

# Cyberwhip or Smart-Whip

Whip - The actual whip consists of a high-tensile polymer/artificial neuromuscular strand interlace, combining high strength with a limited user controlled mobility. Length is 2m, with an elasticity giving an elongation/contraction ratio of ~10%. A 10 m hollow core lined with a powdered ceramic houses the optional monofilament core which may be extruded from the tip up to a length of 0.5m.

Features - Mobility through smart-link control of the neuromuscular strands is limited to an ability to 'twitch' or a slow 'writhe' of the whip when static, but is usually used to guide or aim the tip when wielded. Control of the neuromuscular strands can also be used to 'lock' the whip in place when it wraps around any object, either for a prolonged period or momentarily.

Weight bearing capacity is ~50-60Kg, although up to twice this may be supported for short periods (<10seconds).

Running a low current through the whip from the power-cell can cause specially adapted strands in the whip to glow with a low neon-like intensity in a range of amplitude dependent colours. An adept user can vary these colour pulses to create quite a range of patterns and effects which can often distract an opponent in combat. The power-cell is also capable of producing a limited number of high-voltage

Handle - The smart-whip handle incorporates the user interface via a pressure activated link which can also be palm-print encoded for security. An interchangeable and rechargeable power cell in the base of the handle unit provides the energy for some of the whips features, as well as aiding balance. The handle unit is attached to the whip element through the whip control interface, relaying user commands to the neuromuscular strands of the whip. The handle unit may be detached and can then extrude a monofilament, operating as a standard monofilament whip.

Tip - The end of the whip is sheathed in a series of small, overlapping ceramic plates with a titanium tip. In the hands of an expert, this tip travelling at supersonic speeds has armour piercing potential; especially when augmented by a 1-2mm extruded monofilament tip which can be caused to vibrate at high speed by neuromuscular strand convulsion in the tip. Once the tip has penetrated a surface, neuromuscular strand contraction causes the ceramic plates to extend and lock into the hole created, thus gripping it tightly until relaxation and release.

