"Moondyne's Graft" Hackable Voidwalker

A spiritual successor to the widely used Voidwalker suit. The Moondyne's Graft was designed to streamline the older model in a platform designed with modularity, mundane utility and modifiable flexibility in mind. The Moondyne's graft was developed in YE 38 by Freethinker Liniment Four Two in collaboration with Polysentience Intelligence Design Modules of the Grand Bizarre; its design patterns were freely distributed for reproduction via the Polysentience.

About the Moondyne's Graft

"We all had to wear these things and it got us all caught the first time around. Not viable unless you round the edges! They have to sit flush with flesh, and can cut you. Blood is easily noticeable, people! Don't let them see you bleed!" Addendum by Freethinker Moondyne -The Art of Never Again, Chapter 48: Incarceration Zen

A post-schism revision of venerable Freespacer technology, the Graft is a mass production capable void suit designed to be adaptable for multiple circumstances. In keeping with post genocide paranoia and the increasing prevalence of militant groups such as the Cult of War and Viridian Array, The Graft is able to act as a simple workaday industrial void suit, but can also be modified into a pilot suit, concealable body armor, or even the base layer and frame of power armor should conflict be unavoidable.

History

"Seventy Two broke out, Six Hundred were shipped in. We can do better, we have to do better!" Addendum by Freethinker Moondyne -The Art of Never Again, Chapter 48: Incarceration Zen

The Moondyne's Graft is named for the apocryphal Freethinker Moondyne, hypothesized to be one of the original Type I Freespacers and one of the earliest names credited with appending the Art of Never Again. Moondyne is implied through their entries to have joined the early Freespacers after escaping an extended period of imprisonment. Most of their entries detail how to cobble together useful devices while incarcerated. Moondyne's Graft (the word "graft" being used in terms of a set of skills) being named so for coming 'pre-jailbroken', and freely usable by anyone for whatever purpose they so wish.

Appearance

The base component of the Moondyne's Graft is visibly a form-fitting polymer bodysuit, slightly rubbery to the touch and with a dull sheen to the material. The only solid portions on the bottom-most base layer are numerous metal mounting points, and a rigid metallic collar with a flexible mounting array along the back resembling a metallic spinal column. This portion contains the suit's holistic life support suite, which works in conjunction with other internal bacterial components.

While the suit can be built without in instances of material shortage, the whole thing is usually built with

a second semi-rigid layer of long metallic mesh strips mounted around the limbs and torso, this being the layer which can lock or contract acting as a flexible support frame for heavier components.

In general the entire suit is built to be worn underneath other clothing, and is readily concealable to the point where all distributed schematics for it include a large library of tailoring patterns used to create a 'dustcloth' layer, which are functionally clothes constructed with small seams and holes which allow them to be worn over the Graft's base layers.

Pros

Compared with the old Voidwalker, Moondyne's Graft has multiple advantages:

- Is designed to be compatible with a variety of domestic and foreign auxiliary equipment.
- Its systems are streamlined and miniaturized in order to be less bulky; built with slightly less raw materials expended.
- It is designed to be sturdier by default, requiring less frequent maintenance due to wear and tear.
- Its designs are packaged with schematics of various auxiliary equipment and components, suitable for a variety of industrial, civil and military capabilities.
- Can be modified to maximize a crew's recycling potential.

Cons

Advantages have disadvantages:

- It is more difficult to repair and maintain than the older model of Voidwalker.
- Requires more specialized facilities and equipment to produce.
- Many orthodox groups of Freespacers consider its slant towards potential combat utility to be contradictory to Deoradh values.
- Even when fully modified for combat purposes, it is still generally sub-par for military equipment.

Mobility

Moondyne's Graft adds no functionality for flight or other sources of locomotion, although it may be worn with other devices to provide flight/underwater/etc motion capabilities.

Size

The Moondyne's Graft is form fitting and constructed of relatively thin layers, able to go anywhere its wearer could normally go; up to and including squeezing through narrow passages, or crawling through small cavities. Nominally designed for everyday wear, it isn't likely to get in the way of motion, but connected equipment/harnesses/oxygen canisters/etc can significantly add to its bulk.

Standard construction of the suit has it built in three parts: A form fitting leotard-like base layer, leggings, and full length gloves. Each individual piece can be sealed against the skin, and individual parts may be left off to accommodate non-standard cybernetics. The distributed schematics allow individual portions to be fitted around most atypical body types and cybernetic enhancements.

Damage Capacity Stats

	SP	With Showing Bones Frame
Base Unit	3 SP (personal)	5 SP (Personal)
Light Exoskeleton	4 SP (Personal)	9 SP (Armor)
Medium Exoskeleton	5 SP (Armor)	10 SP (Armor)
Heavy Exoskeleton	10 SP (Armor)	15 SP (Armor)

• Shields: None.

See Moondyne's Graft Components for details on Exoskeleton and Showing Bones Frame.

Donning

Base layer is donned in the same manner as a non-stretchable leotard with a front zipper-seal down the front. Individual leggings and full length gloves are then donned normally and connected through fasteners where the components overlap, and sealed around the seams left in the resulting full suit. External components such as harnesses/tool pouches/armor plating/etc are fastened to numerous hardpoints located over the full suit and back brace.

Piloting

While not a fully fledged power suit, the motive components require a direct connection to a Freespacer's mindware in order to function at full capacity. When connected, the suit is synchronized with the body's normal movements, and works in tandem with motion, rather than reactive to motion. Requires a wired connection to standard Freespacer mindware ports, and also requires the needed software to be uploaded to internal mindware storage or a connected bridging device to function.

Systems and Sub-components

Base components:

- "Cond-onesie" Polymer Interior Insert.
- "Chevron Stains" Titanium Alloy/Carbon Nanorod Interlock Armature.
- "Skinner Gills" Air/Water Scrubbers.

Custom Fittings

- Endothermic Reactant Canisters.
- "Tritium Tramper" Radioisotope Thermoelectric Generator and capacitor array.

See: Moondyne Components.

Armaments and Tools

The default Moondyne's Graft model sticks true to orthodox Free State philosophy and mounts no weaponry of any kind.

Hardpoints

Built to be vastly interchangable, and versatile, the Moondyne's Graft mounts numerous 'hardpoints', varying from complex connector arrays to simple metal fastening points, or extra space under base package components to fit extra layers of materials.

- 2 Dorsal hardpoints (Upper/Lower).
- 1 Torso mid-layer mounting.
- 2 Arm mid-layer mountings (Left/Right).
- 2 Leg mid-layer mountings (Left/Right).
- 1 Waist mounting.
- 1 Exoskeleton mounting.
- 1 Upper body dustcloth cavity (optional).
- 1 Lower body dustcloth cavity (optional).
- Feet mountings.

See also: Moondyne Components.

Armor

While capable of mounting heavier armor plates, the base model of the Graft is outfitted with the "Chevron Stain" mesh armature: An interlocking series of tiny chevron shaped titanium alloy plates, mounted on sliding metal rods of the same alloy reinforced with carbon nanorods. The whole mesh array is constructed to allow itself to magnetically contract and lock against the body to effectively create a form-fitting, selectively rigid exoskeleton frame capable of supporting large weights and withstanding impacts.

As a semi-rigid material that shifts or hardens around its wearer: The Chevron Stain seems to have in part been based upon the conditionally rigid, motive materials found in Emrys Dusk Suits, or the Star Army Type 28 Environmental Suit; albeit with the idea that sturdier materials make sturdier suit, and laying motive metallic mesh on top of unpowered polymer. When worn the suit magnetically manipulates the weave with each movement, fastening where needed to support itself in near any configuration, and releasing where needed to move. This results in a light-weight, and incredibly flexible multipurpose

exoskeleton; as well as the sensation of the suit squirming around or squeezing its wearer slightly, which usually takes some getting used to.

The mesh is designed to protect against fast flying debris and micro-meteors, providing good protection against small arms fire and common edged weapons; but it has no special defense against energy weapons or similar hazards. Requires occasional cleaning, usually using compressed air to blow dust or debris out of the mesh.

Interior & Life Support

The innermost layer: An easily produced and easily cleaned form-fitting material, which can be produced in just about any Freespacer chemical fabrication plant. Made mostly from a recombination of common silicates which can be rendered through any Grinder unit. The end result is somewhat rubbery, slightly slippery to the touch, stretchy, flexible and environmentally sealed to protect against the rigors of space. The material itself, while tough, is little more than an advanced form of latex, and on its own has no real defensive value.

While the designs include instructions for various modifications of its most simple iteration, the polymer insert in all incarnations have the same self-sealing gel layer as old model Voidwalker suits (See Moondyne Components for variations), and has mountings for Endothermic Reactant Canisters mounted into the collar. These canisters use minimal amounts of chemical fuel allowing regulation of the suit's internal temperature for roughly 80 hours.

The suit mounts a "Skinner Gills" hybrid air/water scrubber: A mechanical unit situated at the back of the collar, working in tandem with a microbial treatment of the inside of the suit. When worn, a small battery of micro-organisms work to recycle air and moisture, while breaking down other bodily waste (dead skin cells, etc), and foreign biological material (bacteria, etc). The collar unit in turn returns clean air into circulation in either the suit or the ship it is worn within, while filling a small internal reservoir with cleaned water which can either be drunk, stored, reintroduced to a ship's stocks, or vented should there be no other options. The microbial treatment has the side-effect of producing a continually sterile environment in which biological Freespacers are able to not worry about foreign contaminants provided the suit is sealed.

The treatment of the interior of the suit also renders it slippery to the touch, thus preventing chafing but causing a slippery residue to cling to the skin after the suit's removal for a few moments before evaporation. Wearers should be wary of keeping their footing when changing out of the suit, their feet *will* be slippery.

The suit maintains roughly the same operational parameters as the older model: 36 hours of sustainable atmosphere at rest, which can be reduced to 12 hours when undergoing extreme physical activity. The interior is cleaned by turning the suit inside out and wiping it down with a damp cloth.

Power Systems

While the suit is not so heavy as to be unwearable when unpowered, it is generally equipped with a Tritium Tramper model Radioisotope Thermo-Electric Generator and Capacitor Array. Aside from its

increased size, the Tramper is functionally no different than common model RTEG's used throughout the Free State, the main addition is the use of a powerful capacitor array in order to store power from either the generator or auxiliary power systems. This allows the suit to power itself nearly indefinitely at low power settings (at rest), reduced to 24 hours of moderate activity (physical labor, industrial work), or 12 hours of extreme activity (combat) provided the capacitors are at full charge.

The capacitor array allows power to be reintroduced to unpowered external devices, such as damaged ship systems or handheld tools; but is generally not suitable for high energy weapons.

The lower of the suit's two dorsal hardpoints, located at the small of the back is dedicated to its generator. This hardpoint is compatible with a wide variety of adapters and bridging devices, allowing the suit to be powered by many freely available power cells or compact generators. The adapter can easily be modified to accept foreign industrial or military grade power units, provided those units aren't built in such a ways as to enforce incompatibility.

Sensors and Communications

By default, the suit mounts no sensor packages of its own. Communications are handled via a Freespacer's polysentience connection.

OOC Information

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Last update: 2023/12/21 04:22