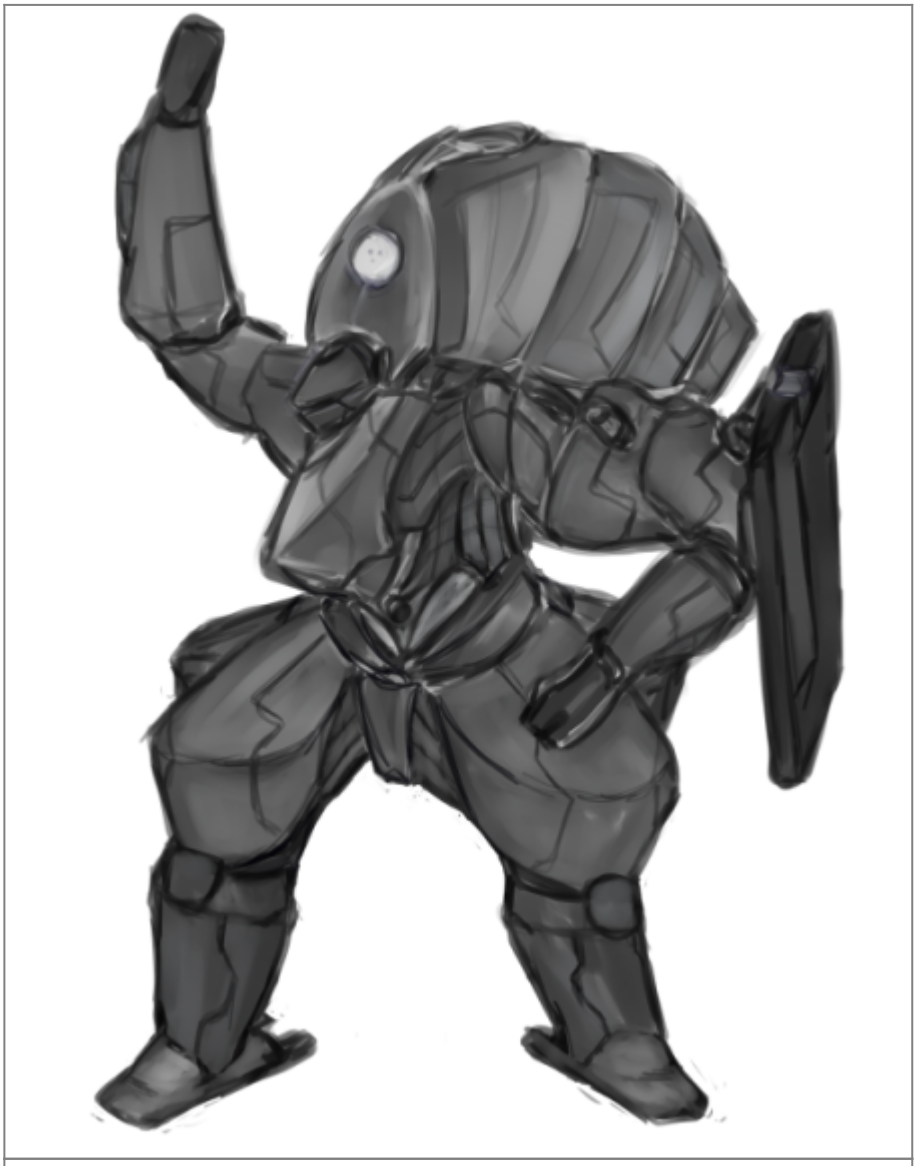
So-KM1-1A Graiv VAHIN

Owing its existence to the success of the M1 EV, the Graiv VAHIN was a high mobility ground-use infantry armor developed by Solan Starworks at the request of the Astral Vanguard's Infantry Corps. Developed and finalized some 49 years after the M1 was completed, the KM1 can easily be considered a more technologically advanced unit, but is generally considered to be a weaker and less sophisticated machine, owing to its lack of MASC-based propulsion and lower usage of organoid technologies. It was designed as a versatile and maneuverable machine that would function well on the ground, with robust armor and a wide array of systems for a variety of ground scenarios. If the VANDR is to be the standard cavalry and artillery of the Vanguard, the VAHIN is the infantry.

Graiv refers to a *defender* or *protector*, as well as the Graiv Haidan, or Defense Forces, while VAHIN an acronym for *VAnguard Heavy INfantry*.



So-KM1-01a Graiv VAHIN

History and Background

About the Graiv VAHIN

Government: Iromakuanhe Astral Commonwealth Organization: Astral Vanguard Type: Organoid Powered Frame Class: So-KM1-1A Graiv VAHIN Designer: Solan Starworks Manufacturer: Solan Starworks Production: Full Mass Production

Crew: 1 Iromakuanhe. Entry port inserts restrict the use of a standard model to Iromakuanhe pilots only. Maximum Capacity: There is only enough room for the infantryman to sit inside comfortably. Appearance:

Width: 1.7 Meters Height: 2.3 Meters Mass: 1.7 Tonnes

Speeds

Ground speed (Hover): 80 KM/H Air speed (Flight): 600 KH/H Zero Atmosphere (Flight): .01c

Range: Lifespan: 15 Years

Damage Capacity

Hull: Tier 6 ADNR Arrestor: Tier 5 Shields (RBS): Tier 5

Weapons Systems

Standard Weapons

(3): So-KM1-W0833 "Sundering Fist" Pile Bunker

The W0833 “Sundering Fist” is a multi-purpose weapon system designed to provide close up attack capabilities and tactical motion assistance, by giving the unit the ability to anchor onto a nearby surface. It is a pile bunker weapon exclusive to the VAHIN, which creates powerful impaling thrusts by rapidly accelerating a sharpened ferrous-cored Agridinn rod when the enemy is in reach, or simply charging with the already deployed shaft. Its main purpose, however, is to be used as an anchor to hold onto a naturally occurring surface for ambushing and climbing buildings and mountainsides.

Location (Fixed): Left Forearm and Both Feet, Fixed Purpose: Hard Surface Anchoring/Climbing Secondary: Melee Weapon Damage: MDR 2-4

Range: .8 Meters Rate of Fire: 5 Recycle Between Strikes

(1): So-KM1-W1833 "Storm Ray-B" LEMB Laser Array

LEMB (Light Enhanced Multi-Beam) Laser

Location: Center Torso Purpose: Point Defense Weapon Secondary: Anti-Infantry Damage: MDR 2

Range: 5 KM in Atmosphere, 300 000 KM in Space Rate of Fire: Can maintain up to 12 beams simultaneously. Muzzle Velocity: 1c

(1): So-M1-W4784 "Star Locust-B" PASD Missile Pod

PASD (Particle Swarm Detonation) Missile

Location: Left Shoulder, Pod Purpose: Anti-Armor, Anti-Vehicle Secondary: Anti-Shield Salvo Size: 9 Damage: MDR 3, Electrical Damage

Range: 25KM in Atmosphere, 15 000 KM in Space Rate of Fire: 1 salvo every 8 Seconds Area of Effect: .5 Meters Muzzle Velocity: Mach 6 in Atmosphere, .2c in Space Ammunition 72 Missiles Ammo Replenish: Can refill capacity in hospitable conditions in about 2 hours outside of combat. Any further attempts to refill will require an external source of biomass.

Handheld Weapons

One optional rifle-type weapon maybe be selected.

(1): So-KM1-W2833 "Searing Ray-B" CELB Laser Rifle

CELB (Compression-Enhanced Light Beam) Laser

Location: Handheld (1-2 Hand) Purpose: Anti-Vehicle/Anti-Starship Secondary: Navigational Protection Damage: MDR 3

Range: 10 KM in Atmosphere, 300 000 KM in Space Rate of Fire: Beam can be maintained for up to 1 minute. Cooldown is 1/4 of projection time. Muzzle Velocity: 1c

(1): So-KM1-W3833 "Linear Ray" Light Coil Rifle

LLS (Light Linear Superconductive) Rifle

Location: Handheld (1 Handed) Purpose: Anti-Vehicle Secondary: Suppression Fire Damage

- *Rod Penetrator:* Tier 5 or Tier 6, Medium Anti-Armor or Heavy Anti-Armor (

:

Staff needs to determine which)
- *Needle Jet:* Tier 4, Light Anti-Armor

Range: 3.9 KM in Atmosphere, Theoretically Unlimited in Space Rate of Fire: 480 RPM Muzzle Velocity: 1200 m/s

(1): So-KM1-W4833 "Linear Shrike" Heavy Coil Rifle

HLS (Heavy Linear Superconductive) Rifle

Location: Handheld (2 Handed) Purpose: Anti-Vehicle Secondary: Suppression Fire Damage: Tier 7 or Tier 8, Light Anti-Mecha or Medium Anti-Mecha (Fix Me!: Staff needs to determine which)

Range: 17.9 KM in Atmosphere, Theoretically Unlimited in Space Rate of Fire: 1260 RPM Muzzle Velocity: 3200 m/s

(1): So-KM1-W5833 "Linear Hammer" Heavy Coil Bazooka

HLS (Heavy Linear Solenoid) Bazooka

Location: Handheld Purpose: Anti-Vehicle Secondary: Suppression Fire Damage, AoE Tier 7 or Tier 8, Light Anti-Mecha or Medium Anti-Mecha (Fix Me!: Staff needs to determine which), 10m (40m shockwave)

Range: 20.03 KM Rate of Fire: 60 RPM Muzzle Velocity: 1300 m/s

Systems Descriptions

Armour and Stealth Systems

Outer Armor

The unit's exoskeleton was design using a combination of a smooth Aerudirn shell reinforced with nonporous Agridinn plating, creating a combination of toughened regenerative armor with an overlay of disposable ultrahard over-armor. Due to the somewhat squat design the torso and and lower body have received the most armor, due to those sections actually containing the pilot. The arms are quite sturdy, but are not physically occupied by the pilot, and so are made to be easily jettisoned in case of emergency.

Armor Type: Light Structural Points: SP 8

Interior

The interior of the VAHIN appears to be filled with a smooth leathery substance with a chitinous sheen, segmented by a series of rubbery ribs that extend all along the torso.

Armor Type: Light Structural Points: SP 2

Life Support

The Graiv VAHIN's life support functions are tied in directly with the Organoid's natural bioelectrics and life functions, meaning that should power failure occur, these systems will continue to function until the components expire.

Organoid Integrated Life Support Functions + Prajna The organoid's Prajna glands will fill the cockpit module in the liquid breathing fluid once the pilot has activated the frame, and will withdraw it during the powering down process. The liquid also removes the need to eliminate waste, eat and can greatly assist in the healing process.

So-KM1-R0833 KORD System The KORD (Kinetic Force Diffuser) is an essential system that protects the soldier from weapons that kill through kinetic force, in a manner similar to maces against armored troops in ancient times.

Shields

So-KM1-S1833 Compact-type Resistor Barrier The Resistor projects a conformal combined EM/ES field around the unit, enforcing the surface tension of the armor it protects, preventing weapons penetration, partially or totally vaporizing solid munitions and preventing a respectable amount of damage from coherent and irradiating electromagnetic weapons.

Locations: Integral Shield Points: SP 6 (1) Runtime: Limited by Power Source Only

Power

Primary Power

So-KM1-G0833Compact COFU Reactor COFU reactors use advanced space compression to collapse the atomic structure of matter into itself and induce nuclear fusion. They run on a finite combination of tritium and deuterium, meaning that runtimes are limited. The Compact COFU reactor powers all systems onboard the Graiv VAHIN and produces enough surplus power to recharge the Zaiflar Supercapacitor in roughly 90 minutes.

Emergency Power Sources

So-KM1-G1833 Zaiflar Supercapacitor x1 Zaiflar Supercapacitor is an over-sized version of the power storage units employed by Solan Starworks in their small arms designs. Roughly the size of a scuba tank, a single capacitor has been inserted into the VAHIN, giving it a rechargeable source of emergency power. The Supercapacitor can provide power outputs equivalent to the COFU Reactor for 45 Minutes.

Electronics and Propulsion

Control Systems

So-KM1-E0833 VAHIN-type Immersion Control Pod w/ VCANIOS Core

Due to their natural interface abilities, designing a responsive and intuitive control system for an Iromakuanhe was relatively easy. This system, know as the Immersion Control Pod, allows easy and natural control of most vehicles, including large units such as powered frames and starships. The Control Pod is the seat component of the cockpit, and consists of a rounded chair in which the pilot is most comfortable in a reclining position, and multiple entry port plugs. The chair itself is lined in a soft, organic material lined in a highly flexible rubbery skin that is smooth to the touch and has a light golden reflective sheen. It will naturally conform to the user's body, and can even form cushioned indentations for the tips of horns.

Use

To connect with the machine, one must connect the plugs to their entry ports, which can be done manually, or automatically by the organoid. The pilot's senses and ability to move will then quickly begin to fade as they are rerouted to those of the frame, which they will be able to control as extensions of their own bodies. Weapons systems and certain functions may have to be practiced.

Note

Transfer of pain cannot occur because organoids lack developed tactile senses in most cases, however, the have been uncomfortable sensations reported by pilots when their units lost limbs or took heavy damage, similar to a sort of strong pressure. On very rare occasions, the sensory redirection effect caused by the control module lasts after disconnection from the craft, which will require immediate medical attention.

STL Propulsion

So-KM1-P0833 GE Lifter Propulsion

Mobility Information		
Function	**Speed/Distance**	**Detectability**
Atmospheric Flight	Mach 5	Low
Zero Atmosphere	.25c	Low

Communications Systems

So-KM1-E1833 Frame-type Communications Package

Location: Torso

Includes:

- Laser
- Radio
- MASC-Assisted Laser
- MASC-Assisted Radio

Sensors

So-KM1-E2833 Frame-type Sensors Package

Location: Head, Shoulder Blades

Includes:

- Vector Wave Sensors
- Subspace Mass Sensors
- LADAR
- RADAR
- MASC Particle Scanner
- Thermal Sensors

Electronic Warfare

So-KM1-E3833 ERP Projector The Empty Resonance Pulse, or ERP, is a potent electronic warfare system that could be seen as a modern analogue to the flashbang, by generating short burst that temporarily render space void of traceable emissions. It employs a combination of space compression and exotic charged particles that generates a short-lived effect, however, lingering particles may continue to hamper sensors for some time.

Location: Right Shoulder Max Pulse Range: 800 M Max Pulse AoE: 50 M Duration: 5 Seconds Rate of Fire: 1 Pulse per 20 Seconds

So-KM1-E4833 Listening Deveice The Listening Device is a system employed to passively intercept and

sample data being transmitted through unsecured methods. It is also a critical component in many important electronic warfare devices, and allows Astral Vanguard starships and vehicles to track the communications of hostile forces. As the unit approaches the source of the transmissions, it becomes increasingly easier to track, until a positive match can be made at a certain threshold.

Location: Head Can Intercept:

- Radio
- Microwave
- Subspace (requires Vector Wave Sensors)

Specifications		
Medium	**Maximum Interception/Detection Range**	**Tracking Range**
Radio	1 200 000 KM	30 000 KM
Microwave	600 000 KM	15 000 KM
Subspace	15 000 KM of Receiver or Sender	5000 KM

So-M1-E5784 Muted Resonance Shroud The Muted Resonance Shroud, or MRS, is a squad-assist stealth system that uses a combination of Vector Shroud-type space compression and exotic charged particles to create sections of space that appear very dim to sensors systems. These areas do not stick out as emptier than vacuum as with some related systems, but creates a signature similar to that of the space a significant distance from a star. The results in high difficulty in achieving targeting locks on and determining the nature of objects inside the field. Unfortunately, this has similar effects on the units deploying the field, forcing the runner to rely on FTL sensors such as MASC Particle, which may reveal his presence, though not necessarily his position.

Field Size can be lowered or raised, though it is suggested to limit the area of the field to the approximate area of the frame employing it, as to hide effectively, but not arouse suspicion by creating overly large zones that the enemy cannot scan properly.

Detection Range: 250 M Max Field Size: 1 KM

Countermeasures

So-KM1-E6833 Regenerative Beacon Flares

Location: Left Shoulder Purpose: Anti-Missile, Anti-Targeting Lock Secondary: Misdirection Salvo Size: 1, 2 or 3 Damage: MDR 1

Range: 25KM in Atmosphere, 15 000 KM in Space Rate of Fire: 1 salvo every 2 Seconds Area of Effect: 500M in Atmosphere, 2500 KM in Space Muzzle Velocity: Mach 6 in Atmosphere, .2c in Space Ammunition 12 Missiles Ammo Replenish: Can refill capacity in hospitable conditions in about 1 hour outside of combat. Any further attempts to refill will require an external source of biomass.

OOC Notes

Approved here.

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