

# 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 [Solán 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 *V*anguard *H*eady *I*Nfantry.



**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:* ADR 3
- *Needle Jet:* ADR 2

**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:** ADR 4

**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** ADR 4, 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-G0833 Compact 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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