat). Aiding the driver is a move action, leaving the copilot with an attack action each round to do something else. A vehicle can have only one copilot at a time.

Gunner: Some vehicles have built-in weapons. If such a weapon is controlled from a location other than the driver's position, a character can man that position and become the gunner. A vehicle can have as many gunners as it has gunner positions.

Passenger: All other personnel aboard the vehicle are considered passengers. Passengers have no specific role in the vehicle's operation, but may be able to fire weapons from the vehicle or take other actions.

Scale: These rules use two scales. If the encounter involves both vehicles and characters on foot, use character scale. If the scene involves only vehicles, and they're likely to move at much higher speeds than characters or creatures on foot, use chase scale.

Character Scale: Character scale is identical to the standard movement scale: It's carried out on a grid in which each square equals 5 feet. In character scale, most vehicles are large enough to occupy multiple squares on the map grid. How many squares a vehicle occupies is specified in the vehicle's description. When moving a vehicle, count the squares from the vehicle's rear. When turning, pivot the vehicle on the rear square toward which it is turning. When firing weapons, count squares from the location of the weapon. In character scale, more than one ground vehicle cannot occupy the same square.

Chase Scale: In chase scale, each square of the grid represents 50 feet. In chase scale, most commonly encountered vehicles occupy only one square. (Some especially large vehicles, such as ships or jumbo jets, might occupy more than one square.) More than one vehicle can occupy the same square. Vehicles in the same square are considered to be 20 feet apart for the purposes of determining range for attacks.

Vehicle Sizes: Vehicles use the same size categories as characters and creatures, as shown on Table: Vehicle Sizes. The vehicle's size modifier applies to its initiative modifier, maneuver modifier, and Defense. (The size modifier is already included in the vehicle statistics on Table: Vehicles)

Facing and Firing Arcs: Unlike with characters, when dealing with vehicles, the vehicle's facing (the direction it's pointing) is important. Facing indicates the direction in which the vehicle is

Table: Vehicle Sizes		
Vehicle Size	Size Modifier	Examples
Colossal	–8	Yacht, semi with trailer
Gargantuan	–4	Tank, limousine
Huge	–2	Luxury car, SUV, armored car
Large	–1	Economy car, Harley
Medium-size	+0	Racing bike, dirt bike

traveling (assuming it's not moving in reverse). It can also determine which weapons aboard the vehicle can be brought to bear on a target.

A weapon built into a vehicle can by mounted to fire in one of four directions—forward, aft (rear), right, or left—or be built into a partial or full turret. A partial turret lets a weapon fire into three adjacent fire arcs (such as forward, left, and right), while a full turret lets it fire in any direction. For vehicles with weapons, a weapon's arc of fire is given in the vehicle's description.

Getting Started: Most vehicles can be entered with a move action and started with a second move action. An exception is noted in a vehicle's description when it applies.

Initiative: There are two options for determining initiative in vehicle combat. First, is individual initiative just as in normal combat, where each character rolls separately. This is probably the best method if most or all characters are aboard the same vehicle, but it can result in a lot of delayed or

readied actions as passengers wait for drivers to perform maneuvers. An alternative is to roll initiative for each vehicle, using the vehicle's initiative modifier. This is particularly appropriate when characters are in separate vehicles, since it allows everyone aboard the same vehicle to act more or less simultaneously.

Table: Vehicle Speeds and Modifiers						
Speed	Character Scale		Chase Scale		Defense	Check/Roll
Category	Movement1	Turn Number2	Movement1	Turn Number2	Modifier	Modifier
Stationary3	0	—	0	—	0	—
Alley speed	1–20	1	1–2	1	0	+0
Street speed	21–50	2	3–5	1	1	–1
Highway speed	51–150	4	6–15	2	2	–2
All-out	151+	8	16+	2	4	–4
1 The number of squares a vehicle can move at this speed.						
2 The number of squares a vehicle must move at this speed before making a turn.						
3 A stationary vehicle cannot move or maneuver.						

Vehicle Speed: Vehicle speed is expressed in five categories: stationary, alley speed, street speed, highway speed, and all-out. Each of these speed categories represents a range of possible movement (see Table: Vehicle Speeds and Modifiers). Each round, a vehicle moves according to its current speed category.

Declaring Speed: At the beginning of his or her action, a driver must declare his or her speed category for the round. The driver can choose to go one category faster or slower than the vehicle's speed in the previous round. A stationary vehicle can change to alley speed in either forward or reverse. Most vehicles cannot go faster than alley speed in reverse.

Stationary: The vehicle is motionless.

Alley Speed: This speed is used for safely maneuvering a vehicle in tight spaces, such as alleys and parking garages. It tops out at about the speed a typical person can run.

Street Speed: The vehicle is traveling at a moderate speed, up to about 35 miles per hour.

Highway Speed: The vehicle is moving at a typical highway speed, from about 35 to 80 miles per hour.

All-Out: The vehicle is traveling extremely fast, more than 80 miles per hour.

Moving: On his or her action, the driver moves the vehicle a number of squares that falls within the vehicle's speed category.

Unlike characters, a vehicle cannot double move, run, or otherwise extend its movement (except by changing to a higher speed category). Every vehicle has a top speed, included in its statistics on Table: Vehicles. A vehicle cannot move more squares than its top speed. This means that some vehicles cannot move at all-out speed, or even highway speed.

Count squares for vehicles just as for characters. Vehicles can move diagonally; remember that when moving diagonally, every second square costs two squares' worth of movement. Unlike with moving characters, a vehicle's facing is important; unless it changes direction, a vehicle always moves in the direction of its facing (or in the opposite direction, if it's moving in reverse).

The Effects of Speed: A fast-moving vehicle is harder to hit than a stationary one—but it's also harder to control, and to attack from.

As shown on Table: Vehicle Speeds and Modifiers, when a vehicle travels at street speed or faster, it gains a bonus to Defense. However, that speed brings along with it a penalty on all skill checks and attack rolls made by characters aboard the vehicle—including Drive checks to control the vehicle and attacks made from it.

Driving a Vehicle: Driving a vehicle is a move action, taken by the vehicle's driver. During his or her move action, the driver moves the vehicle a number of squares that falls within its speed category. The driver can attempt maneuvers to change the vehicle's course or speed. These maneuvers can be attempted at any point along the vehicle's route. The driver can choose to use his or her attack action to attempt additional maneuvers.

The two kinds of vehicle movement are simple maneuvers and stunts.

Simple Maneuvers: A simple maneuver, such as a 45-degree turn, is easy to perform. Each is a free action and can be taken as many times as the driver likes while he or she moves the vehicle. However, simple maneuvers do cost movement—so a vehicle that makes a lot of simple maneuvers will not get as far as one going in a straight line. Simple maneuvers do not require the driver to make skill checks.

Stunts: Stunts are difficult and sometimes daring maneuvers that enable a driver to change his or

her vehicle's speed or heading more radically than a simple maneuver allows. A stunt is a move action. It can be taken as part of a move action to control the vehicle, and a second stunt can be attempted in lieu of the driver's attack action. Stunts always require Drive checks.

Simple Maneuvers: During a vehicle's movement, the driver can perform any one of the following maneuvers.

45-Degree Turn: Any vehicle can make a simple 45-degree turn as part of its movement. The vehicle must move forward at least a number of squares equal to its turn number (shown on Table: Vehicle Speeds and Modifiers) before it can turn. Making a 45-degree turn costs 1 square of movement.

Ram: At character scale, a driver does not have to perform a maneuver to ram another vehicle—he or she only needs to drive his or her vehicle into the other vehicle's square, and a collision occurs (see Collisions and Ramming).

At chase scale, however, more than one vehicle can occupy the same square and not collide—so ramming another vehicle requires a simple maneuver. The driver moves his or her vehicle into the other vehicle's square and states that he or she is attempting to ram. Resolve the ram as a collision, except that the driver of the target vehicle can make a Reflex save (DC 15) to reduce the damage to both vehicles by half.

Sideslip: A driver might wish to move to the side without changing the vehicle's facing, for instance to change lanes. This simple maneuver, called a sideslip, allows a vehicle to avoid obstacles or weave in and out of traffic without changing facing. A sideslip moves a vehicle 1 square forward and 1 square to the right or left, and costs 3 squares of movement.

Stunts: Stunts are maneuvers that require a Drive check to perform successfully. Unsuccessful stunts often result in the vehicle ending up someplace other than where the driver intended. When this happens, the vehicle collides with any objects in its path. Remember that the check/roll modifier from   Table: Vehicle Speeds and Modifiers affects all Drive checks made by the driver and attack rolls made by all occupants of the vehicle.

Hazard	DC
Caltrops	15
Oil slick	15
Object	
Small (tire, light debris)	5
Medium-size (crate)	10
Large (pile of wreckage)	15
Structure	
Cannot be avoided	

Avoid Hazard: Vehicle combat rarely occurs on a perfectly flat, featureless plain. When a vehicle tries to move through a square occupied by a hazard, the driver must succeed on a Drive check to avoid the hazard and continue moving. Structures simply cannot be avoided. Also, if a driver cannot make a check (if he or she has used all his or her actions for the round in performing other stunts), he or she automatically fails to avoid the hazard. In such cases, a collision occurs. The DC to avoid a hazard varies with the nature of the hazard.

On a failed check, the vehicle hits the obstacle. For caltrops, this means the caltrops make an attack against the vehicle (see Caltrops). An oil slick forces the drive to make a Drive check (DC 15) to retain control of the vehicle (see Losing Control). Failing to avoid an object results in a collision with the object (see Collisions and Ramming).

Bootleg Turn: By making a bootleg turn, a driver can radically change direction without turning in a loop. However, in so doing, the vehicle comes to a stop. Before a vehicle can make a bootleg turn, it must move in a straight line at least a number of squares equal to its turn number. To make a bootleg turn, simply change the vehicle's facing to the desired direction. The vehicle ends its movement in that location, at stationary speed. The DC for a bootleg

Facing Change	DC
45 degrees	5
90 degrees	10
135 degrees	15
180 degrees	20

turn depends on the change in facing. On a failed check, instead of facing the desired direction, the vehicle only changes facing by 45 degrees. Make a Drive check to retain control against a DC equal to the DC for the bootleg turn attempted (see Losing Control).

Dash: With a dash stunt, a driver can increase the vehicle's speed by one category. (This increase is in addition to any speed change made at the beginning of the driver's action; if the driver increased speed at that time, he or she can accelerate a total of two categories in the same round.) The vehicle's total movement for the round cannot exceed the maximum number of squares for its new speed category. (The squares it has already moved before attempting the dash count against this total.) The DC for a dash is 15.

On a failed check, the vehicle does not change speed categories.

Hard Brake: With a hard brake stunt, a driver can reduce the vehicle's speed by up to two

categories. (This is in addition to any speed change made at the beginning of his action; if the driver reduced speed at that time, he or she can drop a total of three categories in the same round.) The vehicle's movement for the round ends as soon as it has moved the minimum number of squares for its new speed category. (If it has already moved that far before attempting the hard brake, it ends its movement immediately.) The DC for a hard brake is 15.

On a failed check, the vehicle does not change speed categories. Make a Drive check (DC 15) to retain control (see Losing Control).

Hard Turn: A hard turn allows a vehicle to make a turn in a short distance without losing speed. A hard turn functions like a 45-degree turn simple maneuver, except that the vehicle only needs to move forward a number of squares equal to half its turn number (rounded down). The DC for a hard turn is 15.

On a failed check, the vehicle continues to move forward a number of squares equal to its turn number before turning, just as with a simple 45-degree turn. Make a Drive check (DC 15) to retain control (see Losing Control).

Jump: A driver can attempt to jump his or her vehicle across a gap in his or her path. To make a jump, the vehicle must move in a straight line a number of squares equal to its turn number. If the vehicle doesn't have enough movement left to clear the gap, it must complete the jump at the start of its next turn.

Gap Width	DC
1–3 ft. (ditch)	15
4–8 ft. (culvert)	20
8–15 ft. (creek, small ravine)	25
16–25 ft. (narrow road, small pond)	35
26–40 ft. (wide road, small river)	45

The DC for a jump depends on the width of the gap, modified by the vehicle's speed category. On a failed check, the vehicle fails to clear the gap, and instead falls into it (or collides with the far side). Determine damage as for a collision (see Collisions and Ramming).

Vehicle Speed Category	DC Modifier
Alley speed	+10
Street speed	+5
Highway speed	+0
All-out	–5

A shallow gap (1 to 3 feet deep) is equivalent to a Medium-size object; the vehicle may be able to avoid taking collision damage from the failed jump by treating the far side as a hazard and then continue moving (see Avoid Hazard, above). A moderately deep gap (4 to 10 feet deep) is equivalent to a Huge object. The vehicle can only drive out of the gap if the walls are not too steep. A deeper gap (11 feet or

Target Condition	DC Modifier
Each size category larger	–5
Each size category smaller	+5
Each speed category of difference	–2

deeper) is equivalent to a Colossal object. The vehicle can only drive out of the gap if the walls are not too steep. If the gap is filled with water, the vehicle takes only half damage from the collision with the ground. However, if the water is too deep or the bottom is too soft (GM's discretion), the vehicle might not be able to move.

Sideswipe: During a vehicle's movement, a driver can attempt to sideswipe a vehicle or other target, either to deal damage without fully ramming it or to cause another driver to lose control of his or her vehicle. At character scale, a vehicle must be side by side with its target (that is, occupying the square or squares directly to its side) and moving in the same direction.

Table: Collision Direction	
Colliding Vehicle's Target	**Multiplier**
A stationary object	x 1
A moving vehicle, striking head-on or 45 degrees from head-on	x 2
A moving vehicle, striking perpendicular	x 1
A moving vehicle, striking from the rear or 45 degrees from the rear	x ½
A vehicle being sideswiped (see Sideswipe)	x ¼

Attempting a sideswipe costs 1 square of movement. At chase scale, the vehicle must be in the same square as its target and moving in the same direction. There is no movement cost. If the stunt is successful, both vehicles take damage as if they had collided (see Collisions and Ramming), except that the collision multiplier is ¼, and the driver of the target vehicle can make a Reflex save (DC 15) to reduce the damage to both vehicles by half of that result. The driver of the sideswiped vehicle must succeed at a Drive check (DC 15) at the beginning of his or her next action or lose control of the vehicle.

The DC for a sideswipe is 15. It's modified by the relative size and speed of the target.

On a failed check, both vehicles take damage as though the sideswipe attempt was a success. However, the other driver does not need to make a check to retain control.

Driver Options: Here is what a vehicle driver can do in a single round:

Choose the Vehicle's Speed: The driver may increase or decrease his or her vehicle's speed category by one (or keep it the same).

Optional Attack Action: If the driver wants, he or she can use his or her attack action before moving the vehicle. If the driver does so, however, he or she will be limited to a single stunt during movement.

Movement: Move the vehicle any number of squares within the vehicle's speed category. Along the way, perform any number of simple maneuvers (limited only by their movement cost). The driver may also attempt a single stunt as part of the movement (or two, if the driver didn't take his or her attack action before moving).

Optional Attack Action: If the driver did not take an attack action before moving, and performed one or fewer stunts, the driver has an attack action left.

Collisions and Ramming: A collision occurs when a vehicle strikes another vehicle or a solid object. Generally, when a vehicle collides with a creature or other moving vehicle, the target can attempt a Reflex save (DC 15) to reduce the damage by half.

Resolving Collisions: The base damage dealt by a vehicle collision depends on the speed and size of the objects involved. Use the highest speed and the smallest size of the two colliding objects and refer to Table: Collision Damage.

Table: Collision Damage	
Highest Speed	**Damage Die Type**
Alley speed	d2
Street speed	d4
Highway speed	d8
All-out	d12

After finding the base damage, determine the collision's damage multiplier based on how the colliding vehicle struck the other vehicle or object. (For vehicles moving in reverse, consider the back end to be the vehicle's "front" for determining the collision multiplier.) Consult Table: Collision Direction for a multiplier.

Once the damage has been determined, apply it to both vehicles (or objects or creatures) involved in the collision. Both vehicles reduce their speed by two speed categories. If the colliding vehicle moved the minimum number of squares for its new speed category before the collision, it ends its movement immediately. If not, it pushes the other vehicle or object aside, if possible, and continues until it has moved the minimum number of squares for its new speed category. The driver of the vehicle that caused the collision must immediately make a Drive check (DC 15) or lose control of the vehicle (see Losing Control, below). The driver of the other vehicle must

Cover	Damage
None	Same as damage taken by vehicle
One-quarter	One-half damage taken by vehicle
One-half	One-quarter damage taken by vehicle
Three-quarters or more	None

succeed on a Drive check (DC 15) at the beginning of his or her next action or lose control of his or her vehicle.

Damage to Vehicle Occupants: When a vehicle takes damage from a collision, its occupants may take damage as well. The base amount of damage depends on the cover offered by the vehicle.

Each of the occupants may make a Reflex save (DC 15) to take half damage.

Losing Control: A collision or a failed stunt can cause a driver to lose control of his vehicle. In these cases, the driver must make a Drive check to retain control of the vehicle. If this check is successful, the driver maintains control of the vehicle. If it fails, the vehicle goes into a spin. If it fails by 10 or more, the vehicle rolls. Remember that the check/roll modifier from Table: Vehicle Speeds and Modifiers applies to all Drive checks. An out-of-control vehicle may strike an object or other vehicle. When that happens, a collision occurs (see Collisions and Ramming, above).

Spin: The vehicle skids, spinning wildly. At character scale, the vehicle moves in its current direction a number of squares equal to the turn number for its speed, then ends its movement. Once it stops, roll 1d8 to determine its new facing: 1, no change; 2, right 45

Smallest Object or Creature Size	Number of Dice
Colossal	20
Gargantuan	16
Huge	12
Large	8
Medium-size	4
Small	2
Tiny	1
Smaller than Tiny	0

degrees; 3, right 90 degrees; 4, right 135 degrees; 5, 180 degrees; 6, left 135 degrees; 7, left 90 degrees; 8, left 45 degrees. Reorient the vehicle accordingly.

At chase scale, the vehicle moves 1 square and ends its movement. Roll to determine its new facing as indicated above.

Roll: The vehicle tumbles, taking damage. At character scale, the vehicle rolls in a straight line in its current direction for a number of squares equal to the turn number for its speed, then ends its movement. At the end of the vehicle's roll, reorient the vehicle perpendicular to its original direction of travel (determine left or right randomly).

At chase scale, the vehicle rolls one square before stopping and reorienting.

At either scale, a vehicle takes damage equal to 2d6 x the turn number for its speed. The vehicle's occupants take damage equal to 2d4 x the turn number for its speed (Reflex save, DC 15, for half damage).

Hide and Seek: When being pursued, a driver can attempt a Hide check to lose the pursuer in heavy traffic, or a Bluff check to misdirect the pursuer before turning onto an off-ramp or a side street. To make a Hide check, use the normal rules for hiding (see the Hide skill description). The normal size modifiers apply, but because the driver is hiding among other vehicles, most of which are size Large or Huge, he or she gains a +8 bonus on the check. This use of the Hide skill can only be attempted in fairly heavy traffic; in lighter traffic, the GM might not allow it or might apply a penalty to the check.
A driver can use Bluff to make a pursuer think he or she is going a different direction from what the driver intends. Just before making a turn onto an off-ramp or side street, make a Bluff check opposed by the pursuer's Sense Motive check. If the driver is successful, the pursuer takes a –5 penalty on any Drive check needed to make the turn to follow the driver. If the other driver can make the turn using only simple maneuvers and does not have to make a Drive check, the Bluff attempt has no effect.

Fighting from Vehicles: The following rules provide a further framework for combat involving vehicles.

Vehicle Combat Actions: Actions during vehicle combat are handled the same way as actions during personal combat. In general, a character can take two move actions, one move action and one attack action, or one full-round action in a round. Free actions can be performed normally, in conjunction with another action.

Free Actions: Communicating orders and ducking down behind a door are examples of free actions. Characters can perform as many free actions as the GM permits in a single round.

Move Actions: Changing position within a vehicle is usually a move action, especially if the character has to trade places with another character. If the character's movement is short and unobstructed, the character can do it as the equivalent of a 5-foot step. Otherwise, it requires a move action.

Attack Actions: Anyone aboard a vehicle can make an attack with a personal weapon, and drivers and gunners can make attacks with any vehicle-mounted weapons controlled from their positions.

Table: Vehicle Crew Quality		
Crew Quality	**Check Modifier**	**Attack Bonus**
Untrained	–4	–2
Normal	+2	+0
Skilled	+4	+2
Expert	+8	+4
Ace	+12	+8/+3

Full-Round Actions: Since the driver must use a move action to control the vehicle, he or she can't take a full-round action unless he or she starts it in one round and completes it on his or her next turn (see Start/Complete Full-Round Action).

Crew Quality: Rather than force the GM to create, or remember, statistics for everyone aboard a vehicle, vehicle statistics include a general "crew quality" descriptor. This indicates a typical crew's aptitude with the vehicle's systems.

Table: Vehicle Crew Quality shows the five levels of crew quality for GM-controlled vehicle crews, along with the appropriate check modifier. Use the check modifier for all skill checks related to the operation of the vehicle (including Drive and Repair checks). Use the attack bonus for all attack rolls performed by the crew. For quick reference, Table: Crewed Vehicles shows the typical crew quality, and the crew's total initiative and maneuver modifiers, for the vehicles covered in this book. This by no means restricts the GM from creating unique vehicles where the crew's statistics are included, or from using GM characters' abilities when they drive or attack from vehicles. It's merely a shortcut to save time if the GM doesn't have particular characters behind the wheel.

Attack Options: Firing a vehicle's weapon requires an attack action and uses the driver's or gunner's ranged attack modifier. A driver with 5 or more ranks in the Drive skill gains a +2 synergy bonus when firing vehicle-mounted weapons while driving. Some military vehicles are equipped with fire-control computers. These systems grant equipment bonuses on attack rolls with the vehicle-mounted weapons to which they apply.

Driving Defensively: Just as in melee combat, one can fight defensively while driving a vehicle, which grants a +2 dodge bonus to the vehicle's Defense and applies a –4 penalty on attack rolls made by occupants of the vehicle.

Total Defense: A driver can choose the total defense, action which grants a +4 dodge bonus to Defense but does not allow the driver to attack (gunners or passengers take a –8 penalty on attack rolls). These modifiers last until the driver's next round of actions.

Full Attack Action: A driver cannot normally make a full attack, since controlling the vehicle requires a move action. Gunners or passengers, however, can take full attack actions, since they don't have to use a move action (except, perhaps, to change positions in the vehicle). In general, taking a full attack action is useful only if a character has a base attack bonus high enough to get multiple attacks. A passenger can make multiple attacks with his or her own weapon. A gunner can make multiple attacks with one or more weapons controlled from his or her position.

Table: Crewed Vehicles			
Name	**Crew**	**Initiative**	**Maneuver**
Civilian Aircraft	2 (Skilled +4)	+0	+0
Civilian Car (Sedan)	1 (Normal +2)	+0	+1
Civilian Sports	1 (Normal +2)	+0	+3
Civilian Motorcycle	1 (Normal +2)	+2	+5
Civilian Truck	1 (Normal +2)	+0	+0
Chevrolet Suburban	1 (Normal +2)	+0	+0
Civilian Water Vehicles	1 (Normal +2)	+0	+0
Armored truck	2 (Skilled +4)	+2	+2
Military Ground Vehicles	1-2 (Skilled +4)	+2	+2
Military Aircraft	1-2 (Skilled +4)	+2	+2

Targeting Occupants: An attack made against a vehicle uses the vehicle's Defense, modified by its speed category. Attackers can choose instead to target specific vehicle occupants.
An attack against a vehicle occupant is made like any other attack. Remember, however, that a character in a vehicle gains bonuses to Defense from both the vehicle's speed and any cover it provides.

Cover: When a character fires from a vehicle, objects or other vehicles in the way can provide cover for the target (see Cover).

Damaging Vehicles: All vehicles have hit points, which are roughly equivalent to a character's hit points. Like most inanimate objects, vehicles also have hardness. Whenever a vehicle takes damage, subtract the vehicle's hardness from the damage dealt.

When a vehicle is reduced to 0 hit points, it is disabled. Although it might be repairable, it ceases functioning. A vehicle that is disabled while moving drops one speed category each round until it comes to a stop. The driver cannot attempt any maneuvers except a 45-degree turn.

Unlike characters, vehicles don't "die" when they reach –10 hit points. Instead, a vehicle is destroyed when it loses hit points equal to twice its full normal total. A destroyed vehicle cannot be repaired.

Energy Attacks: Vehicles are treated as objects when subjected to energy attacks. Exploding Vehicles: If the attack that disables a vehicle deals damage equal to half its full normal hit points or more, the vehicle explodes after 1d6 rounds. This explosion deals 10d6 points of damage to everyone within the vehicle (Reflex save, DC 20, for half damage), and half that much to everyone and everything within 30 feet of the explosion (Reflex save, DC 15, for half damage).

Repairing Damage: Repairing damage to a vehicle takes a full hour of work, a mechanical tool kit, and a garage or some other suitable facility. (Without the tool kit, a character takes a –4 penalty on his or her Repair check.) At the end of the hour, make a Repair check (DC 20). Success restores 2d6 hit points. If damage remains, the character may continue to make repairs for as many hours as it takes to restore all of the vehicle's hit points.

T H E   H E R O   R U L E (OPTIONAL)
--All instant death effects (including death from massive damage), result in the PC dropping to –1.

--Stabilization rolls occur every 10 rounds and not every round.

--Any single strike that brings a PC past 0 takes them to 0 only. Damage past that occurs normally.

CYBERCOMS Vs NORMAL COMMUNICATION

For years, players have taken advantage of the free communication rule in D20, allowing free actions for conversation between players. This ends now. In realistic combat, participants don't have time to click a radio, even if they could hear anyone else in the hail of gunfire. In stealth situations, every time anyone speaks, it allows a listen check to all involved. There is no skill on the speaker to conceal their speech. The DC to listen to open talking is dependant on the situation. The DC should start at 15 and increase accordingly.

> **Why?**
> Its realistic.
> Plus it forces paranoid players to use Cybercomms in combat instead of always entering combat in Autistic mode.

In Combat, talking into a radio and walkie-talkie is a move equivalent action. This includes listening and talking (a cost to all parties involved). Talking and Listening equal one move action. If one side does not want to listen, they may chose to and not use their action. Characters also have to beat a DC20 listen check every time to understand the other characters. Hand held communicators utilize one hand, preventing rifle holding and incurring a –2 Dex penalty to Defense. Over the ear walkie talkies do not cure this problem entirely. The Character gains the arm use and no longer incurs the Dex penalty. However, they still need to take the action to talk or listen and must make the listen check.

Walkie Talkies are also very simple. Monitoring Radio frequencies are easy (See Hack Actions).

Of course, all of this can be avoided by using Cybercomms. Using Cybercomms is a free action to initiate to all involved and does not require the Listen check to succeed. There are no penalties to communicate using Cybercomms and monitoring them is more difficult (see Hack Actions).

Using Target Ids is even more effective (See later)

Summary

Talking or Listening on a Communicator	1 Move Equivalent Action to all involved and DC20 Listen to successfully communicate.
Using a hand-held Communicator	1 Lose 1 hand and –2 Dex penalty to Defense. 1 Move Equivalent Action to all involved and DC20 Listen to successfully communicate.
Hands Free Walkie Talkie	Must still take Listen checks and cost a Move Action.
Cybercomms	No Penalties

FALLING (Revision)

Falling Damage: The basic rule is simple: 1d6 points of damage per 10 feet fallen, to a maximum of 20d6. If a character deliberately jumps instead of merely slipping or falling, the damage is the same but the first 1d6 is nonlethal damage. A DC 15 Jump check or DC 15 Tumble check allows the character to avoid any damage from the first 10 feet fallen and converts any damage from the second 10 feet to nonlethal damage. Thus, a character who slips from a ledge 30 feet up takes 3d6 damage. If the same character deliberately jumped, he takes 1d6 points of nonlethal damage and 2d6 points of lethal damage. And if the character leaps down with a successful Jump or Tumble check, he takes only 1d6 points of nonlethal damage and 1d6 points of lethal damage from the plunge.

Falls onto yielding surfaces (soft ground, mud) also convert the first 1d6 of damage to nonlethal damage. This reduction is cumulative with reduced damage due to deliberate jumps and the Jump skill.

Falling into Water: Falls into water are handled somewhat differently. If the water is at least 10 feet deep, the first 20 feet of falling do no damage. The next 20 feet do nonlethal damage (1d3 per 10-foot increment). Beyond that, falling damage is lethal damage (1d6 per additional 10-foot increment). Characters who deliberately dive into water take no damage on a successful DC 15 Swim check or DC 15 Tumble check, so long as the water is at least 10 feet deep for every 30 feet fallen. However, the DC of the check increases by 5 for every 50 feet of the dive.

Additionally, for those with a STR above 18 (mostly Cyborgs), the distance for surviving a fall decreases. For every 2 ranks above 18, one can remove 10 feet from the fall before taking damage.

EG: A cyborg with a 26 Strength can fall 40 feet before needing to roll or take damage.

CYBERNETICS & ROBOTICS

MicroMachines revolutionized the industry and opened the doors to a new direction in mankind's evolution. Every corporation filed patents on their own MicroMachines. Some were used to clean pollution; some where used to miniaturize computers. However, they soon became the Rosetta stone into the new road into cybernetics. This began with the normal cyborg enhancements but exploded when the Cyberbrain was introduced. Cyberbrains changed how the planet dealt with computers. Now, citizens would be connected to a vast network of information all the time. They can store information in external memories. They can surf the net simply by closing their eyes. Computers were hardly necessary

The most important fact to consider is that many cybernetics are built to enhance…not replace. Cybernetics are automatically designed to look, feel, and move like normal human limbs. The trend of making one look inhuman with robotics is actually somewhat unpopular and is usually only used in military applications.

Table: Cybernetics glosses over all cybernetics from the basic replacements to the full body prosthetics.

CONSTRUCTION AND REPAIR

Cybernetic attachments are complex instruments with both electrical and mechanical components. Consequently, a character must have the Craft Cybernetics feat to build a cybernetic attachment.

Repairing a damaged or nonfunctional cybernetic attachment requires 10 hours of work and a successful Repair check (DC 25). A character needs both an electrical tool kit and a mechanical tool kit to facilitate repairs. Without one or the another, a character takes a –4 penalty on the check; without both kits, the penalty increases to –8.

INSTALLATION AND REMOVAL

Installing or removing a cybernetic attachment, regardless of whether it's a replacement or enhancement, requires a successful Treat Injury check. A character with the Cybernetic Surgery feat suffers no penalty on the check.

BENEFITS AND DRAWBACKS

Cybernetic attachments provide countless benefits to their recipients. For example, cybernetic eyes can bestow darkvision or improve the accuracy of the recipient's ranged attacks. A cybernetic brain implant can improve the recipient's response time in a crisis, protect against mind-influencing attacks, or increase the flow of adrenaline throughout the body. The possibilities of cybernetic technology are endless. Although the benefits make cybernetics very alluring, the drawbacks are equally discouraging:

Cybernetic	Cost	Capabilities	Slots	Rest
Cyberbrain Models				
Class D	1000	+2 all Knowledge Skills with 1 rank, +1 skill max,+1 to Gather Information and Computer use.	1	--
Class C	1250	+2 all Knowledge Skills with 1 rank, +1 skill max,+4 to Gather Information and Computer use.	2	--
Class B**	1500	+4 all Knowledge Skills with 1 rank, +1 skill max,+4 to Gather Information and Computer use. Detachable Braincase	4	--
Class A**	2500	+4 all Knowledge Skills, +1 skill max,+4 to Gather Information and Computer use. Detachable Braincase, +1 Int	6	--
Robot AI Cyberbrains				
Defender	1500	See Below.	2	Lic(+1)
Interpersonal	1000	See Below.	2	--
Servant	500	See Below.	0	--
Military Control AI	3000	See Below.	10	Mil(+3)
Military Attack AI	5000	See Below.	10	ILL(+4)
Cyberbrain Upgrades*				
Charisma Upgrade (Robots Only)	Special	+2 bonus to Charisma.	--	--
Divable AI (Robots only)	1000	The AI can now Ghost Dive, allowing the invasion and attack of Cyberbrains and enemy installations (see later)	--	Mil(+3)
Feat Implant	1500	Implant any feat.	--	--
Intelligence Upgrade (Robots Only)	Special	+2 bonus to Intelligence.	--	--
Language Chip	100	Implant any known language	--	--
Rage Implant	750	+4 bonus to Strength, a +4 bonus to Constitution, and a +2 morale bonus on Will saves, but he takes a –2 penalty to Defense once/day	--	Mil(+3)
Skill Chip (Robots only)	Special	8 ranks in any one of the following skills: Computer Use, Hackcraft, Demolitions, Disable Device, Listen, Repair, Search, or Spot.	--	--
Skill Increase	200	Add a Skill to one's portfolio. It now becomes a class skill (if not already) and offers a +2 competency bonus to that skill.	--	--
Skill Net (Robots only)	1200-5000	A large bank of four skills from 4 – 12 ranks	--	--
Skill Progit (Robots only)	Special	enables a robot to gain ranks in a single skill.	--	--
Tongues Chip	1500	Speak and understand all known languages.	--	--
Voice Stress Analyzer	500	+4 equipment bonus on all Sense Motive checks	--	--
Wisdom Upgrade (Robots Only)	Special	+2 bonus to Wisdom.	--	-
Cybernetic Replacements				
Enhanced Sensors Class C	800	+2 equipment bonus on Listen and Spot checks.	--	--
Arm Class D	350	No stat boost	--	--
Arm Class C	100	+2 Climb & Swim, +1 to hit	--	--
Arm Class B	2000	+1 Strength, +4 Climb & Swim, +2 Sleight of Hand, +2 to hit.	--	--
Arm Class A	2500	+2 Strength, +6 Climb & Swim, +2 Sleight of Hand, +3 to hit	--	--
Burst Limb**	2000	+8 Str for 1 round 1 / day / level.	--	Lic(+1)
Digidigits	1000	-10 to Computer Use Rolls with manual connection.	--	--
Enhanced Sensors Class B	1000.	+4 equipment bonus on Spot checks and a +2 equipment bonus on Listen checks.	--	--
Enhanced Sensors Class A	1500.	+2 equipment bonus on Listen and Spot checks. The robot also gains a +1 equipment bonus on initiative checks.	--	--
Hawkeye*	2000	+2 to Spot checks. Darkvision 60 feet, Reduce the range penalty for Spot checks to –1 for every 60 feet of distance, +2 bonus to hit with all ranged weapons. Uplink with a military spy satellite overhead.	--	Res(+2)
Leg Class D	350	No stat boost	--	--
Leg Class C	600	+5 speed	--	--
Leg Class B**	1000	+10 speed, +4 Jump, Swim, & Climb	--	--
Leg Class A**	1500	+15 Speed, +8 Jump, Swim & Climb	--	--

Cybernetic	Cost	Capabilities	Slots	Rest
Optic Class D	350	Decode computer information and translate it. +2 to all Spot checks.	--	--
Optic Class C**	600	+2 to Spot checks. Darkvision 60 feet. Reduce range penalty for Spot checks to –1 for every 30 feet	--	--
Optic Class B**	1000	+2 to Spot checks. Darkvision 60 feet. Reduce range penalty for Spot checks to –1 for every 30 feet, Flare suppressors, +1 bonus to hit with all ranged weapons.	--	--
Optic Class A**	1500	+4 to Spot checks. Darkvision 60 feet. Reduce range penalty for Spot checks to –1 for every 30 feet, Flare suppressors, +2 bonus to hit with all ranged weapons.	--	--
Total Immersion Optic	1000	+10 to all Computer use checks when connected.	--	--
Full Body Prosthetics*				
Angela CV-1	1500	Con, Str, Dex = 16, 2 Hardness or Dodge Bonus to AC	10	--
Base Production	500	Dex, Con, Str = 10, 0 Hardness	2	--
Combat Class D	5000	Dex, Con, Str= 10 +15 to invest. (Max Rank: Dex 18, Str & Con 20), +1 to Hardness or Dodge Bonus to Defense.	4	Mil(+3)
Combat Class C	7000	Dex, Con, Str= 10 +20 to invest. (Max Rank : Dex 18, Str & Con 22), +2 Hardness or Dodge Bonus to Defense.	6	Mil(+3)
Combat Class B	10000	Dex, Con, Str= 10 +25 to invest. (Max Rank: Dex 20, Str & Con 24), +3 Hardness or Dodge Bonus to Defense	8	Mil(+3)
Combat Class A	15000	Dex, Con, Str= 10 +30 to invest. (Max Rank: Dex 20, Str & Con 26), +4 Hardness or Dodge Bonus to Defense.	10	Mil(+3)
Enhanced Mobility	1000	Con, Str = 14, Dex = 20, 1 Hardness or Dodge Bonus to Defense	3	--
Jameston type	500	Dex, Con, Str = 3, 0 Hardness	0	--
Perfect Beauty	1000	Con, Str, Dex = 14, +5 to all Cha based skills, 0 Hardness	4	--
Pioneer Combat	18000	Dex 16, Con 16, Str 22, +Battle Boost@, 5 Hardness	2	Mil(+3)
Public Summit Model	3000	Dex, Con, Str = 10 +15 to invest (Max Rank 18), 2 Hardness or Dodge Bonus to Defense.	4	
Prototype Non-Maintenance (PKF) Combat Class	24000	Dex, Con, Str= 10 +30 to invest. (Max Rank 22), +5 to Cha based Skills, 5 Hardness or Dodge Bonus to Defense.	8	Mil(+3)
Type 2033	18000	Dex = 16, Con & Str= 10 + 24 to invest. (Max Rank 22), 10 Hardness	8	Mil(+3)
Y-3 Submersible Cyborg	15000	Dex, Str, Con = 18, 4 Hardness, x3 Swim Speed, +20 to Swim rolls.	6	Lic (+1)
FBP Upgrades				
Additional QRS Socket	1000	2 additional QRS Sockets (max 3 sets)	--	--
Agility Increase	2000***	+1 Dodge bonus to Defense / level, +2 Ref Saves / Level	--	Lic(+1)
Anti-Shock	1000	Do not take +50% damage from Electricity	--	Mil(+3)
Blade Weapon Mount	500	Concealable blade in limb	--	ILL(+4)
Enhanced Regeneration	1500***	Healing rate 1 hit point / round / level	--	--
Death Simulation	1000	Give the appearance of Death.	--	--
Detachable Limb	200	Limb breaks off on command	--	--
Dexterity Increase	5000***	+2 Dexterity / Level		
Dislocating Limbs	1500	Escape from all Grapple checks and Pins	--	--
Enhanced Realism	1000	+10 all Charisma based rolls, +1 Reputation	--	--
Enhanced Organs	500	+10 to all Fort Saves.	--	--
Face-Swap	1000	Change facial appearance	--	ILL(+4)
Foam-Based Materials	1000	swim penalty reduced by 10 (max = 0), -1 Hardness	--	--
Haste	5000***	Haste 1round / day / level	--	Mil(+3)
Increased Hardness	1500***	+1 Hardness / level	--	Mil(+3)
Jump	500***	+10 to Jump Rolls / level	--	--
Overdrive	1000	Base speed increased +30 for 10 rounds / day	--	Lic(+1)
Sexaroid	500	Sexual organs implanted	--	--
Shielding	1000	Cybernetically concealed devices cannot be detected.	--	ILL+4)
Shout	500	Get really, really, loud	--	--
Skin Sense	500	+2 to all Demolitions, Disable Device, Escape Artist and Sleight of Hand skill rolls. Detect Magnetic fields.	--	
Speed Burst	1000***	+10 Movement Rate / level	--	--

Cybernetic	Cost	Capabilities	Slots	Rest
Strength Boost	1500	+4 Str bonus for ten rounds/day	--	Lic(+1)
Voice-Box	300	Alters one's voice	--	ILL(+1)
Shock Circuit	500	Melee touch attack deals 5d6 points of electric stun damage. +3 bonus on attack rolls if the opponent has a full body prosthetic	--	Mil(+3)
Spiders	1500	Climb and travel on vertical surfaces or even traverse ceilings at 20 feet	--	--
Strength Increase	2000***	+2 Strength / level	--	Lic(+1)
Therm-Optic	2000***	Thermoptic camouflage 10 rounds / day / level	--	Mil(+3)
Toughness Increase	2000***	+2 Constitution / level	--	Lic(+1)
Cybernetic Devices				
Brain Blocker*	500	Cuts all cyberbrain access.	--	--
Brain-Case	500	Transport Cyberbrains	--	--
Corpse Remote	1000	Remote control a fried Cyberbrain	--	Mil(+3)
Decot*	500	Remote cyberbrain operation	--	Mil(+3)
Brain Surge	500*	Cyberbrain power surge (2d4 Int Drain)	--	Mil(+3)
External Memory*	500	+4 to Gather Information, +10 to all Knowledge (history)	--	--
Interceptors	1000	Alternative surveillance technology.	--	Mil(+3)
Memory Eraser Plug	500	Failsafe Memory wipe, -2-5 to Int.	--	Mil(+3)
Optic Enhancer Class B	500	+1 bonus to ranged weapons,+2 to Spot checks,	--	--
Optic Enhancer Class A "Milispec"	1000	+2 bonus to ranged weapons,+4 to Spot checks, Gain Combat Expertise Feat, +2 to all Ref saves.	--	--
Plug Gun	300	Futuristic Handcuffs		Res(+2)
Virtua Cap	500	Virtual experience	--	--
@ Special Rules. See Below * Requires a Cyberbrain (not included) ** Requires a Full Body Prosthetic (not included) *** Can be boosted (see below)				

Electric Vulnerability: A creature with one or more cybernetic attachments takes 50% more damage from any attack that deals electricity damage. This vulnerability to electricity can be offset by an anti-shock implant (see Cybernetic Enhancements, below).

Massive Damage Effects: Massive damage wreaks havoc with cybernetic attachments. Whenever a creature with cybernetic attachments fails a Fortitude save against massive damage, the GM should roll percentile dice and consult Table: Massive Damage Effects to determine what happens.

Table: Side Effects	
d% Roll	Side Effect
01–08	Blurred Vision: Character suffers a 20% miss chance on all attacks.
09–17	Constant Trembling: Character takes a –2 penalty on Dexterity-based skill checks.
18–25	Cybernetic Rejection: Character suffers 1d4 points of Constitution damage per day.
26–34	Dizziness: Character takes a –1 penalty on attack rolls, saving throws, ability checks, and skill checks.
35–42	Impaired Hearing: Static distortion imposes a –2 penalty on all Listen checks.
43–50	Impaired Vision: Distorted images impose a –2 penalty on Spot checks.
51–59	Insomnia: Character can only sleep for minutes at a time and gains insufficient rest to heal naturally.
60–67	Muscle Cramps: Character moves at half speed.
68–76	Muscle Fatigue: Character takes a –2 penalty on Strength-based skill checks.
77–84	Power Surge: Character is shaken for 1 round if wounded; a successful Fortitude save (DC 12) negates.
85–93	Psychosis: Character suffers 1d4 points of Charisma damage per day, lapsing into a coma if the score drops to 0.
94–100	Sensory Overload: Character is stunned for 1 round if wounded; a successful Fortitude save (DC 15) negates.

Normal Effect: The character immediately drops to –1 hit points and is dying.

Attachment Disabled: One cybernetic attachment (determined randomly or chosen by the GM) ceases to function until repaired (see Construction and Repair, above). The character suffers the effects of the disability—as noted in the description of the cybernetic attachment— for as

Table: Massive Damage Effects

d% Roll	Effect of Failed Fortitude Save
01–30	Normal Effect
31–60	Attachment Disabled
61–80	Normal Effect and Attachment Disabled
81–100	Attachment Damaged and Side Effect

long as the attachment remains disabled.

Attachment Damaged: One cybernetic attachment (determined randomly or chosen by the GM) continues to function but develops an unpleasant side effect that persists until the attachment is repaired (see Construction and Repair, above).

Side Effect: The character suffers a debilitating side effect as the result of a damaged attachment. Various side effects are presented on Table: Side Effects.

SPECIAL RULES ABOUT CYBERNETICS

Autistic Mode: Cyberbrains are almost always connected to the internet. One never needs to use it—like working on ones personal computer while on high-speed internet. Even though it is constantly connected, until a browser is opened, you don't actually use the link. However, you can pull a cord from the modem. Cyberbrains are all connected via cellular and satellite. If one does not want to be open to the internet, they can activate Autistic mode. This cuts the connection to the internet, severing all communication in both directions. This is the most surefire way to prevent outside attack of ones cyberbrains (if one is paranoid enough). Autistic mode prevents any visual and aural communication and cuts off one's cyberbrain to any external memory sources. All cellular communication is cut. This action must be voluntary by the cyberbrain and cannot be forced by an external source (although implanted

Viruses can also accomplish this). Anyone diving is instantly severed UNLESS that diver has safeguards against this and has in place preventative measures if the situation occurs (for example the Diver creates an illusion that the user is in Autistic mode while, in fact, not). Viruses inside are still inside and may still function even while in Autistic mode. However, barring these rare exceptions, Autistic Mode is the surefire way (like abstinence) to prevent outside attack.

While in Autistic Mode, the Cyberbrain maintains its +1 rank skill increase and its bonuses to Knowledge skills but looses its skill rank bonuses to Gather Information and Computer Use. Any abilities coming from outside sources (Hawkeye satellite data for example) do not operate. Activating Autistic mode is a move action. Deactivating Autistic Mode, however, takes more time. A full 10 rounds (1 minute) is required to re-attach the connections. Until then, the Cyberbrain is still in Autistic mode. This makes switching on and off from Autistic in combat unfeasible.

> Broad Strokes
>
> The most noteworthy aspect of the future resides in the extensive use of cybernetics. One could simply insert this setting into any old cyberpunk game and be done with it. However, some cyberpunk clichés no longer apply.
>
> Cybernetics are common and safe throughout the globe. Such rules as cyber-psychosis and Humanity-loss no longer apply. Cybernetics do not strain one's constitution or stamina.
>
> The last change is a realistic one. Having a cybernetic arm does not give you superhuman strength…this is why so many opted for a full body prosthetic…it simply cures many problem with selective cybernetic replacements.

Even with Autistic mode on, direct linking via QRS plug will circumvent the severed link. Autistic mode only cuts off the cellular connection, not the QRS plug. Cyber blocker will cut both the cellular and the QRS plug. Someone in autistic mode can still hack into a target via direct link. However, if that target is connected to the net, a rival hacker can track into through the net and dive through the direct link as could the target that is being directly hacked.

It should be noted that the sever is not a physical disconnect as this is not possible. One with the right Hacking Key can circumvent Autistic Mode and reactivate the link.

Barcodes: Many newspapers and documents are written in barcode in the future. These contain vast amounts of information. The barcodes are multi-dimensional and apparently also capable of containing audio and video. The cyberbrain scans this data and converts it into the audio and visual sensors. One needs a cyberbrain to accomplish this otherwise the data is unreadable. Barcode data can be encrypted as well, as the data may require a decoding key to properly translate. Without this key, the document is unreadable. A Decipher script skill may be required to break through this encryption.

Pushing Cybernetics: Most physical cybernetics (arms, lets, full body) have structural limits and how far they can be strained. The human body has pain receptors to tell it that it is overexerting itself. With cybernetics, this feeling can be toned down, allowing a cybernetic to be pushed beyond what it was designed to.

If someone wishes to push their bodies beyond specifications, they can accomplish some truly remarkable acts. However, damage to the limb and body inevitably occurs.

For every round the limb is pushed, a Fort save must be made. The 1d6 damage is caused regardless. A failure results in dislocation and damage. For limbs connected to tissue, the limb is not

damaged, the tissue is. The person is rendered unconscious for 1d6 minutes. The limb is now useless until repaired.

Cybernetic	Extent pushed	Damage/round
Arms*	+2 Str	1d6 damage to body, DC20 Fort or Dislocation
Legs*	+2 Str / +10 base speed	1d4 damage to body, DC20 Fort or Dislocation
Full Body Prosthetic	+2 Str / +10 base speed	1d4 damage, DC15 Fort or Dislocation
* Connected to tissue.		

Full Body Prosthetics can be pushed more with greater results. Each time it is pushed, it only causes 1d4 damage and the Fort DC starts

Exertion must be stacked every round and cannot be done suddenly. A character cannot suddenly push herself with a +6 strength. She must first do a round at +2, then the next round at +4, then the next round at +6. Stopping forces the character to start over. Every additional round exerting causes damage every round and the Fort DC increases by +2. Hardness does not absorb the damage. It is internal..

Dislocation for full body prosthetics results in the cyborg overheating and shutting down for 1d4 minutes.

Turning off the Pain: Full Body Prosthetics are totally cybernetic save for the spinal column and brain (usually). This means that, like a computer, certain senses can be turned off. The only sensation cyborgs sometimes have deactivated is their sense of pain. This appears to be a great idea in combat but Ramifications do occur. Turning off one's pain receptors is a free action but cannot be reactivated for at least ten rounds (one minute)

While pain is deactivated, the character incurs no adverse effects from massive damage. They cannot be stunned or rendered unconscious from physical damage. They can also make a full round action at 0 hit points before falling (instead of the normal half action). If pushed below 0 hit points (but before death), a Fort DC of 20 can allow the character a half action before dropping.

However, the drawback to all of this…

The character, while void of pain, also cannot receive information from touch sensors as effectively. There is not data feedback to the brain on how the body is performing. To translate this into game terms, the Cyborg suffers a –2 to Defense and a –1 to all hit rolls. She also suffers a –4 penalty on all Demolitions, Disable Device, Forgery, and Repair checks.

> "Fingernails are applied by a specialist. For custom orders, a specific artist usually does body designs. This describes a full body cyborg.
>
> Cyborgs with only a few artificial organs and prosthesis have a different set of problems. For example, when a prosthetic arm is attached… imagine an arm capable of lifting 120 lbs when attached to a work fixture. … But when attached to bone, the result is dislocation.
>
> So partial cyberization can only supplement a human's innate abilities. Total cyberization however, can create abilities that may exceed those of a human…or so it seems…"

Purchasing and Selling: More so than equipment, vehicles and weapons, cybernetics are an integral part of a character. Often, when a character wishes to sell his equipment, the GM can opt for to role-play the sale. Often times, the selling price can be anywhere from 25% to 50% of the purchase price. With swapping out cybernetics, there is value in the discarded components. There is a flat 50% trade-in value for all cybernetics including full body prosthetics assuming the parts being returned are in sellable condition. Non functioning or damaged cybernetics are useless. No skill rolls from experienced players can alter this trade-in percentage. It is a flat number across the board. The only component that cannot be traded in for any reason are cyberbrains. The parts removed cannot be refitted to anyone else. However, when upgrading in cyberbrain class, one needs only to pay the difference. Parts are just being added.

Of course, one can opt to keep her previous cyberbodies for future use (like Kusangi does). For ease and to give starting characters a break, the GM may opt to remove the restriction rating during character creation in the acquisition of cybernetics.

Cyberbrain Resurrection: Unless the character has been dropped to twice their Constitution below 0 (Con 14 = -28), their cyberbrain may still be recovered. If a character officially dies, the cyberbrain has the Constitution = minutes to find a new body or go under life support. If time runs out, the Ghost is unrecoverable and death is final. However, if a new body is found in time or if life support is brought in soon enough, the cyberbrain can survive, but the trauma of death is permanent. Even if recovered and the Ghost survives, all the Ghost's mental attributes (Cha, Int, Wis) drop permanently by 1. If any attribute drops below 0, the Ghost cannot be recovered.

Removing a Cyberbrain safely from a body requires a successful Surgery DC DC30. A failure causes 1d4 point a permanent ability drain to all Mental attributes. Only Class B and Class A Cyberbrains
can be removed this way. Class C and D don't have enough cybernetic fail safes to keep the organics alive if the body is killed or if the brain is removed from the body. The chance of resurrection is a risky one and only to those two classes of Cyberbrain.

Cyborg Eating & Sleeping: In an attempt to simulate a normal human life pattern, cyborg companies built the majority of their models to require sleeping and eating. Sleeping comes from a need for all organic brains to require a rest period. Androids and Neurochip implanted robots also require a sleep period in order for them to decompile their experiences, recharge their power cells, and debug their cyberbrains as well as get necessary updates from the manufacturer.

> "…But the funny thing is, prosthetic bodies never toss in their sleep."

However, cyborgs also need power. Powering full body prosthetic bodies requires ingesting food like normal people. It's the food itself that's important. Cyborgs can eat normal food. Implanted sensors transmit the proper flavor to the cyberbrain. It passes through their system with no ill or positive effects. Cyborg food looks stale, has virtually no smell, and is harmless to normal humans though having virtually no nutritional value. Cyborg food companies have made leaps in the technology of cyborg food to look close to something organic. First, it was a liquid paste similar to baby food. This soon got replaced with the burrito. This remained popular to the day even though more realistic looking food replaced it (although much more expensive). Power drinks and the meat-wraps remain the standard today. The food contains organic chemicals to maintain the brain but the primary useful component of Cyborg food are micromachines. They not only transmit useful nutrients to the organic portions of the cyborg, they also resupply the inbuilt micromachines, pumping through the body. Full Body Cyborgs carry a red blood-like circulatory system that powers the prosthetics. This blood never interacts with the organic portions of the body, even with full body prosthetics with only organic brains. No artificial blood products flow into the brain because of what is known as the "blood-brain barrier"—a special mechanism ensuring that foreign substances in the blood never attack the brain.

MicroMachined food resupply this system. Cyborg food, like normal food, never needs to be purchased by Players. It is assumed to be part of their normal lives. Cyborgs require eating in regular intervals like everyone else. They suffer from starvation from lack of eating like everyone else but the effects are more are quicker. Cyborgs that miss a day of food loose 1 point from each of their physical stats. This then drops 1d4 more points every additional day until food is ingested or the subject dies.

Cyborgs cannot get drunk unless they specifically tell their cyberbrain to do so. Some micromachined synthetic drinks can alter perceptions in the way alcohol can. Cyborg food also produces little waste, requiring a full body prosthetic to go to the bathroom similar to organic humans, at leas once every two days.

Forearm Recoil Energy: Cyborgs can virtually ignore FRE. With mastercraft weapons like the top end Seburo models, a cyborg can pull the trigger extremely fast (sometimes as high as 12 times per

Cyborg Technology
by Yoshiki Sakurai

While cyberbrains enhanced "implosions" of mental senses (McLuhan), prosthesis technology, more widely known as "cyborg technology" that compensates physical bodies by mechanical gadgets, urged the direct "explosions" of manual skills. Starting its development in wartime medical studies, cyborg technology progressed quickly after the war and expanded its realm from the medical to military, as it ensured more power than the physical body could ever produce. However, it expanded no further; lengthy and costly maintenance, difficult machine-flesh consistency, and mental repulsions were too much of a block to make a mass penetration.

But the slowly spreading cyborg population gave birth to an interesting question. Why should human appearances be kept human-like? This significant question rhymes with one of the older days; why should robots be shaped human-like? And that is how Jameson-Cyborgs (box-typed cyborgs) came into market. One problem the increase of cyborgs created, was the deep gap between the cybernetically enhanced and the non-enhanced people. The gap itself was nothing new of course for in fact, it could be traced back to the oldest days in human history, widely observed between religions, races and nations. Cyborg technology created that old gap in a new place reproducing occasional bias, discrimination and hatred. In countermeasure, suggestions such as banning the use of the term 'Cyborg' were made, claiming that the word has a discriminative aspect, but beyond mere usage of certain vocabularies the feeling of 'otherness' was now overt between the two groups.

3 seconds) and not jam the weapon. For mastercraft firearms with an "S" firing capacity (Single Shot), Characters with a modified Dexterity of 22+ (Assuming Cyborgs as few humans should be able to have a Dexterity this high) gain the Double Tap Feat for free. Those who already possess this feat may now initiate the action without incurring the –2 penalty.

Weight and Buoyancy: Simple limb replacement incurs no penalty as the replacements are rather light. However, because of the near superhuman capabilities of full body cyborgs, their weight increased substantially. To reflect this, and since capacity reflects cost will body prosthetics, the penalty to all Swim checks are –1 per 1000 cost of the suit (Eg: Class A Cyborg costs 15 000 = -15 to all Swim skill rolls). There are modifications to offset this number plus the fact that increased strength offers bonuses as well.

Servicing: Cybernetics and all robotics require periodic surviving. Every month, a character must invest 5% of their total cybernetic value towards servicing. If this is not done, the cybernetic looses 10% of its abilities or capacity every month until it ceases functioning.

COMPONENT DISCRIPTIONS
Benefits: All the capabilities of the cybernetic.
Available Upgrade Slots: Cyberbrains and Full Body Prosthetics have options for upgrades. These are described later. Each upgrade occupies one slot. Some can be stacked. Other cannot. The available number of upgrades are listed with the specific model of FBP or Cyberbrain.

CYBERBRAINS
75% of the population of Japan is equipped with a Cyberbrain. Cyberbrains may be anywhere from basic visual and data enhancements to a complete braincase. Cyberbrains are required for all body Prosthetics. They are as commonplace now as desktop computers were at the turn of the century. It is accepted that at least one member of every household has one. Most children request theirs as early as twelve (although a few rare cases have seen them even younger). Young cyberbrain implants can be regulated and limited. Future upgrades remove these limiters, allowing access to the infinite knowledge of the Internet. Cyberbrains digitize ones own brain, eliminating the greatest prize of the grim-reaper, one's memories. Now people hardly forgot anything and it could even upload their memories to an external source for access later, by either them or anyone else. As a result of being constantly connected to the net, defenses are placed on ones sensors and ghost to prevent attack. All cyberbrains carry basic firewalls and Ghost barriers but can be upgraded later (see later). There are dozens of different companies building cyberbrains but they can summarized into four classes.

Phantom Limb
Refers to the sensation that limbs lost, due to accident or disease, are still present.

Class D (Cost 1000)
Benefits*: +2 to all Knowledge Skills with at least 1 existing, +1 skill rank max (where normal characters have a +3 skill +level, it is now +4 skill + level), +1 competency bonus to Gather Information and Computer use.
Available Upgrade Slots: 1

Class C (Cost 1250)
Benefits: +2 to all Knowledge Skills with at least 1 existing, +1 skill rank max (where normal characters have a +3 skill +level, it is now +4 skill + level), +4 competency bonus to Gather Information and Computer use.
Available Upgrade Slots: 2

Class B (Cost 1500)
Benefits: This model of cyberbrain can only be used by Full Body Prosthetics. +2 to all Knowledge Skills with at least 1 existing, +1 skill rank max (where normal characters have a +3 skill +level, it is now +4 skill + level), +4 competency bonus to Gather Information and Computer use. The cyberbrain is now a full detachable braincase, allowing quick swaps for cyberbodies (quick = ten minutes). If the subject is killed, the braincase maintains brain activity for Constitution = minutes, allowing a quick recovery to a life support system or another Cyberbody (This is assuming the braincase is, itself, not destroyed). If the body takes more than twice its Constitution in negative hit points, eg Con 12 = -24 hit points, it is assumed the brain case is breached and the brain is killed.

Available Upgrade Slots: 4

Class A (Cost 2500)

Benefits: This model of advanced cyberbrain can only be used by Full Body Prosthetics. +1 skill rank max (where normal characters have a +3 skill +level, it is now +4 skill + level), +4 competency bonus to Gather Information and Computer use. The cyberbrain is now a full detachable braincase, allowing quick swaps for cyberbodies (quick = ten minutes). If the subject is killed, the braincase maintains brain activity for Constitution = minutes, allowing a quick recovery to a life support system or another Cyberbody (This is assuming the braincase is, itself, not destroyed). If the body takes more than twice its Constitution in negative hit points, eg Con 12 = -24 hit points, it is assumed the brain case is breached and the brain is killed. A microcomputer is implanted in cyberbrain. It contains skill-related information stored on a series of biological data chips, or biochips. The recipient treats all skills as class skills. Furthermore, the recipient gains access to an information database that grants a +4 equipment bonus on all Knowledge checks. Subject also gains a +1 to Int.

Available Upgrade Slots: 6

ROBOT AI CYBERBRAINS

Android Ais are basic and designed to fill in a specific purpose. With the exception of Neurochips, they are not designed to learn nor adapt and are not designed to overtly simulate human emotions. They are not capable of generating their own Ghost. Neurochips are somewhat different and the basic skeletons of Ghosts have appeared. Neurochips are used exclusively in think tanks at the beginning but soon, the desire of implanting them in humanoid bodies resulted in the creation of Bioroids. Bioroids are Neurochips implanted into actual modified Full Body Prosthetics, making them as close to human as technology can currently achieve.

There are two procedure for making Ghostless AI robots. The first route is using the following Cyberbrains and then implanting them in Cyborg bodies. This is the best route for GMs that allow PC created Androids. The other route is to create them from scratch (see later). The rules can be mixed. So a robot using the rules in the next section can be fitted with cyberbrain upgrades will Robot Cyberbrains listed here can have attribute upgrades using the later rules.

--They generally have low mental attribute scores but high skill rolls. Generally if a point-to-point comparison was used, Androids suffer a –4 to all Wis and Int and a –6 to Cha but have a +4 competency bonus to all Int based skills and any class skills.

--They cannot die or suffer any ill effects from massive damage.

--They can access the net and hack into corporations and other external memories but cannot actually Ghost Dive (unless given this unique ability).

--The don't have access to the Hero Rule

--One can use these are create a whole robot from scratch with the robot creation rules later. Ais can also be boosted using the upgrade possibilities in that section. Available Upgrades listed here are for Cyberbrain upgrades and not stat or skill upgrades (described later)

Defender (Cost 1500): These are often suit wearing men in black with hidden weapons for emergencies.

Attributes: Int 10, Wis 3, Cha 3

Noteworthy Skills: Balance +13, Climb +16, Computer Use +5, Jump +10, Listen +10, Navigate +7, Spot +12, Tumble +18, Hackcraft +4, Knowledge Events +10, Knowledge History +10

Feats: Improved Initiative, Combat Reflexes

Special: Because of the obvious security risk, these Cyberbrains carry a +5 on their Barrier Defense. They may also be implanted with character levels. The purchase cost = the level desired.

Available Upgrade Slots: 2

Interpersonal (Cost 1000): Often seen following dignitaries around, these are often female, well dressed and easy on the eyes without being distracting. They are purchased to be secretaries and assistants. Occasionally, they are implanted in companion models.

Attributes: Int 10, Wis 3, Cha 8

Noteworthy Skills: Balance +12, Climb +16, Computer Use +14, Jump +5, Listen +10, Navigate +7, Spot +7, Tumble +8, Hackcraft +4, Knowledge Events +20, Knowledge History +20

Special: Because of the obvious security risk, these Cyberbrains carry a +5 on their Barrier Defense. They may also be implanted with character levels. The purchase cost = the level desired.

Available Upgrade Slots: 2

Military AI (Cost 3000): These Cyberbrains are extremely rarely implanted in cyberbodies (there are laws against it). They find their application in AI controlled weaponry like Tanks and Attack Choppers. They are also used without bodies as active defenders of secured installations.

Attributes: Int 18, Wis 3, Cha 3

Noteworthy Skills: Balance +13, Climb +16, Computer Use +20, Jump +10, Listen +10, Hackcraft +10, Navigate +7, Spot +12, Tumble +18,

Feats: Improved Initiative, Combat Reflexes

Special: Because of the obvious security risk, these Cyberbrains carry a +5 on their Barrier Defense. They are also often equipped with Military Defense or Attack barriers (purchased separately) They may also be implanted with character levels. The purchase cost = the XP level desired.

Available Upgrade Slots: 10

Military Attack AI (Cost 5000): Military Attack AI never see use in cyberbodies, often being used to attack an enemy AI of facility or even invade other Cyberbodies. A good example of this type of system is the HA-3—a military AI created during World War IV. Like other Military Ais, It is not often utilized in blank Shells. It is used to infiltrate and take control of Ghost inhabited Shells, and utilize them for assassination or espionage. Viruses are used to remove the barriers and the HA-3 Dives in. The HA-3 is the benchmark for all Infiltrating Ais made after that but it is the oldest of these still in service. Most consider them antiques and, today, are easily tracked and defeated.

Attributes: Int 20, Wis 3, Cha 3

Noteworthy Skills: Balance +10, Climb +10, Computer Use +25, Jump +5, Listen +10, Navigate +7, Spot +10, Tumble +14, Hackcraft +24, Knowledge Events +10, Knowledge History +10

Special: They may be implanted with character levels. The purchase cost = the level desired.

Available Upgrade Slots: 10

Neurochip (Cost 2000): Usually seen in Think Tanks, a few later found implantation in Bioroid bodies.

Attributes: Int 18, Wis 10, Cha 8

Noteworthy Skills: Balance +13, Climb +16, Computer Use +20, Jump +5, Listen +10, Navigate +7, Spot +12, Tumble +10, Hackcraft +10, Knowledge Events +15, Knowledge History +15

Special: They may be implanted with character levels. The purchase cost = the level desired.

Available Upgrade Slots: 10

Servant type (Cost 500): Sever brain with basic functions. No character levels.

Attributes: Int 8, Wis 3, Cha 3

Noteworthy Skills: Balance +12, Climb +16, Computer Use +9, Jump +5, Listen +5, Navigate +5, Spot +6, Tumble +5

Available Upgrade Slots: 0

CYBERBRAIN UPGRADES

Charisma Upgrade (Robots Only, see below): The robot is programmed with character and personality subroutines that enable it to better interpret and simulate humanoid behavior patterns and emotions. The upgrade provides a +2 bonus to Charisma.

Purchase Price: 300 x robot's Charisma modifier before the upgrade.

Divable AI (Robots Only, Cost 1000)

Benefit: The AI can now Ghost Dive, allowing the invasion and attack of Cyberbrains and enemy installations (see later)

Special: Only available to Ais.

Feat Implant (Cost 1500)

Benefit: Implant any feat. The character must still meet all the requirements of the feat before implanting or the feat is useless until the requirement is met.

Intelligence Upgrade (Robots Only, see below): Modifications to the robot's artificial intelligence allow it to think more creatively. The upgrade provides a +2 bonus to Intelligence.

Purchase Price: 500 x robot's Intelligence modifier before the upgrade.

Rage Implant (Cost 750): This cyberbrain implant dramatically increases the amount of adrenaline and testosterone the recipient's body produces, temporarily boosting his strength and durability.

Benefit: The recipient can activate the implant as a free action once per day. Upon doing so, he temporarily gains a +4 bonus to Strength, a +4 bonus to Constitution, and a +2 morale bonus on Will saves, but he takes a –2 penalty to Defense. The increase in Constitution increases the recipient's hit points by 2 per level, but these hit points go away at the end of the rage when his Constitution score drops back to normal. While raging, the recipient cannot use any Charisma, Dexterity, or Intelligence-based skills (except for Balance, Drive, Escape Artist, Intimidate, Pilot, or Ride), the Concentration skill, any abilities that require patience and concentration, or any items that must be activated to function.

The rage lasts for a number of rounds equal to 3 + the recipient's (newly acquired) Constitution modifier. The recipient may prematurely end his rage. At the end of the rage, the recipient loses the rage modifiers and restrictions and becomes fatigued for the remaining duration of the current encounter.

Special: Only useful in organic bodies.

Language Chip (Cost 100)

Benefit: Implant any known language. The character can now understand that language fully but cannot speak it.

Skill Chip (Robots only, see below): A skill chip enables a robot to gain up to 8 ranks in any one of the following skills: Computer Use, Hackcraft, Demolitions, Disable Device, Listen, Repair, Search, or Spot. A robot can have multiple skill chips. However, skill chips do not allow a robot to benefit from skill synergy. A skill chip can be erased and reprogrammed with 12 hours of work and a successful Computer Use check (DC 20 + number of skill ranks emulated by the software). A Techie can reprogram a skill chip in 1 hour and can modify it to hold as many ranks as he has in the emulated skill.

Purchase Price: 20 × number of skill ranks.

Skill Increase (Cost 200)

Benefit: Add a Skill to one's portfolio. It now becomes a class skill (if not already) and offers a +2 competency bonus to that skill. This chip can be purchases several times, each time, it can be applied to a new skill. Adding the same skill does not cumulate its effects.

Skill Net (Robots only, see below): A skill net consists of a series of interlocking programs that allow the robot to acquire ranks in multiple skills. The number of ranks in any given skill cannot exceed the programmer's ranks in the skill being emulated. A factory-built skill net typically holds 4, 8, or 12 ranks in as many as four different skills. A robot can have multiple skill nets. Skill nets allow a robot to benefit from skill synergy. A skill net can be reprogrammed one skill at a time. Replacing one skill with another or increasing the number of ranks of an already existing skill requires 1 hour of work and a successful Computer Use check (DC 20 + number of skill ranks emulated by the software).

> **Alternate Technology:**
> There are many other developments in the field of robots. The most notable not discussed here are Cebot—Centimeter Robots. These are usually designed to resemble insects. They employ Applied Entomology, using Insects as a basics for robots. They are employed in a variety of fields

Purchase Price: 1200 (four skills at 4 ranks each), 2500 (four skills at 8 ranks each), or 5000 (four skills at 12 ranks each).

Skill Progit (Robots only, see below): Sophisticated emulation software encased in a thin but durable plastic casing, a skill progit enables a robot to gain ranks in a single skill. The number of ranks cannot exceed the programmer's ranks in the skill being emulated. A factory-built progit typically holds 4, 8, or 12 ranks of a particular skill. A robot can have multiple skill progits. However, skill progits do not allow a robot to benefit from skill synergy. A skill progit can be erased and reprogrammed with 12 hours of work and a successful Computer Use check (DC 20 + number of skill ranks emulated by the software).

Purchase Price: 10 × number of skill ranks.

Tongues Chip (1500)

Benefit: This grants the character the ability to speak and understand all known languages. The subject can speak only one language at a time, although it may be able to understand several languages. It does not enable the subject to speak with those who don't speak.

Voice Stress Analyzer (Cost: 500): Sensors attached to the recipient's optic nerves and inner ear analyze minute physical indicators from living beings (including increased pulse galvanic skin response) and enable the recipient to better determine the emotional states of others.

Benefit: The recipient gains a +8 equipment bonus on all Sense Motive checks.

Wisdom Upgrade (Robots Only, see below): Adjustments to the robot's sensors improve its perception, while new software enables it to act more intuitively. The upgrade provides a +2 bonus to Wisdom.

Purchase Price: 300 x robot's Wisdom modifier before the upgrade.

CYBERNETIC REPLACEMENTS

These are actual organic humans with cybernetic components. These are not meant for FBP save for the Burst Limb.

Arm Class D (Cost 350)

Benefit: No stat boost

Arm Class C (Cost 1000)

Benefit: +2 Climb & Swim, +1 to hit with weapons using Dexterity to strike

Arm Class B (Cost 2000)

Benefit: +1 Strength, +4 Climb & Swim, +2 Sleight of Hand, +2 to hit with weapons using Dexterity to strike

Arm Class A (Cost 2500)

Benefit: +2 Strength, +6 Climb & Swim, +2 Sleight of Hand, +3 to hit with weapons using Dexterity to strike

Burst Limb (Cost 2000)

The burst limb is usually an arm featuring piston-assisted joints, capable of massive bursts of strength.

Benefit: For 1 round a day, as a free action, the limb can activate, offering up a +8 Strength to all actions that round, over its regular +2. Every 200 spent on the limb adds an additional use/day to a maximum 6.

Special: Requires FBP.

Digidigits (Cost 1000): The hand fingers split apart, once at the root, again at the second, and again at the tips, increasing the number of usable digits from 5 to 20. Moving at astounding speed, they type away at a computer terminal hundred of times faster than normal fingers can allow.

Benefit: The Computer Use penalty for accessing the internet manually over cyberbrain connect is –5 instead of –10. However, the limb is weak and physical actions with any arms where these hands are connected do so at a –4 str penalty.

Special: Ais penalty drops to 0 as they can operate Digidigits more efficiently.

Enhanced Sensors Class C: A hi-fidelity audio sensor, a chemical vapor scanner, and a pressure sensor that enables the recipient to perform tasks requiring manual dexterity. A robot with this sensor system gains a +2 equipment bonus on Listen and Spot checks. All other skill checks are made without penalty.

Type: Audio, Olfactory, Tactile.

Purchase Price: 800

Enhanced Sensors Class B: A hi-fidelity audio sensors, a chemical vapor scanner, and pressure sensors. +4 equipment bonus on Spot checks and a +2 equipment bonus on Listen checks. All other skill checks are made without penalty.

Type: Audio, Olfactory, Tactile.

Purchase Price: 1000.
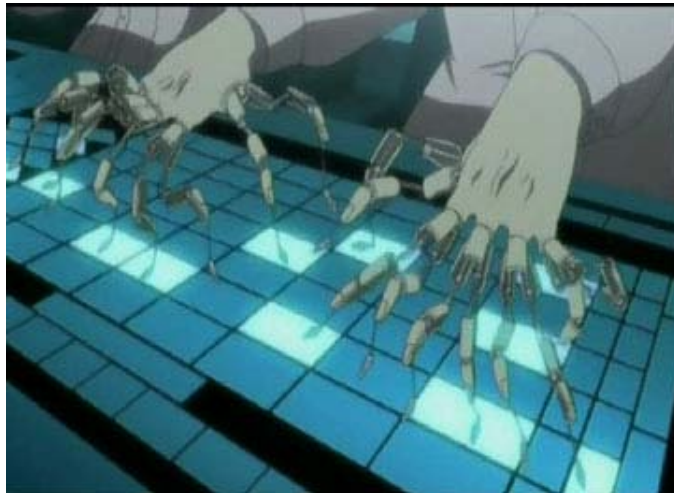
Enhanced Sensors Class A: This sensor system includes a hi-fidelity audio sensors, a chemical vapor scanner, pressure sensors, and short-range radar that allows the recipient to not only perceive its surroundings but also target more effectively. +2 equipment bonus on Listen and Spot checks. All other skill checks are made without penalty. The robot also gains a +1 equipment bonus on initiative checks.

Type: Audio, Olfactory, Tactile

Purchase Price: 1500.

Hawkeye (cost 2000): Special prosthetic eye that Saito is equipped with. It has various capabilities, including superhuman visual acuity, zoom functionality, night-vision, infrared, and meteorological data, applying color transforms, and overlaying them on top of a 3D display.

Benefit: +2 to Spot checks. The recipient gains darkvision out to a range of 60 feet. Binocular vision allows the recipient to perceive distant objects more easily. Telescopic optics reduce the range penalty for Spot checks to –1 for every 60 feet of distance (instead of –1 for every 10 feet). +2 bonus to hit with all ranged weapons. The Hawkeye resembles an eye patch. If opened, it begins an uplink with a military spy satellite overhead. After one round of aiming, it offers +4 bonus to ranged attack rolls past the first range increment. The round after that, the bonus increases to +6. After that, the Satellite takes over, maximizing targeting ability. 2d4 rounds later, the attack bonus increases to +20.

Leg Class D (Cost 350)
Benefit: No stat boost
Leg Class C
Benefit: +5 speed
Leg Class B (Cost 600)
Benefit: +10 speed, +4 to Jump, Swim, & Climb checks.
Leg Class A (Cost 1000)
Benefit: +15 Speed, +8 Jump, Swim & Climb
Optic Class D (Cost 350)
Benefit: The Eye can now decode computer information and translate it. +2 to all Spot checks.
Optic Class C (Cost 600)
Benefit: +2 to Spot checks. The recipient gains darkvision out to a range of 60 feet. Binocular vision allows the recipient to perceive distant objects more easily. Telescopic optics reduce the

range penalty for Spot checks to –1 for every 30 feet of distance (instead of –1 for every 10 feet).

Optic Class B (Cost 1000)

Benefit: +2 to Spot checks. The recipient gains darkvision out to a range of 60 feet. Binocular vision allows the recipient to perceive distant objects more easily. Telescopic optics reduce the range penalty for Spot checks to –1 for every 30 feet of distance (instead of –1 for every 10 feet). Flare suppressors react instantly to bright flashes of light. Blinding effects produced by bright lights have no harmful or debilitating effect on the recipient. +1 bonus to hit with all ranged weapons. Optic Bs no longer resemble human eyes.

Optic Class A (Cost 1500)

Benefit: +4 to Spot checks. The recipient gains darkvision out to a range of 60 feet. Binocular vision allows the recipient to perceive distant objects more easily. Telescopic optics reduce the range penalty for Spot checks to –1 for every 30 feet of distance (instead of –1 for every 10 feet). Flare suppressors react instantly to bright flashes of light. Blinding effects produced by bright lights have no harmful or debilitating effect on the recipient. +2 bonus to hit with all ranged weapons. Optic As no longer resemble human eyes.

Total Immersion Optics

(Cost 1000): TIO resembles a normal set of Class C eyes with all the abilities that go along with those. However, when accessing the net, the area of the skull from the nose to the forehead tilt up to reveal a cyberlink connection where a specifically designed hook-up attaches. This offers the user the same advantages of using a full sizes Total Immersion Device.

Benefit: One must be wired to a Terminal to operate the TIO system. Simply opening the visor won't work, it must be connected. While connected, the recipient receives a +10 bonus to all Computer Use rolls.

FULL BODY PROSTHETICS

Models without specific names are generic, emerging from dozens of corporations. One could easily invent a name, assign a model number and go from there. Each model looks different and there are hundreds of designs to choose from. It its illegal (+4) to steal another person's design or have a model made to look like someone pre-existing. Usually, designs are built to include probably genetic cues of the owner. If someone is cyberized late in life, the model could be so identical, no one would know that person was cyberized. Of course, if one wants to adjust their appearance before finalizing the purchase, they can. They can make themselves, taller, short, thinner, fatter. They can change age, race, or even sex. All of these are included in the price. Most don't actually try for the base models because they simply don't stand out. However, base models are cheap and usually the assigned model for insurance cases or medical reasons. All Full Body Prosthetics can be modified even though some modifications are very illegal.

The final point to consider with Cybernetics is their weight. Most base models do not differ from their organic counterparts but military class cyborgs have a weight increase detailed with each model. This percentage is added to the normal weight a human should be.

Angela CV-1 (Cost 1500): This was one of the early models of choice for Kusanagi. Its popular because of it higher abilities and upgrade potential. An additional 2 points may be spent on Hardness and/or as a Dodge Bonus to Defense. +25% weight.

Benefit: Con, Str, Dex = 16.
Available Upgrade Slots: 10

Base Production (Cost 1000)

Benefit: Dex, Con, Str = 10, 0 Hardness.
Available Upgrade Slots: 2

Combat Class D (Cost 5000): Combat Classes are usually easier to acquire than they sound. If someone ever served in the military or are even in the reserves, they can acquire one. If they are in contract with a corporation or Public Security, or if they have an existing prosthetic body and work for law enforcement, they can upgrade through those channels. Combat Classes are simple classes that are regulated by outside forces. The Class D is the most common and simplest. All Combat Classes maintain a human shape as they are designed to be a permanent FBP upgrade. However, high end models can have certain modifications that break the illusion. For example. Section 4 Rangers (to which Batou was a member) operate Class A combat models with Type A Optics.

Benefit: Dex, Con, Str = 10. An additional 15 points can be spent on those attributes. A maximum individual rank of 18 for Dex, 20 for Con and Str. An additional 2 points may be spent on Hardness or/and a Dodge Bonus to Defense & Reflex Saves. +50% weight.

Available Upgrade Slots: 4

Combat Class C (Cost 7000)

Benefit: Dex, Con, Str = 10. An additional 20 points can be spent on those attributes to a maximum individual rank of 18 for Dex or 22 for Str and Con. An additional 3 points may be spent on Hardness or/and a Dodge Bonus to Defense & Reflex Saves. +75% weight.

Available Upgrade Slots: 6

Combat Class B (Cost 10 000)

Benefit: Dex, Con, Str = 10. An additional 25 points can be spent on those attributes to a maximum individual rank of 20 for Dex, 24 for Str and Con. An additional 4 points may be spent on Hardness or/and as a Dodge Bonus to Defense & Reflex Saves +100% weight.

Available Upgrade Slots: 8

Combat Class A (Cost 15 000): The Class-A body by Megatech is a high end cyborg body that is being widely used in the industry today. Motoko uses this body (albeit it is modified). The Class-A is known for its highly sensitive tactile elements. The body is a 162, indicating that the micromachines used for skin sensation a extremely tiny. As well as being highly sensitive, the Class-A is also highly durable and quick even without modification. Different body styles are available on the open market and the apparent body type can be changed without affecting the actual strength of the unit.

Benefit: Dex, Con, Str = 10. An additional 30 points can be spent on those attributes to a maximum individual rank of 20 for Dex, 26 for Str and Con. An additional 5 points may be spent on Hardness and/or as a Dodge Bonus to Defense & Reflex Saves. +115% weight.

Available Upgrade Slots: 10

Enhanced Mobility (Cost 1500)

Benefit: Con, Str = 14, Dex = 18, 0 Hardness

Available Upgrade Slots: 3

Jameston Type (Cost 500)

No one is sure why the Jameston type is still on the market. It was first used as a prototype and then as a supplement in medical procedures. Still, some models made it on to the market as permanent prosthetic housings. It does have wheels though, allowing it a full 30 feet movement with its tiny body. Jameston types are considered Small creatures.

Benefit: Dex, Con, Str = 3, 0 Hardness

Available Upgrade Slots: 0

Perfect Beauty (Cost 1500): This is a popular one among consumers.

Benefit: Con, Str, Dex = 14, +5 to all Cha based skills, 0 Hardness

Available Upgrade Slots: 4

Pioneer Combat (Cost 18 000): The Pioneer Combat looks human to start off with but it can literally explode into a massive battle machine if need be. Its arms extend, the head opens up, and it turns into a monster. Even in normal mode, it barely passes off as human. Its eyes are permanently
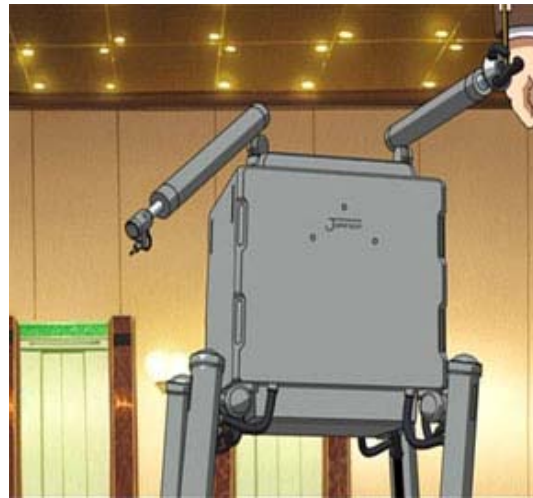
concealed around a visor and it has problems moving its jaw. Although called Pioneer, Pioneer does not construct it. The Pioneer Combat model is actually Chinese built

Benefit: Dex 16, Con 16, Str22. 5 Hardness. Battle Boost can be activated using a move action. The head opens up, the chest deploys and a the arms extend. While in battle mode, it Pioneer gains a 5 foot extension to is threat range. The head deploys sensors, giving it a +2 to all hit rolls. Its Strength increases to 26 and its Dex to

18. A mount in its chest can be fitted with an appropriate weapon. The only disadvantage to this mode is that the Pioneer suffers a –4 to Defense and a –2 to its Hardness. +125% weight.

Note: This model is almost totally exclusive for use with AI cyberbrains and seldom sees use as a prosthetic replacement.

Available Upgrade Slots: 2

Public Summit Model (Cost 3000)

A detuned military model.

Benefit: Dex, Con, Str = 10. An additional 15 points can be spent on those attributes to a maximum individual rank of 18. An additional 2 points may be spent on Hardness and/or as a Dodge Bonus to Defense, +50% weight.

Available Upgrade Slots: 4

Non Maintenance Combat Class (Cost 24 000):

The top of the line Non Maintenance models look so close to human, there really is no way to distinguish. They are also stronger and more agile than some of the best military models on the market. They were used in the Peacekeeping Force (PKF)

Benefit: Dex, Con, Str = 10. An additional 30 points can be spent on those attributes to a maximum individual rank of 22 for Dex, 28 for Str and Con. An additional 6 points may be spent on Hardness and / or as a Dodge Bonus to Defense. +2 to Cha based Skills. +50% weight.

The body also re-generates 1 hit point per hour.
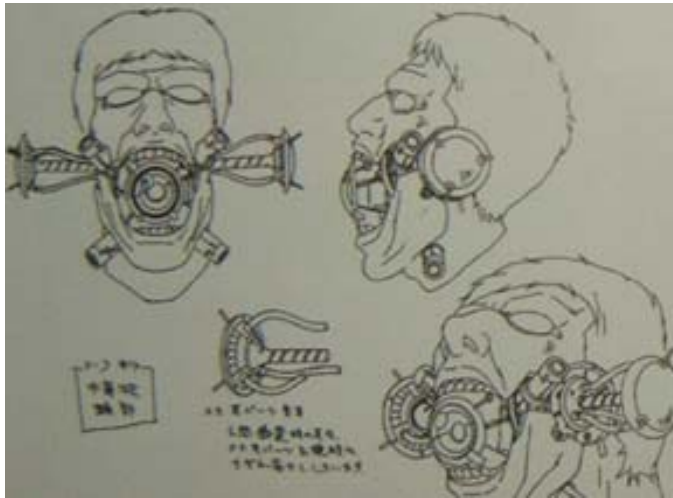
Available Upgrade Slots: 10

Type 2033 (Cost 18 000): Type 2033 From Sagawa Heavy Industries is a full body replacement suit where the cyberbrain is implanted in a total hard suit with an extensive modifications capacity but zero camouflage. No sneaking around or passing off as human with this getup.

Benefit: Dex, Con, Str = 10. An additional 24 points can be spent on those attributes to a maximum individual rank of 28. 10 Hardness. Cannot wear external Armor. +200% weight.

Available Upgrade Slots: 8

Y-3 Submersible Cyborg (Cost 15000): The Y-S is a cyborg in shape of a submarine, covered with muscle tissue on both sides, extending back to a tail. It is useless out of water, but in its environment, its second to none.

Benefit: Dex, Str, Con = 18, 4 Hardness, x3 Swim Speed, +20 to all Swim rolls. The Y-3 receives NO penalty to swim rolls from Cybernetic weight. It cannot walk as it has no legs. It can also be equipped with harnesses to transport passengers. Its STR in regards to transporting is 26, rather than 18, when calculating Swim penalties and speed. The Y-3 still has arms that are concealed when at top speed.

FULL BODY PROSTHETIC UPGRADES

Unlike other upgrades, these can be boosted. It should be noted that stacking an ability increases its cost proportionally. The first upgrade is listed with the base cost. Every time an upgrade is doubled, its cost increases 150% from the previous upgrade. See below for details. You can never increase an upgrade more than 3 times. Each boost occupies an additional upgrade slot. If an upgrade rises an attribute over the legal limit (18), it increases its restriction code by one (Res+2 becomes Mil+3, etc.) Boosts can push beyond the spec of the prosthetic body.

Additional QRS Socket (Cost 1000)

Benefit: Two additional QRS sockets are installed above the normal two usually standard with Full Body Prosthetics. More than 4 total are uncommon and more than that usually requires the subject to be bald or sport a hairpiece.

Normal: FBPs are only equipped with two QRS sockets. Organic bodies with Cyberbrains only receive one.

Agility Increase (Cost 2000, 5000, 12500)

Benefit: +1 / +2 / +3 Bonus to Defense. This also receives a +2 / +3 / +6 bonus to Reflex saves.

Anti-Shock (Cost 1500): This implant, embedded near the spine, shields the recipient's nervous system against stunning attacks.

Benefit: The recipient cannot be stunned. The FBP also does not take additional damage from electricity.

Blade Weapon Mount (Cost 500): The recipient has a subcutaneous weapon embedded in her body, usually in a prosthetic forearm or hand. The weapon extends from the prosthesis and is visible when in use.

Benefit: The recipient has a melee weapon hidden under her skin. Attempts to disarm the recipient of the attached weapon automatically fail, and the weapon itself cannot be attacked unless it is extended. Extending or retracting the weapon is a free action. Spotting a subcutaneous weapon requires a successful Spot check opposed by the recipient's Sleight of Hand check. The weapon's size applies a modifier to the Sleight of Hand check. The cost listed is only for the mount. The weapons cost +200% is required to finish the procedure. Only small and medium blades can be concealed. If a large blade is used, it no longer becomes a hidden weapon.

Death Simulation (Cost 1000): You can appear completely dead to both observers and under examination.

Benefit: After taking a full round action, the recipient goes limp. The body looses all control. All vital signs vanish. The pulse is masked. The Cyberbrain goes on low-power mode. The brain has no control of the limbs. All pain receptors are shut off. The brain runs on minimum power and re-circulates an internal air supply on low consumption to prevent notable breathing. This effect can last for a full hour until it mandatorily reactivates to save the Cyberbrain from permanent damage. Only a full physical examination by a professional can reveal the truth. If the body reactivates in an environment that is deadly to the brain (Space), the recipient dies for real.

Detachable Limb (Cost 200)
Benefit: Limb can be severed at will by the owner. This helps with swapping out limbs and also can double as a weapon by adapting the limb to carry a weapon and cramming explosives in it. The cost listed is in additional to the cost of the limb.

Dexterity Increase (5000, 12500, 31250)
Benefit: +2 / +4 / +6 increase to Dexterity.

Dislocating Limbs (Cost 1500): This enables the recipient to escape from tight situations
Benefit: The subject automatically succeeds on any grapple check made to resist a grapple attempt, as well as on grapple checks or Escape Artist checks made to escape a grapple or a pin. The recipient can squeeze through areas half is narrow as a single foot.

Enhanced Realism (Cost 2000): A professional has done a complete external makeover
on the prosthetic, making it the most realistic and attractive body one can lay their eyes on.
Benefit: +5 all Charisma based rolls, +1 Reputation

Enhanced Organs (Cost 500)
Benefit: +10 to all Fort Saves.

Enhanced Regeneration (Cost 1500, 3750, 9375): Advanced Micromachines gave
way to Nanocarbon Skin. This causes the prosthetic to regenerate from wounds instead of needed regrafts.
Benefit: The prosthetic body heals at 1 hit point / minute per level.

Face-Swap (Cost 1000): This
totally changes your facial appearance. Hair, eyes, even the general shape of your face can be altered. However, swapping identities is frowned upon unless sanctioned or permitted by a government body. However, there are plenty of black-market dealers willing to do the job for a price.
Benefit: No spot check required to look through the alteration. They are usually that good. Voice system, however, are not altered.

Firearm Weapon Mount (Cost
500): The recipient has a subcutaneous firearm embedded in her body, usually in a prosthetic forearm or hand. The weapon extends from the prosthesis and is visible when in use.
Benefit: The recipient has a ranged weapon hidden under her skin. Attempts to disarm the recipient of the attached weapon automatically fail, and the weapon itself cannot be attacked unless it is extended. Extending or retracting the weapon is a free action. Spotting a subcutaneous weapon requires a successful Spot check opposed by the recipient's Sleight of Hand check. The weapon's size applies a modifier to the Sleight of Hand check. The cost listed is only for the mount. The weapons cost +150% is required to finish the procedure. Only small and medium weapons can be concealed. Large ones remove the illusion of concealability.

Foam-Based Materials (Cost 1000): Not all cyborgs sink. Some models are designed to
float with special foam-based construction.
Benefit: The Swim Penalty is reduced by 15 (Max= 0). However, the suit looses 1 Hardness.

Haste (5000, 12500, 31250): The prosthetic moves and acts more quickly than normal.
This extra speed has several effects.
Benefit: When making a full attack action, the FBP may make one extra attack with any weapon she is holding. The attack is made using her full base attack bonus, plus any modifiers appropriate to the

situation. (This effect is not cumulative with similar effects). The FBP gains a +1 bonus on attack rolls and a +1 dodge bonus to Defense and Reflex saves. Any condition that makes you lose your Dexterity bonus to Defense (if any) also makes you lose dodge bonuses. The FBP movement increases by 20 ft to a maximum of 60 ft. This affects the FBP's jumping distance as normal for increased speed. Boosting this ability increases the bonuses by one. Level 2 gains a +2 bonus on attack rolls, a +2 dodge bonus to Defense and Reflex saves. Movement increases by 30 ft to a maximum of 70 ft. Level 3 gains a +3 bonus on attack rolls, a +3 dodge bonus to Defense and Reflex saves. Movement increases by 40 ft to a maximum of 80 ft. **Increased**

Hardness Cost 1500 / 3750 / 9375

Benefit: +2 Hardness per level to a maximum +6. +4 and +6 levels loose their human-like skin on the arms, legs, and torso, replaced with an outside metallic covering

Jump (Cost 1000, 1500, 2250)

Benefit: +10 to Jump checks, +20 to Jump checks, +30 to Jump checks,

Overdrive (Cost 1000):

Benefit: This upgrade increases your base land speed by 30 feet. There is no effect on other modes of movement, such as climb or swim. As with any effect that increases your speed, this affects your jumping distance (see the Jump skill). One can use this ability for 10 rounds / day.

Sexaroid (Cost 500 / 1500): Oddly enough, sex organs are an option. For most public models, it's a given and is usually added onto the price when purchased (+500). However, for Military models and Robots, it is not standard and must be purchased. In the future, chemical imbalances can be controlled so cyborgs are not controlled by their hormones as much as normal people. In combat situations, it can be considered a hindrance. Some soldiers with permanent FBPs have their organs removed before going into combat. It really is not that hard an operation. The Sexaroid name, itself, actually refers to the unlicensed and hidden practice of modifying AI cyberbodies with sex organs. Because of public opinion, few corporations equip any models out the door with this upgrade. However, most have subsidiary groups or allied fringe corporations that would gladly fill in this need.

Benefit: Equipped with proper functioning sex organs. The +1500 price is for the sexaroid modification to Ghostless AI cyberbodies. It has a +2 Restriction.

Shielding (Cost 1000)

Benefit: Cybernetic concealed weapons and illegal modifications are not longer detectable by X-Rays and weapon detectors. Only opening the body will reveal any illegal modifications.

Shock Circuit (Cost 1000)

Benefit: A successful melee touch attack deals 5d6 points of electric stun damage. When delivering the jolt, the recipient gains a +3 bonus on attack rolls if the opponent has a full body prosthetic

Shout (Cost 500): Get really, really, loud. The recipient can emit an ear-splitting yell that deafens and damages people in its path.

Benefit: Any creature within the area is deafened for 2d6 rounds. A successful save (Fort DC 20) negates the deafness. Any exposed brittle or crystalline object takes 3d6 points of sonic damage. Can be accomplished once a day.

Skin Sense (Cost 500): This involves Micromachines being implanted in the FBP skin that react to pressure, changes in temperature, and magnetic fields.

The Cybernetic industry has been around for over 50 years. In the last 30, the industry has continued to climb and make strives in progress that dwarfed even the computer industry the century before. The world has MicroMachines to thank for that. However, this doesn't mean that the industry has no antique models on the market. This also does not mean people are not walking the streets with antique or obsolete cybernetics operating. Entering the older areas of town, or wandering through homeless or refugee areas, one would find these archaic designs in operation or even for sale from sidewalk dealers. It should be noted and assumed that new characters would have the latest cybernetics from the main market and not strolling through downtown Newport with an optic cybernetic 20 years old and looking like someone stuck a pair of shot glasses on someone's skull.

Of course, if one were to intentionally down tune their cybernetics, they could. One could intentionally, for character purposes, have older cybernetics. The cost would not change and the character would endure a penalty to charisma based skilled determined by how jarring the cybernetic is to look at (the penalty should be assigned by the GM).

Benefit: This offers +2 to all Demolitions, Disable Device, Escape Artist and Sleight of Hand skill rolls. It also offers +4 to any skill rolls to identify a gas the body is exposed to and allows spot checks for situations involving magnetism, temperature and pressure.

Spiders (Cost 1500)

Benefit: The subject can climb and travel on vertical surfaces or even traverse ceilings as well as a spider does. The prosthetic body must have its hands free to climb in this manner. The subject gains a climb speed of 20 feet; furthermore, it need not make Climb checks to traverse a vertical or horizontal surface (even upside down). A spider climbing subject retains its Dexterity bonus to Armor Class (if any) while climbing, and opponents get no special bonus to their attacks against it. It cannot, however, use the run action while climbing.

Strength Boost (Cost 1500)

Benefit: The recipient becomes stronger, granting a +4 enhancement bonus to Strength, adding the usual benefits to melee attack rolls, melee damage rolls, and other uses of the Strength modifier. The recipient can activate and deactivate it as a free action and it lasts up to ten rounds a day.

Strength Increase (Cost 2000, 5000, 12500)

Benefit: +2 Strength, +4 Strength, +6 Strength.

Toughness Increase (Cost 2000, 5000, 12500)

Benefit: +2 Constitution, +4 Constitution, +6 Constitution.

Speed Burst (Cost 1000, 2500, 6250)

Benefit: +10 Movement Rate, +20 Movement Rate, +30 Movement Rate.

Therm-Optic Camouflage (Cost 5000, 9000, 12500): This technology enables its recipient to turn invisible for a short time.

Benefit: She gains a +20 bonus on Hide checks if immobile, or a +10 bonus if moving. Pinpointing the location if she isn't attempting to hide requires a Spot check (DC 40 if the creature is immobile or DC 20 if it is moving). While invisible, she gains 50% concealment against attacks from other creatures that correctly pinpoint its fighting space. Activating or deactivating therm-optics is a move action. However, the technology consumes a great deal of the battery power; after 10 rounds (1 minute) of use, it must be recharged and cannot be used the rest of the day. Additional boosts increase it to 20 rounds/day and 30 round/day.

Voice Box (Cost 300): Alters one's voice.

Benefit: Prevents listen checks when one attempts to conceal their voice. You can add accents, regional variations, and sex of the voice.

CYBERNETIC DEVICES

These are separate components that can invade or attach themselves to cyberbrains or prosthetic bodies. They can cause damage or boost the cybernetic attached.

Brain Case (Cost 500): The Braincase is resembles a small piece of luggage with a fully built life support system to keep a Class B or A Cyberbrain alive for transportation.

Brain Surge (Cost 500): More of a weapon, the Surge is a power pack with a neural plug designed to overload and fry cyberbrains. It is used as

Where's all the cool stuff…

…like glowing skin and gills. Why don't people have three arms? Where are the…

…This is not 80s cyberpunk. In the world of Ghost in the Shell, as more people became cyberized, the need to maintain humanity escalated. Yes, those people do exist and I imagine someone made cybernetics to fulfill those desires…but they are such in a minority, they are not being discussed as part of this setting. These cybernetics are for those wanted to improve themselves…not turn themselves into freaks…

…or maybe I am just being judgmental…

a last resort to cyberbrains that are dangerous and committing acts that endanger lives.

Benefit: To surge a cyberbrain requires a melee touch attack and then one round of a successful grapple. Attaching the plug initiates the surge, forcing a DC20 Will save. A success causes 2d4 Int drain (drain, not damage) to the target. A Failure fries the cyberbrain totally. Each Surge can only be used once.

Cyberbrain Lock / Brain Blocker (Cost 500):
The brain-blocker stops all contact between the Cyberbrain and the outside world. One can no longer contact the target with a Brain blocker or even locate them.

Corpse Remote (Cost 1000):
An attachment plugs into someone's cyberbrain. Similar to the Decot, the Remote allows total control of that cyberbody…but through the cyberbrain already implanted. There cannot be any neural activity in the cyberbrain or the Corpse remote would be totally overridden by the dominant brain control. However, since a Prosthetic Body still technically functions if the brain has been fried, one can attach a corpse remote the cyberbrain via plug-link and operate the prosthetic body via remote control.

Benefit: Control a Full Body Prosthetic remotely through a fried cyberbrain. The range (barring interference) is 50 miles but it can be boosted (x2 cost = x2 range). All skills suffer a –4 to all rolls. The Defense suffers a –2 Penalty. All hit rolls (melee and ranged), suffer a –2 penalty as well. The Corpse can operate indefinitely until the controller needs to eat or sleep. The price listed is just for the remote. The Prosthetic Body must have a blanked or fried cyberbrain. Someone contacting the corpse via cyberbrain communication will pick up the remote cyberbrain as if the remote was possessing the shell. In fact, only Ghost diving or a scanner than can detect the remote signal will give away the remote's identity. The Controller must be in a sleep state to operate the remote.

Decot (Cost 500):
A Decot is simply a cyberbrain with nothing but remote electronics and encryption software inside. It is tied to a remote transmitter attached to the back of another Ghost's Cyberbrain. The Decot slaves all functions to the controller. The controller does not operate physically herself, going inert, totally dedicated to the Decot function. That Cyberbrain is now operating totally through telepresence. This is more than just hacking into androids because androids have limited function and this is not the same as Ghost hacking other cyberbrain because there is no resistance and no rolling. This is a full cyberbrain implanted into a full prosthetic body, controlled remotely by another cyberbrain. It is also referred to as a Remote Control Humanoid Terminal. Because of the lack of any organics or even a ghost, Decots require no air nor food and because their purpose is usually reserved for rescue or military applications, they seldom are as fully equipped as normal prosthetic bodies. They often lack human imperfections, fingerprints, or even sexual organs. The Controller must be in a sleep state to control the Decot.

Benefit: Control a Full Body Prosthetic remotely. The range (barring interference) is 50 miles but it can be boosted (x2 cost = x2 range). The mental attributes of the Decot is the same as the controller. All skills suffer a –4 to all rolls. The Defense suffers a –2 Penalty. All hit rolls (melee and ranged), suffer a –2 penalty as well. The Decot can operate indefinitely until the controller needs to eat or sleep. The Decot requires neither since it has no organics. The price listed is just for the cyberbrain. The Prosthetic Body must be purchase separately. Someone contacting the Decot via cyberbrain communication

External Memory (Cost 500):
Since everyone can digitize their memory now, everything anyone encountered can be recorded for perfect recall later. Of course…you may not want to remember everything at all times. It can also be important to backup ones brain once in a while, like one who backs up their computer. If your brain gets hacked and something is deleted or stolen or if you brain gets fried Via an attack barrier or ghost invasion, the External Memory allows some recovery of lost intelligence. It is important to return to your External Memory occasionally for backup. You may also purchase several Memories that can have certain databases.

Benefit: Each External Memory holds about five years of life memories. While attached to your External Memory, you gain a +4 to Gather Information checks and +10 to all Knowledge (history). Each External Memory can also recover 4 points of lost Int. One can only own 1 External Memory for every five years of their life past age 10. An external memory's Int recovery can only be used once. Purchasing another Memory does not gain more Int recovery (it's a one time safeguard…use it wisely). External Memories also can hold premade viruses written by the character. Each Memory hold 5 viruses.

Interceptors (Cost 1000): These utilize a transmission deice within the cyberbrain when they relay data but do not use the optical data from the eyes. They are a Micromachine implants that find themselves in the optical nerve, recording information like a camera sitting in one's eye. They don't go through the brain nor do are they effected if the optical data or the cyberbrain is hacked into. These made Interceptors a worthwhile investment for surveillance purposes as their existence would not be detected by anyone doing a brain dive in a subject with them. However, Interceptors need to be implanted and take at least 24 hours to root themselves. They then have a three month lifespan before burning out. Being an outside surveillance device, they are bound by telecommunication rules and so cannot by utilized without authorization. The other nasty aspect of Interceptors not publicly known is that they can temporarily cause total blindness if so desired. The program created to access Interceptor data is known as "Medusa". Interceptors were original developed by Serano Genomics, designed to help those with memory problems. It records visual information to be relayed later to a Terminal. This would allow the patient's visual information to be recorded, and it was hoped that merely by saving it to a terminal, it would have the effect of bolstering their memory with a minimum of visual data. They connect to the optic nerve, and have a system whereby by saving it to a terminal, it would have the effect of bolstering their memory with a minimum of visual data. Currently, the Ministry of Health has approved their use for medical purposes, and use without the person's consent has been made illegal.

The more inhuman one can become, the more human people wanted stay. That's why, in this setting, there is very little inhuman in the world. Even normal robotics followed this trend. Six legged robots became more and more rare, replaced with 6 legged machines, operated by an Androids. Standardized parts meant unique machines simple became more and more rare. The android solution simply became the option of choice. You would not see bartenders with built in spritzers. The normal arm was simply far cheaper.

As time progressed, androids became more and more common…the eventual unease in the general population did occur. Of course, the cyberization of modern man transpired simultaneously, lessening the sting of purely robotic servants resembling man perfectly. Robots were looking more human while humans started to break their humanity.

The final law that distinguished man and machine arose with white blood. Legally (and only for legal reasons), Android blood had to be white. Prosthetic Bodies carried a blood supply, organic and inorganic based. Those maintained their red color. Android blood had to be white…to make sure Man could tell the robots from themselves…

Some of the new recent Bioroids carry a red-blood supply. Word has not returned on the public reaction to that, The circulatory system for Neurochips are transparent.

Memory Eraser Plug (Cost 500): When caught, extremists will erase their memories to prevent sensitive knowledge from falling into enemy. It plugs into the neural plugs on the back of the skull, waiting for a command from the cyberbrain.

Benefit: Upon activation, the Plug shorts into the Cyberbrain, wiping out selective memories and a usually a few unselected ones. The side effect of the Plug is that is drains the Cyberbrain of 1d4 Int when used (damage).

Optic Enhancer Class B / A (Cost 500 / 1000): Optic Enhancers resemble visors that cover both eyes entirely. They attach directly to the optic cybernetics. They are several models of visors that start from simply glorified sunglasses to huge apparatus covering the top half of ones head.

Benefit: Class B offer +1 bonus to ranged weapons,+2 to Spot checks, and darkvision 60 ft (if not already equipped. Class A offers a +2 bonus to ranged

weapons,+4 to Spot checks, and the recipient gains the Combat Expertise Feat (if not already chosen). The recipient also receives a +2 to all Ref saves, Darkvision 60 ft (if not already equipped, and can see invisible 30 ft (if not already equipped.

Plug Gun (Cost 300): The plug gun has no range but it carries a clip. The plug gun is a device that, when attached to the back of a cyberized skull, inserts a device that occupies one of the Neural plugs. When inserted, it cannot be forcefully removed without damaging the cyberbrain. Pulling on it sends an electric shock into the cyberbrain, forcing a DC20 Fort or cause 2d4 points of permanent Intelligence drain (save is for half). Only a key can unlock the safety measure. It prevents output to the net (but still allows input) and also relays the targets position with GPS at all times. It also retards motor movement, reducing Strength and Dexterity by a half.

Attaching the gun to an unwilling target is virtually impossible on one's own. A grapple check must first be made. A second attempt next round at –10 is required to attach the plug. Each clip holds 6 plugs and costs 200 each)

Virtua Cap: The cap is a small attachment that plugs directly into the neural socket in the back of the head. It totally overrides all input to the brain, replacing it with a simulated experience. The experience feels totally real and if the Cap is inserted stealthy, the experience can kick in without the recipient knowing. The total experience is fixed and can run up to two hours. A substantial computer use check (DC30) is required to create a skilled experience that won't fool the recipient.

Benefit: A successful Surgery Roll (DC20) is required to remove the brain and implant it in the case. The case can keep the brain active and alive for 72 hours.

ROBOTS

Traits for all Robots, Androids, and Bioroids

Size: Same as the emulated species

Speed: A bioroid has the same means of locomotion and speed as its emulated species (base speed 30 feet for human bioroids).

Sensors: Robots have basic eyes and basic ears

Ability Scores: Robots have no Constitution score and usually no Intelligence score. A robot's size and frame determines its ability scores, as shown on Tables 10–1 to 10–5.

Base Attack Bonus: ¾ of total Hit Dice.

Critical Systems: Although they are constructs, Robots have vital areas and critical systems. Consequently, they are subject to critical hits.

Feats: None.

Good Saving Throws: None.

Hit Die: d10.

Immunities: Robots are immune to poison, gas, stunning, disease, and any effect that requires a Fortitude save unless the effect also works on objects or is harmless. They are not subject to nonlethal damage or ability damage or the effects of massive damage.

The Grudge Theory

Like today, technology is designed to an in-built lifespan. Not intentionally building in a specific date of death, but few modern technological devices are designed to live beyond a certain time. Parts simply start breaking down. IN the past, this did not occur, which is why modern cars reach the junk heap more than older cars. In the terms of cybernetics, the demands for reliable technology has not spread onto robotics. With the amazing speed of cybernetic advancement, technology no longer needs to break down. They simply become obsolete to the degree that they no longer have a purpose in light of the greater stride. Instead of a junk heap of broken and useless technology, now the junk heap is filled with abandoned and working antiques. This comes in the form of all cybernetics, often destroyed, recycled for new uses. In Robots, this takes the form of landfills of living machines, unaware their time has passed. Sometime their programming degrades to the extend that they become a danger to society. At first, some robots would simply stop working or repeat menial tasks over and over. However, as robots moved into the field of complex AI, this problem elevated to machines going totally berserk. This is especially a problem with the love dolls and industrial models. There is talk in the pro-robot movement that this number of berserk robot cases in the last ten years is simply…"They just want us to stop throwing them on the trash heap"

Robot Frame	Repair Check DC
Armature or Basic	20
Bioroid	30

Manipulators: The manipulators of a robot resemble the organic manipulating digits of its emulated species (a humanlike robot has humanlike hands, for example). These manipulators otherwise function identically to their organic counterparts.

Rejuvenation Cycle: A robot runs on energy cells that need to rejuvenate regularly. During a 24-hour period, it must shut down for 8 hours to replenish its energy supply. During its rejuvenation cycle, the bioroid is essentially asleep. If it fails to rejuvenate, it suffers a cumulative –1 penalty on attack rolls, ability checks, skill checks, and saving throws each day until it fully recharges itself.

Repairable: Robots cannot heal damage on their own but can be repaired using the Repair skill. A successful Repair check (DC 30) heals 1d10 points of damage to a bioroid, and each check represents 1 hour of work.

Robot Resurrection: A robot reduced to 0 hit points is immediately destroyed and cannot be repaired, although its "brain" may be removed and installed in an similar but intact frame. See Robot Resurrection, below, for details.

Skill Points: None. All robots gains a +5 competency bonus to Computer Use.

Action Points: A bioroid hero gains action points just as organic heroes do.

Height and Weight: A bioroid has the same height range as its biological counterpart. Its weight, however, is equal to $1.5 \times$ the normal weight of its biological counterpart.

Starting Occupation: Robots never get starting occupations. Starting occupations represent life experiences gained before acquiring 1st level. Robots have no life experiences before rolling off the assembly line; before then, they were nothing but parts.

Weapon and Armor Proficiency: Robots are proficient with their manipulators only. They are not proficient with armor.

Extra Hit Points: Robots gain extra hit points according to their size, as shown on the tables below.

Manipulators: A robot typically has two functioning manipulators, although Large or bigger robots can have a higher number of functioning manipulators based on their size (see Manipulators). Immunities: As constructs, robots are immune to mind-influencing effects, poison, sleep, paralysis, stunning, disease, necromancy effects, and any effect that requires a Fortitude save unless the effect also works on objects or is harmless. They are not subject to nonlethal damage, ability damage, ability drain, energy drain, or the effects of massive damage.

Robot Resurrection: A robot's core programming and experiences are contained within its central processor—its brain. The brain's "drive to survive" is determined by its force of personality, as represented by the robot's Charisma. Whenever a robot is destroyed (reduced to 0 or fewer hit points), some brain degradation occurs. Each time its body is destroyed, the robot suffers a permanent drain of 1 point of Charisma. The brain ceases to function and the robot "dies" if its Charisma drops to 0 as the result of a permanent ability drain.

If a robot has at least 1 point of Charisma left after its body is destroyed, its brain can be removed and transplanted into another robot of the same size and frame. Removing a robot's brain from a destroyed frame and installing it in a similar but intact frame requires 10 minutes of work, a mechanical tool kit, and a successful Repair check; the Repair check DC varies by frame type (see below). Not using a tool kit imposes a –4 penalty on the Repair check.

A robot that gains a new body retains the memories of its previous "life," as well as any previously installed skill software and feat software. It also retains any previously installed mental ability score upgrades (see Ability Upgrades). It does not retain the previous frame's armor, locomotive means, manipulators, sensors, physical ability score upgrades, accessories, or mounted weapons, as these were all destroyed.

ROBOT FRAMES

A robot's frame is the basic form the robot takes, from a simple barebones armature to a convincingly lifelike replicas. It includes both the robot's chassis and its internal power source. The frame determines a robot's base statistics and base purchase price, as shown on the tables below.

Frame Size: The size of the frame, which determines the robot's base purchase price, base Hit Dice, and ability scores.

Base Purchase Price: The purchase price of the frame (or its components). The base price does not include the cost of accessories (modes of locomotion, manipulators, armor, sensors, or equipment) or increased Hit Dice.

Base Hit Dice: The robot's Hit Dice, not counting any additional Hit Dice that may be added (see below).

Extra Hit Points: Additional hit points gained due to the robot's size.

Base Ability Scores: The robot's ability scores, before improvements. Robots that do not have Constitution or Intelligence scores cannot improve these abilities.

> Ais with prosthetic bodies never experience hunger, sexual desire, the desire to sleep, or even the desire for glory and honor unless programmed to do so. If an AI gains the bare basics of a ghost, it can be theorized their first desire is to expand their own network to create something original—in other words, to grow as an information system.

BASIC ROBOTS

The most basic of robot designs, armatures are essentially mechanical skeletons.

To build an armature frame from scratch, a character must succeed at a Craft (mechanical) check (DC 20) after investing time in the frame's construction: 12 hours for a Tiny or smaller frame, 24 hours for a Small to Large frame, or 48 hours for a Huge or larger frame. A character without a mechanical tool kit takes a –4 penalty on the skill check.

Table: Armature Robot Frames provides the base price, Hit Dice, and ability scores for factory-model armature robots, as well as purchase modifiers for improving ability scores.

Robot Size	Base Purchase	Upgrade Slots Cyber/Body	Base Hit Dice	Extra HP	Str	Dex	Con	Int	Wis	Cha
					——— Base Ability Scores ———					
Medium-size	2000	0 / 2	1d10	10	15	10	—	—	10	1
Small	650	0 / 2	½d10	5	11	12	—	—	10	1
Tiny	200	0 / 1	¼d10	—	7	14	—	—	10	1
Diminutive	70	0 / 0	1/8d10	—	5	16	—	—	10	1
Fine	50	0 / 0	1/16d10	—	1	18	—	—	10	1

ANDROID

Androids can be mistaken, under certain conditions, for what they are made to resemble. However, reasonably close inspection reveals the presence of robotic parts and the lack of biological parts. Purchasing a factory-model Android requires a license. To build a bioroid frame from scratch, a character must succeed at two skill checks—a Craft (mechanical) check (DC 30) and a Craft (electronic) check (DC 30). These checks are made after investing time in the frame's construction: 48 hours for a Large or smaller frame. A character without a mechanical tool kit or electrical tool kit takes a –4 penalty on the skill check (–8 if the character has neither).

Table: Android Robot Frames provides the purchase price, Hit Dice, and ability scores for factory-model robots.

Lifelike Appearance: Distinguishing a bioroid from members of its emulated species requires a successful Spot check (DC 10). A bioroid can use the Disguise skill to increase the Spot check DC.

Restriction: Licensed (+1).

Robot Size	Base Purchase DC	Upgrade Slots Cyber/Body	Base Hit Dice	Extra Hit Points	Base Ability Scores					
					Str	Dex	Con	Int	Wis	Cha
Medium-size	24	3 / 3	1d10	10	12	11	—	10	10	5
Small	20	2 / 2	½d10	5	8	13	—	10	10	5
Tiny	16	0 / 1	¼d10	—	4	15	—	10	10	5
Diminutive	12	0 / 0	1/8d10	—	2	17	—	10	10	5
Fine	8	0 / 0	1/16d10	—	1	19	—	10	10	5

BIOROID

A step up from Androids Bioroids are robots so convincingly lifelike that they are virtually indistinguishable from their living counterparts. The bioroid components are made up of lightweight plastics in a synthetic sheath that looks and feels like real flesh and skin. Bioreplicants are restricted, and in some areas, buying or owning one is illegal.

To build a bioroid frame from scratch, a character must succeed at two skill checks—a Craft (mechanical) check (DC 30) and a Craft (electronic) check (DC 30). These checks are made after investing time in the frame's construction: 48 hours for a Large or smaller frame. A character without a mechanical tool kit or electrical tool kit takes a –4 penalty on the skill check (–8 if the character has neither).

Table: Bioroid Robot Frames provides the base price, Hit Dice, and ability scores for factory-model bioroid robots

In Japan, where a mass-market keeps the shelves stocked with only the latest products, robots found themselves being replaced almost as fast. Most androids and robots on the shelves (currently for sale) receive monthly inspections. Androids older than five or six years are sold cheaply to other countries. Government models are replaced, regardless of condition, in this same timeframe.

Robot Size	Base Purchase DC	Upgrade Slots Cyber/Body	Base Hit Dice	Extra Hit Points	Base Ability Scores					
					Str	Dex	Con	Int	Wis	Cha
Medium-size	28	6 / 4	1d10	10	12	11	—	10	10	10
Small	24	4 / 3	½d10	5	8	13	—	10	10	10
Tiny	20	2 / 1	¼d10	—	4	15	—	10	10	10
Diminutive	16	0 / 0	1/8d10	—	2	17	—	10	10	10
Fine	12	0 / 0	1/16d10	—	1	19	—	10	10	10

Lifelike Appearance: Distinguishing a bioroid from members of its emulated species requires a successful Spot check (DC 20). A bioreplica can use the Disguise skill to increase the Spot check DC.

Restriction: Restricted (+2) or Illegal (+4).

MICROMACHINE IMPLANTS

Micromachines may be implanted willingly or forcedly. Either way, once they have entered the system, they can effect either or both the cybernetic and the organic. Ones with pre-planned cyber programs are Mircomachine virus listed in the hacking section. However, there are some variation micromachine implants listed that can either help or impede the implanted target. They all have a limited lifespan and foreign MicroMachines cannot work with the resident micromachines to keep alive.

The micromachines can be implanted either through syringe, dart injector, through food or even just through direct physical contact with the target. If the Micromachines implanted carry the capacity to harm the target the target may be allowed a Fort save to resist. Micromachines that effect the mind are detailed in the hacking section and are created specifically there. It should be noted that identical Micromachine types that effect Organic are different from the type that effects Cybernetics. They must be purchased separately.

Type	Target:	Saving Throw:	Cost:	
Anti-MicroMachines	Any	None	350	Destroy invasive Micromachines.
Barkskin	Organic	None	500	+2 bonus to the targets hardness
Endurance	Any	None	500	+4 bonus to Constitution
Cure	Any	None	500	cures 2d8 points of damage
Dexterous Grace	Any	None	650	+4 bonus to Dexterity
Endure Elements	Organic	None	300	target suffers no harm from being in a hot or cold environment.
Inflict Damage	Any	Fortitude DC20	1000	The subject then takes 1d8+4 the next round and then 1d4+4 the round after. They then continually take 1d4+4
Drain	Any	Fortitude DC20	500	–4 Dexterity penalty.
Mold	Cybernetics	Fortitude DC20	1000	removes 1d6 points of hardness, 2d6 points of damage and 1d6 points of temporary Strength drain
Neutralize Poison	Organic	None	400	Detoxify any sort of venom in the target.
Poison	Organic	Fortitude DC 20	1000	infect the subject with a horrible poison
Protection from Energy	Cybernetics	None	500	grants temporary immunity to electricity or stun/shock attacks.
Enfeeblement	Any	Fortitude DC20	750	The subject loses 1d6+4 Strength
Regenerate	Any	None	500	Gains regeneration that heals 1 point of damage every round in effect.
Remove Disease	Organic	None	400	This cures all diseases that the subject is suffering from.
Rust	Special	None	500	Any iron or iron alloy item touched becomes instantaneously rusted, pitted, and worthless, effectively destroyed.
Shatter	Crystalline target	None	300	MicroMachines weakens crystal forms
Strength Boost	Any	None	500	grants a +4 bonus to Strength
Temporary Life	Cybernetic	None	700	gains 1d10 temporary hit points.
Water Breathing	Any	None	400	Breathe water
Touch of Fatigue	Any	Fortitude DC20	500	Target is fatigued.

Anti-MicroMachines

Target: Any
Duration: Instantaneously
Saving Throw: None
Cost: 350

These are invasive attackers that seek out any MicroMachines that are not identified by the Cyberbrain as belonging there and destroy them. This includes removing any even doing positive effects as the AMMs cannot differentiate.

Barkskin

Target: Organic
Duration: 10 minutes
Saving Throw: None
Cost: 500

B*arkskin* toughens a targets skin. The effect grants a +2 bonus to the targets hardness for the duration. This ability cannot be stacked with other identical implants.

Endurance

Target: Any
Duration: 1 hour
Saving Throw: None

Cost: 500

The affected target gains greater vitality and stamina. It grants the subject a +4 bonus to Constitution, which adds the usual benefits to hit points, Fortitude saves, Constitution checks, and so forth.

Hit points gained by a temporary increase in Constitution score are not temporary hit points. They go away when the subject's Constitution drops back to normal. They are not lost first as temporary hit points are.

Cure

Target: Any
Duration: instant.
Saving Throw: None
Cost: 500

This injection is comprised of cell-repairing nanites that cures 2d8 points of damage. After the initial injection, any further injections have no effect for a full 24 hours from the previous injection.

Dexterous Grace

Target: Any
Duration: 10 minutes
Saving Throw: None

Cost: 650

The target becomes more graceful, agile, and coordinated. This grants a +4 bonus to Dexterity, adding the usual benefits to Defense, Reflex saves, and other uses of the Dexterity modifier.

Endure Elements
Target: Organic
Duration: 24 hours
Saving Throw: None
Cost: 300

A target protected by *endure elements* suffers no harm from being in a hot or cold environment. It can exist comfortably in conditions between –50 and 140 degrees Fahrenheit without having to make Fortitude saves). The target's equipment is not protected. *Endure elements* doesn't provide any protection from fire or cold damage, nor does it protect against other environmental hazards such as smoke, lack of air, and so forth.

Inflict Damage
Target: Any
Duration: Instantaneous
Saving Throw: Fortitude DC20 for Half.
Cost: 1000

This injection is comprised of nanites that tear through available cells causing 2d8+4 points of damage through all hardness. The subject then takes 1d8+4 the next round and then 1d4+4 the round after. They then continually take 1d4+4 every round until a Fort save succeeded, the subject is killed, or Anti-MicroMachines are injected. A separate Fort save is allowed for each round. A successful Fort save halves the current damage and prevents the additional damage.

Drain
Target: Any
Duration: 10 minutes
Saving Throw: Fortitude DC20.
Cost: 500

MicroMachines build up in systems and attempts to impede movement. It causes a temporary –4 Dexterity penalty.

Mold
Target: Cybernetics
Duration: Instantaneous
Saving Throw: Fortitude DC20.
Cost: 1000

This is a specific MicroMachine designed for anti-cyborg warfare. They grow and fester on the composite materials cybernetics are made from. They attack all Androids and any cybernetics (limbs and FBPs). It weakens the structure. After the first round, the target removes 1d6 points of hardness (if any) and 2d6 points of damage and 1d6 points of temporary Strength drain. This continues every round until the target makes their Fort save or Anti-MicroMachines are implanted.

Neutralize Poison
Target: Organic
Duration: 10 min
Saving Throw: None
Cost: 400

Detoxify any sort of venom in the target. A poisoned target suffers no additional effects from the poison, and any temporary effects are ended. The target is immune to any poison it is exposed to during the duration of the implantation. This MicroMachines neutralize the poison in a poisonous creature

Poison
Target: Organic
Duration: Instantaneous
Saving Throw: Fortitude negates DC 20
Cost: 1000

Replicating the venomous powers of natural predators, these MicroMachine infect the subject with a horrible poison. The poison deals 1d10 points of temporary Constitution damage immediately and another 1d10 points of temporary Constitution damage 1 minute later. Each instance of damage can be negated by a Fortitude save.

Protection from Energy
Target: Any
Duration: 10 min
Saving Throw: None
Target: Cybernetics
Duration: Instantaneous
Saving Throw: Fortitude DC20.
Cost: 500

This grants temporary immunity to electricity or stun/shock attacks. When the MicroMachines absorb 30 points energy damage, the MicroMachines are saturated.

Enfeeblement
Target: Any
Duration: 1 day.
Saving Throw: Fortitude Negates DC20
Cost: 750

The subject takes a penalty to Strength equal to 1d6+4. The subject's Strength score cannot drop below 1.

Regenerate
Target: Any
Duration: 1 hour.
Saving Throw: None

Cost: 500

The target gains regeneration that heals 1 point of damage every round while in effect. This does not regenerate lost limbs but does mend open wounds and broken bones, rids the subject of exhaustion and/or fatigue, and eliminates all nonlethal damage the subject has taken.

Remove Disease

Target: Organic
Duration: Instantaneous
Saving Throw: None
Cost: 400

This cures all diseases that the subject is suffering from. This also kills parasites. It does not prevent reinfection after a new exposure to the same disease at a later date.

Rust

Target: One ferrous object or target. Eg: Armor, Weapons, Vehicles but not Cybernetics that have rooted metal but covered composites.
Duration: See text
Saving Throw: None
Cost: 500

Any iron or iron alloy item touched becomes instantaneously rusted, pitted, and worthless, effectively destroyed. If the item is so large that it cannot fit within a 3-foot radius a 3-foot-radius volume of the metal is rusted and destroyed. It also instantaneously destroys 1d6 points of Hardness from metal armor (to the maximum amount of protection the armor offered) through corrosion.

A metal weapon that is hit is destroyed.

Against tanks or targets made of metal (robots), this instantaneously deals 3d6+4 points of damage per successful attack. This lasts for 1 round and you can make one melee touch attack per round.

Shatter

Target: One Crystalline target
Duration: Instantaneous
Saving Throw: None

Cost: 300

MicroMachines weakens crystal forms (namely glass), making them brittle. It then causes the glass to simply fall apart quietly and turn to dust. Each dose clears out a 5-foot radius chunk.

Strength Boost

Target: Any
Duration: 10 minutes
Saving Throw: None
Cost: 500

The subject becomes stronger. This grants a +4 bonus to Strength, adding the usual benefits to melee attack rolls, melee damage rolls, and other uses of the Strength modifier.

Temporary Life

Target: Cybernetic
Duration: 1 day
Cost: 700

These are implanted energy machines that activate only when a target's death is near. While in effect, the target gains 1d10 temporary hit points.

Water Breathing

Target: Any
Duration: 2 hours
Saving Throw: None
Cost: 400

MicroMachines reach the lungs or oxygen generating device and supplies O2 directly to the system while blocking out invading water. The target can still breathe air.

Touch of Fatigue

Target: Any
Duration: 2d6 rounds
Saving Throw: Fortitude DC20 negates
Cost: 500

Target is fatigued. This has no effect on a target already fatigued. Unlike with normal fatigue, the effect ends as soon as the duration expires.

THE INFORMATION AGE

Forget everything you know about computers. Forget everything you know about the internet. Everything changed with the Cyber revolution. Most people don't even own computers. They own terminals. With massive networks of billions of computers and cyberbrains, the population now shares a common information database. The size of the internet's shareable knowledge increased exponentially, squaring in size every five years until finally, at the beginning of the this decade, the total bytes of knowledge on the global net, written on paper, would fill up the solar system.

With no centralized hub, the net found itself powered by the brains of the cyberized users accessing it every day. Information stopped being relayed over wire, replaced with satellite and cellular towers. There was no place on earth where the net did not exist. If one person with a Cyberbrain lived there, the net would expand to meet it. Everything anyone has ever conceived about the net has passed, replaced with new ideals the previous generation hadn't even conceived. People could recall every moment of their lives, upload it to a storable medium, and remember those moments at any time. They could talk virtually in binary with a computer, their brains running faster than anyone could possible type. Soon, you either got yourself a cyberbrain, or you found yourself as much an antique as a Neanderthal is now. You advanced, or you stepped aside.

In this future, everyone involved with the modern information age possesses a cyberbrain. However, this resulted in information-related crime increasing by a factor relating to information's growth. As crime increased, the need for defense increased as well. Soon, firewalls not only defended secured computer drives, but our own brains as well. As hackers became more and more prevalent, their powers increased. Soon, they could breach into firewalls and alter someone's perception…and later, their own memories. Barriers emerged to combat these new crimes. Barriers exist as active Firewalls in both Cyberbrains and external memories as well as all forms of Artificial Intelligence. Barriers exist in two levels, the surface monitors the cybernetic relationship with the outside world. It regulates communication with external sources. Some communication is required so that net access is possible. The second barrier is the unspoken Ghost Barrier. Part of this is the simple transition from digital information to organic memory, the rest is a technological barrier blocking people from diving to much into someone brains. Of course, one could let them if they want. Accessing and altering are two very different situations.

In old stories, hackers would steal, delete, copy, and alter information. In the end, that's all they could do. Now, hackers can alter perceptions, generate reality, fabricate memories, and even hijack

someone's own mind. Hackers in the future are a robust bunch. They operate on both sides of the fence, defenders and attackers. Some simply dive to steal secrets…to know more. Some dive because of a need to connect…to simply have the access and freedom to go anywhere and see anything. Others dive for control. They want to be able to dominate…In this world…you don't have to be big…to be in control. Now the smallest and weakest person can control the masses…all he needs is a connection and the talent to go where he does not belong.

Thankfully, they are still more defenders than attackers and most cyberbrains will live through their existence never knowing a hack attack. The basic Firewalls are more than enough to regulate information and keep the spammers out. But the miscreants are out there. The most feared are the super-class A hackers. Rumors point there may be less than a dozen world-wide. The hackers can alter the mind in ways only god is known to do. They can totally re-write someone's experiences, even change their personality. Most of all…they can Ghost Dive…actually swim around in someone else's subconscious, see what they want, change what they will, and disregard the rest. Barriers get better…and so do the hackers. Now barriers can strike back, confuse, or even kill their attackers. Every policing agency on the planet have sections for cybercrime.

Digital information truly flows through the planet now. Surfing the net in the new age is as different as talking on the phone is to the dawn of the internet at the end of the last century. In the future…everything is cyberized…everything is computerized. Everything can be controlled. Nothing is safe.

The net is vast…and populated…

THE BASICS OF THE NET

Attributes: The most important attributes when accessing the net is your Intelligence and Wisdom. Your Will save is your defense against some of the damaging effects of hack attacks. When defending against attacks, your wisdom is the baseline for your Barrier Defense and all your defensive saves. Your Int is used to recognize attacks and initiate attacks with your Hackcraft skill, break down barriers with Computer Use, and determine your effectiveness in cyber-warfare by detailing how many attacks you can make and which ones you can deal out. However, your intelligence and Wisdom suffers drain attacks like so many spell and magic effects in D&D when hacked and hacking. You can take both temporary and permanent Int damage from the net. This effects your Int bonus, and thus, effects the number of available hack actions in a turn and the kind of hacks you can pull off.

To summarize. Int is your Hack attack. Wis is your hack Defense

Barrier Defense: Your Barrier Defense is a fixed number just like your normal Defense (or like AC in D&D). Instead of it being a base 10, modified by Dex, enhanced by armor, it is now base 10, modified by Wis, enhanced by barriers. This number can be without the PCs knowledge for hidden attacks. There are two numbers with Barrier Defense. Like Defense's flat footed and touch, Barrier Defense break into two numbers: Surface Defense and Ghost Defense.

Surface Defense (SD): This is a lower number used by anyone trying to crack into the input media of a cyberbrain (audio, visual, tactile). This firewall permits some access so that one can actually access the world network. This comes in the form of visual communication, and information screens. Breaking this number allows a hacker to alter this input to simple to major ways (depending on the attack).

Ghost Defense (GD): This number is always higher than SD. It guard ones Ghost and memories from outside access and attack. Like all firewalls, it can be dropped willingly to let someone access specific memories. Its defense are higher, with active barriers that may be able to strike back. Also…because the Ghost is more ingrained in ones brain, one's Wis bonus is x2.

It should be noted that Ais, external memories, and servers only have one Barrier Defense.

Barriers give a bonus to defense like armor. Like all Defense numbers, you add your level-based Defense bonus to your Barrier defense numbers.

One can have multiple barriers. This does not add to ones barrier defense but adds another Defense number to be defeated, leading to Multiple barriers

Surface Barrier Defense =
10 + Wis Bonus + Barrier Defense+ Defense Bonus + Any special effects

Ghost Barrier Defense =
10 + Wis Bonus +5 + Defense Bonus + Any special effects + Ghost Barrier Defense

You have to break through the Surface Barrier first before attempting the Ghost Barrier.

Moving through the Net: Against prior knowledge in older, outdated science fiction, one does not actually move anywhere. The graphical representation of the net is a purely optional experience, sometimes used when hackers dive into access ports into secured areas. However, the space and the icons are purely reflective. There is no movement. People rarely create avatars and most hacking attacks have no graphical interpretation. The Hollywood route simply does not take place.

Hacking requires no map, no icons. The only real extent of imagery are when penetrating InterGates to get into memories. Beyond that, graphics are purely optional. One first must locate the memory, then try to push through the barriers…then they can initiate an attack. Once one is past the barrier, they are free to do what they want. In fact, the target may not even know they are being attacked. How long one can reside in ones brain, mixing things about, is based on their Int score…they can remain swimming about for their Int modifier = rounds before having to re-break the last barrier they penetrated to remain inside.

The next round, the Hacker must re-roll the last barrier to stay inside. Since they know how to breach this barrier, they receive a +4 to their Computer use toll to stay inside. They then can initiate another round of actions.

Hacker Portfolio: A hacker carries a portfolio of attacks. Which kind they can have depends on their repertoire, dictated by where they stand on the Hack Actions by DC table. A hacker only has double their Int bonus in available actual actions. They must choose this portfolio as a spellcaster chooses his spells for the day. She must choose which hacks will be used and how many with the total not exceeding double their Int bonus. How many rounds they can spend hacking before being mentally exhausted also depends on their Int Bonus. When the Hacker has initiated hacking rounds = double the Hacker Int Bonus, she gets exhausted and must recharge. The Stamina of a

Hacker regenerates half their Int bonus (rounded down) in Hack actions ever minute (10 rounds) that passes.

If a Hacker needs an attack she does not have listed in her portfolio, she must remove and replace. It must be an attack she is capable of having. That slot is now being occupied. It takes a full minute to swap out attack programs.

Summary

Hacker Portfolio = Int Bonus x2

# of Sequential Hacker Attacks = Int Bonus x2

Hacker attack Regeneration Rate = Int Bonus/2 (Round down)

EG: A Hacker has an 20 Intelligence with several levels in Superhacker. She has levels in Ghost Hacker as well. This is her hack abilities:

Hacker Portfolio: 12 – She can have 12 different types of attacks in her portfolio.

Hacker Attacks: 10 – She has a buffer of 10 attacks she can use, regenerating 2 per minute.

She can choose her attacks from the following Hack DCs

10	14	18	22	26	30	34	38	42	46
3	3	3	2	2	2	2	1	1	1

COMBAT ORDER

Combat in the net can be one sided. One can engage another without their knowledge, do whatever they want and leave, all in silence. Net combat, however, does occur.

Initiative: Cyberbrain Initiative is the same as normal initiative. Anyone attempting Cyberbrain warfare rolls for Cyberbrain Initiative. One rolls d20 + Int Modifier + feat bonuses to determine their cyberbrain initiative. This can be mixed with the initiatives of all involved unless that target attempts to take action during their physical initiative as well. If they do, the next cyberbrain initiative round suffers a –6 to all Computer Use and Hack Craft checks.

Actions	Time
Connecting via QRS Wire	Full Action
Connecting via Retractable QRS Wire	Move Action
Activating a Dive Assistant	Full Round Action
Committing a Barrier break	Standard Action
Hack Action	Depends on Action chosen

Locating the target: Stationary targets (Like Ais without Shells, External Memories, or Servers) can be located simply be scanning the net. Locating roaming cyberbrains are a different story. If one had an encryption key, they can locate those cyberbrains easily. However, for a hacker to invade a cyberbrain, they must have a precise location where they are. They must be within visual range of the Hacker (either by close circuit video or direct eyesight) or have a location that is specific. Ways to accomplish this includes

Hacking into cameras to view the target.

Getting the target to talk on a phone the hacker knows the precise location of.

Getting a virus locater signal.

If you don't have the location, you cannot hack the target. Its simply not available.

# of Attacks: The number of attacks a hacker gets on her Cyberbrain Initiative is listed as the # of Hack Attacks next to their intelligence score. This can be increased with feats and class abilities. Each attack is a Standard Action. A full round action, like combat, occupied your entire round.

Combat: To initiate a Hack into a rival cyberbrain, AI, server, or external memory, one must first crack the barriers. Cracking a barrier is a standard action. If the barrier is still not broken, they can continue on their next Cyberbrain round. If they do not, they loose one barrier level that have breached (if they have broken one down already). If they fail a barrier defense rolls, they are kicked back 1d4 levels

and the target may roll their computer use skill (if they have one) with a +5 bonus against the Hackers to detect the intruder and maybe attempt a Back-hack.

Alternative Targets: Ais and Ghostless Cyberbrains work the same as opponent Cyberbrains. Servers and External memories may have no defense other than Ais, so many of the hack actions are not available.

Past the Barrier:

Once past the surface barrier, the hacker can attempt a Hack action or dive further into the Ghost. When they attempt a Hack Action, they make a Hack Craft rolls against the DC to see if their action is pulled off. Almost all hack Actions take a Standard Action. None take a free action so usually. Having the feat, Quicken Hack, allows a specific a Hack to take as a free action.
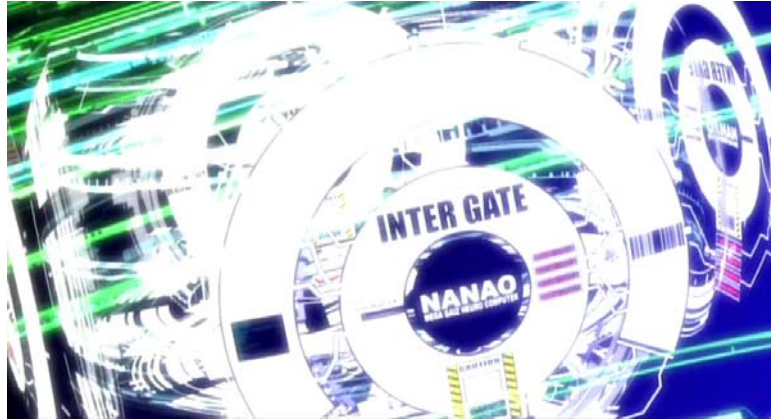
If the Hacker manages to crack all the barriers of a system successfully. All future hacks to that SPECIFIC target later receive a +2 bonus to Computer Use checks.

GENERAL NET RULES

Computer Use: Computer Use have many modifiers depending on how someone is connecting to the net.

Back-hack: To be wiretapped. Unlike the old days where sounds were overheard from a telephone line, here, flowing data is decrypted and read. Encryption has been introduced into even current wireless net connections, but it is easy to decipher a code that uses shared key encryption, and if you can go to a location where you can receive radio signals, it is fairly

Connection	Computer Use Modifier
Through a Dummy Barrier*	-5
Through a Back-Hack Blocker	-2
Wireless	0
QRS Plug	+10
Additional QRS Plug**	+2
CyberHarness	+15

* This is added to other bonuses. Staying behind a Dummy Barrier but diving via QRS offers a +5 bonus instead of +10. CyberHarness +10 instead of +15.
****Max +8

simple to intercept message content, even more so than with a wired link. In this era, even net environments that utilize satellites are widespread, and encryption ought to be suitably reinforced, but in the end, they and the people who are trying to crack it are caught in a vicious circle. To monitor using Cyberbrains or to re hack someone hacking it to find the source. Back-hacking can only occur if one is aware he is being hacked. If target is aware, they can attempt to hack back to either attack the target or find their location. Both must make Computer Use skills rolls. The highest wins. The winning attacking blocks the back hack. The winning defender can sever the connection (by going Autistic) or try to hack back and using the appropriate action (cracking their barriers and attacking). If two Hackers enter the same system, they can attempt to BackHack each other in an attempt to push the other out.

Additional QRS Plugs: Organic bodies only have 1 QRS socket. Most cyberbodies have two. Few have more than 4. When hooking additional plugs, the Hacker gains an additional +2 to all Computer Use rolls. Additional plugs adds an additional +2 (no more than +8). The device being plugged into, however, must also have at least the same number of sockets and most do not have more than 4. More than 8 total sockets hooked up have no effect.

Teaming up: Brains are like computers. Linking another cyberbrain can assist in searches and hacks just by using his brains processing power . Anyone with Coop Hack can team up on a system better than other. Each one that joins in using the same hack attack gives the primary hacker a +5 to all attempts to all rolls connected with that hack if they have the feat. Otherwise, its only +2.

Total Cyberbrain Defense: Like in real combat, people can select to go full defensive, like

increasing the paranoia of one's firewall. The character can elect to move any amount of her Int bonus (or +4, whatever is higher) to her Barrier Defenses (both of them). However, that character incurs that equally as a penalty to all Computer Use and Hack-Craft rolls. This can be declared at the beginning of combat and can last as long as the character wishes. This is great for those non-hackers wanting extra protection instead of going into full Autistic mode. The character must declare going full defensive at the beginning of her attack.

Ability Score Loss: Various attacks cause ability score loss, either ability damage or ability drain. Points lost to ability damage return at the rate of 1 point per day (or double that if the character gets complete bed rest) to each damaged ability. Ability drain, however, is permanent.
While any loss is debilitating, losing all points in an ability score can be devastating.
• Intelligence 0 means that the character cannot think and is unconscious in a coma-like stupor, helpless.
• Wisdom 0 means that the character is withdrawn into a deep sleep filled with nightmares, helpless.
Having a score of 0 in an ability is different from having no ability score whatsoever.

Hacking Key: A hacking key is a code access allowing someone to breach firewalls. All military barriers have commander class hacking keys that allow authorized personal to break through to shut down cyberbrains if needed. Finding a hacking key allows one to circumvent all Surface barriers. Obviously, this is considered very important information. Many corporations own hacking keys to their personnel. Military commanders have leys to many of their troops. Having a key allows a hacker to circumvent the surface barriers and either go straight for the Ghost or start actions on the surface senses. If one has a key and attempts to ghost hack, they gain a +5 to their rolls for that Cyberbrain. HackCraft actions gain no bonus. Entering Autistic mode will not prevent this breach as a key command overrides autistic mode.

Visual Camouflage: There are two types of complete camouflage. The most effective concealment is the overriding of Cyberbrain visual data, making someone see something that is not there or to remove someone or something totally from someone eye-sight. The process of overriding ones optical data and replacing visual information in real time is also known as "stealing eyes". The process can make someone see something that is not there or not see something or someone in plain view. This was a known ability of the laughing man and is not an easy process. Hacking into one specific subject is one thing, hacking into anyone looking at the same target is another. An Omni directional virus would be the culprit then. This causes the same effects as being invisible.

The second type is full holographic virtual concealment. Although still not used widespread, its found some applications in covering large areas where hacking eyes would be considered too risky or impossible. The Tohoko Autonomous Region, for example, is covered by a huge holographic tarp. The TAR is built within a Damn. The tarp covers the area in a lake, giving the illusion the dam is filled when it is not. Holographic Visual Camouflage cannot render something totally invisible but can block out objects with the appearance of others. It is also not effective against objects that are moving. However, it does create perfectly realistic looking terrain and can simulate several square kilometers of necessary. Obviously the power conceptions and the generator size make the concept of using it on anything other than large installations impractical. Tanks are the largest vehicles capable of using therm-optics effectively.   Holographics are so real from a distance beyond 50 feet, there is not way to denounce its reality. Only within 50 feet, do viewers get a DC25 spot check to notice the illusion.

Autistic Mode: Cyberbrains are almost always connected to the internet. One never needs to use it—like working on ones personal computer while on high-speed internet. Even though it is constantly connected, until a browser is opened, you don't actually use the link. However, you can pull a cord from the modem. Cyberbrains are all connected via cellular and satellite. If one does not want to be open to the internet, they can activate Autistic mode. This cuts the connection to the internet, severing all communication in both directions. This is the most surefire way to prevent outside attack of ones cyberbrains (if one is paranoid enough). Autistic mode prevents any visual and aural communication and cuts off one's cyberbrain to any external memory sources. All cellular communication is cut. Because Cybercomms are free actions, loosing this in comparison to vocal/radio communication (Requiring listen checks and costing actions). This action must be voluntary by the cyberbrain and cannot be forced by an external source (although implanted viruses can also accomplish this). Anyone diving is instantly severed UNLESS that diver has safeguards against this and has in place preventative measures if the situation occurs (for example the Diver creates an illusion that the user is in Autistic mode while, in fact, not).

Viruses inside are still inside and may still function even while in Autistic mode. However, barring these rare exceptions, Autistic Mode is the surefire way (like abstinence) to prevent outside attack.

While in Autistic Mode, the Cyberbrain maintains its +1 rank skill increase and its bonuses to Knowledge skills but looses its skill rank bonuses to Gather Information and Computer Use. Deactivating Autistic mode is a free action. Reactivating Autistic Mode, however, takes more time. A full 10 rounds (1 minute) is required to re-attach the connections. Until then, the Cyberbrain is still in Autistic mode. This makes switching on and off from Autistic in combat unfeasible.

Even with Autistic mode on, direct linking via QRS plug will circumvent the severed link. Autistic mode only cuts off the cellular connection, not the QRS plug. Cyber blocker will cut both the cellular and the QRS plug. Someone in autistic mode can still hack into a target via direct link. However, if that target is connected to the net, a rival hacker can track into through the net and dive through the direct link as could the target that is being directly hacked.

Jamming Barrier: Jamming Barriers are generators that can stretch from a single room to several blocks. This field blocks all Cybercomms, radio, and non-direct plug hacking. Cyberbrains are totally disconnected unless going in via the plug. Viruses inside Cyberbrains still operate.

Multiple Hackers: It is very possible a hacker enters a cyberbrain or external memory or AI system and realize he or she is not alone. Another Hacker is present. At that point, they mat try to communicate but more than likely, one will try to push out the other. To do that, Cyberbrain Initiative must take precedent on who can strike first. They may attempt to lock out the rival or even back-hack to initiate actions the Hacker's Cyberbrain.

Initiating a push out is the same as Back Hack, involving both Hackers to roll Computer Use Skills to try and force the other out. Back Hacking, if successful, does not stop either ones Dive, but simply allows one to trace into the rival Hacker's Cyberbrain to infiltrate their Cyberbrain (going through the ghost). Here, the infiltrator knows they lost the Computer Use Skill so can risk staying connected to keep diving in the original victim cyberbrain or pull out and sever the connection with the rival hacker and original victim.

Pushing Out does exactly that. It pushes the rival out of the original victim, forcing re-rolling to breach into the victim again. By that time, the winning hacker might have raised a wall to prevent the looser from trying to access again (see later). Hack Actions on the original cyberbrain/AI/Server, do not pass onto the rival hacker. Physical damage can be initiated if the rival hacker uses the victim cyberbrain to power up a biofeedback attack (Int Drain or Int Damage).

Cyber ID: Once the surface barrier has been broken, the first piece of information relayed is the Cyberbrain ID. This also relays the Ids current location, allowing remote diving. This works with Back-hacked hackers as well. Cyberbrains Ids can be scrambled with the appropriate Hack Action. Ids are a serial number and company ID one can track to reveal one's name and even address. This is a fixed number hardwired in so unless the cyberbrain was purchase illegally (+4), the Cyberbrain ID cannot be changed. However, secret government groups (Section 9 for example) have had their Cyberbrain Ids changed to the dummy company they are paid through and not Section 9.

Hacking into Death: Brain function continues into death for several minutes. This gives a hacker some opportunity for a quick dive in. Cellular links fail automatically. However, if the target had an Int of 3+ and was not killed by massive damage, a direct QRS plug can still access the Cyberbrains. The barriers start failing immediately. Diving into a Cyberbrain between –1 and actual death is only available through direct connection as the first casualty upon falling unconscious (not sleep, unconscious) is the cellular link. Along with the standard bonus with the QRS plug, one diving into an unconscious targets gains a +10 to defeat surface and ghost barriers. If a target is dead, there is a single 10 round window when actually death occurs to dive into a cyberbrain. All ghost and surface barriers are nullified. However, there is little that can be accomplished at this point except for data retrieval, Target Ids, and such.

Taking 10 and 20 / Time Adjustments: Usually, one can never take 10 or 20 on Computer Use or Hackcraft checks, except for specific class abilities. However, taking time to properly accomplish a hack does offer some benefits.

After the first HOUR spent analyzing a barrier (just outside so a dive would be required), the Hacker gains a +4 to all Computer Use skills made to break that barrier. Every additional hour gains an additional +2 for up to 4 hours. This can only be made for that specific barrier and not for further barriers encountered. Also, this does not go towards Hackcraft rolls.

Barrier Type	Cost	Barrier Defense	Maze Rank	Attack Rank
Passive Civilian Barriers				
Alpha—Level 1	500*	+12	--	--
Beta—Level 2	1500	+16	--	--
Delta—Level 3	3000	+20	--	--
Gamma—Level 4	6000	+24	--	--
Network—Level 5**	10000	+28	--	--
Network—Level 6**	15000	+32	--	--
Network—Level 7**	22000	+36	--	--
Military Attack Barriers				
Alpha—Level 1	2000	+14	--	20
Beta—Level 2	6000	+20	--	22
Delta—Level 3	12000	+24	--	24
Gamma—Level 4	24000	+28	--	26
Network—Level 5**	10000	+32	--	28
Network—Level 6**	15000	+36	--	30
Network—Level 7**	22000	+40	--	32
Maze Barrier				
Alpha—Level 1	+50%	Purchase Barrier	5	Purchase Barrier
Beta—Level 2	+150%	Purchase Barrier	10	Purchase Barrier
Delta—Level 3	+300%	Purchase Barrier	15	Purchase Barrier
Gamma—Level 4	+500%	Purchase Barrier	20	Purchase Barrier
Network—Level 5**	+800%	Purchase Barrier	25	Purchase Barrier
Network—Level 6**	+1200%	Purchase Barrier	30	Purchase Barrier
Network—Level 7**	+1600%	Purchase Barrier	35	Purchase Barrier
Boosters				
Alpha—Level 1	+50%	+50% Wis Bonus		Purchase Barrier
Beta—Level 2	+75%	+75% Wis Bonus		Purchase Barrier
Delta—Level 3	+100%	+100% Wis Bonus		Purchase Barrier
Gamma—Level 4	+150%	+150% Wis Bonus		Purchase Barrier
Variable				
Stage 1	500	+5 / 10 rounds		
Stage 2	1000	+10 / 15 rounds		
Stage 3	1500	+15 / 20 rounds		

* Free with Cyberbrain purchase
** Only available for Servers and Systems, not for Ghost or AI Cyberbrains.

BARRIERS

Barriers are the only line of defense between the cyberbrain and the vast network beyond. One can have as many barriers as their Wisdom Bonus (min 2, 1 Surface, 1 Ghost). Feats may alter this. Some can have Double or Triple Barriers. External Memories or servers or Ais have no Barrier limit although few ever go above five. All characters receive a passive level 1 barrier for surface and Ghost automatically for free when they receive their Cyberbrain. Additional Barriers or upgrading cost money. The Barriers Defense bonus is added to the Total Barrier Defense that hackers must be to be able to cross to access the Cyberbrain.

Shifting Ghost Defense and Surface Defense: If one is especially paranoid of one barrier being breached over another, they can move their Barrier Defense around. The barrier defense listed below is added to both Ghost and Surface Barrier Defense numbers. However, upon purchase, one can shift up to half the amount of one side to the other. (Eg. A basic barrier offers a +12 bonus to both Surface and Ghost Defense. Upon purchase the user cam shift up to 6 from either side and move it to the other.)

Barrier Types: There are three types of Barriers.

Military Attack Barrier (aka Offensive Barrier): If you fail in your attempt to break the barrier, it responds by attacking back. Usually Attack barriers are so difficult, you need a wire connection to succeed, allowing feedback

Power surges. Attack Barriers respond if the Cyberbrain is conscious (active) or not and thus, have their own base rank that all their Computer Use rolls are attempted from (add this to a d20 rolls for all skill checks). Their attack profile and portfolio is the same as the Cyberbrain. All Military Barriers have a Mil(+3) rating. All Attack Barriers automatically have "Int Damage" and "Int Drain" as their attacks and can pull them off without rolling for success.

Maze Barrier: Instead of being false image of a cyberbrain, the maze Barrier makes anyone trying to dive into a brain go through a massive puzzle of simulated experiences, making the journey long and tiresome. Maze barriers may be attack or passive and come with a Maze rank. The amount the Hacker beat the barrier defense by is subtracted by the Maze Rank. The result is how many standard actions the Hacker must use to navigate the maze, trying to find the way out. After that time is up, they must reroll against the Barrier defense again. Failure results in expulsion from the cyberbrain (and damage if from attack barrier). Success finds the route through the maze into the source. Obviously, Maze barriers are a colossal pain. Hackers may spend hours lost in a maze, never gaining progress and wasting time. Maze barriers have a multiplier rather than cost as it is modified onto existing passive or attack barriers. Maze Barrier can be combined with any other class of barrier…but only one Maze can be built into one barrier.

Defense Barrier/Passive Civilian Barrier: Standard Defense Barriers everyone has or uses at some point. These are cheapest and most common. Thus, they are usually the easiest to break.

Barrier Levels: Barriers come in levels: Alpha (1), Beta (2), Delta (3), Gamma (4) Each more powerful and more expensive than the last. Other abilities and devices can raise Barrier Defense even more. There are feats, character traits, and hack actions that can increase that.

Boosters: A Booster is a barrier modification that increases the usefulness of ones Wisdom bonus to defense. Boosters have a multiplier rather than cost as it is modified onto existing passive or attack barriers.

Variable: Variable barriers can jack-up their defense in emergencies. If an attacker fails to break through the barrier, the barrier goes into overdrive, increasing the barriers defense by whatever amount purchased for as many rounds per level. One can voluntarily activate the increase, but it can only be done once per day.

Item	Cost	Description
Back-Hack Blocker	500	Blocks Back Hacking by increasing both barriers by +5 for all Back-Hack attempts but all Computer Use rolls suffer a –2 penalty.
Dummy Barrier	500	25% chance the Dummy Barrier will short out on a physical attack. All computer use and HackCraft checks suffer -5 penalty.
Barrier Breaker	5000	+2d6 bonus to next three attack rolls.
Ice Breaker	2000	It incurs a –2d4 penalty on the Passive Barrier's defense bonus on the next three rounds.
Cyberbrain Partition	2000	Physical damage from cyberbrain attacks through viruses or electrical feedback (Int damage or drain) are halved.
Regenerator	10000	Recovers 1d4 lost Int each time its used
QRS Plug	10	Connect plug
Retractable QRS Plug	50	It turns a full action to a move action when connecting.
CyberHarness	2000	+15 to all Computer Use, Gather Information, and Hack craft Skills.
Memory Player	250	Playback external memories

EQUIPMENT

Back-Hack Blocker: Back-Hack blockers are usually built-in software or a physical device that blocks Back-Hacking by increasing both barriers by +5 for all Back-Hack attempts. However, Computer Use rolls suffer a –2 penalty. This only applies to those attempting back hacking and it can be used in conjunction with other systems like QRS plugs and Dummy Barriers.

Dummy Barrier: A forced disconnect device used by placing it between a QRS plug and a terminal. It detects a physical attack via an offensive virus while the user is wired. It physically ejects the wire that connects the user and the subject or absorbs the shock but acting like a Cyberbrain and taking the jolt. Each time a physical attack comes through, there is 25% chance the Dummy Barrier will short out, rendering it useless. It will still absorb that attack but then no others. If the Barrier survives, it functions perfectly the next time with no loss in function. It just needs to be reset. While diving through a Dummy barrier, all computer use and HackCraft checks suffer -5 penalty.

Dummy Barriers usually snap around the back of the neck but a few are hip mounted as well. They come in wireless variations as well.

Barrier Breakers: A program with a preset number of hacking keys to get through barriers. Barrier breaker can't really break through barriers as more they go through their hacking keys to find one

that works. When someone uses a Barrier breaker against a barrier, he gains a +2d6 bonus to his next three attack rolls. After that, the barrier breaker offers no help to that specific barrier although it can be used on others.

Icebreaker: The Ice breaks down defensive barriers. It is a program that acts on its own to find weaknesses in barrier defenses. It can only be used on Passive barriers. If used against an attack barrier, the Military defense would detect the probe and fry the program. It incurs a –2d4 penalty on the Passive Barrier's defense bonus on the next three rounds.

Cyberbrain Partition: A Cyberbrain partition sections off portions of ones memories and Ghost, to lesson the effects of physical attacks. There is little downside other than it's cost. Physical damage from cyberbrain attacks through viruses or electrical feedback (Int damage or drain) are halved.

Regenerator: Although Int drain is permanent, a Regenerator can bring back most damage at the loss of some knowledge. The Regenerator recovers 1d4 lost Int each time its used but every time it is used, the recipient looses x4 of that amount in Int based skills points.

QRS Plug: A simple three foot cable for connecting a Cyberbrain to another QRS plug.

Retractable QRS Plug: Connected to a Cyberbrain, it offers a convenient and speedy way of connecting a cyberbrain. It turns a full action to a move action when connecting.

CyberHarness: A fully system that allows a deeper dive into the net. It offers a +15 to all Computer Use, Gather Information, and Hack craft Skills.

Memory Player: The Memory Player is a headset system that allows one to replay back visual and aural data back recorded from either an external memory or from a Cyberbrain. It offers no bonus to skill rolls, simply recreates a recorded memory in detail for someone else to experience

VIRUSES

Viruses come in many shapes and forms. They are so prevalent, that to detail all the rules of all the functions of viruses, it would take up its own book. What are listed here are various ways to create and implement basic viruses.

Generally, to construct a virus, the programmer makes a Computer Use Skill. Each roll results in one hour of programming time (taking 10 or 20 increases the time accordingly). Each DC reflects how complicated the Virus is and how many capabilities the programmer can attempt to incorporate.

Making a vaccine: A computer virus is like an organic virus. A vaccine can be made to counteract is effects. The vaccine is a program that erases the virus and its harmful effects (unless they are permanent). The create a virus requires a Computer Use Skill that beats the roll the designer used to create it. It also requires at least one hour per roll. Taking 10 and 20 are also options. However, an original copy of the virus is required—ether a virus that has infected someone or copy from the source. The vaccine can then be sent to all parties involved. Vaccines are programs that do not rewrite any data on the cyberbrain, but hunt down programs that do not belong. As a result, it is a surface action and does not need to break through barriers to work.

Virus ID: Having a copy of the virus and decompiling it also results in an specific ID template of the programmer. It does not reveal names or phone numbers. The ID is simply the pattern of

Virus Types	Skill DC	Portfolio	Virus	Skill DC
Basic	20	2	Delayed action	+5
Complex	25	4	Strike	+5
Multifaceted	30	6	Tracer	+2
Composite	35	8	Trash Bomb	+2
Zenith	40	10	Time Bomb	+2
			Probe	+2
			Modular	+10
			Databank	+2
			HA-1	+5
			HA-3	+7
			HA-5	+10
			Evolution	+15
			Feat	+5
			MicroMachine	+10
			Relay	+2

programming. If two Viruses by the same programmer are placed side by side, enough similarities emerge to connect them. If one knows who programmed one, they can add another to that Hacker's profile. This ID cannot be changed because it is not really an ID, just a pattern of programming.

Virus Type: Directly related to how many different actions the virus can have.

Skill DC: The DC required to successfully program the virus.

Portfolio: How many different actions the virus can have.

Virus Functions: Each Virus can be given as many functions as need be, increasing its DC and time to completion.

Databank: Databank is a section of the virus that contains information. This could release at a specific moment or be used as a storage area. A virus may attack areas to retrieve information or could already have information the virus is programmed to release. The Databank may also be used to store useful information the virus requires to operate (Like a Command Encryption Key).

Delayed Action Virus: A virus that will activate only when a time is reached or a command given. The virus must be able to receive the command (so it cannot receive it through a locked off cyberbrain for example).

Feat: Add a Cyberfeat to the virus. May be taken several times, each additional feat adds an additional +5 to the DC.

HA (Hyper-Attack): HA viruses are attack viruses that are exempt from being fixed in their portfolio or attack order (see below). They can swap out attacks like normal cyberbrains. HA-1 carries a spare memory of 1 additional action and can swap into its portfolio instantly before the action comes up. HA-3 has 3 spare memories and the HA-5 has 5.

Evolution: An updated a newer version of the HA virus. The Evolution has an equal large portfolio of additional attacks it can swap out instantly. Additional, the Evolution no longer has to attack in order. It can now use any attack in its portfolio in any order.

Toy Bomb: Like a virus, it is actually concealed as an icon or image file. It sits in plain view until the conditions are met. (Usually clicked). Toy Bombs must be accepted by the Cyberbrain or the AI or by the user downloading it into a memory. The advantage of this is that it requires no hacking to download the virus into memory. The Computer Programmer must also make a disguise check which resides in the Toy Bomb…that roll is the DC to spot the bomb for what it is. It circumvents the Surface Barrier but not the Ghost Barrier.

Pandoras Box Virus: Any virus that when opened will start up and do what the virus is made to do. It is similar to the Toy Bomb except it does not require a Disguise roll but it cannot be equipped with a delayed action function. It must be downloaded or implanted and cannot be transmitted in.

Trash Bomb Virus: Is any virus that when deleted will start up and do what virus was made to do.

Time Bomb: A special type of Virus that can be set to manifest at a specific time.

Tracer Virus: Locates where someone is hacking from. Upload the virus into somewhere where someone is hacking into or remotely accessing and it tracks the source. The tracer virus occupies one spot in the portfolio. It rolls its Computer Use Skill. If it beats the Hacker, it locates the Hacker. If it has any other attacks, it can do that as well. If added with the relay function, it can send that information back to the programmer, allowing the programmer to directly hack the target.

Strike Virus: Normal viruses cannot cause actually damage to a target (Int Damage/Drain). However, strike viruses can, but are only half as effective Like Cyberbrains, viruses need to have a power source to initiate the strike (connected to a terminal).

Modular virus: Similar to Toy Bombs, They are disguised in e-mails or picture file header data, and when certain conditions are met, they compile into a single program. In the 'Laughing Man' attack on the Superintendent-General, one of these was slipped into the security detail and stored inside their cyberbrains. It downloads in packets, avoiding surface barriers. If the virus is meant to invade the ghost, it must still attack to penetrate. The virus takes at least 1 full minute to download the way it does.

Probe Virus: This is a violation of the Telecommunications bureau—A virus that attacks every nearby system in a 500 feet in order to find a specific one. However, it only locates something. No attack actions can be incorporated.

Micromachine: Micromachine viruses are a very rare and dangerous breed. These are Micromachines that carry the virus instead of the virus being transmitted digitally. Micromachine viruses circumvent all surface barriers altogether and attack the cyberbrain directly. They are difficult to handle. They suffer a –1 penalty to their profile. They cannot transmit their viruses. Micromachines must be placed in the body—either through a syringe or ingested through food. Specific Micromachines must be purchased (Cost 500). Some MicroMachine viruses can actually effect organics as well.

Relay: The Relay function transmits data back to another source, either a cyberbrain, server, or external memory. This can relay information that the virus stores on a Databank, or it can relay location data from a tracer virus.
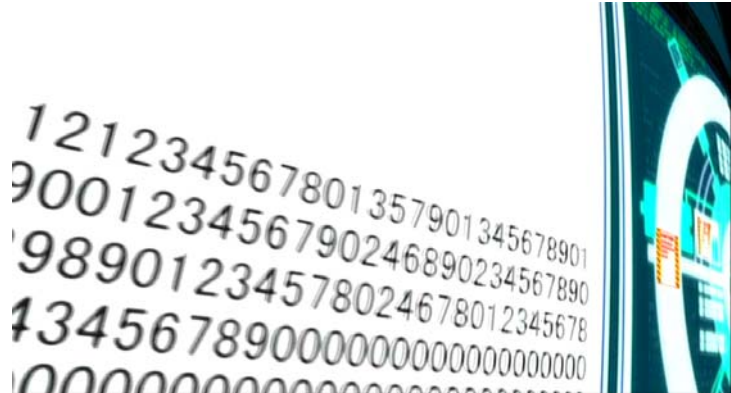
Cellular Suicide Program

A murder program that triggers the apoptosis function in every cell of the body, and by inducing this, leads to a person's death.

To make MM-rice suitable for every environment, biological phenomena were overwritten at a genetic level, and as an application of this, it is possible to intentionally trigger apoptosis (planned cellular death as part of the immune system), something that has always been present in all cells. If rice that the cellular suicide program has been spliced into is taken in and absorbed into the human body, when the program is activated, apoptosis occurs, and the person dies.

Using Viruses: Viruses almost have skills on their own. They carry a Computer Use Skill = to the programmer's – 5. They have a # of Hack Attacks also equal to their programmer. They cannot swap any attacks from their portfolio. Choose the actions and how they will operate in order. The virus cannot deviate from their list or their order. Virus can be implanted or used to hack. If they are used to hack, they do so with a reduced ability of course, but it saves the Cyberbrain from Intelligence Damage. A virus that gets hit with any damage is instantly vaporized. A cyberbrain can only hold one virus / Int Bonus. The virus cannot be implanted with actions the Programmer. The programmer must also roll to succeed in the action as if doing the action herself when programming it. A success implants the program successfully. Failure results in time loss. Remember, every roll, regardless of success or failure, takes an hour.

The Actions implemented cannot cause Int damage as there is no power in the Virus to cause such a feedback unless given the Strike function. Viruses get no bonuses for direct connection via QRS or a Total Immersion Harness.

Virus Barriers: Viruses are allowed to have a single barrier. Because of their smaller size and simplistic design in comparison to a full cyberbrain, the barriers cost half as much. They only protect the Virus.

EG: Nanao A used a Delayed Action virus with a Military Command Encryption Key to take control of security guards and attempt an assassination. The Portfolio required is a Complex one. (Delayed Action 5 + Databank 2 + Complex 25 = 32. Its danger resided with Nanoa's Computer Use Skill and the fact the Databank had the Command Encryption Key)

OTHER FACTORS

Agent status: Ais can't transmit their likeness nor can they attempt any diving without being given agent status.

Virtual City: Virtual Cities resemble real cities. The Virtual Cities themselves grew from simple chat room boards but grew into massive population nerve centers of the artificial world. There are thousands of smaller cyber-communities but only a few are called Virtual Cities. These are populated by sometimes millions of people at a time. The largest is Virtual City Alpha. There is a Beta, Delta, and a Gamma as well. If one were to search for an interesting piece of information, checking the city would be the first place.

Cyberbrain Closed Shell Syndrome: Someone who is overly-talented or too compatible with Cyberbrain networking. Although it seems to refer to those unable to handle cyberbrain links, CCSS also refers to those who exhaustively try to stay connected. If they are on with a specific person, they'll even try brain diving in an attempt to share their consciousness, even if it means going up against attack barriers. Others with CCSS respond by locking themselves out with so many barriers, they can no longer communicate with the outside world. For therapy, patients must be isolate from the network and diving is

regulated and monitored. Government agencies have employed CCSS cases to use their unique autistic talents for a benefit. CCSS cases that always want to stay connected usually display an astonishing knack for cyberspace. Agencies have employed their skills to create some of the most complicated maze barriers known to the net. However, these cases must be monitored as those assigned these tasks would work tirelessly, never sleeping or eating, constantly working without stopping.

Ibogaine: Ibogaine is a psychedelic substance derived from the roots of the iboga plant in Central West Africa. It found use as a minor drug-maze inducer in e-brain warfare. Later, more effective drug mazes would be developed but Ibogaine is somewhat easy to get a hold of. It offers a +5 to Barrier Defense and an additional +2 to Maze Ranks for 4d6 rounds. However, it saps one awareness of the outside world. For that same duration, they loose –4 to their Defense a hit rolls and –4 to all skills other than Computer Use and Hackcraft.

GLOSSARY

Visual Communications: Cyberbrain communications can either be radio or generate image of the person with a scroll of their name behind. It is not really them but a generated video of their likeness. As a result, it can be altered.

Go Wired: To directly link with a cyberbrain or terminal without through the net using a QRS plug.

Ghost Dubbing: Ghost Dubbing is not a viable way of gaining immortality. Nor is it a way to prevent damage from Attack barriers. The process is illegal, the end result, disturbing. The process includes a very invasive scan of the brain, right down to ever solitary synapse. The information is then copied and burned into a new cyberbrain. The process is so volatile, that the original Ghost often dies. This process is obviously illegal. Everytime a Ghost is dubbed, both the original and the copy lose part of their humanity. Every time an original ghost is copied, it suffers 2d4 Drain to all mental stats. Obviously one cannot be copied more than three or four times before totally braindeath. The new copy is identical, but also suffers from the 2d4 drain. Dubbed Ghosts cannot be dubbed themselves… attempting it causes them to lose 3d4 during the process. The mechanism for dubbing is large and has no official cost but rumors point the machines may cost upwards of 100 000.

Terminal: Terminals are not independent computers but simply access ports
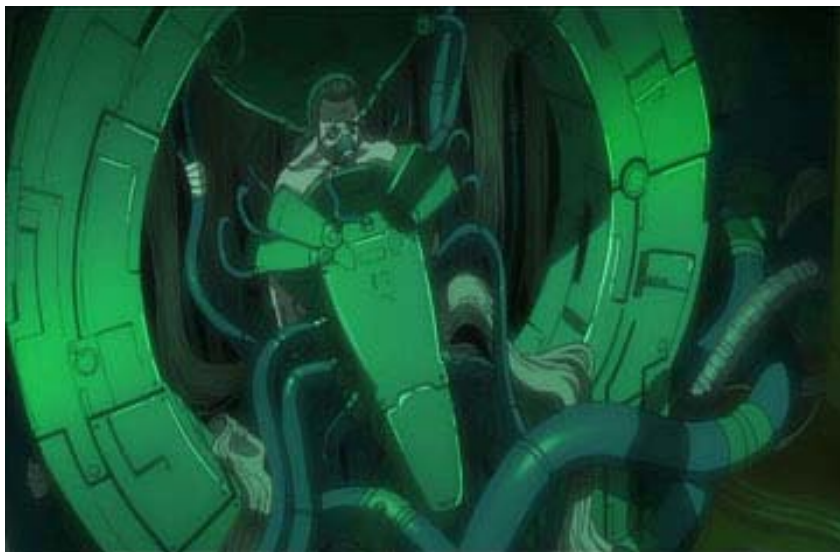
HACK DC	HACK ACTION	TYPE	DESRIPTION
14	Barrier Stripper	Virus	Rip down enemy barriers.
14	Change self	Surface	You change your appearance online.
14	Find the Path	Surface	You can access an overhead satellite.
14	Know Location	Surface	You instantly know the location of yourself in the world via satellite.
14	Relay Text	CyberHack	You cause a text message of up to 25 words to appear on the screen of an electronic device
14	Target Arrow	Surface	An aura surrounds and outlines the subjects.
14	Target ID	Surface	Add a Friend-Foe signature other members of your team.
14	Hack Boost	Surface	+4 to your next Hack Roll.
18	Target Arrow, Mass	Surface	An aura surrounds and outlines the subjects.
18	Bane	CyberHack	*Bane* fills your enemies with fear and doubt.
18	Blur	CyberHack	Distortion grants the Hacker 20% concealment.
18	Cyberbrain Message	Virus	sends out a message that's delivered when a specified event occurs.
18	Daze	CyberHack	Clouds the mind of a cyberbrain
18	Ghost Sound	CyberHack	Create a volume of sound.
18	Virtual Environment	Virus	Create a false reality.
22	Command	CyberHack / Ghost	You give a subject a single command
22	Alarm	Surface	Alerts you to something it is programmed to detect.
22	Discern Lies	CyberHack	You know if the subject deliberately speaks a lie.
22	Download Memories	CyberHack	You download memories into a device or cyberbrain.
22	Electromagnetic Pulse	CyberHack	Create a power surge in the device that ruins electronic circuitry within.
22	False Vision	Virus / Surface	Creates a static image in a certain location.
22	Hijack Electronics	Cyberhack	Take control of electronics hooked into the AI/Server
22	Infiltrate Cybercomms	CyberHack	Monitor outgoing communication from the cyberbrain
22	Lock Out	CyberHack	While diving inside a system, regardless of its type, you throw a wall behind you preventing others from diving in as well.
22	Slow		affected creature moves and attacks at a drastically slowed rate.
26	Charm	Virus	Makes a cyberbrain regard you as its trusted friend.
26	Confusion	CyberHack	targets becomes *confused*
26	Darkness	CyberHack	Remove all visual input
26	Detect Thoughts	Ghost / Cyberhack	You detect surface thoughts in a target.
26	Disguise Self	Virus	You make yourself look different.
26	Degauss	CyberHack	Erase all files on a device
26	Steal / Delete Program / Information	CyberHack	You remove or delete an operating surface action in the target
26	Temporary Hack Resistance		Gain an additional defense barrier equal to 20 + your PC power level.
26	Security Wipe	Virus	You can suppresses all mechanical or electronic intrusion alarms and alarm sensors in the affected area.
26	Speech Jack	Ghost / CyberHack	You hijack ones vocal system, getting them to say what you want them to say.
30	Fear	Ghost	The target will panicked
30	Hideous Laughter	Ghost	Afflicts the subject with uncontrollable laughter
30	Forced Transfer	CyberHack	Transfers a Hacker's dive location.
30	Floating Image	Virus	Create a moving image.
30	Binding	Virus	B*inding* restrains target.
30	Detect Cyberbrain Invasion	Virus	Become aware of any attempt to hack your cyberbrain.
30	Cyberbrain Surveillance	Virus	Copy all visual and audio input to your cyberbrain
30	Delayed Command	Virus / Ghost	Delayed Command
30	Displacement	Virus	Appear to be about 2 feet away from your true location
30	Read Memories	CyberHack / Ghost	Access but not delete or modify memories in a Cyberbrain
30	Satellite Detection	Virus	You uplink to a satellite overhead, giving you the bird's eye view of what around you.
30	Silence	CyberHack	Target cannot hear a specific sound or is deaf.
34	Alert Barrier	CyberHack	+ 5 To all Barrier levels for 1 round / Power Level
34	Barrier Brace	Virus	Keeps a breached barrier open
34	Invisibility	CyberHack	You erase yourself from the target's optical input
34	Decode Encryption	CyberHack	Decode encrypted visual information.

HACK DC	HACK ACTION	TYPE	DESRIPTION
34	Dominate Person	Ghost/ CyberHack	You can control the actions the target through a link that you establish with the Cyberbrain
34	Mind Blank	Virus	Your are protected from all devices and attacks that detect, Influence, or read emotions or thoughts.
34	Sleep	CyberHack	S*leep* causes a target to pass out.
34	Transmitter	Virus	Transmits a target's location.
38	Erase Memory	Ghost	*Erase* removes a specific memory from the cyberbrain
38	Feeble mind	Ghost	Intelligence and Charisma scores each drop to 1
38	Hold	CyberHack	The subject becomes paralyzed and freezes in place
38	Modify Memory, Minor	Ghost	You reach into the subject's mind and modify as many as 5 minutes of its memories
38	Energy Damage	CyberHack	The brain struck suffers 2d4 temporary Int damage.
42	Energy Drain	CyberHack	The brain struck suffers 2d4 temporary Int drain.
42	Modify Memory, Major	Ghost	You reach into the subject's mind and modify as many hours as the hackers Power level
42	Total Override	Cyberhack	Overrides all external inputs
46	Modify Memory, Greater	Ghost	You reach into the subject's mind and modify as many months as the hackers Power level
46	Memory Fabrication	Ghost	Real time Memory Replacement.
46	Backdoor	Ghost/Virus	Create a hole in someone's autistic mode.

where one can access the net. Terminals are everywhere. Few people have personal computers anymore. Mostly, they just own Terminals and External Memories.

Intergate: Gates into locked data storage

Satellites: Some hack actions require linking with a satellite. Many satellites have attack barriers to prevent someone from trying to hijack the system completely. However, the hack actions that use satellites are not really taking control, more like the action is using a satellites overhead to utilize its primary functions. Attempting to Hijack a specific satellite (like a military spy satellite that transmits Hawkeye data) does require hacking that satellite specifically, requiring diving and barrier penetration.

HACK ACTIONS

Type: Virus – Not like a programmed virus (see above). A virus type is an action that remains in the system after the Hacker has committed said action. The hacker does not need to continually use that action for it to continue functioning. She can do other things…the virus type, after being instigated, can be ignored. Viruses can have triggers and, of course, be used in larger compilation viruses. Unlike compilation viruses, hack viruses don't act with their own skill. The Hacker must place it in a position for it do its job. A virus can be left alone and initiated several times, so not occupying the portfolio slot. A Virus will still operate even if the target actives autistic mode if it is successfully placed inside.

CyberHack – CyberHacks are not viruses. They are direct actions one can commit on a target. CyberHacks are both offensive and defensive and can be used to strip down Barriers. For the entire duration of the effect, the portfolio slot is in constant use, so it cannot be used or swapped and the effect can not be used again while still in operation. CyberHacks cease functioning if the targets Autistic mode is activated.

Surface – Surface actions are not invasive and don't need to crack barriers to operate. They deactivate in Autistic mode.

Ghost -- Requires diving through the Ghost Barrier to work. Some are viruses while some are CyberHacks. Ones not listed as one or the other are permanent alterations.

Hack DC: The HackCraft DC the Hacker must defeat to activate the action. Success or not uses the attack slot. You may not take 10 or 20 on Hack Actions except for Surface actions, where you can take 10.

Time: How long to commit the action.

Saving Throw: If the targets allows a Will or Fort Save. The Saving throw is the Hackers Int Bonus + Power Level +10

Effects: Personal, Cyberbrains, Servers/A.I.s, External Memories, or All.

Note: Technically, one can self inflict their hack actions on themselves (ones that are not surface). They must still roll against Hackcraft.

Alarm

Type: Surface
Hack DC: 22
Time: 1 standard action
Duration: 2 hours / PC power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s.

        An *alarm* alerts you (and only you) to something it is programmed to detect on a visual or audio device. This is either a specific voice, a word, or if a face crosses into a camera. There is a 50% chance that the sensor will not pick up a face however. You note a single mental "ping" that awakens you from normal sleep but does not otherwise disturb concentration. This action works on servers with visual devices or Cyberbrains.

Alert Barrier

Type: Surface
Hack DC: 34
Time: 1 standard action
Duration: 1 round/Power level
Saving Throw: None
Effects: Personal

        Your gains a +5 to all barrier levels.

Backdoor

Type: Virus/Ghost
Hack DC: 46
Time: 1 standard action
Duration: 1 day / Power Level
Saving Throw: None
Effects: Cyberbrains

        You create a hole in the back of someone's cyberbrain. It allows access even if the target activates autistic mode. It accomplishes this by simulating autistic mode while not really being in it. You still have to crack one's Barriers but now, the target cannot escape in Autistic mode.

Bane

Type: CyberHack
Hack DC: 18
Time: 1 standard action
Duration: 1 min./ PC Power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s

        Bane fills your enemies with fear and doubt. The target takes a –1 penalty on attack rolls and a –1 penalty on saving throws against fear effects.

Barrier Brace

Type: Virus
Hack DC: 34
Time: Standard Action
Duration: 1 Round / PC power level
Saving Throw: None
Effects: All

        Usually, a barrier is broken for one hacker only when they break the firewall. However, if, after breaking through the barrier, the Hacker initiates a brace virus, a hole generates, allowing anyone else to travel through that barrier as long as the virus functions.

Barrier Stripper

Type: Virus
Hack DC: 14
Time: Standard Action
Duration: 1 Round
Saving Throw: None
Effects: All

        Being able to rip apart barriers is something that all hackers learn to do on top of just being able to break through. Most get better with time. After successfully creating a Barrier stripper, the Barrier being attacked receives a 1d4 –1 (min 0) penalty to its barrier for a full round.

        Note: This is a popular component in Compilation Viruses. It lasts for a full round so others can initiate them so another can utilize the decreased number. However, the reduction returns to normal when the hacker's round is up again. This ability compounds, allowing many hackers to team up to take down a barrier. However, the barrier can only be dropped to half its total Defense. It also will only attack one barrier per attempt. Multiple barriers require multiple attempts.

        Also note that this action requires diving (agent status required for AIs) and if the Barrier break fails, the target can back-hack anyone it wants connected to it.

        Eg: A hacker can have friends initiate Barrier strippers and delay action until they have all initiated it. Or the Hacker can write delayed action viruses that will all strike at once (Delayed action since just sending out a virus takes an action).

Binding

Type: Virus
Hack DC: 30
Casting Time: Standard Action

Duration: 1 round / power level.
Saving Throw: Will negates.
Effects: Cyberbrains, Servers/A.I.s.

B*inding* restrains target. The target gets an initial saving throw only if its Hit Dice equal at least one-half your PC Power level. Strength or grapple will not work…this is a cyberbrain shutdown of the motor system.

Blur
Type: CyberHack
Hack DC: 18
Time: 1 standard action
Duration: 1 min./ PC power level
Effects: Cyberbrains, Servers/A.I.s

The Hacker denotes one target in the subject's view. Their outline appears blurred, shifting and wavering. This distortion grants the Hacker concealment (20% miss chance). Opponents that cannot see the subject ignore the effect (though fighting an unseen opponent carries penalties of its own).

Charm
Type: Virus
Hack DC: 26
Time: 1 standard action
Duration: 1 hour/ pc power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s.

This charm makes a cyberbrain regard you as its trusted friend and ally (treat the target's attitude as friendly). If the creature is currently being threatened or attacked by you or your allies, however, it receives a +5 bonus on its saving throw.

The effect does not enable you to control the *charmed* person as if it were an automaton, but it perceives your words and actions in the most favorable way. You can try to give the subject orders, but you must win an opposed Charisma check to convince it to do anything it wouldn't ordinarily do. (Retries are not allowed.) An affected creature never obeys suicidal or obviously harmful orders, but it might be convinced that something very dangerous is worth doing. Any act by you or your apparent allies that threatens the *charmed* person breaks the effect. You must speak the person's language to communicate your commands.

Change self
Type: Surface
Hack DC: 14
Time: 1 standard action
Duration: See below.
Saving Throw: None
Effects: Personal

You change your appearance online. This alters the image of yourself while suffering and during visual communication. It changes the image from the source, and does not invade another brain to do it. This is only good for the net and not in real life. The effect is permanent until switched or turned off.

Command
Type: CyberHack / Ghost
Hack DC: 22
Time: 1 standard action
Duration: 1 round
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s.

You give the subject a single command, which it obeys to the best of its ability at its earliest opportunity. You may select from the following options.

Approach: On its turn, the subject moves toward you as quickly and directly as possible for 1 round. The creature may do nothing but move during its turn, and it provokes attacks of opportunity for this movement as normal.

Drop: On its turn, the subject drops whatever it is holding. It can't pick up any dropped item until its next turn.

Fall: On its turn, the subject falls to the ground and remains prone for 1 round. It may act normally while prone but takes any appropriate penalties.

Flee: On its turn, the subject moves away from you as quickly as possible for 1 round. It may do nothing but move during its turn, and it provokes attacks of opportunity for this movement as normal.

Halt: The subject stands in place for 1 round. It may not take any actions but is not considered helpless. If the subject can't carry out your command on its next turn, the effect fails.

If assaulting a cyberbrain with a ghost, the ghost barrier must be penetrated as well.

Confusion
Type: CyberHack
Hack DC: 26
Time: 1 standard action
Duration: 1 round/ PC power level
Saving Throw: Will negates.
Effects: Cyberbrains, Servers/A.I.s

This causes the targets to become *confused,* making them unable to independently determine what they will do. Roll on the following table at the beginning of each subject's turn each round to see what the subject does in that round.

A *confused* character who can't carry out the indicated action does nothing but babble incoherently. Attackers are not at any special advantage when attacking a *confused* character. Any *confused* character who is attacked automatically attacks its attackers on its next turn, as long as it is still *confused* when its turn comes. Note that a *confused* character will not make attacks of opportunity against any creature that it is not already devoted to attacking (either because of its most recent action or because it has just been attacked).

d%	Behavior
01–20	Act normally.
21–50	Do nothing but babble incoherently.
51–70	Flee away at top possible speed.
71–100	Attack nearest creature.

Cyberbrain Message
Hack DC: 18
Type: Virus
Time: Full Round action
Target: 1 person or terminal / per PC power level
Duration: permanent.
Saving Throw: Will negates
Effects: All.

This hack that implants a subtle program that sends out a message that's delivered when a specified event occurs. The message, which must be 25 words or less, is delivered in a non-evasive manner into the subject visual cortex or in a manner appropriate to the device targeted by the spell. An electronic traffic sign displays the message for all motorists to see for example.

The virus functions when specific conditions are fulfilled according to your command as set in the virus. Commands can be as general or specific as desired, although only visual and audible triggers can be used such as the following: "Deliver the message when a man in a dark suit walks past with a gun drawn." Triggers react to what appears to be the case. Audible triggers can be keyed to general types of noises (footsteps, elevator music) or to a specific noise or a spoken work. Actions can serve as triggers if they are visible or audible. For example, "Deliver the message when any

creature picks up the talking doll" is an acceptable command if the creature is visible. The object, however, has to be able to detect such a occurrence A message cannot distinguish class, level, Hit Dice, or allegiance.

Cyberbrain Scramble
Hack DC: 18
Type: Surface
Time: Standard Action
Duration: 1 round / Power Level
Saving Throw: None
Effects: Personal

You scramble your Cyberbrain ID, so back-hacks or hacks into your Cyberbrain do not give up your ID.

Cyberbrain Surveillance
Type: Virus
Hack DC: 30
Time: 1 Full round action
Range: 100 feet / PC power level
Duration: 1 hour / PC power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s.

You hack into someone cyberbrain but do not take control. You simply sit over-top of the brain and copy all visual and audio input to your cyberbrain. You can see and hear everything the target is encountering but don't encounter any physical input. You take no damage if they take it. If killed, the monitor encounters nothing…the feed is simply cut. If problems or abilities of the eyes are ears are carried as well. If a subject is colorblind, the monitor will transmit that. If the eyes are enhanced to see in darkness, that is transmitted as well. If the cyberbrain was already hacked to see something else, that to is ALSO carried over. You also overhear non-encrypted Cybercomms.

Note: This is an advanced form of Monitor.

Darkness
Type: Cyber Hack
Hack DC: 26
Time: Attack action
Duration: 1 minutes +1 minute / point beating the DC
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s

You cause a cyberbrain to remove all visual input. You basically shut down someone, making them blind. Will negates.

Daze

Type: CyberHack
Hack DC: 18
Time: 1 standard action
Duration: 1 round
Saving Throw: Will negates.
Effects: Cyberbrains

This action clouds the mind of a cyberbrain with a Power level 4 or less so that it takes no actions. Power Levels 5 or more are not affected. A dazed subject is not stunned, so attackers get no special advantage against it.

Degauss

Type: Cyber Hack
Hack DC: 26
Time: Attack action.
Saving Throw: None
Effects: Servers/A.I.s.

After successfully entering an computer or AI (not a cyberbrain), you can erase all files on that device. The device is rendered empty of data. The device must be hooked to a power source to initiate to action. Certain files may be protected by their own Barriers and require separate rolls.

Decode Encryption

Type: Cyber Hack
Hack DC: 34
Time: Full Round Action.
Effect: Decode visual information.
Saving Throw: None
Effects: External Memories

Decode encrypted visual information. The roll decodes one document.

Delayed Command

Type: Virus / Ghost
Hack DC: 30
Saving Throw: Will partial
Effects: Cyberbrains, Servers/A.I.s.

This is virus like Cyberbrain message except instead of instantly trying to force instructions, the virus remains after being deposited and waits for an external input (visual or aural) and triggers the command which the subject does its best to carry out. A successful Will save negates the *suggestion* effect but not the contact itself.

The message to the target must be twenty-five words or less. If assaulting a cyberbrain with a ghost, the ghost barrier must be penetrated as well.

Detect Cyberbrain Invasion

Type: Virus
Hack DC: 30
Time: Attack action
Duration: 24 hours
Saving Throw: None
Effects: Personal

You immediately become aware of any attempt to hack your cyberbrain. A successful roll to operate the program means all invaders must beat a Computer Use roll of DC30 + PC power level or have their hacking detected by the cyberbrain, giving time for a back-hack or shutdown.

Detect Thoughts

Type: Ghost / Cyberhack
Hack DC: 26
Time: 1 standard action
Duration: Concentration, up to 1 min./level (D)
Saving Throw: None
Effects: Cyberbrains

You detect surface thoughts in a single target. The amount of information revealed depends on how long you study a particular area or subject.

Disguise Self

Type: Virus
Hack DC: 26
Time: 1 standard action
Duration: 5 min./ Power Level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

You make yourself—including clothing, armor, weapons, and equipment—look different. You can seem 1 foot shorter or taller, thin, fat, or in between. You cannot change your body type. Otherwise, the extent of the apparent change is up to you. You could add or obscure a minor feature or look like an entirely different person.

You get a +15 bonus on the Disguise checks to that subject.

Discern Lies

Type: CyberHack
Hack DC: 22
Time: 1 standard action
Duration: 1 round/ power level.
Saving Throw: No
Effects: Cyberbrains

Each round, you concentrate on one subject. You know if the subject deliberately and knowingly speaks a lie. The action does not reveal the truth, uncover unintentional inaccuracies, or necessarily reveal evasions.

Displacement
Type: Virus
Hack DC: 30
Time: 1 standard action
Duration: 1 round/ Power level
Effects: Cyberbrains, Servers/A.I.s
You appear to be about 2 feet away from your true location. You benefit from a 50% miss chance as if having total concealment. However, unlike actual total concealment, *displacement* does not prevent enemies from targeting you normally.

Dominate Person
Type: CyberHack or Ghost / Virus
Hack DC: 34
Time: 1 round
Duration: One minute / Power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s
You can control the actions the target through a link that you establish with the Cyberbrain. You can generally force the subject to perform as you desire, within the limits of its abilities. You know what the subject is experiencing, but you do not receive direct sensory input from it

Once you have given a *dominated* subject a command, it continues to attempt to carry out that command to the exclusion of all other activities except those necessary for day-to-day survival (such as sleeping, eating, and so forth). Because of this limited range of activity, a Sense Motive check against DC 15 (rather than DC 25) can determine that the subject's behavior is being influenced by the effect (see the Sense Motive skill description).

Changing your instructions or giving a *dominated* subject a new command is a move action.

By concentrating fully on the subject (a standard action), you can receive full sensory input as interpreted by the mind of the subject, though it still can't communicate with you. Subjects resist this control, and any subject forced to take actions against its nature receives a new saving throw with a +2 bonus. Obviously self-destructive orders are not carried out. Once control is established, the range at which it can

be exercised is unlimited. You need not see the subject to control it (even though you needed to know exactly where it was to attack its barrier)

If you don't spend at least 1 round concentrating on the action each hour, the subject receives a new saving throw to throw off the domination.

If assaulting a Ghost inhabited Cyberbrain, then the Ghost barrier must be breached to seize control.

Download Memories
Type: CyberHack
Hack DC: 22
Time: Standard Action / hour downloaded.
Duration: Until effect ends (see text).
Saving Throw: None
Effects: A.I.s, External Memories, Cyberbrains
You download your own memories into another cyberbrain or into an external device. You can download up to as many days as your power level before having to reroll. Each day downloaded takes one full minute to transfer.
Special: If you are downloading memories to a memory player or to your own External Device, you do not need to make this roll. Only make this roll if you are invading another source. If you are invited (no barrier breaking needed), the transfer occurs twice as fast and you can download twice as much before needing to roll.

Electromagnetic Pulse
Type: Cyber Hack
Hack DC: 22
Time: Attack action
Area: object effected
Target: A power source.
Saving Throw: Will negates (object)
Effects: Servers/A.I.s, External Memories
You create a power surge in the device that ruins electronic circuitry within. Any computer, telephone, television, or other device with a computer processor inside ceases to function immediately, and the contents of external memory and other storage media connected are scrambled.

The pulse affects only devices with circuitry connected to the power source, not everything that uses electricity. Ordinarily the lights stay on, although their electronic switches might not function. Automobiles shut down if they can be hacked in externally.

Repair Task (Example)	Relevant Skill	Purchase	Repair DC	Time
Simple processors (cars, elevator controls)	Repair	55	500	10 min.
Complex processors (computers, home theaters)	Repair	120	2000	1 hr.
Data recovery (scrambled hard drive)	Computer Use	350	9000	2 hr.

You can jury-rig repairs more quickly and cheaply, but the repairs may not last. See the description of the Repair skill for details. Some military gear is immune to energy effects such as electromagnetic pulse thanks to a process called <u>tempest hardening</u>. Tempest hardening adds +50% to the purchase price of an item and makes it Restricted (+2).

Encrypt Cybercomms
Type: Surface
Hack DC: 14
Time: 1 standard action
Duration: 1 minute/Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s.
Special: Two targets must roll.

You and another target decide to go on encryption. Both you and the target must then beat the DC and then they can carry on a private communication that cannot be overheard. Not even infiltrating Cybercomms will pick this up.

Normal: Usually, anyone can have a private conversation via Cybercomms but someone may have initiated an Infiltrate Cybercomm action. If one is not worried about a certain individual overhearing, they can talk one on one without using this action.

Energy Damage
Type: CyberHack
Hack DC: 38
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

The brain struck suffers 2d4 temporary Int damage. There is no saving throw to avoid the damage. Being damage, the Int recovers over time.

There must be a physical connection to instigate the surge. Wireless attacks cannot cause energy damage.

SPECIAL: Energy Damage does not require breaking through the Barrier but each barrier not broken absorbs one point of damage.

Energy Drain
Type: CyberHack
Hack DC: 42
Saving Throw: Partial
Effects: Cyberbrains, Servers/A.I.s

The brain struck suffers 2d4 temporary Int drain. There is no saving throw to avoid the damage but 24 hours after gaining them, the subject must make a Will Save for each point lost. If the save succeeds, that Int point level is recovered. If it fails, the Int point is lost.

Erase Memory
Type: Ghost
Hack DC: 38
Time: 1 standard action
Duration: Permanent
Saving Throw: See text
Effects: All

Erase removes a specific memory from the cyberbrain. The memory cannot be more than a day but any lesser time is allowed. It also must be at the most, 5 years old. There is no other adverse effects to skills or Int…the memory has simply been erased

False Vision
Type: Virus / Surface
Hack DC: 22
Time: 1 standard action
Duration: 1 hour/Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s.

The action creates a static image in a certain location. This can be as small as a weapon or as large as a building. The moment the target interferes with it, however, the illusion has been revealed and the virus is kicked out. The image remains static. The image must be able to fit there. If it doesn't seem to fit (Like a car floating in mid air, a building too small for anyone to fit), then the illusion is shattered but the target can maintain the illusion of it does not interfere where their lives. If the illusion is not intentional jarring without any invasive effect, then it can be a surface action, not requiring a barrier penetration.

Fear
Type: Ghost
Hack DC: 30
Time: 1 standard action
Duration: 1 round/ power level or 1 round; see text
Saving Throw: Will partial
Effects: Cyberbrains.

The target will panicked unless it succeeds on a Will save. If cornered, a panicked target begins cowering. If the Will save succeeds, the target is shaken for 1 round.

Feeblemind
Type: Ghost
Hack DC: 38
Duration: 1 hour / Power Level.
Saving Throw: Will negates; see text
Effects: Cyberbrains

If the target fails a Will saving throw, its Intelligence and Charisma scores each drop to 1. The affected creature is unable to use Intelligence- or Charisma-based skills, understand language, or communicate coherently. The Cyberbrain effectively turns off its own higher brain functions.

Find the Path
Type: Surface
Hack DC: 14
Time: 3 rounds
Duration: 10 min./Power level
Effects: Personal

You can access an overhead satellite. This one relays the map of the area. It shows all the street with names and all the buildings. This action can find the shortest, most direct physical route to a specified destination, be it the way into or out of a locale. *Find the path* works with respect to locations, not objects or creatures at a locale.

Floating Image
Type: Virus
Hack DC: 30
Time: 1 Move Action
Duration: 10 min / Power Level.
Effects: All.

Like False Image except this creates an image that can track with an object or move on given commands when the action is initiated.

The image can be anything and will not disrupt if unrealistic, unlike False Vision. It stays there if proven real or not.

Forced Transfer
Type: CyberHack
Hack DC: 30
Time: 1 standard action
Duration: 1 round/ Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

The cyberhack forces another to move to their location. If they are in a virtual area or a server or another cyberbrain, they are forced to the attacker's cyberbrain or a virtual environment of their choosing or creation. This stops their attack if they were attacking another target. If the target is drawn into the cyberbrain, they cannot hack the transfer initiator without going through the normal barrier procedures.

Ghost Sound
Type: CyberHack
Hack DC: 18
Time: 1 standard action
Duration: 1 round/ Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

Ghost sound allows you to create a volume of sound that rises, recedes, approaches, or remains at a fixed place. You choose what type of sound *ghost sound* creates when committed the action and cannot thereafter change the sound's basic character.

The volume of sound created depends on your level. You can produce as much noise as four normal humans per Power level (maximum twenty humans). Thus, talking, singing, shouting, walking, marching, or running sounds can be created. The noise a *ghost sound* produces can be virtually any type of sound within the volume limit. A horde of rats running and squeaking is about the same volume as eight humans running and shouting. A roaring lion is equal to the noise from sixteen humans, while a roaring dire tiger is equal to the noise from twenty humans.

Hack Boost
Type: Surface
Hack DC: 14
Time: 1 standard action
Saving Throw: None
Effects: Personal

After initializing this action, the hackers next Hack Craft or Computer Use roll gains a +4 insight bonus.

Hideous Laughter

Type: Ghost
Hack DC: 30
Time: 1 standard action
Duration: 1 round/Power level
Saving Throw: Will negates/
Effects: Cyberbrains

This afflicts the subject with uncontrollable laughter. It collapses into gales of manic laughter, falling prone. The subject can take no actions while laughing, but is not considered helpless. After the effect ends, it can act normally.

Hijack Electronics

Type: Cyberhack
Hack DC: 26
Time: 1 standard action
Duration: 1 minute / Power level
Saving Throw: None
Effects: Servers/A.I.s

You take control of electronics hooked into that terminal or server or AI. This includes machinery, gun emplacements, and cameras. You cannot make them do something they are incapable of doing. For example, with cameras you see what they see and can move the camera but you cannot short them out, turn them off, or override their visual input.

Hold

Type: CyberHack
Hack DC: 38
Time: 1 standard action
Duration: 1 round/ Power level
Saving Throw: Will negates; see text
Effects: Cyberbrains, Servers/A.I.s

The subject becomes paralyzed and freezes in place. It is aware and breathes normally but cannot take any actions, even speech. Each round on its turn, the subject may attempt a new saving throw to end the effect. (This is a full-round action that does not provoke attacks of opportunity.)

Infiltrate Cybercomms

Type: CyberHack
Hack DC: 22
Time: 1 standard action
Duration: 1 minute / Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

You never dive too deep, but simply monitor outgoing communication from the cyberbrain. This is better than tapping into transmission (by monitoring the frequency) as they are often scrambled. You hear all incoming and outgoing communication that cyberbrain, AI, or Server. The only communication it cannot overhear is Encrypted Cybercomms.

Invisibility

Type: CyberHack
Hack DC: 34
Time: 1 standard action
Duration: 1 min./ Power level
Saving Throw: none
Effects: Cyberbrains, Servers/A.I.s

You erase yourself from the target's optical input, vanishing from sight, even from darkvision. If you are carrying gear, that vanishes, too. Unlike ThermOptics, you completely vanish. Items dropped or put down while invisible become visible; items picked up disappear if tucked into the clothing or pouches worn.

Of course, the subject is not *silenced,* and certain other conditions can render the recipient detectable (such as stepping in a puddle). The effect ends if you attack any creature. Causing harm indirectly is not an attack. Thus, an invisible being can open doors, talk, eat, climb stairs, cut the ropes holding a rope bridge while enemies are on the bridge, remotely trigger traps, open a door to release attack dogs, and so forth. If you attack directly, however, you immediately becomes visible along with all your gear.

Know Location

Type: Surface
Hack DC: 14
Time: 1 standard action
Target: You
Duration: Instantaneous
Effects: Personal

You instantly know the location of yourself in the world via satellite.

Lock Out

Type: CyberHack
Hack DC: 22
Time: 1 Standard Action
Duration: 1 round / Power Level
Saving Throw: None
Effects: All

While diving inside a system, regardless of its type, you throw a wall behind you preventing others from diving in as well. For as long as the action lasts or until you leave or are

kicked out of the location, no one else but you can access that system. This prevents rivals from trying to compete and or force you out or initiate an attack on you from inside the target. This wall is not impenetrable and is = to the Users highest Barrier number.

Memory Fabrication
Type: Ghost
Hack DC: 46
Time: See below
Duration: See Below
Saving Throw: See below
Effects: Cyberbrains

You can totally fabricate a reality for a target in real-time. You must keep concentrating and breaking that concentration break that reality. The fabrication feels totally real and even breaking the laws of reality may not dislodge to target from the illusion. You can create a solid memory without disbelief and it would be totally real forever. Little can be done to restore that memory.

If the reality is meant to cause harm, it can do one of the following (all resulting in a Will save)

--Create a destabilizing reality meant to break one's will and grasp on normality. The world starts breaking down. This could be a sequence of repeating events that make so sense or a series of events that cannot occur in reality. The subject looses 1d4 Charisma (drain) after an hour in the reality. After which they get another Will Save at +2. This continues until the target cracks out or is reduced to a comatose stupor

--Create a horrific nightmare the subject cannot break out of. The world turns into the a Lovecraft story of insanity and fear. The subject looses 1d4 Wisdom (drain) after an hour in the reality. After which they get another Will Save at +2. This continues until the target cracks out or withdraws into a deep sleep filled with nightmares, helpless.

Mind Blank
Type: Virus
Hack DC: 34
Time: 1 standard action
Duration: 1 hour / power level.
Saving Throw: None
Effects: Personal.

Your are protected from all devices and attacks that detect, influence, or read emotions or thoughts. This protects against all mind-affecting attacks and effects as well as

information gathering by hack attacks or viruses. You receive a Will saving throw for all of these types of attacks, even from those not allowing such a save.

Minor Memory Alteration
Type: Ghost
Hack DC: 34
Time: 1 standard action
Duration: Permanent
Saving Throw: None
Effects: Cyberbrain, Server/A.I, External Memory

You alter one memory in a minor way. The memory can be anywhere in brain—any location in the external memory, or any memory in one's timeline. The memory is not deleted or radically altered. Only one aspect is slightly modified. A door can be closed when open. Someone can turn left instead of right. If someone sees and remembers a map, said map may be altered to look different (removing a hatch, adding bars, etc). Someone's appearance can be altered. A street sign renamed. The effect must be minor enough for to not convey suspicion that one's memory has been altered in that way.

Modify Memory, Greater
Type: Ghost
Hack DC: 46
Time: 1 round; see text
Duration: Permanent
Saving Throw: None
Effects: Cyberbrains

You reach into the subject's mind and modify as many months as the hackers Power level in one of the following ways.

• Eliminate all memory of an event the subject actually experienced.
• Change the details of an event the subject actually experienced.
• Implant a memory of an event the subject never experienced.

Initiating the action takes 1 round. You then proceed by spending as much as 5 hours visualizing the memory you wish to modify in the subject. If your concentration is disturbed before the visualization is complete, the action is lost.

A modified memory does not necessarily affect the subject's actions, particularly if it contradicts the their natural inclinations.

Modify Memory, Major

Type: Ghost
Hack DC: 42
Time: 1 round; see text
Duration: Permanent
Saving Throw: None
Effects: Cyberbrains.

You reach into the subject's mind and modify as many hours as the hackers Power level in one of the following ways.

• Eliminate all memory of an event the subject actually experienced.

• Change the details of an event the subject actually experienced.

• Implant a memory of an event the subject never experienced.

Initiating the action takes 1 round. You then proceed by spending as much as 5 hours visualizing the memory you wish to modify in the subject. If your concentration is disturbed before the visualization is complete, the action is lost.

A modified memory does not necessarily affect the subject's actions, particularly if it contradicts the their natural inclinations.

Modify Memory, Minor

Type: Ghost
Hack DC: 38
Time: 1 round; see text
Duration: Permanent
Saving Throw: None
Effects: Cyberbrain.

You reach into the subject's mind and modify as many as 5 minutes of its memories in one of the following ways.

• Eliminate all memory of an event the subject actually experienced.

• Change the details of an event the subject actually experienced.

• Implant a memory of an event the subject never experienced.

Initiating the action takes 1 round. You then proceed by spending as much as 5 hours visualizing the memory you wish to modify in the subject. If your concentration is disturbed before the visualization is complete, the action is lost.

A modified memory does not necessarily affect the subject's actions, particularly if it contradicts the their natural inclinations.

Monitor

Type: CyberHack
Hack DC: 18
Time: 1 standard round
Duration: 1 minute / Power Level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

You don't interfere with the Cyberbrain, you simply access their visual and audio sensors. You see and hear what they hear, but don't interfere. If the target's eyes have been hacked themselves, the Monitor sees the altered sense as well.

Read Memories

Type: CyberHack / Ghost
Hack DC: 30
Time: Standard Action / hour downloaded.
Duration: Until effect ends (see text).
Saving Throw: None
Effects: A.I.s, External Memories, Cyberbrains

You watch, copy, and/or totally experience memories for another subject that experience those memories. These memories can be processed by the Hacker as being actual memories for them, or they can be downloaded to external viewing later, or than can be downloaded into a memory device. You can download up to as many days as your power level before having to reroll. Each day downloaded takes one full minute to transfer.
Special: If you are reading memories from a memory player or from your own External Device, you do not need to make this roll. Only make this roll if you are invading another source. If you are invited (no barrier breaking needed), the transfer occurs twice as fast and you can download twice as much before needed to roll.

Relay Text

Type: Cyber Hack
Hack DC: 14
Time: Attack action
Range: Unlimited
Effect: A text message reaches an electronic device of someone you know
Duration: Instantaneous
Saving Throw: None
Effects: Servers/A.I.s, External Memories

You cause a text message of up to 25 words to appear on the screen of an electronic device capable of receiving such messages, such as a cell phone, pager, PDA, or computer. If the device is turned on, the message appears instantly; if not, the message appears as soon as

someone turns it on. The message remains onscreen until read, then disappears, leaving no electronic record of its appearance. You must be aware of the device and its location to send a message to it.

Satellite Detection
Type: Virus
Hack DC: 30
Time: 1 standard action
Duration: Concentration, up to 10 min./ PC power level
Saving Throw: None
Effects: Personal

You uplink to a satellite overhead, giving you the birds eye view of what's around you. You must be outside to do that and the effect nullifies if in a building. It shows everything 100 feet in every direction from the hacker. The satellite has no special eyes for darkness or x-ray. While the action is in effect, the hacker cannot be caught flat footed or surprised unless a target has thermoptic camo or strikes from a range beyond the scope of the sensor.

Security Wipe
Type: Virus
Hack DC: 26
Time: Attack action.
Saving Throw: None and Will negates (object).
Effects: Servers/A.I.s

You can suppresses all mechanical or electronic intrusion alarms and alarm sensors in the affected area (one room. +5/DC per additional room or roll separately. Burglar alarms or other intrusion alarms within the affected area simply fail to function; sensors for intrusion alarm systems (such as motion detectors, IR detectors, pressure sensors, electric eyes, and so forth) also fail to function, sending no signal to monitoring stations. Video surveillance devices continue to send whatever image they were photographing the moment when the action was committed.

Silence
Type: CyberHack
Hack DC: 30
Time: 1 standard action
Duration: 1 min./ Power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

Upon initiating this action, the target cannot hear a specific sound or is deaf. All

sound can be stopped. Move Silently gains a +20 bonus.

Sleep
Type: CyberHack
Hack DC: 34
Time: 1 round
Range: Medium (100 ft. + 10 ft./level)
Duration: 1 min./ Power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s

S*leep* causes a target to pass out. Sleeping targets are helpless. Slapping or wounding awakens an affected target, but normal noise does not. Awakening a target is a standard action (an application of the aid another action).

Slow
Type: Virus
Hack DC: 22
Time: 1 standard action
Duration: 1 round/ power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s

An affected target moves and attacks at a drastically slowed rate. A *slowed* target can take only a single move action or standard action each turn, but not both (nor may it take full-round actions). Additionally, it takes a –1 penalty on attack rolls, Defense, and Reflex saves. A *slowed* target moves at half its normal speed (round down to the next 5-foot increment), which affects the target's jumping distance as normal for decreased speed.

Speech-Jack
Type: Ghost / CyberHack
Hack DC: 26
Time: 1 standard action
Duration: 1 round / power level
Saving Throw: Will negates
Effects: Cyberbrains, Servers/A.I.s

You hijack ones vocal system, getting them to say what you want them to say. They say it without resistance and with any emotional inflection you wish convey. You also implant a minor bug that makes the speaker want to say it while he or she is saying it (if infiltrating a Ghost Cyberbrain). Therefore, the subject cannot stop themselves physically from saying it nor can they give physical clues that are being influenced. Only after the action wears off can one attempt to repair any damage caused by what was said. The will save is only permitted for the initial take over only and not every round.

Steal / Delete Program / Information

Type: CyberHack
Hack DC: 26
Time: 1 standard action
Duration: Instant
Saving Throw: Will negates special
Effects: Cyberbrains, Servers/A.I.s

You remove or delete an operating surface action in the target. First, the target must reveal all surface actions or programs currently running. If an attempt is made to delete the program, a Will save may be attempted. Copying the program does not allow the save. Any benefits of the program are lost if it is deleted. Copying the program is only useful if the Hack Action contains useful information. You now have access to Satellite uplinks (if running), Target Ids, Relay Text or even the Encryption for Cybercomms.

If the item being stolen or deleted is not a hack action, it may be a downloaded piece of information and not a memory of the subject. This includes maps or files in memory. This latter function is obviously more useful with Server and AIs.

Target Arrow

Type: Surface
Hack DC: 14
Time: 1 standard action
Duration: 1 min./Power level
Saving Throw: None
Effects: Personal

An aura surrounds and outlines the subjects. Outlined subjects can be tracked and do not benefit from the concealment normally provided by darkness, *blur*, displacement, invisibility, or similar effects. This effect only benefits the Hacker. The hacker must make a ranged touch attack to initially target the subject.

Target Arrow, Mass

Type: Surface
Hack DC: 18
Time: 1 standard action
Duration: 1 min./ Power level
Saving Throw: None
Effects: Personal, Cyberbrains

An aura surrounds and outlines the subjects. Outlined subjects can be tracked and do not benefit from the concealment normally provided by darkness, *blur*, displacement, invisibility, or similar effects. This effect only

benefits the Hacker. The hacker must make a ranged touch attack to initially target the subject. The hacker can then transmit the information to other willing targets. The hacker can transmit to targets = Int Modifier.

Target ID

Type: Surface
Hack DC: 14
Time: Full round action
Duration: 1 hour / PC power level
Saving Throw: None
Effects: Cyberbrains, Servers/A.I.s

Every combatant on one side can use a full round action (so only effective if some time is allowed to prepare before an encounter) to add a Friend-Foe signature other members of their team. This makes the target aware of your location, up to a mile away. The subject must also initiate the same action to offer their location. It relays information of where all the members of the team are within the visual field (even if members are behind walls, several floors above or below). All involved also can target enemies easier if attempting to fire into melee combat where another member using Target ID is involved. The –4 penalty to fire into melee combat is reduced to –2.

This relay is nullified if a Cyberblocker is used.

Temporary Hack Resistance

Type: Cyber hack
Hack DC: 25
Time: Attack action
Duration: 1 minute/ PC power level
Saving Throw: None
Effects: All.

You or a target (if you plug into it) gain an additional defense barrier equal to 25 + your PC power level.

Total Override

Type: Cyberhack
Hack DC: 42
Time: Standard Action
Duration: 1 minute / PC power level
Saving Throw: special, see below
Effects: Cyberbrain, AIs.

This hack overrides all inputs (touch, audio, visual, smell) to create an environment. A Hacker can cut any of the senses or overload them. Overloading audio or tactile forces a DC25 fort save or the target becomes

unconscious for 2d4 minutes. DC30 or be stunned for 2d4 rounds.

This Hack also allows the implantation of a Virtual Environment. By placing a virtual environment after a Total Override, the target may not know of the switch and cannot escape as long as the override is in effect.

NOTE: If total override and virtual environment are teamed-up, they can still offer the target the illusion of free will. They can walk around and touch and see and hear but cannot willingly, break out of it. The illusion can also allow some translation to the real world (Meaning a target may think they are shooting a bad guy but accidentally shoot a good guy).

Special: While an override is in effect, the target cannot go autistic.

Transmitter
Type: Virus
Hack DC: 34
Time: Standard Action
Duration: 1 hour / PC power level
Saving Throw: None
Effects: All.

The target transmits its location continuously onto the cell net. Only outside interference or Autistic mode can sever this link and if time remains on the virus, it will resume if it can continue the connection. This is not like Target ID. This places a beacon forcefully on another target.

Virtual Environment
Type: Cyberhack
Hack DC: 18
Time: Standard Action
Duration: 1 minute / PC power level OR until voluntarily dismissed.
Saving Throw: None
Effects: Cyberbrains, AIs.

Create an environment. The initial roll is to create a sustained area. This detail of the environment depends on a "Design" Hackcraft roll.

DC20 – The image is crude and distorts itself. Only an environment can be created with no sprites. The environment is simple and obviously fake.

DC30 – The image is good but not great. It is obviously fake but made to give some semblance of realism. Adding sprites just hampers the realism

DC35 – The reality is very good. DC20 spot-check to reveal the truth. DC15 if sprites are used.

DC40 – Almost photorealistic. Tactile sensation is rough. Smell still not great. DC25 spot check, DC20 if sprites are used.

DC45 – Photorealistic. Tactile still a little off but everything else works. DC30 spot check, DC25 if sprites are used.

DC50 – Perfect. No errors. DC30 is sprites are used. If none, then no roll need to be made.

The "Design" roll can be made before and pre-composite the illusion. Taking 10 or 20 can be accomplished in this case but taking 10 takes 10 minutes to create and taking 20 takes a full hour.

Only spot checks are required if the Hack is being made to fool a target, or if virtual environment follows a Total Override hack attack. The environment can be made to look like any place within reason. If the subject suddenly finds themselves in space (or another impossible location) then suspension of disbelief is dispelled and the environment can no longer fool the target (and thus reveal its presence). However, if the override is in effect, then the subject cannot break free.

If the environment is meant to be hostile, however, it can cause a fear effect.

HACKING RULES SUMMARY – CHEAT SHEET

Surface Barrier Defense =
10 + Wis Bonus + Barrier Defense+ Defense Bonus + Any special effects

Ghost Barrier Defense =
10 + Wis Bonus +5 + Defense Bonus + Any special effects + Ghost Barrier Defense

Connection	Computer Use Modifier
Through a Dummy Barrier*	-5
Through a Back-Hack Blocker	-2
Wireless	0
QRS Plug	+10
Additional QRS Plug**	+2
CyberHarness	+15
* This is added to other bonuses. Staying behind a Dummy Barrier but diving via QRS offers a +5 bonus instead of +10. CyberHarness +10 instead of +15. ****Max +8	

Actions	Time
Connecting via QRS Wire	Full Action
Connecting via Retractable QRS Wire	Move Action
Activating a Dive Assistant	Full Round Action
Committing a Barrier break	Standard Action
Hack Action	Depends on Action chosen

Chain Hacking: A Hacker can chain a hack to multiple targets = her Int Bonus. She rolls once for all those target but receives a –8 to all the rolls. If they have the Chain Hack Feat, the penalty drops to -4. This is only for accomplishing Barrier breaks and for a single Hack Action. One cannot send four different hack actions to four different targets and call it a Chain Hack. It must be the same for all. With the Chain Hack Radius Feat, a Hacker can hack everyone within 50 feet. Because the Chain Hack feat is a requirement, the penalty remains at –4.

Co-op Hacking: Hackers operate independently, even if they are together. Once can rip down a barrier while another enters but they cannot both initiate the same hack on a target without competing with each other. If they do team up, one makes the rolls and the other/s assisting differ a +2 bonus for each assist. If any of the ones assisting has the Cooperative Hack Feat, that bonus increases to +5 per target.

Hack Attacks: This is the same with physical attacks—how many actions the Hacker can do per round. This can only be increased with Class abilities and the Hack Attack Increase Feat.

Hack Profile/Portfolio: x2 your Int bonus is how many different Hack Actions you have loaded in your Cyberbrain. What kind they are is dependant on the Hack Actions Table. They can do any one specific Hack as many times as they want. This profile can be increased with the Hack Mastery Feat and with certain Class abilities.

Staying past a barrier: A Hacker can remain inside a target (past its barriers) for rounds = Int modifier before having to re-break the last barrier they penetrated to remain inside.   Since they know how to breach this barrier, they receive a +4 to their Computer Use roll to stay inside. They then can initiate another round of actions.

Hack Exhaustion/Sequential Hack Attacks: Int Bonus x2 = How many rounds the Hacker can pull off Hacking before needing to rest. A Hacker regenerates half their Int bonus (rounded down) in Hack actions ever minute (10 rounds) that passes.

Swapping Hacks: If a Hacker needs an attack she does not have listed in her portfolio, she must remove and replace. It must be an attack she is capable of having. That slot is now being occupied. It takes a full minute to swap out attack programs. If you have the Speed Reprogram feat, this is reduced to a full combat round.

Initiative: Roll d20 + Int Modifier + feat bonuses to determine their cyberbrain initiative. This can be mixed with the initiatives of all involved unless that target attempts to take action during their physical initiative as well. If they do, the next cyberbrain initiative round suffers a –6 to all Computer Use and Hack Craft checks. The Improved Initiative feat, when taken, adds +4 to either Physical or Hacking Initiative. Not both. You can take the feat twice, though, one for each.

Cracking Barriers: Cracking a barrier is a standard action. If the barrier is still not broken, they can continue on their next Cyberbrain round. If they do not continue the very next round, they loose one barrier level that have breached (if they have broken one down already). If the Hacker manages to crack all the barriers of a system successfully. All future hacks to that SPECIFIC target later receive a +2 bonus to Computer Use checks.

Detecting Intruders & Back-Hacking: If a Hacker fails a barrier attack roll, they are kicked back 1d4 levels and the target may roll their computer use skill (if they have one) with a +5 bonus against the Hacker's Computer use Skill rolls to detect the intruder and maybe attempt a Back-hack. The winning attacker blocks the back hack. The winning defender can sever the connection (by going Autistic) or try to hack back and using the appropriate action (cracking their barriers and attacking). If two Hackers enter the same system, they can attempt to BackHack each other in an attempt to push the other out. The Improved Back-Hack Feat gives a bonus to fighting another Hacker via competing Computer Use rolls.

Total Cyberbrain Defense: The character can elect to move any amount of her Int bonus (or +4, whatever is higher) to her Barrier Defenses (both of them). However, that character incurs that equally as a penalty to all Computer Use and Hack-Craft rolls. This can be declared at the beginning of combat and can last as long as the character wishes. The character must declare going full defensive at the beginning of her attack.

Virus-Type Hack: A virus can be left alone and initiated several times, so not occupying the portfolio slot. A Virus will still operate even if the target actives autistic mode.

CyberHack-Type Hack: For the entire duration of the effect, the portfolio slot is in constant use, so it cannot be used or swapped and the effect can not be used again while still in operation. CyberHacks cease functioning if the targets Autistic mode is activated.

Surface-Type Hack: Surface actions are not invasive and don't need to crack barriers to operate. They deactivate in Autistic mode.

Ghost-Type Hack: Requires diving through the Ghost Barrier to work

TARGETS AND ENEMIES

READING THE ENTRIES

Statistics Block:

   Size and Type: This line describes the target's size. A size modifier applies to the type's Defense and attack bonus, as well as to certain skills. A target's size also determines how far it can reach to make a melee attack and how much space it occupies in a fight (see Space/Reach, below).

   The size and type line continues with the target's type. Type determines how certain attacks affects it. Type determines certain features, such as Hit Dice size, base attack bonus, base saving throw bonuses, and skill points.

   Hit Dice: This line gives the unit's number and type of Hit Dice, and lists any bonus hit points. A parenthetical note gives the average hit points for a unit of the indicated number of Hit Dice. A unit's Hit Dice total is also treated as its level, its rate of natural healing, and its maximum ranks in a skill.

   Initiative: This line gives the unit's modifier on initiative checks. Barrier initiative is listed as well.

   Speed: This line gives the unit's tactical speed on land (the amount of distance it can cover in one move action). If the unit wears armor that reduces its speed, it's base land speed follows.
If it has other modes of movement, these are given after (or in place of) the land speed.

   Defense: The Defense line gives the units Defense for normal combat and includes a parenthetical mention of the modifiers contributing to it (usually size, Dexterity, and natural armor). The unit's touch and flat-footed Defense follow the combat-ready Defense.

   A unit's armor proficiencies (if it has any) depend on its type, but in general a unit is automatically proficient with any kind of armor it is described as wearing (light, medium, or heavy), and with all lighter kinds of armor.

   Barrier Defense: Defense layers. Multiple layers are separated by commas. Those with Ghost Barriers are listed separately. SD (Surface Defense) is listed first, followed by GD (Ghost Defense)

   Special Barriers: Any quantities for Attack barriers and Maze barriers are listed here.

   Base Attack/Grapple: The number before the slash on this line is the unit's base attack bonus (before any modifiers are applied). This number won't often be used, but it can be handy sometimes, especially if the unit has the Power Attack or Combat Expertise feats.

   The number after the slash is the unit's grapple bonus, which is used when the unit makes a grapple attack or when someone tries to grapple the unit. The grapple bonus includes all modifiers that apply to the unit's grapple checks (base attack bonus, Strength modifier, special size modifier, and any other applicable modifier, such as a racial bonus on grapple checks

   Attack: This line shows the single attack the unit makes with an attack action. In most cases, this is also the attack the unit uses when making an attack of opportunity as well. The attack line provides the weapon used (natural or manufactured), attack bonus, and form of attack (melee or ranged). The attack bonus given includes modifications for size and Strength (for melee attacks) or Dexterity (for ranged attacks). A unit with the Weapon Finesse feat can use its Dexterity modifier on melee attacks. If the unit uses natural attacks, the natural weapon given here is the creature's primary natural weapon. If the unit has several different weapons at its disposal, the alternatives are shown, with each different attack separated by the word "or." A the unit can use one of its secondary natural weapons when making an attack action, but if it does it takes an attack penalty, as noted in the Full Attack section below. The damage that each attack deals is noted parenthetically. Damage from an attack is always at least 1 point, even if a subtraction from a die roll reduces the result to 0 or lower.

   Full Attack: This line shows all the physical attacks the creature makes when it uses a full-round action to make a full attack. It gives the number of attacks along with the weapon, attack bonus, and form of attack (melee or ranged). The first entry is for the creature's primary weapon, with an attack bonus including modifications for size and Strength (for melee attacks) or Dexterity (for ranged attacks). A creature with the Weapon Finesse feat can use its Dexterity modifier on melee attacks. The remaining weapons are secondary, and attacks with them are made with a –5 penalty to the attack roll, no matter how many there are. Unit with the Multiattack feat take only a –2 penalty on secondary attacks. The damage that each attack deals is noted parenthetically. Damage from an attack is always at least 1 point, even if a subtraction from a die roll reduces the result to 0 or lower.

A Unit's primary attack damage includes its full Strength modifier (1-1/2 times its Strength bonus if the attack is with the unit's sole natural weapon) and is given first. Secondary attacks add only 1/2 the unit's Strength bonus and are given second in the parentheses. If any attacks also have some special effect other than damage, that information is given here. Unless noted otherwise, units using natural weapons deal double damage on critical hits.

Manufactured Weapons: Units that use swords, guns, and the like follow the same rules as characters do. The bonus for attacks with two-handed weapons is 1-1/2 times the unit's Strength modifier (if it is a bonus), and is given first. Offhand weapons add only 1/2 the Strength bonus and are given second in the parentheses.

Space/Reach: This line describes how much space the unit takes up on the battle grid and thereby needs to fight effectively, as well as how close it has to be to threaten an opponent. The number before the slash is the unit's space, or how many feet one side of the unit occupies. The number after the slash is the unit's natural reach. If the unit has exceptional reach due to a weapon, cybernetics, or the like, the extended reach and its source are noted in parentheses at the end of the line.

Special Attacks and Special Qualities: Many units have unusual abilities. This entry breaks these abilities into special attacks and special qualities. The latter category includes defenses, vulnerabilities, and other special abilities that are not modes of attack.

When a special ability allows a saving throw, the kind of save and the save DC is noted in the descriptive text. Most saving throws against special abilities have DCs calculated as follows: 10 + 1/2 the attacker's racial Hit Dice + the relevant ability modifier.

The save DC is given in the unit's description along with the ability on which the DC is based.

Hack Abilities: This is broken up into detailing both Computer Use and HackCraft skills (with abilities incorporated) and the Hack Actions available per DC. If the unit is known for its Hacking ability, its common hack attacks will be listed in its description.

Saves: This line gives the unit's Fortitude, Reflex, and Will save modifiers.

Abilities: This line lists the unit's ability scores, in the customary order: Str, Dex, Con, Int, Wis, Cha. Except where noted otherwise, each unit is assumed to have the standard array of ability scores before racial adjustments (all 11s and 10s). To determine any unit's racial ability adjustments, subtract 10 from any even-numbered ability score and subtract 11 from any odd-numbered score.

Nonabilities: Some units lack certain ability scores. These units do not have an ability score of 0—they lack the ability altogether. The modifier for a nonability is +0.

Skills: This line gives the unit's skills, along with each skill's modifier (including adjustments for ability scores, armor check penalties, and any bonuses from feats or racial traits). All listed skills are class skills, unless the unit has a character class (noted in the entry). A unit's type and Intelligence score determine the number of skill points it has.

The Skills section of the unit's description recaps racial bonuses and other adjustments to skill modifiers for the sake of clarity; these bonuses should not be added to the listed skill modifiers.

An asterisk (*) beside the relevant score and in the Skills section of the descriptive text indicates a conditional adjustment, one that applies only in certain situations.

Natural Tendencies: Some units simply aren't made for certain types of physical activity. If it seems clear that a particular unit simply is not made for a particular physical activity, that unit takes a –8 penalty on skill checks that defy its natural tendencies. In extreme circumstances the unit fails the check automatically.

Feats: The line gives the unit's feats. A unit gains feats just as a character does. Sometimes a unit has one or more bonus feats.. Unit's often do not have the prerequisites for a bonus feat. If this is so, the creature can still use the feat. If you wish to customize the unit with new feats, you can reassign its other feats, but not its bonus feats. A unit cannot have a feat that is not a bonus feat unless it has the feat's prerequisites.

Challenge Rating: This shows the average level of a party of adventurers for which one unit would make an encounter of moderate difficulty.

NOTE: All these stats can be re-assigned. If you want a villain an equal to Kusanagi, use those stats as a base. Want a brute, use Batou, and so on. Obviously, printing every combination of opponent would be wasteful. Best to take what fits the bill and file off the serial numbers.

Cybernetic Traits:

Electric Vulnerability: A target with one or more cybernetic attachments takes 50% more damage from any attack that deals electricity damage. This vulnerability to electricity can be offset by an anti-shock implant.

Massive Damage Effects: Massive damage wreaks havoc with cybernetic attachments. Whenever a creature with cybernetic attachments fails a Fortitude save against massive damage, the GM should roll percentile dice and consult Table: Massive Damage Effects to determine what happens.

Pushing Cybernetics: Most physical cybernetics (arms, lets, full body) have structural limits and how far they can be strained. The human body has pain receptors to tell it that it is overexerting itself. With cybernetics, this feeling can be toned down, allowing a cybernetic to be pushed beyond what it was designed to.

Cybernetic	Extent pushed	Damage/round
Arms*	+2 Str	1d6 damage to body, DC20 Fort or Dislocation
Legs*	+2 Str / +10 base speed	1d4 damage to body, DC20 Fort or Dislocation
Full Body Prosthetic	+2 Str / +10 base speed	1d4 damage, DC15 Fort or Dislocation
* Connected to tissue.		

If someone wishes to push their bodies beyond specifications, they can accomplish some truly remarkable acts. However, damage to the limb and body inevitably occurs.

For every round the limb is pushed, a Fort save must be made. The 1d6 damage is caused regardless. A failure results in dislocation and damage. For limbs connected to tissue, the limb is not damaged, the tissue is. The person is rendered unconscious for 1d6 minutes. The limb is now useless until repaired.

Full Body Prosthetics can be pushed more with greater results. Each time it is pushed, it only causes 1d4 damage and the Fort DC starts

Exertion must be stacked every round and cannot be done suddenly. A character cannot suddenly push herself with a +6 strength. She must first do a round at +2, then the next round at +4, then the next round at +6. Stopping forces the character to start over. Every additional round exerting causes damage every round and the Fort DC increases by +2. Hardness does not absorb the damage. It is internal..

Dislocation for full body prosthetics results in the cyborg overheating and shutting down for 1d4 minutes.

Turning off the Pain: Full Body Prosthetics are totally cybernetic save for the spinal column and brain (usually). This means that, like a computer, certain senses can be turned off. The only sensation cyborgs sometimes have deactivated is their sense of pain. This appears to be a great idea in combat but ramifications do occur. Turning off one's pain receptors is a free action but cannot be reactivated for at least ten rounds (one minute)

While pain is deactivated, the character incurs no adverse effects from massive damage. They cannot be stunned or rendered unconscious from physical damage. They can also make a full round action at 0 hit points before falling (instead of the normal half action). If pushed below 0 hit points (but before death), a Fort DC of 20 can allow the character a half action before dropping.

However, the drawback to all of this…

The character, while void of pain, also cannot receive information from touch sensors as effectively. There is not data feedback to the brain on how the body is performing. To translate this into game terms, the Cyborg suffers a –2 to Defense and a –1 to all hit rolls. She also suffers a –4 penalty on all Demolitions, Disable Device, Forgery, and Repair checks.

Forearm Recoil Energy: Cyborgs can virtually ignore FRE. With mastercraft weapons like the top end Seburo models, a cyborg can pull the trigger extremely fast (sometimes as high as 12 times per 3 seconds) and not jam the weapon. For mastercraft firearms with an "S" firing capacity (Single Shot), Characters with a modified Dexterity of 22+ (Assuming Cyborgs as few humans should be able to have a Dexterity this high) gain the Double Tap Feat for free. Those who already possess this feat may now initiate the action without incurring the –2 penalty.

NETWORKS & SYSTEMS

Networks are different then enemies. They had defenses and can attack back, but they don't have physical forms so many attributes and abilities are moot. The advantage of taking on a System or Network is they are usually connected to machines, robots, cameras, alarms, or have access to information hackers will need. Hacking Networks allows access to that whole system, allowing a hijack of its systems. Each network or system carries its own abilities and defenses for specific areas. Many Networks do not have discernable AIs but monstrous bonuses to Computer Use and HackCraft. Networks, can of course, drop their defenses for authorized access. Access Codes are deigned to remove through a certain number of barriers. These are the same as Hacking Keys except that Access codes can sometimes only be designed to remove a certain number of defenses. In their description, Networks denote that type of control a Hacker has access to as the barriers strip off. The more defenses removed, the more the hacker can do and the more they have access to.

A starting barrier of 0 means that anyone can access this top layer. The difference between Networks and Systems (also referred to as Servers) is that the Network is everywhere. One can dive into the appropriate Net instantly at any time. One only needs to declare themselves. The Server needs connection time. Connecting to a System in order to access or attack it takes 2d6 rounds.

Networks and Servers have no hit points but Hit dice are listed to determine power levels for Hack actions. Because of variable defense, Networks and Servers have no Challenge Rating. Their attacks are Cyber attacks, therefore are Int based. They are always hardwired to the net so automatically receive a +10 to their computer use rolls (already incorporated).

Level Bonuses		
Class Level	Will Save	Defense Bonus
1st	+2	+0
2nd	+2	+1
3rd	+3	+1
4th	+3	+1
5th	+4	+2
6th	+4	+2
7th	+5	+2
8th	+5	+3
9th	+6	+3
10th	+6	+3
11th	+7	+4
12th	+7	+4
13th	+8	+4
14th	+8	+5
15th	+9	+5

CORPORATE AI

Hit Dice:	15d6 (0 hit points)	
Initiative / Barrier:	N/A	+9
Barrier Defense	**SD:** 35, 48, 48 (+5 Defense, +20/+32/+32 Barrier)	**GD:** --
Special Barriers:	**Level 1**—Maze 10, **Level 3**—Maze Rank 35	
Special Attacks:		

Special Qualities:										
Hack Abilities:	Computer Use: +30			HackCraft: +28						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	5	4	4	3	3	3	3	2	2	2
Saves:	Fort --, Ref --, Will +9									
Abilities:	Str --, Dex --, Con --, Int 28, Wis 3, Cha 3									
Skills:	Decipher Script +18, Investigate +18, Knowledge (Technology) +20, Research +25, Search +30									
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration,									

This is a standard Corporate AI used by many different companies. They can be adjusted accordingly dependant on company size.

Level 1: Gains access to surface files and current logs and status report (like indicating who is working or if any security alarms have been alerted).

Level 2: Access top level files which may have their own barriers. Also be able to monitor cameras hooked into the AI.

Level 3: Hijack machinery including security robots and manufacturing facilities. Control elevators and doors as well.

DECATONCALE

Hit Dice:	15d6 (0 hit points)

Initiative / Barrier:	N/A		+9	
Barrier Defense	SD: 51, 51, 51, 51, 51 (+5 Defense, +5 Wis, +24/ +24/ +24/ +24/ +24 Barrier)		GD: --	

Special Barriers:	Level 1—Maze rank 20, Level 1—Attack Rank 25, Level 2—Attack Rank 25 Level 3—Attack Rank 25, Level 4—Attack Rank 25, Level 5—Attack Rank 25									
Special Attacks:	None									
Special Qualities:	Hack									
Hack Abilities:	Computer Use: +40			HackCraft: +28						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	6	4	4	4	3	3	3	3	2	2
Saves:	Fort --, Ref --, Will +9									
Abilities:	Str --, Dex --, Con --, Int 31, Wis 18, Cha 3									
Skills:	Decipher Script +18, Investigate +18, Knowledge (Technology) +20, Research +25, Search +30									
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration, Hack Focus (Energy Drain, Energy Damage)									

Decatoncale: It is the name of a special supercomputer… Only three such systems exist on the planet, all in Japan The government uses one. Poseidon Industrial operates another. Each one features 5 levels of Military Attack Barriers. Of all the systems on the planet, the Decats are the most heavily defended around. No one has yet been able to crack one.

Decantoncales have amazing hacking skills with learning systems making them impressive units capable of back hacking an wiping out the ghosts of attempted attackers.

Level 2: Cracking past level 2 give one access to the Decat's surface files. These are usually data files that does not effect the operation of the Decat but rather the files it is ordered to protect or monitor.

Level 5: Past its last barrier, the Hacker now may attempt actions against the AI as one would take control of a Ghost. This allows hijacking of its systems and getting it to hack someone or something else. As long as they exist past the level 5 barrier, the Hacker can control the Decat and all its systems including all the devices connected to it. The Hacker may also shut the system down.

Hack: Decats can back-hack and ghost dive.

ECHELON

Hit Dice:	15d6 (0 hit points)
Initiative / Barrier:	N/A +9
Barrier Defense	**SD:** 48, 48, 48, 48, 60 (+5 Defense, +28/ +28/+28/+28/ +40 Barrier) **GD: --**
Special Barriers:	**Level 1**—Maze rank 36, **Level 5**—Attack Rank 32
Special Attacks:	
Special Qualities:	
Hack Abilities:	Computer Use: +40 HackCraft: +28
Saves:	Fort --, Ref --, Will +9
Abilities:	Str --, Dex --, Con --, Int 28, Wis 3, Cha 3
Skills:	Decipher Script +18, Investigate +18, Knowledge (Technology) +20, Research +25, Search +30
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration, Hack Focus (Energy Drain, Energy Damage)

Hack Abilities table:

# Hack Attacks	14	18	22	26	30	34	38	42	46
5	4	4	3	3	3	3	2	2	2

Echelon is the largest electronic spy network in history, run by Empirical America, the United Kingdom, Canada, Australia, and New Zealand. They capture telephone calls, faxes and e-mails around the world. Echelon is estimated to intercept up to 5 billion communications every day.

Level 1: Past level 1, a hacker gains access to the system but only to monitor, not hijack. They gain access to spy satellite and all the communications going through the system. One can also enter a location and instruct an available spy satellite to view that location. A spy satellite can switch visual modes to locate thermal levels and infrared and can locate invisible objects. However, switching a satellite can take up to 4d6 minutes to lock-on.

Level 5: Hacking the root level of the Echelon system breaks into the AI control system regulating the whole system. The hacker can hijack any of the spy satellites but can also enter in information into the Echelon AIs to search for. If the Hacker wants to hear a specific transmission, the AIs will monitor all of them and record the said transmission. Echelon is also a back door system into others. It will offer a +10 bonus to hack any other Networks around. Once the Hacker leaves Echelon to another system, the +10 bonus applies to the first 10 rolls into the other Network. All records on the Spy Network is available for access, deletion, and modification.

IR–SYSTEM

Hit Dice:	15d6 (0 hit points)
Initiative / Barrier:	N/A +9
Barrier Defense	**SD:** 39, 39 (+5 Defense, +20/+20/+24/+24 Barrier) **GD: --**
Special Barriers:	**Level 2**—Maze 10
Special Attacks:	None
Special Qualities:	Fortify
Hack Abilities:	Computer Use: +30 HackCraft: +20

# Hack	14	18	22	26	30	34	38	42	46

Attacks											
	3	2	2	2	2	1	1	1	1	--	

Saves:	Fort --, Ref --, Will +9
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration

The IR-System is a public security network that monitors and records the movement of the public through TV cameras and computers. It is the expanded form of the N-System, the present day traffic monitoring network. They are in operation at all times all across the country.

        Level 1: One gains access to the cameras and their recording system with a backlog of 72 hours.

        Level 2: One can now, with the right hacks, modify the video and the recording.

        Fortify: If the AIs in the IR System detect any break in any firewalls, all their firewalls raise by 10. This lasts for a full day. It does not increase with multiple attacks.

MEDIA NEWS & TRANSMISSION NETWORK

Hit Dice:	15d6 (0 hit points)										
Initiative / Barrier:	N/A					+9					
Barrier Defense	**SD:** 0, 35, 39, 43 (+5 Defense, +20/+24/+28 Barrier)							**GD:** --			
Special Barriers:	**Level 3**—Maze 10										
Special Attacks:	None										
Special Qualities:	None										
Hack Abilities:	Computer Use: +24			HackCraft: +16							
	# Hack Attacks	14	18	22	26	30	34	38	42	46	
		3	2	2	2	2	1	1	1	1	--
Saves:	Fort --, Ref --, Will +9										
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3										
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15										
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration										

This network serves two purposes. It serves as a somewhat secured system for transmitting information from in-field reporters and the network and also serves as the Media News Network (MNN) that anyone can monitor. It's primary purpose is to be a repository of all public knowledge.

        Level 1: Level 1 has no barrier. Anyone can access the public files and check for any news important or menial that has appeared recently.

        Level 2: Level 2 breaks into the communications system, allowing monitoring of transmissions between the network and its contacts.

        Level 4: Encrypted Files are located here. These are files that the Media has decided to block or files about the network itself.

MILITARY NET

Hit Dice:	15d6 (0 hit points)										
Initiative / Barrier:	N/A					+9					
Barrier Defense	**SD:** 35, 48, 56 (+5 Defense, +20/+32/+40 Barrier)							**GD:** --			
Special Barriers:	**Level 1**—Maze 10, **Level 2--**Attack Rank 30, **Level 3**—Maze Rank 35, Attack Rank 32										
Special Attacks:											
Special Qualities:											
Hack Abilities:	Computer Use: +40			HackCraft: +28							
	# Hack Attacks	14	18	22	26	30	34	38	42	46	
		5	4	4	3	3	3	3	2	2	2

Saves:	Fort --, Ref --, Will +9
Abilities:	Str --, Dex --, Con --, Int 28, Wis 3, Cha 3
Skills:	Decipher Script +18, Investigate +18, Knowledge (Technology) +20, Research +25, Search +30
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration, Hack Focus (Energy Drain, Energy Damage)

The Military Net is the most advanced Net on the planet, guarding the JSDF from Hackers. The Military Net holds all information on the location and distribution of Japan's armed forces. The AIs pull no punches in their response to attacks and will fry every attacker without remorse.

Level 1: This Non-Attack Barrier reveals data on members of their JSDF, their rank, profile, and current assignment. It does not reveal information on espionage or cases undercover. It does not reveal any information on dispersal and force strength of Japan's Armed Forces.

Level 2: Past the first level, the second Barrier guards against stationing information on Japan's armed forces. One can access where troops are located and their current ready status. Private profiles are also located here, including names and locations of officers. One can also access the ready status of all Military AIs and those assigned to Think-artillery (Tanks and Choppers). This barrier also guard against high level communications between forces. Hacking into this communication network may allow a hacker to cyberhack military personnel on the other side of the radio.

Level 3: One of the most advanced and deadly barriers on the planet, the Military's 3rd level Attack Barrier guards against override access of Military AIs. Hidden in this barrier are Command Hacking Keys for Cyborg exclusive squads. One must roll against a specific encryption code to access a specific key (DC40 Computer Skill). Each key is unique but never access more than a dozen targets. The level 3 barrier also allows access to the Military AIs controlling Tanks and Choppers around Japan. On must still hack their barriers but now they have locations to specifically hack them.

Probably Hacks: 14--Find the Path, Hack Boost, 18—Daze, Bane, 22—Infiltrate Cybercomms, Electromagnetic Pulse, Command, 26—Temporary Hack Resistance, Degauss, Confusion, 30—Cyberbrain Surveillance, Binding, 34--Alert Barrier, Dominate Person, Sleep, 38—Energy Damage, Erase Memory, 42—Energy Drain, Energy Damage

POLICE DISPATCH AND CONTROL NET

Hit Dice:	15d6 (0 hit points)									
Initiative / Barrier:	N/A				+9					
Barrier Defense	**SD:** 35, 35, 35, 48, 48, 48 (+5 Defense, +16/+16/+16/+28/+28/+28 Barrier)							**GD: --**		
Special Barriers:										
Special Attacks:										
Special Qualities:										
Hack Abilities:	Computer Use: +30			HackCraft: +20						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	3	2	2	2	2	1	1	1	1	--
Saves:	Fort --, Ref --, Will +9									
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3									
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15									
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration									

The Police Dispatch and Control Net not only contains information on old and current criminal cases in Japan's Law Enforcement, but also contains the current position on all police units in operation, both ground and aerial. The PDCN are not permitted to have active barriers so it uses the massive number of barriers to keep attackers at bay.

Level 3: Pushing past the first three barriers allows access to police files. One can access and copy criminal records and the database of known criminals. One must penetrate another barrier to delete or modify said records. Level 3 also allows one to monitor to top level law enforcement communications.

Level 4: Past Level 4, an attacker can now modify or even delete criminal records. Level 4 also permits one access to satellite locations of police unite, both aerial and ground. One can track progress of

units on the city grid, transmitting their locations in real time. However, one cannot alter or override their instruction.

      Level 6: Access past the level 6 firewalls allows total control of the PDCN. An attacker can not only delete or copy any information on any law enforcement database in Japan, but also can modify and delete dispatch instructions to units in the field. One can modify transmission relayed to units, forcing police into an area they are not needed. Location of field personnel can me modified or utterly deleted

POWER CONTROL GRID

Hit Dice:	15d6 (0 hit points)										
Initiative / Barrier:	N/A				+9						
Barrier Defense	**SD:** 35, 48, 48 (+5 Defense, +20/+32 Barrier)							**GD:** --			
Special Barriers:	**Level 2**—Maze 10, Attack Rank 30										
Special Attacks:	Power Cut Off										
Special Qualities:	Power Cut Off										
Hack Abilities:	Computer Use: +30			HackCraft: +24							
	# Hack Attacks	14	18	22	26	30	34	38	42	46	
	3	3	2	2	2	2	1	1	1	1	
Saves:	Fort --, Ref --, Will +9										
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3										
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15										
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration										

      The Power Control Grid operates, monitors, and regulates the distribution of electricity in Japan. Each Net is separate in each prefecture, requiring a new hack for each areas attacked. The surface layer is relatively weak but past the two levels of attack barriers controls all the power control systems for Japan.

      Level 1: Hacker gains access to the power surveillance system. The allows them to track information about power uses. If one were to search for a specific power consumption, Level 1 would reveal such information with the appropriate action. Certain functions like Ghost Dubbing have specific power uses.

      Level 3: Past level 3, a hacker gains the ability to hijack the control system for the power distribution grid. They can now initiate the appropriate action (DC26) to access the power grid. Another HackCraft roll is required to determine the extent required:

      DC20: Black out a room.

      DC24: Black out a building.

      DC30: Black out a city block.

      DC34: Black out a city.

      +10 DC: Power surge that area, damaging all electronics and causing 2d6 points of damage to all cybernetics or robotics attached to power outlets at the time.

      Power Cut Off: If the Net AIs detect an attack and cannot successfully respond or it detects a surface attack and tracks its source, the PCG can black out the whole block. Cyberbrains still operate but nothing else connected to a power outlet does. It also then relays the hackers position to Section 9.

      Probably Hacks: 14--Find the Path, Hack Boost, 18—Daze, Bane, 22—Infiltrate Cybercomms, Electromagnetic Pulse, Command, 26—Temporary Hack Resistance, Degauss, Confusion, 30—Cyberbrain Surveillance, Binding, 34--Alert Barrier, Dominate Person, Sleep, 38—Energy Damage, Erase Memory, 42—Energy Drain

TELECOMMUNICATIONS NET

Hit Dice:	15d6 (0 hit points)		
Initiative / Barrier:	N/A	+9	
Barrier Defense	**SD:** 35, 40, 44 (+5 Defense, +20/+24/+28 Barrier)		**GD:** --
Special Barriers:	**Level 3**—Maze 10		

Special Attacks:	None									
Special Qualities:	Fortify									
Hack Abilities:	Computer Use: +30			HackCraft: +20						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	3	2	2	2	2	1	1	1	1	--
Saves:	Fort --, Ref --, Will +9									
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3									
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15									
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration									

The telecommunications net monitors both open air and wired communications. Although a hacker may not be able to monitor communications in the air, they can hack satellites and monitor transmissions through there.

Level 1: Breaking level 1 allows monitoring from a basic point stand point. Hacker can monitor but not interfere with wired and wireless communication from a specific location, a cell tower or satellite.

Level 2: Deeper in the system allows blocking, deletion, and overriding of communication through a satellite or cell tower.

Level 3: The Hacker can now hijack cell towers and Satellites, blocking all communication or using said system to override current communications passing through that system. This is a sure-fire way of hijacking the satellite or tower with the appropriate action and forcing one, some, or all transmissions. Very effective in terrorism.

Fortify: If the AIs in the Telecommunications detect any break in any firewalls, all their firewalls raise by 10. This lasts for a full day. It does not increase with multiple attacks.

SATTELITE

Hit Dice:	15d6 (0 hit points)								
Initiative / Barrier:	N/A			+4					
Barrier Defense	SD: 0, 35, 39, 43 (+5 Defense, +20/+24/+28 Barrier)					GD: --			
Special Barriers:	**Level 1**—Maze 10, **Level 3**—Maze Rank 35								
Special Attacks:	None								
Special Qualities:	Sever								
Hack Abilities:	Computer Use: +30		HackCraft: --						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not Hack									
Saves:	Fort --, Ref --, Will +9								
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3								
Skills:	Decipher Script +18, Investigate +10, Research +25, Search +30								
Feats:	None								

Satellite AIs are usually rather simple and are usually only designed to maintain the operation of it systems and the stability of its orbit. They are not designed to attack targets nor are they permitted to do so. They do have very complicated barriers. These stats can be modified for whatever purpose including for military satellites.

Level 1: This is the free level Satellite Hack Actions gain access to.

Level 2: This allows one to control the Satellite's basic functions. If it is a spy sat, you can point it to a different location within its area of access. This also allows one to monitor any data passing to or through the sat.

Level 3: You can now decode the video signals and (with the appropriate action) alter what it receives or what it sends out.

Level 4: You gain access to the Satellite's OMS system, giving it the capacity of altering its orbit to your liking, or even sending it into the atmosphere, and destroying it utterly. If this is a weapons satellite, you may be able to hijack is armament, but the Level 4 barrier should be turned into the Military Barrier.

Sever: If the Satellite AI detects it is being hacked into, it can sever all its connections, kicking out the Hacker. It will remains this way for 24 hours before re-initializing its connection.

TRANSPORTATION AND TRAFFIC CONTROL NET

Hit Dice:	15d6 (0 hit points)									
Initiative / Barrier:	N/A				+9					
Barrier Defense	**SD:** 35, 35, 39, 39 (+5 Defense, +20/+20/+24/+24 Barrier)						**GD:** --			
Special Barriers:	**Level 3**—Maze 10									
Special Attacks:	None									
Special Qualities:	Fortify									
Hack Abilities:	Computer Use: +30			HackCraft: +20						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	3	2	2	2	2	1	1	1	1	--
Saves:	Fort --, Ref --, Will +9									
Abilities:	Str --, Dex --, Con --, Int 20, Wis 3, Cha 3									
Skills:	Decipher Script +12, Investigate +12, Knowledge (Technology) +12, Research +12, Search +15									
Feats:	Hack Mastery, Improved Back-Hack, Hack Penetration									

Anyone can access the TTCN. Its surface system allows people to access the database that monitors street traffic to reveal congested area people can avoid. It does not reveal car locations nor does it allow overriding of Traffic systems…but it can help for someone to find the fastest route to a location.

Level 2: After the two basic barriers are breached, the TTCN opens up for someone to monitor all Traffic systems and override basic street signs. One can simulate warnings on the traffic grid like congestion or construction and send it to a specific group of cars, or one specifically. A Hacker could also override intersection signal lights to get them to their destination faster.

Level 4: Two more barriers later, a Hacker now has access to Air Traffic Control. This is a very dangerous area to control as one can hijack the sensors, making the actual AIs running traffic control see something different than what is actually occurring. Using this technique makes it easy for someone to crash a passenger jet.

Fortify: If the AIs in the TTCN detect any break in any firewalls, all their firewalls raise by 10. This lasts for a full day. It does not increase with multiple attacks.

SPECIFIC ROBOTS

Note: Almost all robots require periodic service updates from the mains server. Everyday, they must connect to the net via direct link for two hours.

BODY GUARD ANDROID

Built by Kenbishi Heavy Industries, these are often illegally modified. They are often equipped with a High Voltage stun gun or a Briefcase Gun. Fore and aft bullet proof shields cover the main body.

Purchase Price: 20 000.

Restriction: Restricted (+2).

	Medium-size construct		
Hit Points	HD 1d10+10, 20 hp		
Initiative:	Init +4		
Speed:	Spd 30 ft		
Defense:	18 (+3 Dex)	Hardness:	5
Barrier Defense	34 (+24 Barrier)		
Special Barriers:	None		

Base Attack/Grapple:	+0, +6			
Attack:	Melee +10 (1d4+4) or Ranged +11 (2d6, x2, Ballistic, 50 Range Inc, 40 Box)			
Full Attack:	Melee +10 (1d4+4) or Ranged +11 (2d6, x2, Ballistic, 50 Range Inc, 40 Box)			
Space/Reach:	5 ft./5 ft.			
Saves:	Fort +0, Ref +6, Will +0			
Abilities:	Str 18, Dex 18, Con —, Int 6, Wis 10, Cha 6			
Special Qualities	construct traits			
Hack Abilities:	Computer Use: +5	HackCraft: +0		
	# Hack Attacks	**Cannot Hack**		
Skills:	Balance +13, Climb +16, Jump +10, Listen +10, Navigate +7, Spot +12, Tumble +18, Knowledge Events +10, Knowledge History +10			
Feats:	Weapon Focus (Gun)			
Challenge Rating	6			

Combat: Bodyguards often only go out of autistic mode to relay instructions only if they are apart from the target they are guarding. They receive instructions from vocal input from their controller or through direct link.

COMPANION ANDROID / SEXAROID

The advanced companion robots encompass a broad range of models and features. Some have advanced learning AIs while others are as simple as a maid robot. It all depends on the desires of its owner. No other Android series is as varied. There are a few advanced models which are so complicated and life-like, they could confuse general onlookers. The first giveaway with all Androids is their lack of body language. They don't scratch; they don't shift in their spot; they don't shuffle their clothes to be more comfortable. Although all Androids exhibit these lack of characteristics, the Companion's lack of human idiosyncrasies can be visually jarring. A good example is when they stand straight. They will make no casual moves. Their head won't tilt. Their eyes won't get lazy and wander a room. These features are common with Ghosts, something Androids lack. Even the best simulation software can only increase the façade as the casual movements feel like repeating algorithms. Even still, considering this, Companion robots have the potential of being the most advanced Androids on the market. The stats given are for a high-end model that rises above the quality of the base designs

Purchase Price: 30 000.
Restriction: None

	Medium-size construct		
Hit Points	HD 1d10, 10 hp		
Initiative/Barrier:	+0	+0	
Speed:	Spd 30 ft		
Defense:	17 (+2 Dex)	Hardness:	0
Barrier Defense	26 (+16 barrier)		
Special Barriers:	None		
Base Attack/Grapple:	+0, +2		
Attack:	+2 Melee		
Full Attack:	+2 Melee (1d4+2)		
Space/Reach:	5 ft./5 ft.		
Saves:	Fort +0, Ref +6, Will +2		
Abilities:	Str 14, Dex 14, Con —, Int 10, Wis 12, Cha 10		
Special Qualities	Construct traits, Sexaroid		
Hack Abilities:	Computer Use: +5	HackCraft: +0	
	# Hack Attacks	**Cannot Hack**	
Skills:	Balance +12, Climb +16, Jump +5, Listen +10, Navigate +7, Spot +7, Tumble +8,		

	Knowledge Events +20, Knowledge History +20
Feats:	
Challenge Rating	1

GA07-JL, J E R I   T Y P E   A N D R O I D S

Jeri set the standard in Companion robots…to the extent the model is still in operation years after being released to the open market. It was the best looking model at the time by leaps and bounds and, at the time, its speech and AI simulation software was a breakthrough. However, even though the aesthetic designing had not been improved since Jeri, the development of Artificial Intelligence moved steadily and passed the Jeri models a long time ago. However, all future companion robots are built from its basic parameters.

Jeris gained popularity early on and 8 000 units rolled off the assembly line. They are known is be surprisingly attractive and physically somewhat intimidating (almost 5'10 ft).

Purchase Price: 10 000.

Restriction: None

	Medium-size construct		
Hit Points	HD 1d10, 10 hp		
Initiative/Barrier:	+0	+0	
Speed:	Spd 30 ft		
Defense:	18 (+3 Dex)	Hardness:	0
Barrier Defense	22 (+12 barrier)		
Special Barriers:	None		
Base Attack/Grapple:	+0, +3		
Attack:	+3 Melee		
Full Attack:	+3 Melee (1d4+2)		
Space/Reach:	5 ft./5 ft.		
Saves:	Fort +0, Ref +6, Will +0		
Abilities:	Str 16, Dex 12, Con —, Int 6, Wis 10, Cha 8		
Special Qualities	construct traits.		
Hack Abilities:	Computer Use: +5	HackCraft: +0	
	# Hack Attacks	**Cannot Hack**	
Skills:	Balance +12, Climb +16, Jump +5, Listen +5, Navigate +5, Spot +6, Tumble +5		
Feats:			
Challenge Rating	1		

There exists a subculture of the very rich that purchase and modify companion robots and personalize them as they would personalize a car. To increase the realism of androids can raise the cost of the machine anywhere from 100% to 1000% of the original price. Such modification include design specifics usually removed from androids, but considered common in full body prosthetics (like realistic hair, fingerprints, totally real eyes). Other upgrades include realistic human simulations like breathing and blinking. However, law continues to insist that all androids be built with white blood. The final obstacle with the love dolls are their lack of little quirks and mannerisms. This includes scratching, ticks, shuffling limbs, etc. The computer can simulate random events but they never really seem real. Some collectors prefer it this way, liking the total servitude that comes with these living dolls. Of course, sexaroid modification is virtually a must. Sometimes, the richest throw parties where guests can show off their newest acquisition.

Combat: Jeri is not a combat model so has no real capacity for combat although many often have emergency measures to defend their companions. They are always in Autistic mode and can only be hacked through direct link.

K E N B I S H I   M O D E L   2 0 2 7   G U A R D   R O B O T

	Base Model			Lethal Model			Shield Lethal Model		
	Medium-size construct			Medium-size construct			Medium-size construct		
Hit Points	HD 2d10+10, 25 hp			HD 2d10+10, 25 hp			HD 3d10+10, 30 hp		
Initiative:	+0	+0		+0	+0		+0	+0	
Speed:	Spd 20 ft			Spd 20 ft			Spd 20 ft		
Defense:	15 (+0 dex)	Hard:	5	15 (+0 Dex)	Hard:	5	15 (+0 Dex)	Hard:	10

Barrier Defense	30 (+20 barrier, +0 Wis)	30 (+20 barrier, +0 Wis)	30 (+20 barrier, +0 Wis)
Special Barrier:	None	None	None
Base Attack/Grapple:	+0, +2	+0, +2	+0, +2
Attack:	Rubber Gun or Tazer +8	Tazer or 7.72 mm Cannon +8	Tazer or 7.72 mm Cannon +8
Full Attack:	Rubber Gun or Tazer +8	Tazer or 7.72 mm Cannon +8	Tazer or 7.72 mm Cannon +8
Space/Reach:	5 ft./5 ft.	5 ft./5 ft.	5 ft./5 ft.
Saves:	Fort +0, Ref +0, Will +0	Fort +0, Ref +0, Will +0	Fort +0, Ref +0, Will +0
Abilities:	Str 12, Dex 10, Con —, Int —, Wis 10, Cha 1	Str 12, Dex 10, Con —, Int —, Wis 10, Cha 1	Str 12, Dex 10, Con —, Int —, Wis 10, Cha 1
Special Qualities	construct traits	construct traits	construct traits
Hack Abilities:	Computer Use: +5 HackCraft: +0		
	# Hack Attacks Cannot Hack		
Skills:	Hide +2, Jump +3, Listen +3, Move Silently +3, Spot +6.	Hide +2, Jump +3, Listen +3, Move Silently +3, Spot +6.	Hide +2, Jump +3, Listen +3, Move Silently +3, Spot +6.
Feats:	None	None	None
Challenge Rating	3	4	6

Weapon	Dam	Critical	Type	Range	ROF	Mag
Tazer (Simple)	1d42	—	Electricity	0	1	10 int.
7.62mm Rubber Gun	2d8*	X2	Ballistic	70	S, A	60 box
7.62mm Assault Rifle	2d8	X2	Ballistic	70	S, A	60 box
*Stun Damage						

The Guard robots, specifically the Kenbishi Heavy Industries' 2027 model year autonomous guard robot are often Illegally-modified. The torso contains a high-voltage stun gun, and where there had been a high-pressure rubber stun gun, a 7.72mm machine is now installed in the aft section. They are equipped with fore and aft titanium bulletproof plating.

Tazer: A tazer uses springs or compressed air to fire a pair of darts at a target. On impact, the darts release a powerful electrical current. On a successful hit, the darts deal 1d4 points of electricity damage and the target must make a Fortitude saving throw (DC 15) or be paralyzed for 1d6 rounds.

MAID ROBOT
A robot that can do any household choir its made to do.
Purchase Price: 5 000.
Restriction: None

	Medium-size construct		
Hit Points	HD 1d10, 10 hp		
Initiative/Barrier:	+0	+0	
Speed:	Spd 30 ft		
Defense:	14 (-1 Dex)	Hardness:	0
Barrier Defense	22 (+12 barrier)		
Special Barriers:	None		
Base Attack/Grapple:	+0, +1		
Attack:	+1 Melee		
Full Attack:	+1 Melee (1d4+1)		
Space/Reach:	5 ft./5 ft.		
Saves:	Balance +12, Climb +16, Computer Use +9, Jump +5, Listen +5, Navigate +5,		

	Spot +6, Tumble +5
Abilities:	Str 12, Dex 8, Con —,
Special Qualities	construct traits.

Hack Abilities:	Computer Use: +5	HackCraft: +0	
	# Hack Attacks	**Cannot Hack**	

Skills:	Listen +3, Spot +3, Balance +3, Tumble +3, Climb +3,
Feats:	None
Challenge Rating	1

REDCOAT ALICE / "OPERATOR"

Section 9 has a proprietary designed Android with decent interpersonal skills, astounding computer skills, and a reasonable production value resulting in the department owning over two dozen of them.

	Medium-size construct								
Hit Points	HD 1d10, 10 hp								
Initiative/Barrier:	+0			+4					
Speed:	Spd 30 ft								
Defense:	17 (+2 Dex)			Hardness:		0			
Barrier Defense	36 (+24 barrier, +2 Wis)								
Special Barriers:	None								
Attack:	+2 Melee								
Full Attack:	+2 Melee (1d4+2)								
Space/Reach:	5 ft./5 ft.								
Saves:	Fort +0, Ref +6, Will +4								
Abilities:	Str 14, Dex 14, Con —, Int 18, Wis 14, Cha 10								
Special Qualities	Construct traits.								

Hack Abilities:	Computer Use: +20			HackCraft: +14					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	3	2	2	1	1	1	1	--	--	--

Skills:	Balance +13, Climb +16, Jump +10, Listen +10, Navigate +7, Spot +12, Tumble +18,
Feats:	Increased Hack Attack x1
Challenge Rating:	3

Combat: Alice is not designed for combat. Her computer skills, however, are virtually unmatched in the android world. Only the oversized servers are better. They do not have cellular links and can only hack through direct link (QRS). Having no cell-link is the balance for being able to hack other systems.

SPOT CYBER DOGS

This robot looks like a man-sized, mechanical guard dog with four powerful legs, wicked jaws, and armor covering its body. It growls and barks at intruders with the aid of a vocalizer. "Spot" functions as a robotic watchdog and can only be mistaken for an actual dog at distances of 100 feet or more.
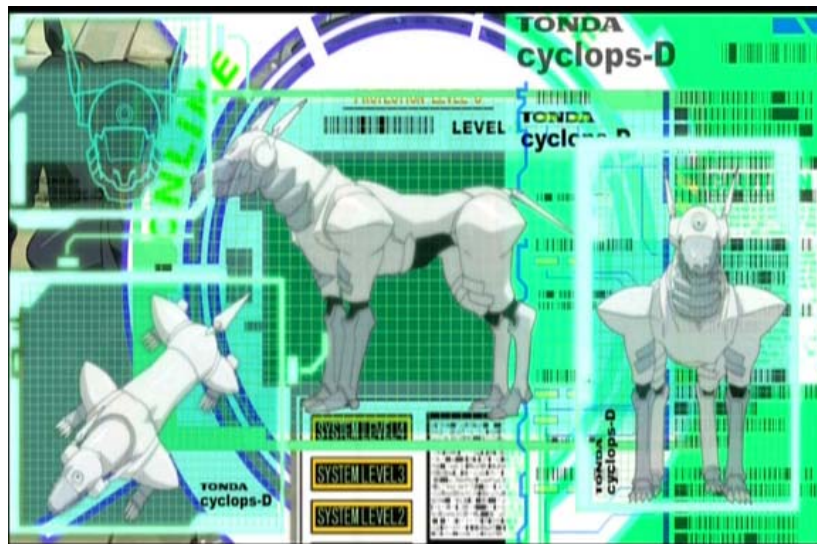
Purchase Price: 5000.

Restriction: Licensed (+1).

	Medium-size construct		
Hit Points	HD 1d10+10, 15 hp		
Initiative/Barrier:	+0		+0
Speed:	Spd 40 ft		
Defense:	18 (+3 Dex)	Hardness:	3
Barrier Defense	30 (+20 Barrier)		
Special Barriers:	None		
Base Attack/Grapple:	+0, +2		
Attack:	Jaws +2 (3d4+2)		
Full Attack:	Jaws +2 (3d4+2)		
Space/Reach:	5 ft./5 ft.		
Saves:	Fort +0, Ref +1, Will +0		
Abilities:	Str 14, Dex 16, Con —, Int —, Wis 3, Cha 1		
Special Qualities	construct traits, Pack Defense		
Skills:	Hide +5, Jump +6, Listen +6, Move Silently +5, Spot +6.		
Feats:	None		
Hack Abilities:	Computer Use: +3	HackCraft: +0	
	# Hack Attacks	Cannot Hack	
Challenge Rating	3		
Organization	Solitary or Pack (2-6)		

Combat: The Cyber Dog stays in autistic mode and will not open its Cyberbrain unless in packs. If in packs, it will often relay Target Ids to the other dogs. They are programmed to accept certain visual codes to allow entry.

Pack Defense: For ever additional dog in the pack, each units Barrier Defense increases by +2.

TOMLIAND PROTOTYPE

A Robot looking human (usually female but with amazing numbers of offensive weapons packed in. Its easy to spot with detection equipment (Spot DC 20). It is usually reserved for bodyguard duty. Its weapons deploy from hidden compartments in its hand, arms, and head. It has a total of six weapons even though it cannot fire more than 4 per round. Deploying takes a movement action. Advanced scanners activate as well.

Purchase Price: 30 000.

Restriction: Restricted (+2).

	Medium-size construct		
Hit Points	HD 1d10+10, 20 hp		
Initiative/Barrier:	+4	+0	
Speed:	Spd 30 ft		
Defense:	18 (+3 Dex)	Hardness:	5
Barrier Defense	30 (+20 Barrier)		
Special Barriers:	None		
Base Attack/Grapple:	+0, +6		
Attack:	+7 M-5 Automatic (2d4+1, x2, Ballistic, S, 21 box) OR +7 .50 Cannon (3d6, X2, Ballistic, 20, S, 3 Box)		
Full Attack:	2 +8 M-5 Automatics (2d4+1, x2, Ballistic, S, 21 box), 2 +7 .50 Cannons (3d6, X2, Ballistic, 20, S,		

250

	3 Box)
Space/Reach:	5 ft./5 ft.
Saves:	Fort +0, Ref +6, Will +0
Abilities:	Str 16, Dex 18, Con —, Int 6, Wis 3, Cha 6
Special Qualities	construct traits, Weapon Mount (x6), Hardness 5

Hack Abilities:	Computer Use: +5	HackCraft: +0	
	# Hack Attacks	Cannot Hack	

Skills:	Balance +13, Climb +16, Jump +10, Listen +10, Navigate +7, Spot +12, Tumble +18, Knowledge Events +10, Knowledge History +10
Feats:	Weapon Focus (M-5 Automatic)
Challenge Rating	8

Combat: Tomliands are given a pattern of instructions to follow. These can be quite extensive. They are unable to go into open mode are always in Autistic. They receive orders from vocal or direct link.

OPPONENTS

BRUTAL THUG

	Medium-size Human (2nd level Dreadnaught)		
Hit Points	2hd 23 hp		
Initiative/Barrier:	+4	+0	
Speed:	30 ft		
Defense:	20 (+4 Dex, Class +1)	Hardness/DR: 4	0
Barrier Defense	28 (+16 Barrier, +2 Wis)	Ghost: 33	
Special Barriers:	None		
Attack:	Melee +6 (1d4+12, 19-20 / x2)		
Full Attack:	Melee +6 (1d4+12, 19-20 / x2)		
Space/Reach:	5 ft./5 ft.		
Saves:	Fort +6, Ref +4, Will +2		
Abilities:	Str 26, Dex 18, Con 17 Int 10, Wis 10, Cha 10		
Special Qualities	Cybernetic Traits, Burst Limb (1d4+16)		

Hack Abilities:	Computer Use: +0			HackCraft: +0					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not Hack								

Skills:	Balance +9, Concentration +5, Survival +2, Swim +4, Tumble +8
Feats:	Combat Martial Arts, Improved Combat Martial Arts
Challenge Rating:	5

Burst Limb: For 1 round a day, as a free action, the limb can activate, offering up a +8 Strength to all actions that round, over its regular +2.

Cybernetics: The Brutal Thug has a Class B Body with a Class D Brain and a Burst Limb.

CYBORG ASSASIN

	Medium-size Human (3rd level Martial Artist)	
Hit Points	3hd 30 hp	
Initiative/Barrier:	+5	+3
Speed:	30 ft	
Defense:	27 (+5 Dex, +2 Class, +4 Agility)	Hardness/DR: 0	5
Barrier Defense	24 (+12 Barrier, +2 Wis)	Ghost: 29
Special Barriers:	None	
Attack:	Melee +8 (1d6+6, crit 19-20/x2)	
Full Attack:	Melee +8 (1d4+6, crit 19-20/x2)	

Space/Reach:	5 ft./5 ft.								
Saves:	Fort +5, Ref +8, Will +3								
Abilities:	Str 22, Dex 20, Con 18 Int 16, Wis 14, Cha 14								
Special Qualities	Cybernetic Traits, Flying Kick +3)								
Hack Abilities:	Computer Use: +0			HackCraft: +0					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not Hack								
Skills:	Balance +10, Climb +10, Computer Use +7, Gather Information +5, Intimidate +5, Jump +9, Knowledge-Current Events +5, Stealth +8, Spot +5, Tumble +11								
Feats:	Combat Martial Arts, Improved Combat Martial Arts, Advanced Combat Martial Arts								
Challenge Rating:	6								

Cybernetics: Fem has a Class B Body with a Class D Cyberbrain. She also has Anti-Shock and her Coin gun concealed in her Firearm Mount   .

Flying Kick: Fem can use a charge to deliver a devastating flying kick to an opponent. At the end of this charge, She adds +4 to the damage she deals with an unarmed strike.

CYBORG GUARD

	Medium-size Human (2nd level bodyguard 2nd level Gunslinger)								
Hit Points	4hd 28 hp								
Initiative/Barrier:	+4			+1					
Speed:	25 ft								
Defense:	23 (+4 Dex, +2 Class, +2 Class)		Hardness/DR:	0			5		
Barrier Defense	29 (+16 Barrier, +1 Wis, +2 Class)		Ghost:	34					
Special Barriers:	None								
Attack:	10 mm +10 (2d6+2, crit x2, rnge 40)								
Full Attack:	10 mm +10 (2d6+2, crit x2, rnge 40)								
Space/Reach:	5 ft./5 ft.								
Saves:	Fort +5, Ref +9, Will +3								
Abilities:	Str 16, Dex 18, Con 16 Int 14, Wis 12, Cha 10								
Special Qualities	Cybernetic Traits, Harm's Way, Close Combat Shot, Combat Sense +1								
Hack Abilities:	Computer Use: +8			HackCraft: +0					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not Hack								
Skills:	Balance +8, Demolitions +4, Disguise +2, Drive +7, Gather Information +7, Intimidate +5, Knowledge (Current Events +6, Streetwise +5), Listen +6, Sense Motive +5, Spot +8, Survival +4, Tumble +8								
Feats:	Weapon Focus, Weapons Specialization, Double Tap								
Challenge Rating:	6								

Cybernetics: Class D Cyberbrain, Class C Body

Harms Way: Once per round, if the Bodyguard is adjacent to an ally who is targeted by a direct melee or ranged attack (but not an area effect), the Bodyguard can subject him or herself to the attack in the ally's stead. If the attack hits the Bodyguard, he or her takes damage normally. If it misses, it also misses the ally.

The Bodyguard must declare his or her intention to place him or herself in harm's way before the attack roll is made. The Bodyguard selects his or her ally either prior to combat or immediately after the Bodyguard makes his or her initiative check. The Bodyguard can't change his or her ally for the duration of the combat.

Combat Sense: This ability allows a Bodyguard to designate a single opponent during his or her action and receive a +1 competence bonus on attacks against that opponent. The Bodyguard can select a new opponent on any action.

Close Combat Shot: He gains the ability to make a ranged attack with a Medium-size or smaller firearm while in a threatened area without provoking an attack of opportunity.

CYBORG THUG

	Medium-size Human (2nd Level Gunslinger)					
Hit Points	2hd 14 hp					
Initiative/Barrier:	+3		+1			
Speed:	25 ft					
Defense:	20 (+3 Dex, +1 Class, +1 Agility)	Hardness/DR:	3		4	
Barrier Defense	29 (+12 Barrier, +2 Wis)		Ghost:	34		
Special Barriers:	None					
Attack:	9 mm Auto +6 (2d6, crit x2, rang 30, S)					
Full Attack:	9 mm Auto +6 (2d6, crit x2, rang 30, S)					
Space/Reach:	5 ft./5 ft.					
Saves:	Fort +1, Ref +5, Will +4					
Abilities:	Str 16, Dex 16, Con 12 Int 12, Wis 14, Cha 14					
Special Qualities	Cybernetic Traits					

Hack Abilities:

Computer Use: +0			HackCraft: +0					
# Hack Attacks	14	18	22	26	30	34	38	42	46
Does not Hack								

Skills:	Balance +10, Climb +10, Computer Use +7, Gather Information +5, Intimidate +5, Jump +9, Knowledge-Current Events +5, Stealth +8, Spot +5, Tumble +11
Feats:	Combat Martial Arts, Improved Combat Martial Arts, Advanced Combat Martial Arts
Challenge Rating:	6

Cybernetics: **Public Summit Model cyborg with a Class D cyberbrain.**

HUMAN LIBERATION FRONT TERRORIST COMMANDER

	Medium-size Human (4th level Soldier)
Hit Points	4dd10, 23 hp
Initiative/Barrier:	+3 +2
Speed:	30 ft
Defense:	20 (+3 Dex, +2 Class) Hardness/DR: 0 5
Barrier Defense	None Ghost: None
Special Barriers:	None
Attack:	9mm Auto +9 (dam 2d6+2, crit x2, rang 40, S)
Full Attack:	9mm Auto +9 (dam 2d6+2, crit x2, rang 40, S)
Space/Reach:	5 ft./5 ft.
Saves:	Fort +3, Ref +5, Will +2
Abilities:	Str 16, Dex 16, Con 12, Int 12, Wis 12, Cha 12
Special Qualities	

Hack Abilities:

Computer Use: +0			HackCraft: +0					
# Hack Attacks	14	18	22	26	30	34	38	42	46
Cannot Hack								

Skills:	Demolitions +4, Drive +6, Gather Information +5, Hide +5, Intimidate +2, Jump +5, Knowledge (General +3, History +2), Listen +3, Navigate +2, Spot +4, Survival +3, Swim +4, Tumble +4
Feats:	Weapon Focus, Weapon Specialization, Greater Weapon Focus, Point Blank Shot
Challenge Rating:	4

HLF members are totally organic so have no cybernetics. Thus they cannot be hacked.

HUMAN LIBERATION FRONT TERRORIST TROOPER

	Medium-size Human (1st level Soldier)
Hit Points	4dd10, 12 hp
Initiative/Barrier:	+3 | +2
Speed:	30 ft
Defense:	19 (+3 Dex, +1 Class) | Hardness/DR: | 0 | 2
Barrier Defense	None | Ghost: | None
Special Barriers:	None
Attack:	9mm Auto +4 (dam 2d6+2, crit x2, rang 40, S)
Full Attack:	9mm Auto +4 (dam 2d6+2, crit x2, rang 40, S)
Space/Reach:	5 ft./5 ft.
Saves:	Fort +2, Ref +4, Will +1
Abilities:	Str 16, Dex 16, Con 12, Int 12, Wis 12, Cha 12
Special Qualities	

Hack Abilities:

Computer Use: +0			HackCraft: +0					
# Hack Attacks	14	18	22	26	30	34	38	42	46
Cannot Hack								

Skills:	Demolitions +4, Drive +6, Gather Information +5, Hide +5, Intimidate +2, Jump +5, Knowledge (General +3, History +2), Listen +3, Navigate +2, Spot +4, Survival +3, Swim +4, Tumble +4
Feats:	Weapon Focus, Weapon Specialization.
Challenge Rating:	1

HLF members are totally organic so have no cybernetics. Thus they cannot be hacked.

CHARACTERS

ARAMAKI DAISUKE (Chief, Public Security Section 9)

	Medium-size Human 8nd Level Negotiator, 5th Level Ambassador
Hit Points	13hd (36 Hit Points)
Initiative/Barrier:	-1 | +5
Speed:	Spd 30 ft
Defense:	14 (-1Dex) | Hardness: | 3
Barrier Defense	Surface 41, Ghost 47
Special Barriers:	Ghost Level 10 Maze
Base Attack/Grapple:	+10 / +8
Attack:	None
Full Attack:	None
Space/Reach:	5 ft./5 ft.
Saves:	Fort +6, Ref +3, Will +18
Abilities:	Str 8, Dex 9, Con 10, Int 20, Wis 20, Cha 18
Special Qualities	Cybernetics, Allies, Conceal Motive, React First, Talk Down, No Sweat, Sow Distrust, Diplomatic Immunity, Open Arms, Information Access

Hack Abilities:

Computer Use: +29			HackCraft: +0					
# Hack Attacks	14	18	22	26	30	34	38	42	46
3	2	2	2	1	1	1	1	--	--

Skills:	Bluff +17, Diplomacy +26, Gather Information +31, Intimidate +16, Investigate +18, Knowledge (Current Events +22, Civics/Politics +26, Streetwise +20), Listen +12. Research +7, Sense Motive +20, Spot +17
Feats:	Alertness, Attentive, Confident, Educated, Iron Will, Low Profile, Studious, Trustworthy
Challenge Rating	13

Aramaki is very intelligent and resourceful enough to control the unique personalities of Batou and Kusanagi. He has been Chief of the secret intelligence agency for as long as anyone can remember. He would rather get his job done and hates to intervene in politics.

However, he is also the Machiavelist who doesn't mind getting his hands dirty in pursuit of duty. His personality is too complex to perceive what he is actually thinking. Very little is known of his private life but rumor has it he was married some time ago but no longer. Rumors persist he may have a child because of a passing reference to grandchildren. He also is known to have a brother, missing in action since the last war. The wise and powerful Head of Section 9, Aramaki relies upon his many international and corporate contacts to supply his team with the information they need to get the job done. Though he commands a great deal of respect, he is occasionally called "Monkey Man" by his subordinates (perhaps because of his unconventional hairstyle). Seldom directly involved in police actions, he is nonetheless constantly working behind the scenes to coordinate the efforts of his agents, making quick and authoritative decisions and maintaining tight control of Kusanagi.

He excels in all things he dedicates himself to. Even though he reached retirement age, and contemplated it on several occasions, he has yet to walk down that path.

Combat:

Cybernetics: Aramaki only has a Class C Cyberbrain with Voice Stress Analyzer.

Allies: Daisuke has more allies and contacts that can be listed here. He has contacts in the military, every government ministry, and even in rival countries.

Conceal Motive: Aramaki gets to add a +8 bonus whenever he opposes a Sense Motive check.

React First: Aramaki has the ability to react first when trying to make a deal or mediate a settlement. He must make contact and speak to the participants before the start of combat. If he does this, he gains a free readied action that allows him to make either a move or attack action if either side in the negotiation (other than Aramaki's) decides to start hostilities. Aramaki gets to act before any initiative checks are made, in effect giving him the benefit of surprise.

Talk Down: Aramaki can talk his way out of trouble. Either prior to the start of hostilities or during combat, he can talk down a single opponent within 15 feet of his position or otherwise able to hear his voice. The target must be able to understand Aramaki. That opponent immediately stops fighting and reverts to an indifferent attitude regarding Aramaki and the situation in general. Any hostile action by Aramaki or by one of Aramaki's allies directed at the opponent allows the opponent to act as he or she sees fit.

To initiate this talent, Aramaki must spend a full-round action talking to his opponent. The opponent makes a Will saving throw. The DC is 22. If the save fails, the opponent stops fighting. If the save succeeds, the opponent continues as normal.

Aramaki can talk down 4 opponents within 15 feet of his position or within 15 feet of a television, radio, or telephone broadcasting Aramaki's message.

No Sweat: Whenever Aramaki spends 1 action point to improve the result of a die roll, he rolls an additional 1d6. He can then select the highest die roll to add to his d20 roll.

Sow Distrust: Aramaki can turn one character against another. He must spend a full-round action and know the name of the character he is attempting to persuade as well as the name of the character toward whom the target's distrust will be directed. The target must be able to hear and understand Aramaki.

The target makes a Will save. The DC 22. If the target fails the save, his or her attitude toward the other designated character worsens by one step: helpful turns to friendly, friendly to indifferent,

indifferent to unfriendly, unfriendly to hostile (see the Diplomacy skill). The target makes a Will save whenever Aramaki uses this talent against him or her. As long as the target continues to fail the Will save, Aramaki can continue taking full-round actions to worsen the target's attitude toward a designated character. When the target's attitude drops to hostile, he or she attacks the designated character. A successful Will save doesn't restore previous attitude shifts, but it does render the target immune for 24 hours to further attempts by Aramaki to sow distrust. Aramaki can't use this talent on his or her allies. This is a Mind-Affecting ability.

   Diplomatic Immunity: If Aramaki is arrested for a crime, he can make a Diplomacy check to invoke diplomatic credentials and not suffer the usual legal penalty or punishment. The severity of the crime determines the DC of the Diplomacy check. Refer to the table in the Ambassador Prestige class for information.

   Open Arms: Aramaki is skilled at initiating peaceful negotiations. He may add a +5 competence bonus on all Diplomacy checks.

   Information Access: Aramaki can make Gather Information checks without spending money, provided she is dealing with individuals or organizations that are helpful, friendly, indifferent, or unfriendly toward him or those he represents. Dealing with individuals or organizations that are hostile requires Aramaki to spend money as usual when using the Gather Information skill.

B A T O U (Public Security Section 9)

	Medium-size Human 10th level Soldier with Military background + 25% discount with Section 9.									
Hit Points	10hd (94 Hit Points)									
Initiative/Barrier:	+8				+6					
Speed:	Spd 30 ft									
Defense:	26 (+5 Defense, +6 Dex)				Hardness:		15			
Barrier Defense	Surface 41, Ghost 44									
Special Barriers:	None									
Base Attack/Grapple:	+10 / +20									
Attack:	+14 Melee (1d8+10, Crit 19-20) OR +18 Ranged (OICW: Dam 2d8+4, Crit 19-20/x2, Rnge 70) OR +19 Ranged (Jericho 942: Dam 3d6, Crit 19-20/x2, Rnge 20)									
Full Attack:	+14, +9 Melee (1d8+7) OR +18, +13 Ranged (OICW: Dam 2d8+4, Crit 19-20/x2, Rnge 70) OR +19, +14 Ranged (Jericho 942: Dam 3d6, Crit 19-20/x2, Rnge 20)									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +12, Ref +11, Will +5									
Abilities:	Str 30, Dex 22, Con 24, Int 15, Wis 14, Cha 16									
Special Qualities	Cybernetics, Darkvision 60, Tactical Aid									
Hack Abilities:	Computer Use: +18				HackCraft: +5					
	# Hack Attacks	**14**	**18**	**22**	**26**	**30**	**34**	**38**	**42**	**46**
	2	1	1	1	1	--	--	--	--	--
Skills:	Demolitions +12, Drive +16, Gather Information +7, Intimidate +13, Jump +20, Knowledge (Tactics +10, Current Events +3), Listen +4, Navigate +10, Spot +17, Survival +16, Swim +15, Tumble +10									
Feats:	Armor Proficiency (Light, Medium, Heavy), Personal Firearms, Advanced Firearms, Brawl, Improved Brawl, Knockout Punch, Combat Reflexes, Dodge, Track, Weapon Focus, Weapon Specialization, Improved Critical									
Challenge Rating	15									

   An expert of unlawful activities like Motoko, he has been working as her partner for several years. His role is to support and control Kusanagi (who tends to go too far). They have been working together so long that they have grown accustomed to each other. His personal life is unknown. He is the Sub Commander Section 9. The "muscle" behind Section 9 and Major Kusanagi's frequent partner, Batou is a committed and serious agent when engaged in a mission, and a good companion and occasional comedian when he's not. Like most of Section 9's team, Batou possesses a cyberbrain. In addition, he has cybernetically enhanced eyes. When not on duty, Batou spends much of his time exercising in the gym even though it is technically pointless with his cyberbody. He served in South American during the war.

He also once worked with the famed Umibouza unit during the Meguro Recapture Operation. He was previously with the Rangers in Section 4 before joining Section 9.

Combat: Unlike Kusanagi, who receives her combat abilities mostly from her cybernetics, Batou was an amazing soldier before being cyberized. Even as flesh, he would have been an admirable opponent.

> "When I die, since I'm a real skeptic, I'm gonna gripe to the lord and make sure I get back my original investment when I'm reincarnated."

Cybernetics: Batou, like Kusanagi, sports a Class A Combat Cyborg body from Megatech, but the specific model is much tougher and stronger, albeit substantially slower. He also operates with a class a Cyberbrain as well with two skill increases. He also has Enhanced Sensors Class B and Optic Sensors Class B. His other implants include Anti-Shock, Dex boosts, Strength boosts, Constitution boosts and a Firearm mount with a built in 10 gauge shotgun.

Tactical Aid: As a full-round action, Batou provides tactical aid to all of his allies (including himself) within sight and voice range of his position. This use of tactical aid requires an action point. This aid provides a +1 competence bonus on attack rolls. The bonus lasts 5 rounds.

B O R M A (Public Security Section 9)

	Medium-size Human 5th level Soldier with Military background, 4th Level Hacker									
Hit Points	10hd (148 Hit Points)									
Initiative/Barrier:	+3				+4					
Speed:	Spd 30 ft									
Defense:	25 (+5 Equipment, +3 Dex, +2 Cybernetic)			Hardness:	8					
Barrier Defense	Surface 39, Ghost 39									
Special Barriers:	None									
Base Attack/Grapple:	+7 / +13									
Attack:	+13 Melee (1d6+6, Crit 20) OR +13 Ranged (Jericho 942: Dam 3d6+2, Crit 19-20/x2, Rnge 20)									
Full Attack:	+13, +8 Melee (1d6+6, Crit 20) OR +13, +8 Ranged (Jericho 942: Dam 3d6+2, Crit 19-20/x2, Rnge 20)									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +8, Ref +8, Will +3									
Abilities:	Str 22, Dex 16, Con 16, Int 18, Wis 10, Cha 12									
Special Qualities	Cybernetics, Darkvision 60, Hardness 3, Tactical Aid									
Hack Abilities:	Computer Use: +27			HackCraft: +18						
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	3	3	2	2	2	1	1	1	1	1
Skills:	Craft Electronic +7, Demolitions +20, Drive +11, Intimidate +11, Jump +15, Knowledge Current Events +13, Move Silently +15, Navigate +8, Repair +10, Spot +13, Survival +10, Swim +10.									

Feats:	Armor Proficiency (Light, Medium, Heavy), Personal Firearms, Advanced Firearms, Brawl, Brawl, Hack Attack Increase, Combat Martial Artists, The Gift, Rapid Hack, Cautious, Hacking Aptitude, Weapon Focus (Jericho 942S), Weapon Specialization (Jericho 942S)
Challenge Rating	9

Borma speaks very little and is known for low, monotone, and slow phrases. This gives the impression he is slow and lazy. This could not be further from the truth. From a similar background as

Batou, Borma took a different direction, moving into counter terrorism while Batou moved to the Section 4 Rangers. Borma specialized in Demolitions and cybercrime, making him a perfect candidate for Section 9. At 2 meters in height, he is the tallest member.

Combat

Cybernetics: Borma sports a Class B Combat Cyborg body, a lower model from Batou's. He also operates with a class B Cyberbrain as well. He also has Optic Sensors Class B.

Tactical Aid: As a full-round action, Borma provides tactical aid to all of his allies (including himself) within sight and voice range of his position. This use of tactical aid requires an action point. This aid provides a +1 competence bonus on attack rolls. The bonus lasts 5 rounds.

CRUZKOVA BOSYELTNOV

	Medium-size Human (5thnd level Soldier)								
Hit Points	5hd 50 hp								
Initiative/Barrier:	+5				+2				
Speed:	30 ft								
Defense:	26 (+5 Dex, Class +3, Cyber +2)		Hardness/DR:		4		2		
Barrier Defense	35 (+20 Barrier, +2 Wis, +3 Class)		Ghost:		40				
Special Barriers:	None								
Attack:	10 mm Auto +13 (2d6+2, crit 19-20 / x2, rnge 40) OR Shotgun +11 (2d10, crit x2, rnge 30) OR Blade +11 (1d6+5)								
Full Attack:	10 mm Auto +13/+8 (2d6+2, crit 19-20 / x2, rnge 40) OR Shotgun +11/+6 (2d10, crit x2, rnge 30) OR Blade +11/+6 (1d6+5)								
Space/Reach:	5 ft./5 ft.								
Saves:	Fort +8, Ref +10, Will +4								
Abilities:	Str 20, Dex 20, Con 20 Int 16, Wis 14, Cha 14								
Special Qualities	Cybernetic Traits, Hawkeye, Tactical Aid, Detachable Limb								
Hack Abilities:	Computer Use: +11				HackCraft: +0				
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not hack								
Skills:	Balance +8, Demolitions +9, Drive +10, Intimidate +8, Jump +11, Knowledge (Current Events +11, History +7, Tactics 7), Navigate +6, Speak Language								

	(Japanese, English, Russian), Spot +9, Survival +7, Swim +7, Tumble +4
Feats:	Combat Martial Arts, Weapon Focus, Weapon Specialization, Greater Weapon Focus, Improved Critical
Challenge Rating:	10

Cruzkova was once a member of the SVR but after the last war, joined the North Seas Mafia and assisted in the smuggling of bodies into the North so their organs can be removed and sold on the black market as part of the Blindfold Ivan smuggling ring. She has sported a cyborg body for over 20 years. She is actually almost over 60.

Tactical Aid: As a full-round action, Cruzkova provides tactical aid to all of her allies (including herself) within sight and voice range of his position. This use of tactical aid requires an action point.

This aid provides a +1 competence bonus on attack rolls. The bonus lasts for 5 rounds.

Hawkeye: Cruzkova has darkvision out to a range of 60 feet. Binocular vision allows her to perceive distant objects more easily.   Telescopic optics reduce the range penalty for Spot checks to –1 for every 60 feet of distance (instead of –1 for every 10 feet). She has +2 bonus to hit with all ranged weapons. The Hawkeye resembles an eye patch. If opened, it begins an uplink with a military spy satellite overhead. After one round of aiming, it offers +4 bonus to ranged attack rolls past the first range increment. The round after that, the bonus increases to +6. After that, the Satellite takes over, maximizing targeting ability. 2d4 rounds later, the attack bonus increases to +20.

Hidden Weapons: Cruzkova has four devices hidden in her arms…

Left Arm: Large Blade (1d6+5), and an explosive shell (4d10+10, Blast Radius 20 feet). The bomb is encased in the Arm and it must be detached to arm.

Right Arm: Launchable Blade (1d4+5, rnge 10), and a 10 gauge Shotgun.

" F E M "

	Medium-size Human (4th level Martial Artist)							
Hit Points	4hd 29 hp							
Initiative/Barrier:	+4				+3			
Speed:	25 ft							
Defense:	17 (+4 Dex, +3 Class, +1 Agility)		Hardness/DR:		2		2	
Barrier Defense	27 (+12 Barrier, +2 Wis, +3 Class)		Ghost:		32			
Special Barriers:	None							
Attack:	+8 Melee (1d8+5, crit 19-20/x2) OR +9 Coin Gun (Dam 2d10, Crit x2, Rnge 30)							
Full Attack:	+8 Melee (1d8+5, crit 19-20/x2) OR +9 Coin Gun (Dam 2d10, Crit x2, Rnge 30)							
Space/Reach:	5 ft./5 ft.							
Saves:	Fort +4, Ref +8, Will +3							
Abilities:	Str 20, Dex 18, Con 17 Int 16, Wis 14, Cha 14							
Special Qualities	Coin Gun, Cybernetic Traits, Anti-Shock, Leaving Weapon (1d8), Flying Kick							
Hack Abilities:	Computer Use: +10			HackCraft: +0				
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	Does not Hack – Remains in Autistic Mode Always							
Skills:	Balance +12, Climb +9, Disable Device +8, Forgery +8, Hide +8, Intimidate +6, Jump +9, Knowledge (Street) +9, Stealth +7, Navigate +7, Spot +7, Tumble +12,							
Feats:	Combat Martial Arts, Improved Combat Martial Arts, Dodge, Personal Firearms, Weapon Focus							
Challenge Rating:	7							

Fem is a cyborg assassin of some note. Section 9 caught her during failed attempt on a recluse millionaire. Her primary weapon is her hidden shotgun that can fire virtually any ammunition available.

Combat

Cybernetics: Fem has a Class B Body with a Class D Cyberbrain. She also has Anti-Shock and her Coin gun concealed in her Firearm Mount   .

Flying Kick: Fem can use a charge to deliver a devastating flying kick to an opponent. At the end of this charge, She adds +4 to the damage she deals with an unarmed strike.

Coin Gun: The Coin gun can actually fire virtually fire any ammunition but, when she was caught, it was firing coin rolls. It operates like a 10 gauge buckshot rifle.

I S H I K A W A (Public Security Section 9)

	Medium-size Human 3rd level Soldier, 7th level Hacker									
Hit Points	10hd (76 Hit Points)									
Initiative/Barrier:	+2				+4					
Speed:	Spd 30 ft									
Defense:	23 (+4 Defense, +2 Dex, +2 Cybernetic)			Hardness:	5					
Barrier Defense	Surface 41, Ghost 44									
Special Barriers:	Surface—Maze level 5									
Base Attack/Grapple:	+6 / +9									
Attack:	+9 Melee (1d4+3) OR +9 Ranged (OICW: Dam 2d8+4, Crit 19-20/x2, Rnge 70)									
Full Attack:	+9, +4 Melee (1d4+3) OR +9, +4 Ranged (OICW: Dam 2d8+4, Crit 19-20/x2, Rnge 70)									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +8, Ref +8, Will +9									
Abilities:	Str 16, Dex 14, Con 15, Int 19, Wis 16, Cha 18									
Special Qualities	Cybernetics, Hacker Portfolio									
Hack Abilities:	Computer Use: +31			HackCraft: +18						
	# Hack Attacks	**14**	**18**	**22**	**26**	**30**	**34**	**38**	**42**	**46**
	2	3	2	2	2	2	1	1	1	1
Skills:	Craft (Electronic +9, Mechanical +9), Demolitions +7, Drive +8, Gather Information +8, Intimidate +10, Investigate +18, Jump +9, Knowledge (Current Events +20, Tactics +20, History +20), Listen +10, Repair +9, Research +20), Spot +9, Survival +9, Swim +7/									
Feats:	Armor Proficiency (Light, Medium, Heavy), Personal Firearms, Advanced Firearms, Hacking Aptitude, Weapon Focus (OICW), Hack Focus (Steal/Delete Program), Greater Hack Focus, Gearhead, Burst Fire, Cooperative Hack, Empower Hack, Hacking Aptitude.									
Challenge Rating	12									

The oldest member of Section 9 except for Aramaki, Ishikawa is relied upon to keep his cool in a crisis. Ishikawa developed the longest relationship with Kusanagi. Ishikawa was in charge of Section 9 before the Major took over. He was a civilian contractor for the military before Section 9.

Combat:

Hacker Portfolio: Usually, any hacker only has double their Int bonus in available actual actions, regenerating half their Int bonus (rounded down) in Hack actions ever minute (10 rounds) that passes. At 5th level, the Hacker now has x2.5 their Int bonus in available actions.

Cybernetics: Ishikawa has a more commonplace Class C military cyborg installed with a Class A Cyberbrain fully loaded with skill chips.

LAUGHING MAN

	Medium-size Human (5th level Hacker, 3rd level Superhacker, 5th level Ghost Hacker)									
Hit Points	13hd 36hp									
Initiative/Barrier:	+0				+9					
Speed:	30ft									
Defense:	19 (+4 Class)			Hardness/DR:		0		0		
Barrier Defense	47 (+24 Barrier, +4 Class, +5 Wis, +4 Barrier Defense)			Ghost:		52				
Special Barriers:	Surface, Maze 15									
Attack:	None									
Full Attack:	None									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +7, Ref +7, Will +7									
Abilities:	Str 10, Dex 10, Con 10 Int 23, Wis 20, Cha 8									
Special Qualities	Cybernetic Traits,									
Hack Abilities:	Computer Use: +30			HackCraft: +30						
	# Hack Attacks	**14**	**18**	**22**	**26**	**30**	**34**	**38**	**42**	**46**
	5	3	3	3	3	2	2	2	2	1
Skills:	Craft Electronics +11, Decipher Script +23, Disable Device +10, Gather Information +20, Knowledge (Current Events +17, Popular Culture +19, Navigate +7, Repair +11, Research +11, Spot +12									
Feats:	Chain Hack, Chain Hack Radius, Empower Hack, The Gift, Quicken Hack, Hacking Aptitude, Hack Penetration, Hack Focus									
Challenge Rating:	13									

The Laughing Man's real name is unknown. In fact, he never refers to himself as the Laughing Man. Truthfully, he is not even the first person that started the sequence of events that created the Pop Icon known as the Laughing Man, he is simply the one that created the icon and kidnapped the President of Serano Genomics and staged the theatrical crime in front of the cameras that began the string of Laughing Man incidents, even though the additional ones were committed by a different party. There is no denying, however, that he is a Super Class A Hacker virtually unmatched in the world. What is known is that he started life as a Cyberbrain Closed Shell sufferer who managed to re-enter the world. He sports a low-level cyberbody and enough barriers in his brains that even high level Ais could crack it.

Combat: The Laughing Man has no combat skills and can only hack. However, in this field, he is virtually unmatched.

Specialization: Laughing Man has a +3 to pull off the Hacks Invisibility (DC31), and Erase Memory (DC 35). He can also Quicken Hack Invisibility.

"MAJOR" MOTOKO KUSANAGI (Public Security Section 9)

	Medium-size Human 2nd Level Martial Artist, 4th level Hacker, 2nd Level SuperHacker, 2nd level Ghost Hacker with Prosthetic Emergency + 25% discount with Section 9.
Hit Points	10hd (46 Hit Points)
Initiative/Barrier:	+11	+6
Speed:	Spd 30 ft

Defense:	30 (+5 Defense, +6 Dex, +5 Cybernetic, +3 Agility)	Hardness:	9						
Barrier Defense	Surface 51, 47, 47, Ghost 57								
Special Barriers:	Surface—Maze level 5								
Base Attack/Grapple:	+6 / +14								
Attack:	+14 Melee (1d6+7) OR +19 Ranged (Zastaba M100: Dam 2d6+6, Crit 19-20/x2, Rnge 30)								
Full Attack:	+14, +9 Melee (1d6+7) OR +19, +14 Ranged (Zastaba M100: Dam 2d6+6, Crit 19-20/x2, Rnge 30)								
Space/Reach:	5 ft./5 ft.								
Saves:	Fort +7, Ref +16, Will +6								
Abilities:	Str 24, Dex 22, Con 16, Int 22, Wis 16, Cha 11								
Special Qualities	Cybernetics, Living Weapon (1d6), Flying Kick (1d6+9), Jack Up, Hacker Portfolio, Contact, Darkvision,								

Hack Abilities:	Computer Use: +32				HackCraft: +29				
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	4	4	3	3	3	3	2	2	2	2

Skills:	Bluff +11, Climb +14, Craft Electronic +9, Craft Mechanical +9, Demolitions +14, Drive +20, Gather Information +24, Intimidate +11, Jump +36, Knowledge (Current Events +13, History +14, Tactics +15), Move Silently +15, Navigate +16, Repair +16, Spot +11, Survival +13, Swim +6, Tumble +20
Feats:	Armor Proficiency (Light, Medium), Defensive Martial Artists, Personal Firearms, Advanced Firearms, Hacking Aptitude, Improved Barrier Defense, Hack Attack Increase, The Gift, Rapid Hack, Quicken Hack (Dominate Person)
Challenge Rating	15

All background info about Kusanagi is unknown, but assuming from her nick-name, she may have been in military service before. She is an expert on unlawful activity, secret intelligence, and demolition. The "Major" was scouted from the special maneuver team of the Ministry of Home Affairs. She commands Batou and Togusa, which makes her the number two person in Section 9. Kusanagi had her body changed to that of a cybernetic one; Motoko's body is almost completely cyberized and only a part of her brain is from her original body. She has an early 20's cyborg body, but actual age is estimated at being in her late 30's. Her sub-brain can access any kind of computer network on the Earth.

Section 9's Tactical Commander and second in command, Major Kusanagi suffered from a medical condition which necessitated that her brain be transplanted to a cybernetic body at a very young age. Although her proficiency with the artificial body is highly advanced, she is still haunted by the childhood memories of her own inability to master the more subtle intricacies of its operation – emotions she hides beneath her stoic demeanor. The name Kusanagi has a mythological reference: in fact it is spelt with the same characters as the name of the sacred sword of the Emperors of Japan, the KUSANAGI (also called AME NO MUREKUMO).

Her Class A cyberbody is made to resemble a mass-production model. In reality, her electrical and mechanical system is made of ultra-sophisticated materials unobtainable on the civilian market. If she appeared to expensive, she might be suddenly waylaid on a dark street some night, hacked up, and hauled

off to be sold. The body is feminine but some rumors passed that she, originally, was not. This is incorrect. Motoko is bisexual but has always, and will always be, a woman. With a height of 168 cm, she is slim and small, but her energy is boundless.

Combat:

Contact: Motoko is connected to several groups, the most useful is a bar owner (rank 20)

Cybernetics: Motoko seldom trades in her old Cyberbodies and owns one Base model at age 14 and an Angela CV1 at age 18. She also has another Cyberbody Class A the same model as her regular body but it looks substantially different. She implanted Decots in all of them. Her Standard Class A includes the following modifications: Jump Increase +20, Enhanced Realism, +6 Strength, +2 Dexterity, +3 Agility, Anti-Shock. Her Cyberbrain is also Class A with the following abilities: Feat Implant (Barrier Defense), Skill Increase (Computer Use & HackCraft), .

Darkvision: Kusanagi has Darkvision out to 60 feet.

Living Weapon: Kusanagi attacks with either fist interchangeably, or even with elbows, knees, and feet. This means that she may even make unarmed strikes when her hands are full, and there is no such thing as an off-hand attack for her striking unarmed. She also deals 1d6 damage instead of 1d4 and can deliver it lethally.

Flying Kick: Motoko can charge to deliver a devastating flying kick to an opponent. At the end of this charge, she adds her class level as a bonus to the damage she deals with an unarmed strike.

Jack-Up: Temporarily, Kusanagi can force her brain into doing more than it can. Twice a day, she can make a Computer Use skill at DC30 and cram a higher DC Hack into a lower slot. This can only be for Hacks she has access to. If successful, the Hack occupies a slot one lower but she must make a Will save at DC 25 or take 1 point of temporary Wis damage. If failed, the task cannot be attempted again for a full day.

Hacker Portfolio: Kusanagi portfolio can hold up to 15 different types of Hacks.

Weapons: Motoko seldom goes into combat with more than her Zastaba M100 with HV ammo.

P A Z U (Public Security Section 9)

	Medium-size Human 2ⁿᵈ level Martial Artist, 3rd level Soldier, 4ᵗʰ Level Personality									
Hit Points	9hd (44 Hit Points)									
Initiative/Barrier:	+5				+2					
Speed:	Spd 30 ft									
Defense:	07 (+4 Class, +3 Cybernetic, +5 Dex)									
Barrier Defense	Surface 36, Ghost 37									
Special Barriers:	None									
Base Attack/Grapple:	+9 / +14									
Attack:	Melee +9 (1d6+4) OR +11 CZN-M22 (2d6, crit x2, range 40)									
Full Attack:	Melee +9 / +4 (1d6+4) OR +11 / +6 CZN-M22 (2d6, crit x2, range 40)									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +7, Ref +13, Will +3									
Abilities:	Str 18, Dex 20, Con 17, Int 16, Wis 14, Cha 18									
Special Qualities	Cybernetics,									
Hack Abilities:	Computer Use: +13				HackCraft: +9					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	2	2	1	1	1	1	--	--	--	--
Skills:	Bluff +12, Demolitions +7, Diplomacy 12, Drive +9, Gamble +6, Intimidate +13, Jump +8, Knowledge (Street +4), Listen +8, Move Silently +6, Navigate +6, Spot +7, Treat Injury +4									
Feats:	Quick Reload, Armor Proficiency, Firearns Proficiency, Burst Fire, Confident, Urban Tracking, Increased Barrier Defense, Weapon Focus, Greater Weapon Focus, Guide, Weapon Specialization.									
Challenge Rating	9									

Pazu has a cyberbody but old habits die hard and he remains a chain smoker. Others consider him quite the ladies man but mostly, those are guesses as few nothing much about his private life outside section 9. He even hangs out at a local bar away from the other members. Its not that he does not get along with them as he often teams up with Borma when on an operation. Rumors abound that he has mafia connections.

Combat:

Cybernetics: Paso owns a Class B Combat Cyborg with Enhanced Realism as well as a Class B Cyberbrain.

Unlimited Access: When others would normally make a Diplomacy check or Bluff check to smooth-talk or trick their way into a private party or invitation-only event, Paso adds a bonus equal to his or her Personality level. (+4)

Flying Kick: Paso can use a charge to deliver a devastating flying kick to an opponent. At the end of this charge, he adds +2 to the damage he deals with an unarmed strike.

S A I T O (Public Security Section 9)

	Medium-size Human 4th level Soldier, 5th level Sharpshooter									
Hit Points	9hd (76 Hit Points)									
Initiative/Barrier:	+4			+2						
Speed:	Spd 30 ft									
Defense:	23 (+5 Defense, +4 Dex)		Hardness:	5						
Barrier Defense	Surface 39, Ghost 43									
Special Barriers:	Wis Boost +50%									
Base Attack/Grapple:	+9 / +12									
Attack:	+12 Melee (1d4+3) OR +18 Ranged (C25A Sniper: Dam 1d8+10, Crit 17-20/x2, Rnge 200)									
Full Attack:	+12, +8 Melee (1d4+3) OR +18, +13 Ranged (C25A Sniper: Dam 1d8+10, Crit 17-20/x2, Rnge 200)									
Space/Reach:	5 ft./5 ft.									
Saves:	Fort +7, Ref +9, Will +4									
Abilities:	Str 17, Dex 18, Con 14, Int 14, Wis 14, Cha 16									
Special Qualities	Cybernetics, Darkvision 60 feet, Ranged Sneak Attack, Range Increase Bonus, Keen Bullets, Take Aim									
Hack Abilities:	Computer Use: +16				HackCraft: +08					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	2	1	1	1	1	--	--	--	--	--
Skills:	Bluff +11, Demolitions +5, Drive +6 Gamble +10, +7 Gather Information, +17, Intimidate +7, Jump +6, Knowledge (Current Events +8, Tactics +8), Listen +8, Navigate +9, Spot +12, Survival +10, Swim +8									
Feats:	Far Shot, Dead Aim, Point Blank Shot, Double Tap, Precise Shot, Shot on the Run, Skip Shot, Weapon Focus (C25 Sniper). Weapon Specialization (C25 Sniper)									
Challenge Rating	9									

Section 9's sharpshooter, Saito is a cool, highly professional specialist practiced in the use of long-range weapons and tactics. He favors the .50 caliber sniper rifle and can use the cybernetic magnification scope hidden in his left eye to uplink with a GPS satellite for additional accuracy. He is also a master poker player.

Combat:

Cybernetics: Other than Togusa, Saito is the most human member of Section 9. Only his Cyberbrain, Hawkeye, and Right Arm are cyberized. Hawkeye is a special prosthetic eye with various capabilities, including superhuman visual acuity, zoom functionality, night-vision, infrared, and meteorological data, applying color transforms, and overlaying them on top of a 3D display. Binocular vision allows the recipient to perceive distant objects more easily. Telescopic optics reduce the range penalty for Spot checks to –1 for every 60 feet of distance (instead of –1 for every 10 feet). The Hawkeye resembles an eye patch. If opened, it begins an uplink with a military spy satellite overhead. After two round of aiming, it offers +4 bonus to ranged attack rolls past the first range increment. The round after

that, the bonus increases to +6. After that, the Satellite takes over, maximizing targeting ability. 2d4 rounds later, the attack bonus increases to +20.

Ranged Sneak Attack: Any time Saito's target is not aware of the/a sniper's existence or is denied his Dexterity Bonus to AC (Whether or not he has a dexterity bonus), the Sniper's ranged sneak attack deals extra damage. The extra damage is +3D6.

Range Increase Bonus: The range increments of all Saito's projectile weapons increase by 100 feet.

Keen Bullets: All projectiles Saito fires behaves as if they were keen weapons in addition to any other properties they may possess. This effect does not stack with other keen effects.

Take Aim: Saito gains a +2 bonus on her attack rolls against a stationary target by careful aiming. Taking aim is a full round action and if the target moves more than five feet during that period, the bonus is lost. No additional bonus exists for spending more than one round aiming. At 7th level, this bonus increases to +4. This does stack with the aim bonus from cybernetics (like Hawkeye)

T O G U S A (Public Security Section 9)

	Medium-size Human 2nd Level Gunslinger, 4th Level Investigator, 5th Level Negotiator								
Hit Points	11hd (89 Hit Points)								
Initiative/Barrier:	+4				+3				
Speed:	Spd 30 ft								
Defense:	23 (+5 Equipment, +3 Dex)			Hardness:		5			
Barrier Defense	Surface 38, Ghost 45								
Special Barriers:	Ghost +75% Wisdom Boost								
Base Attack/Grapple:	+9 / +13								
Attack:	+13 Melee (1d4+3, Crit 20) OR +14 Ranged (Mateba: Dam 2d6, Crit 19-20/x2, Rnge 15)								
Full Attack:	+13, +8 Melee (1d4+3, Crit 20) OR +14, +9 Ranged (Mateba: Dam 2d6, Crit 19-20/x2, Rnge 15)								
Space/Reach:	5 ft./5 ft.								
Saves:	Fort +8, Ref +9, Will +11								
Abilities:	Str 16, Dex 18, Con 14, Int 16, Wis 16, Cha 18								
Special Qualities	Cybernetics, Lucky, Close Combat Shot, Profile, Contact, Non-Lethal Force, Conceal Motive, React First, Talk Down, No Sweat								
Hack Abilities:	Computer Use: +13			HackCraft: +0					
	# Hack Attacks	14	18	22	26	30	34	38	42	46
	2	2	1	1	1	1	--	--	--	--
Skills:	Bluff +17, Diplomacy +12, Drive +22, Gather Information +24, Intimidate +12, Investigate +20, Knowledge (Current Events +9, Streetwise +9, Pop Culture +9), Move Silently +7, Search +12, Sense Motive +16, Spot +17, Tumble +9								
Feats:	Armor Proficiency (Light, Medium, Attentive, Combat Martial Arts, Dodge, Personal Firearms, Point Blank Shot, Double Tap, Quick Draw, Trustworthy, Weapon Focus (Mateba), Improved Weapon Focus (Mateba)								
Challenge Rating	12								

Even though his brain has a connection to the cybernet, most of his body is still original. Togusa is considered an outsider by the other members of Section 9, who are mostly cyborgs transferred from the military. With an implanted sub-brain as his only cybernetic augmentation, and a wife and child at home, Togusa is something of an anomaly within the ranks of Section 9 (where most of the staff is at least 50% artificial). Also unlike most of the other agents who were primarily recruited from the military, Kusanagi handpicked Togusa for employment in Section 9 from the police department. Adept at investigative work, he often is used to infiltrate suspicious organizations. He also has a penchant for using archaic 20th century firearms.

Combat:

Lucky: Born with a four-leaf clover in his but, Togusa gained +2 Action points as part of his permanent pool,

Close Combat Shot: Togusa can make a ranged attack with a Medium-size or smaller firearm while in a threatened area without provoking an attack of opportunity.

Profile: By making a Gather Information check (DC 15) when talking to witnesses of a crime, Togusa compiles a rough mental picture of the suspect. This mental picture provides a physical description, including distinguishing markings and visible mannerisms. Success makes the profile accurate, at least concerning a particular suspect as seen by witnesses. (For this Gather Information check, no money changes hands.)

Togusa can expand the profile by making an Investigate check (DC 15) involving the crime scene or other evidence linked to the suspect. If successful, he combines eyewitness accounts with forensic evidence to develop a profile of the suspect's method of operation. This provides a +2 circumstance bonus on any skill checks made to uncover additional evidence or otherwise locate and capture the suspect.

Contact: Togusa has cultivates associates and informants. He has several sources across Japan.

Nonlethal Force: Togusa becomes adept at using nonlethal force to subdue an opponent. He can deal nonlethal damage with a weapon that normally deals lethal damage (if he chooses) without taking the normal –4 penalty on the attack roll.

Conceal Motive: Togusa adds +5 whenever he opposes a Sense Motive check.

React First: Togusa gains the ability to react first when trying to make a deal or mediate a settlement. He must make contact and speak to the participants before the start of combat. If he does this, he gains a free readied action that allows him to make either a move or attack action if either side in the negotiation (other than the Negotiator) decides to start hostilities. Togusa gets to act before any initiative checks are made, in effect giving him the benefit of surprise.

Talk Down: Togusa can talk his way out of trouble. Either prior to the start of hostilities or during combat, he can talk down a single opponent within 15 feet of his position or otherwise able to hear his voice. The target must be able to understand Togusa. That opponent immediately stops fighting and reverts to an indifferent attitude regarding Togusa and the situation in general. Any hostile action by the Togusa or by one of his allies directed at the opponent allows the opponent to act as he or she sees fit.

To initiate this talent, Togusa must spend a full-round action talking to his opponent. The opponent makes a Will saving throw. The DC 19. If the save fails, the opponent stops fighting. If the save succeeds, the opponent continues as normal.

No Sweat: Togusa can spend 1 action point to improve the result of a die roll, he rolls an additional 1d6. He can then select the highest die roll to add to his d20 roll.

Footnotes:

In order to allow Game Masters to custom their own games, I will explain what portions of which part of this game pertain to which setting and what ideas I speculated on and why. No altogether a new concept as Shirow himself wrote pages of footnotes after his Manga so those reading these should be familiar. I will not go into every single point. Since the majority (at least more than any source) comes from Stand Alone Complex and the Manga, I won't mention what parts in this game original from those source unless they conflict and to clarify if it originated from the SAC PS2 game or the series.

Primary Sources include: The Manga released Anime of SAC and SAC 2nd Gig, Laughing Man Fansubs, The Dark Horse Graphic Novels of GITS and MMI, The SAC Official Log 1, official and speculatory websites.

(Legend: SAC-Stand Alone Complex, MMI-Man Machine Interface, SACPS2-Stand Alone Complex PS2 Game,

– The majority of this information is from Shirow's own notes with some taken from SAC. Most of them have been merged like the description on Jenoma

--Aeropolis II and any mention of Zebra are from the PS1 game.

--Individual/Particular Eleven are from the 2nd Gig SAC Series

--Hanka and Locus Solus have similar stories. Locus Solus is from Innocence--GITS 2, Hanka is from the Manga. I included both as Hanka is set before the Puppetmaster, Locus Solus is after.

--The Meditech quote is an actual medical journal excerpt.

--The Ministries have all been mentioned to exist in some form in GITS. Background on them was removed from ACTUAL ministries as they exist in Japan, or in other modern Countries.

--The mention of the Tohoku Autonomous Region is in reference of SAC PS2

--Public Security Sections were difficult as mentions of different Sections are not assigned a number in a few cases. Section 6 and 4 and 9 are ironclad through the mythos.

--Togusa is mentioned as being from The Special Service Squad of Police Headquarters' Investigations, Section 1 in SACPS2. Its background is speculated. Aramaki's tutor is mentioned to run Section 1in the Official Log.

--Section 2 and 3 are speculated but if each Section answers to a ministry and if the Ministry of Health and Welfare has a security arm, they would operate a Section…so I assigned a random number. Evidence is given in SAC.

--Sections 6, 7, and 8 are still an unknown.

--JSDF is taken from the Japanese Self Defense Force website. Many events of future history is borrowed from 2nd Gig.

--Bertrave and Etorofu are mentioned substantially. Some information is taken from actual historical documents with the rest mixed in from all sources. There is no conflicting information.

--The Cabinet Intelligence Agency is from 2nd Gig although they are referred to by different titles depending on the translation.

--The Harima City for Academic Research is a real place and the information on Spring8 is factual.

--It is important to note that Section 9's headquarters shifts from setting to setting. Niihama is mentioned in most sources but the Manga refers to Newport. The first movie moves it to Hong Kong. I leave the rest to you…

--All information on Tokoku are direct quotes and not modified.

--The Incident at Shunuiji State is from 2nd Gig and is a direct quote.

--The Japanese Miracle is referred to as the Asian Miracle in SAC but detailed in 2nd Gig as the Japanese Miracle.

--The Laughing Man is exclusive to SAC.

--Meguro is a real place and the incident was mentioned once. The rest is speculation.

--The MM terrorist act is from SAC PS2.

--The Nemuro Landing Operation is mentioned a lot. Also a real place, the rest is speculated.

--Information on World War III and IV are spartan and mixed throughout all settings. The results of that war are factual but the events are not.

--The Buzzboy exists in Innocence and SAC PS2 but the name in invented.

--The names for the Noa, Maiku, and Kuritso are invented and their descriptions are speculated. All I had were images to work from.

--Fuchikomas exist as the standard tank in the Manga but only appear at the end of 2nd Gig. Their appearance is also altered somewhat and are referred to as Think Tanks in SAC PS2. The Manga has no mention of Tachikomas and the Military Fuchikomas are the standard. Think Tanks and Standard Fuchikomas are interchangeable. In SAC and in SACPS2, Section 9 used Tachikomas and only Fuchikomas at the end of 2nd GiG and fought against Think Tanks / Standard Fuchikomas occasionally. In the PS1 game, the Fuchikomas are smaller and…cuter, but they are unchanged. The Think Tanks are a specific variation. There is very little speculation but I leave where they are placed in the setting to you. I endorsed the SAC setting for the game.

--The tanks have some speculation. Obviously the EW 204 is the new variation as they call it the Prototype in SAC and you see it regularly in 2nd GIG. The HAW 206 is seen during WW IV so it must be an older design.

--The name Botanachi is invented.

--The Jigabachi background is speculated based on its combat use in both 2nd Gig and SACPS2 and from information from the Game. It translates to Wasp and the Advance was referred to as the Digger Wasp Advance but some speculate this is a mistake in translation.

--The Hekatoncheires name is invented. It is the primary transport during SAC even though in the Manga, Section 9 is seen using several different designs.

--The Nakazawa name is invented.

--The Oniyama fluff is based on actual information from SACPS2. However, the information on its primary weapon is derived from the A-10 Thunderbolt's primary weapon, its enormous machine cannon.

--A lot of information on the handguns come from an Air Pistol website that recreated these weapons. Most "mastercraft" weapons are actually from the setting, the rest I inserted from other RPGs.

--The OICW is an actual weapon being implemented in the US Marines.

--The C25 information is speculated.

--Information on the C-X, X74 and SIG 541 are speculated. I just figured, why have details on five weapons and not all of them?

--The Ultima is from the 1st movie. The Sensor Rifle is from 2nd Gig. The Nosle is from the 1st movie.

--The Russian Arm Suit appears in 2nd Gig. Its name, and description are invented. Some have pointed that this and the GSDF Type 1 are the same suit, but I disagree. There was a mention the suit is Russian built but the name, I made up.

--The Forced Entry suit is all speculation. All I had was the image from Man Machine Interface.

--The GSDF Combat Suit is from SAC and its name is official

--The PKF Cyborg Body is from 2nd Gig

--The YS is mentioned in the Manga and makes an appearance in Innocence.

-- The Corpse Remote is seen in 2nd Gig.

--Motoko uses a Decot in MMI.

--Bioroids are mentioned only once at the end of 2nd Gig. It is addressed with some awe. In truth, this is really a tribute to another Shirow story, Appleseed, which features life-life organic creations referred to as Bioroids. Since they were mentioned only briefly at the end of 2nd Gig, I decided to mention them only briefly. I did not directly just take them from Appleseed. They are only here because of their mention at the end of 2nd Gig.

--In SAC, the net is never seen as a visual hacking area but it changes in 2nd Gig. The same is done in both movies. In the Manga, it remains a graphical experience. I created the rules to not require a visual interface and allowed the game creator to decide to make his netrunning a visual experience or not.

--Most of these devices, you can figure out the function, just by watching SAC.

--I know, Netrunning feels like spellcasting. I don't care. Its just easier this way. ☺