

# Erla Vandr 2

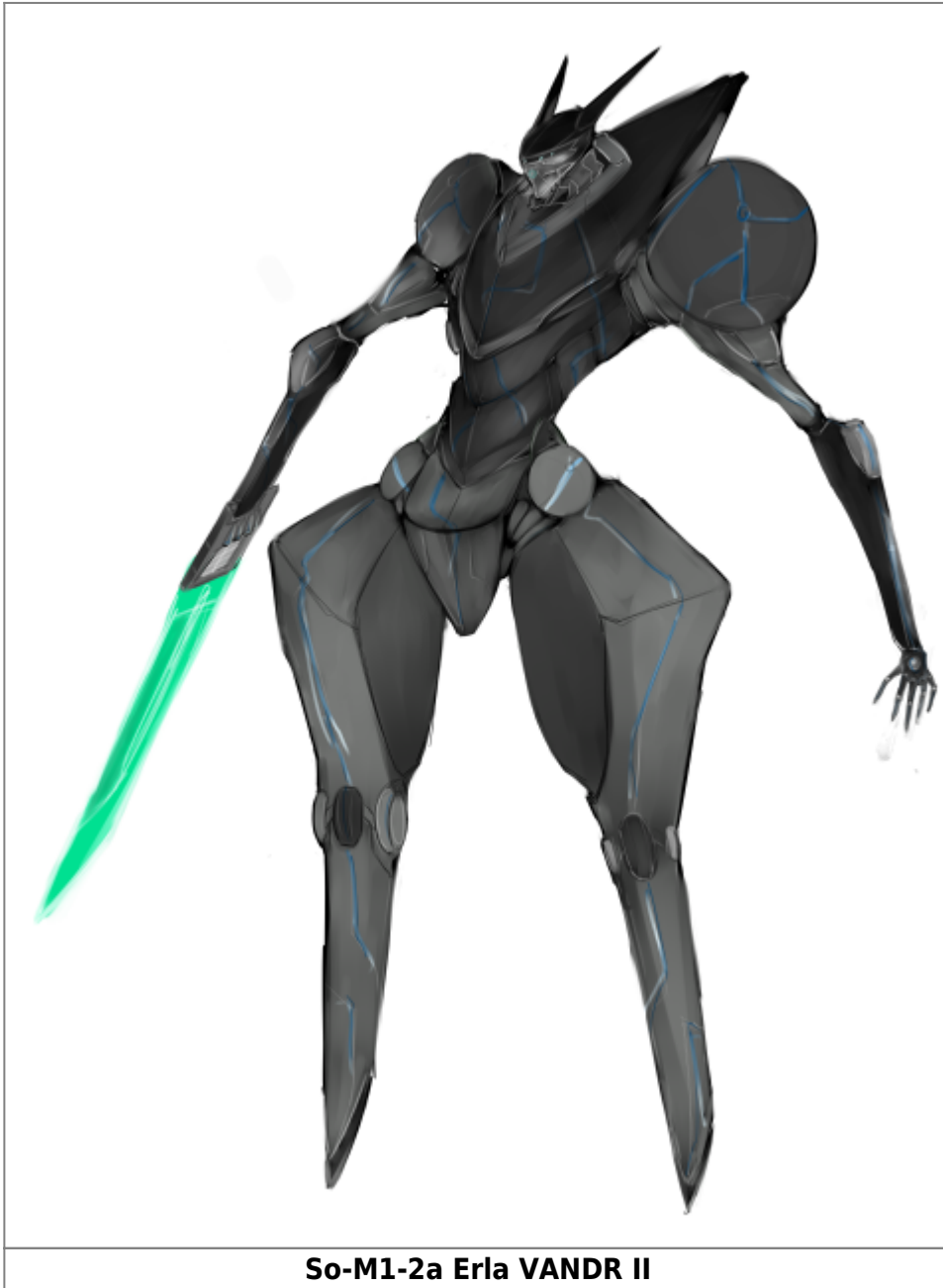
The Erla VANDR 2 is a mecha produced by the [Solon Starworks](#) for the [Astral Vanguard](#) of the [Iromakuanhe Astral Commonwealth](#).

## History and Background

The Erla VANDR 2 began as a refined version of the [1a version](#), but ended up being redesigned from scratch when it was found that design elements carried over from when it was intended to be a variable fighter had resulted in a large number of inefficiencies in the overall airframe and chassis. Although the design of the EV 2 is very similar to that of the original, modifications to the mechanical and weapons layout have given it a much more solid, and streamlined design.

However, the unit is effectively a transitional design, existing solely because an improved design was required but the technologies that would allow a truly and totally innovative piece remained to be completed were still in development. As a consequence, the Erla VANDR 2 was designed not to be a perfected version of its predecessor, but a testbed from which the new great VANDR-type weapons would emerge. Most of the technologies it mounted were too expensive to be featured in mass production, and the unit in general suffers from short runtimes because its zero-point power source is not able to provide full levels of combat-ready power.

When the unit finally was completed, it was distributed in limited numbers to certain frame wings which had distinguished themselves on the front lines, or were assigned to special operational divisions of the [Astral Vanguard](#).

**So-M1-2a Erla VANDR II**

## About the Erla VANDR II

The Erla VANDR is less of a skirmisher than its predecessor and was instead optimized for long ranged combat with an array of rapid-fire beam weapons, and short range with a powerful blade and burst cannon arrangement. Like the previous [Erla VANDR](#), it featured the power MASC Drive with its reliable low-speed FTL and 'Sublight Jump' ability, which allowed it to clear short distances with great ease and place itself near objectives in spite of hostile battle conditions.

In combat, the Erla VANDR sports twin [rapid beam cannons](#) on its forearms that allow it to continuously strike the enemy, and mounts a number of long ranged laser batteries that is almost equal to those of the EV, but better distributed, at the cost of reducing the number of missile racks.

Based on this balance between offensive shock potential and high maneuvering, the unit is more easily classed as an assault unit instead of a general-purpose model. In spite of this, Erla VANDR II are as likely to be seen on front line assaults and search and destroy missions as they are in reconnaissance because of a relatively capable silent-running profile. However, in exchange for these great boons in combat and stealth, much of the electronic warfare equipment that made the EV I so handily multi-purpose has been stripped out or reduced in scale.

## Statistical Information

Government: [Iromakuanhe Astral Commonwealth](#) Organization: [Astral Vanguard](#) Role: General Purpose/Close Combat Type: Organoid Powered Frame Class: So-M1-2A Erla VANDR II Designer: [Solán Staryards](#) Manufacturer: [Solán Starworks](#) Production: Limited Production<sup>1)</sup>

Crew: 1 [Iromakuanhe](#). Entry port inserts restrict the use of a standard model to [Iromakuanhe](#) pilots only. Maximum Capacity: There is sufficient room and life support resources to keep 3 people alive inside the cockpit.

Width: 3.66 Meters Height: 7.88 Meters Mass: 17.7 Tonnes

Range: Lifespan: 11 Years

### Speeds

Ground speed (Hover): 440 KM/H Air speed (Flight): Mach 7.7 Zero Atmosphere (Flight): .325c [MASC Drive](#) (FTL): 500c

### Damage Capacity

*For a more thorough understanding of DR values, see [Damage Rating \(Version 3\)](#)*

Hull : Tier 8 Mecha Shields: Tier 8 Mecha

## Interior Descriptions

### Cockpit

The cockpit is a cramped, cylindrical chamber on a slight angle that slopes down towards the front, with a seat similar to that of the [EV 1](#). The front is inset with electronic display screens for diagnostic purposes, while the sides open up into airtight compartments with rations and self-defense weapons stashed away in sealed bioplastic bags. The orange color scheme has been replaced with a more somber blue and grey, with lines of a reflective white outlining panels and access ports for electronics. Although claustrophobic

by comparison to the spacious cockpit of the 1a, this newer, more compact cockpit block has allowed for Solan to integrate the cockpit into the body.

## Weapons Systems

### (1): EV-II ABS [Advanced Blade System]

The Advanced Blade System is a powerful blade weapon that combines a [Veyrinite](#)-doped [Agridinn](#) blade with a wide-area heavy particle cannon. It is designed to give the unit high short-to-medium ranged capabilities as well as anti-ship and anti-frame potential in the form of its heavy beam cannon. Although fixed to the EV II's arm, the ABS may be disengaged and grasped in the hand to be used as a normal sword or rifle, drawing power through conductor channels in the palm of the hand.

Location: Right Forearm/Handheld

#### So-M1-W0935.A "Phantoma Edge" VT Sword

##### [VT Sword](#)

- Purpose: Medium Anti-Vehicle/Anti-Mecha
- Secondary: Anti-Shield
- Damage: T8, Kinetic Damage
- Range: 3 Meters
- Rate of Fire: Varies

#### So-M1-W0935.B "Shocksword" MCPA Cannon

##### [MCPA \(Medium Charged Particle Accelerator\) Cannon](#)

- Location: Vehicle-Mounted
- Purpose: Anti-Armor, Anti-Vehicle
- Secondary: Anti-Shield
- Damage: T8, Electrical Damage
- Range: 10 KM in Atmosphere, 45 000 KM in Space
- Rate of Fire: 60 RPM
- Area of Effect: .33 Meters
- Muzzle Velocity: .375c
- Ammunition 720 Particle Shots, Replenishes completely after 90 Minutes out of combat

**(1): EV-II ATA [Advanced Tactical Arrestor]**

The Advanced Tactical Arrestor is a 4.33 meter-tall combination shield and drone weapon dock that is meant to provide additional protection to the EV II and carry its six experimental 'VT Fang' weapons. The casing of the shield is created from [Veyrinite](#)-doped [Agridinn](#), with a coating of [ARTC](#) to give it stealth qualities. In addition to acting as a physical barrier, the inside is fitted with a shield extender that allows it to project a larger vector field without compromising its integrity. As with the ABS, it may be disengaged from the unit's forearms and carried in the unit's hands.

- Location: Left Forearm/Handheld
- Hull: 10

**So-M1-W1935.A "Phantoma Puzzle" VT Shield**[VT Driver](#)

- Purpose: Anti-Vehicle/Anti-Infantry
- Secondary: Anti-Shield
- Damage: T6
- Range: Varies
- Rate of Fire: Varies

**(12): So-M1-W1935.B "Phantoma Needle" VT Fang**[VT Fang](#)

- Location: Docked on ATA
- Purpose: Anti-Vehicle/Anti-Infantry
- Secondary: Psychological Warfare
- Damage: T8
- Range: .35 Meters
- Rate of Fire: Varies



## Hardpoint Weapons

### (2): So-M1-W2935 "Shocksting" RCPA Cannon

#### RCPA (Rapid Charged Particle Accelerator) Cannon

- Location: Left and Right Wrists
- Purpose: Medium Anti-Armor, Anti-Mecha
- Secondary: Anti-Shield
- Damage: T8, Electrical Damage
- Range: 3 KM in Atmosphere, 18 000 KM in Space

- Rate of Fire: 180 RPM
- Area of Effect: 1.5 Meters
- Muzzle Velocity: .35c
- Ammunition (Passive Mode): 200 Particle Shots, Replenishes completely after 90 Minutes out of combat
- Ammunition (Active Mode): Unlimited so long as the unit provides power.

#### **(4): So-M1-W3935 "Phantoma Glide" VT Driver**

##### VT Driver

- Location: Hands<sup>2)</sup>, Legs
- Purpose: Anti-Vehicle/Anti-Infantry
- Secondary: Anti-Shield
- Damage: T8, Electrical Damage/Kinetic
- Range: Varies
- Rate of Fire: Varies

#### **(4): So-M1-W3784 "Storm Ray" LEMB Laser Array**

##### LEMB (Light Enhanced Multi-Beam) Laser

- Location: Hips and Shoulders
- Purpose: Point Defense Weapon
- Secondary: Anti-Infantry
- Damage: T7, Electrical Damage
- Range: 5 KM in Atmosphere, 300 000 KM in Space
- Rate of Fire: Can maintain up to 12 beams simultaneously.
- Muzzle Velocity: 1c

#### **(3): So-M1-W4784 "Star Locust" PASD Missile Pods**

##### PASD (Particle Swarm Detonation) Missile

- Location: Lower Back and Rear Thighs
- Purpose: Anti-Armor, Anti-Vehicle
- Secondary: Anti-Shield
- Salvo Size: 9
- Damage: T6, 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.

## Systems Descriptions

### Hull and Hull Integrated Systems

#### Hull and Chassis

**Hypercarbon Sheath Armor (HySAr)** HySAr represents an improvement in materials science with the development of the **ADNR**-derived allotrope Hypercarbon, but a step forward in Iromakuanhe engineering principles. Although it moves away from the strictly organic armor of previous designs, it affords greater protection and survivability. Although more expensive when compared to **Aerudirn**, maintenance is easier and the armor more affordable than almost any other of its weight category.

**Organoid-type Substructure** Highly resilient organoid tissues form the remainder of the body, including an endoskeleton, muscles and primitive organs that perform various functions related to keeping the unit and runner alive. The tissues have exceptional toughness compared to those of normal species, and can even survive in vacuum conditions should the entirety of the upper armor layer be destroyed. Given the living nature of the organoid, the frame will retain the ability it move its limbs, even in the event of power failure.

#### Life Support

*The Erla VANDR'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-M1-R0784 KORD System** The KORD (Kinetic Force Diffuser) is an essential system that protects the frame runner from the tremendous G-Forces and shocks the Erla VANDR experiences during both before and after FTL travel and during highly perilous combat maneuvers. It also protects from weapons that kill through kinetic force, in a manner similar to maces against armored troops in ancient times.

#### Shields

**So-M1-S1784 Frame-type Vector Shroud** Vector Shrouds are sophisticated vector field systems that

envelop the craft in a conformal shell of compressed space, allowing one to become relatively invisible to electromagnetic and particle based sensors, and shrinking the frame's profile to other systems. As a shield, it is reliable and particularly effective versus energy weapons. Shares SP with the Vector Barrier Guards.

Locations: Integral Runtime: Limited by Power Source Only

So-M1-S1784 Vector Barrier Guard More powerful but considerably less reliable than the Vector Shroud, the Vector Barrier is the first line of defense in the field, and an excellent last resort. They employ advanced space compression to generate a long 4m oval shield that is separate of the main unit and acts as a kind of disposable barrier. These are generated at various locations on the frame unit and remain fixed in proximity to the module that formed it.

Locations: Left Forearm Runtime 3 Minutes

## Power Generation

### Reactor

[So-M1-G0935 Frame-class ZeP Siphon](#)

### Capacitor System

[So-M1-G1935 Frame-class NEn Capacitor x6](#)

## Propulsion

### Main

[So-M1-P0935 Vector Transition Drive](#) The VT Drive is a variant of the [MASC Drive](#) that has been optimized for powered frames, that replaces the fins and extensions of the basic MASC Drive with a substructure and underarmor that has been heavily doped with purified [Veyrinite](#), effectively internalizing the complex geometry required to produce the funnel-like compression of space that could be turned to functional propulsion. Although such techniques were used on spacecraft, the technology could not be sufficiently micronized for practical usage in powered frames until the inception of the Mk II.

The drive allows for both slower than light and faster than light travel, as well as a third mode known as the 'Vector Translation' or 'Sublight Jump'. As long as sensors are functional, the pilot may initiate a sudden jump to any point within a range of under a light second without charging their drive system. When undertaking this 'Sublight Jump', the unit loses all directional momentum as a consequence of inertial dampening and the distortion of the mecha's compressed space fields.

Faster than light travel requires several minutes of charging and calibrations to ensure the creation of

stable corridors in compressed space, else the unit might experience critical damages during or after transit.

## Maneuver

[So-M1-P1935 Lift Ring System](#) Because the MASC Drive itself is less effective than conventional drives in atmospheric conditions, the EV II partners it up with an array of [GravElectric \(GE\) Lifter](#) rings which have been placed at the joints and extremities of the powered frame. These generate anti-gravity forces that allow it to propel itself as easily as if it were in microgravity conditions, and can generate precise thrust through the manipulation of Lorentz Force fields. This allows it greater land<sup>3)</sup> and air speed.

## Electronics

### Control Systems

So-M1-E0784 VANDR-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 contains 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.

## Communications Systems

### [So-M1-E1784 Frame-type Communications Package](#)

Location: Torso, Cockpit Pod

Includes:

- Laser
- Radio
- [MASC-Assisted Laser](#)
- [MASC-Assisted Radio](#)

## Passive Sensors

[So-M1-E0935 Frame-type Passive Sensors Pod](#) The passive sensors of the Erla VANDR II consist of advanced long-range RADAR for area scanning, along with [Vector Wave Sensors](#) and [Subspace Mass Sensors](#) for early warning purposes. With the exception of RADAR, the components of the passive sensors package do not produce any traceable emissions at low-level operation. The array consists of two clusters, located in the head antenna and rear cockpit pod.

Includes:

- [Vector Wave Sensors](#)
- [Subspace Mass Sensors](#)
- RADAR

## Active Sensors

[So-M1-E1935 Frame-type Active Sensors Pod](#) For the purposes of seperating sensors and streamlining design, the Erla VANDR II has its passive and active sensors seperated and located in areas where they would be considered most effective. The pods that comprise the passive sensors contain a short-range thermal scanner for low-light operations and lifesign detection, high-energy LADAR emitter as well as long-range [MASC Particle Scanner](#) nodes that allow the mecha to target or scan objects at an extreme distance. These sensors are often of greater importance during combat and when determining the course for high-speed STL and FTL maneuvers.

Includes:

- [LADAR](#)
- [MASC Particle Scanner](#)
- Thermal Sensors

## Stealth and Countermeasures

### Passive Stealth

**So-M1-E2935 Phantom Sink System** The Phantom Sink System is a system that was developed specifically for the Erla VANDR II, that uses the reactor and primary drive system to effectively regulate the space immediately around the unit, allowing it to camouflage itself by imitating background radiation and heat levels within 88% accuracy. This is done by effectively sinking reactor by-products such as heat, heat gradient, neutrinos, loose virtual particles and electromagnetic radiation back into the artificial space that it taps for energy. However, the reactor must be operating at at least minimal levels to initiate this effect or the system will be unable to function.

In practice, this means the mecha can hide in plain sight in areas with large numbers of mecha with Aether, Quantum Foam and Zero-Point reactors, and be difficult to track in even nominal conditions.

### Active Stealth

#### So-M1-E3935 Phantom Shroud System

The Phantom Shroud is a non-conventional piece of technology that is being testbedded on the Erla VANDR II to test the possibility of using volatile Veyrinite rods in stealth applications. The technology works by exciting a fist-sized core of [Veyrinite](#) and bombarding it with virtual particles being fed directly from the EV II's [ZeP Siphon](#). This causes the mass to grow and fragment into a dense colloid of pseudo-Veyrinite which can be released from exhaust ports in the unit's underarmor. When this colloid comes into contact with the vector fields generated by the drive and shield systems, the material becomes excited and begins to emit virtual photons which scatter and form into blueish afterimages.

When standing still or moving slowly, these afterimages scatter around the powered frame and limit the effectiveness of long-ranged targeting. While the mecha is moving quickly, the images trail behind in a loose manner and assist in the evasion of missiles and other homing projectiles. The pseudo-Veyrinite colloid also generates distortive forces, generating a wake that can cause turbulence for light craft attempting to pursue the EV II. Because the material is expensive, the Phantom Shroud should be used sparingly and may not be included in a mass-production version of the Mk II.

### Countermeasure

#### (2): [So-M1-E6784 Regenerative Beacon Flares](#)

Location: Hip Pods Purpose: Anti-Missile, Anti-Targeting Lock Secondary: Misdirection Salvo Size: 1, 2 or 3 Damage: T3, Electrical Damage

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 24 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.

## (2): So-M1-E4935 Regenerative Canister Missiles

Location: Side Torso Pods Purpose: Anti-Beam, Sensors/Communications Jamming Secondary: Misdirection Salvo Size: 3, 6 or 9 Damage:

- *Impact*: T3
- *Cloud*: T3

Range: 20KM in Atmosphere, 12 500 KM in Space Rate of Fire: 1 salvo every 2 Seconds Duration: Cloud dissipates after 20 seconds. Area of Effect: 400M Muzzle Velocity: Mach 3 in Atmosphere, .1c in Space Ammunition 27 Missiles Ammo Replenish: With power supply from reactor, 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.

## Misc

### Internal Storage

There are internal storage compartments within arms reach of the pilot on the left and right, with each roughly 50cm x 25cm x 25cm in size. By default, they contain:

- Rations
- 2 Litres of water
- (4) [Leyflar Supercapacitor](#)
- (1) [Solanii Laiz Carbine](#)

### Crowd Control Device

The mouth of the Erla VANDR II is equipped with a gland that can project capsules of an organic foamy adhesive, which break on impact. These allow the pilot to restrain civilians and unarmored infantry without harming them, and can also be used to anchor light objects to surfaces.

### Optical Distortion Emitter

The metamaterial coating of the unit's HySAr armor can be electrically charged to generate a functional stealth field. Although not originally meant to be used as such, it can function as an optical stealth system when outside of combat. The power of a single [NEn Cap](#) can power the ODE for up to 11 days without recharging.

## BHS

Biomass Harvest System (BHS)

## OOC Notes

Authored by [Ametheliana](#) and approved by [Doshii Jun](#) on March 2, 2017<sup>4)</sup>

<sup>1)</sup>

Approximately 1 new 2A model for every 300 existing 1A's.

<sup>2)</sup>

VT drive geometry extends throughout the arms, but only the hands are exposed.

<sup>3)</sup>

While hovering and performing low-atmospheric maneuvers.

<sup>4)</sup>

<https://stararmy.com/roleplay-forum/index.php?threads/iromakuanhe-erla-vandr-2-dr-v3-update.49032/>

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Last update: **2023/12/21 00:59**

