



Better, Stronger, Faster

Basic Cybernetics for *GURPS Fourth Edition*

by Matt Riggsby

Many cybernetic enhancements can be expressed easily in terms of GURPS advantages. For example, bioengineered implanted filters for extracting oxygen from water could easily be seen as just an instance of the Doesn't Breathe: Gills advantage, purchased for \$1,000 per point of advantage cost (per p. 295). However, some larger, more obvious prosthetics, such as artificial limbs are potentially more complex, incorporating a number of advantages, disadvantages, limitations, and enhancements. This article provides some guidance for people wanting to play cyberpunk campaigns with *GURPS Fourth Edition* by presenting stats for basic cybernetic limbs and sensory equipment.

Ground Rules

If a prosthetic limb enjoys an advantage or disadvantage which usually covers the entire body, it receives a -80% limitation: only applies to one body part. This can be seen as neatly dividing the body into five zones, each of which an advantage or disadvantage can be applied to at 20% of cost: left arm, right arm, left leg, right leg, and the torso and head combined. All external cybernetics, unless otherwise noted, partake of the Machine metatrait (p. 263).

Any society advanced enough to produce powered prosthetics can disguise them to the casual glance, if desired. Cybernetic appendages can be padded with foam and covered with flexible flesh-toned skins so that they'll resemble the wearer's own body parts. Only a closer examination will reveal their mechanical nature, and the covering provides no real protection (this is a zero-point effect). However, in most cyberpunk campaigns, wearers will want to emphasize their cyborg nature and dispense with such concealment.

Arms

A cheap or primitive cybernetic arm has, at best, rudimentary touch sensors, but also inflicts no pain if damaged, providing Numb (-20) and High Pain Threshold (10). The electronics are also on the fragile side and easily disrupted, giving the arm the Electrical disadvantage (-20). Taken together with the Machine metatrait (grand total -5 points) and the 80% discount for applying to a single

limb, the basic arm is a -1 point disadvantage. For the purposes of monetary cost, but not advantage cost, the cost of fixing the One Arm disadvantage (-20) is included, bringing the cost of a low-end cybernetic arm to \$19,000.

Where available, characters will probably be interested in a number of options:

Option	Cost	Notes
Improved shielding	\$4,000	Eliminates Electrical
Improved touch sensors	\$2,000	Eliminates Numb and High Pain Threshold
Advances sensory filters	\$4,000	Eliminates Numb, but not High Pain Threshold
Additional ST	\$3,000/point of ST	
Improved hand control	\$5,000/point of DX	Treat as Manual Dexterity; this option requires either of the options buying off Numb
Overall improved control	\$12,000/point of DX	Treat as Additional Arm DX; this option requires either of the options buying off Numb

Legs

Like cybernetic arms, low-end cybernetic legs have Numb, High Pain Threshold, Electrical, and Machine (again, at -80% discount), and for the purposes of monetary but not advantage cost, the cost of fixing the Lame: One Leg disadvantage (-20) is included, bringing the cost of a basic cybernetic leg to \$19,000 or a -1 point disadvantage, the same as that of an arm. A pair costs \$38,000, or -2 points. Legs have many of the same options as arms, but since they're used primarily for locomotion, they're best bought in pairs.

Option	Cost	Notes
Improved shielding	\$4,000	Eliminates Electrical
Improved touch sensors	\$2,000	Eliminates Numb and High Pain Threshold
Advances	\$4,000	Eliminates Numb, but not High Pain Threshold

sensory filters

Additional ST	\$3,000/point of ST	Improves Kicking damage for the effected leg, but not Move or Speed
Enhanced Move	\$5,000 per +1 to basic Move	This option requires <i>two</i> cybernetic legs. This cost is for the full enhancement, not a per-leg cost.
Enhanced Jump	\$10,000 per ×2 to jumping distance.	This option requires <i>two</i> cybernetic legs. This cost is for the full enhancement, not a per-leg cost.

Sensory Equipment

Unlike limbs, eyes and ears are typically bought in pairs, and the listed costs reflect that. A character could buy a single cybernetic eye or ear for half cost. However, if one eye has enhancements that the other doesn't, the wearer either loses the benefits (if he uses the eyes together) or effectively suffers from the One Eye disadvantage while he closes one eye and uses the other. If one ear has enhancements the other doesn't, the additional enhancements are only effective for sounds coming from that side (and *not* those coming from the front).

Cybernetic eyes and ears have Machine and Electrical; since they're mostly internal, it's assumed that any injury will transmit enough force to the surrounding tissue that the pain sensors of the replaced body parts are irrelevant. The cost of buying off Blindness (50 points) is included in the monetary but not point cost of eyes, bringing the base cost of a pair of cybernetic eyes to \$51,000, or a 1 point *advantage*. Cybernetic ears include the cost of buying off Deafness: \$21,000 or a 1 point *advantage*.

Primitive or cheaply produced eyes may have limited capabilities for a reduced cost:

Option	Cost	Notes
Color blind	-\$10,000	
Restricted vision	-\$15,000	
Tunnel vision	-\$30,000	
Poor resolution	-\$25,000	Treat as Nearsighted

At the GM's option, multiple disadvantages may be combined, or combined with the enhancements below (for example, cybernetic eyes which are color blind but have broad peripheral vision would cost \$51,000), but the minimum cost of a pair of eyes plus implantation is unlikely to fall below \$10,000.

Of course, there are also a number of enhancements available:

Option	Cost	Notes
Acute Vision	\$2,000/+1 to Vision rolls	
Night Vision	\$1,000/+1 against darkness penalties	
Peripheral vision	\$15,000	
Telescopic vision	\$5,000/level	
UV vision	\$10,000	
Glare filters	\$5,000	Treat as Protected Sense

Cybernetic ears have their own options:

Option	Cost	Notes
Acute Hearing	\$2,000/+1 to Hearing rolls	
Discriminatory Hearing	\$15,000	
Parabolic Hearing	\$4,000 per level	
Subsonic hearing	\$5,000	
Ultrahearing	\$5,000	
High-volume filters	\$5,000	Treat as Protected Sense

Interface Jack

GURPS describes a number of advantages related to plugging computer-related facilities into one's head (for example, Modular Abilities). However, it lacks clear direction for one prominent feature of cyberpunk: the interface jack, an implant allowing the user to operate computers and other devices via a direct neural link. How much it costs depends, of course, on what, exactly it does in the game setting.

A low-capacity interface jack allows operation of devices equipped for computer or mental control with no bonuses to that operation. Since it's simply an alternate means of control providing no consistent advantage, it's a one-point perk, or \$1,000.

A more powerful interface jack is described in *GURPS Cyberpunk* (p. C41). This jack provides a +4 to skill rolls for operating equipment thus controlled. This could be regarded as the equivalent of a +4 Talent for a group of skills including Boating, Computer Hacking, Computer Operation, Computer Programming, Driving, Electronics Operation, Piloting, Research, and Submarine. This is a medium-sized group of skills (10 points/level), but it has some limitations. First, it does not grant reaction bonuses and increased learning speed usually granted by the Talent advantage (-30%). Second, it has an Accessibility limitation: can only be used with devices equipped for neural control. How much of a limitation that is depends on the campaign, but in a typical cyberpunk campaign, -30% seems reasonable. Most computers can be directly interfaced, possibly with the addition of a special sensory interface deck, but vehicles and other equipment may not be routinely equipped for direct control. This makes an interface jack a 16 point advantage, or \$16,000.

Enhanced Battery Life

The Machine metatrait assumes that machine parts must be refueled or recharged periodically. This can be somewhat inconvenient for adventurers if they're traveling to areas where it's easier to get food than new batteries, so they may want to invest in better power sources. Any cybernetic enhancement can be provided with superior batteries or compact, high-endurance power plants that require less frequent recharging or refueling: \$1,000/1 point to recharge once a week, \$2,000/2 points for a permanent power source which essentially never needs recharging.

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