

# Maelstrom Armor System

## History and Background

The “Maelstrom” project was originally founded by the Lorath as a response to the threat of power-armor assets fielded by neighboring nations. Through observation of armor deployments during the span of YE 28 to YE 30, the Lorath Matriarchy was able to gather data regarding common-place armor deployment, and modern power armor capabilities. This research was further pushed along by the YE 29 encounter between the LSDF, YSS Sakura, and Black Spiral. The resulting data gathered from the conflict was enough to guide Lorath armor development from that point onward.

During the early development of the Lorath power armor program, several offshoot developments were made which included the [Winter series](#), the [Whirlwind](#), and the ['Wind' Armor Series](#). These systems however did not fully account for the compact-yet-effective nature of modern power armor fielded by other nations. However, due to the success of the AMX-Series program, the Maelstrom project was effectively put on hold.

The Maelstrom project would find new life in late [YE 30](#) through the endeavors of the [United Manufacturing Cooperative](#) and its duty of utilizing the full assets available to it through its affiliates and members. The technicians of the UMC came to the conclusion that the Maelstrom project had untapped potential, and thanks to this glimmer of potential, the Maelstrom project was revived but in an entirely new context. The UMC's goal for the project was to integrate the original intent of the Maelstrom project, with the equipment which was available to the UMC through its affiliates.

## About the Maelstrom

The Maelstrom power armor incorporates [United Manufacturing Cooperative](#) technology into a compact package designed to be utilized as a space supremacy armor and basic infantry support unit. Primarily, the Maelstrom is designed to be utilized as a heavy-infantry unit when in ground applications, and as a superiority fighter in space applications. its design is primarily focused on survivability, sacrificing the petite appearance common to many power armor, and instead favoring heavier defenses and increased system capacity.

## Primary Applications

Anti-Fighter, Anti-Power armor, Anti-Missile, Anti-Starship<sup>1)</sup>

## Statistical Information

**Governments:** Lorath Matriarchy, United Outer Colonies **Organizations:** United Manufacturing

Cooperative, Lorath Self Defense Force, United Outer Colonies Peacekeeper Force, Motoyoshi Fleetyard.  
Type: UMC-PA-M/WS-001 Class: Power Armor Designer: Lorath Matriarchy, United Manufacturing  
Cooperative Manufacturer: United Manufacturing Cooperative & Authorized Affiliates Production: Mass  
Production

Crew: 1 Maximum Capacity: 1 **Appearance:** The appearance of the Maelstrom is comparable to that of other conventional heavily armored power armor projects such as those fielded by Nepleslia or Elysia.

The structure of the Maelstrom is that of a 'stalky' humanoid shape. A pair of thrust units are apparent on the unit's back. The unit's head module is set low into the shoulders of the unit to provide a minimal target area. Forearm weapon modules are half-exposed, with much of the working components housed within the large arms of the Maelstrom, while firing components are exposed outside of the arm housing. In most load-outs, a missile-launch tube with feed-magazine is mounted on the rear of one of the shoulders of the unit. While looking quite centralized around defense, the Maelstrom also includes curvature which is indicative of it's original Lorath manufacture, it's appearance conforming much to that of larger suits of Fyunnan plate armor. This design motif also includes the feature of sloped surfaces and curved armor plate thus improving the Maelstrom's defensive capability while delivering an ascetic.

Width: 3.50 Meters Height: 7.75 Meters Mass: 2575 lbs<sup>2)</sup>

## Speeds

**Ground speed:** 90 MPH, Can Leap Up to 250 Meters In 1G **Air speed (Combat Mode):** 390 MPH **Air speed (Flight Mode):** Mach 3.5 **Zero Atmosphere (STL):** .370c **Zero Atmosphere (FTL, subspace drive):** 3000c **Zero Atmosphere (FTL, CDD):** 500c

Range: 25 LY Lifespan: 5 Years

## Weapons Systems

The Maelstrom is capable of utilizing standard hand-held power armor and infantry equipment which is available to be produced by the United Manufacturing Cooperative, UOC, Lorath Matriarchy, and Motoyoshi Fleetyards. Note, additional weapon systems can be mounted onto the Maelstrom's exterior hard-points.

**Weapon System Note:** The Maelstrom is capable of utilizing equipment intended for the AMX-Series armor program.

### Mounted FMS-1-EX+

The Maelstrom includes a right-arm mounted [FMS-1 Linear Rifle "Stalwart Special" Plus](#) model. The 'EX' designation indicates that the FMS-1's magazine capacity has been increased and an additional two pairs of firing rails have been fixed onto the unit. **Location:** Right Forearm **Number:** 1 **Primary Purpose:** Anti-Armor **Secondary Purpose:** Anti-Infantry **Damage:** Tier 3, Heavy Anti-Personnel Range: 2000

Meters **Ammunition Payload:** 2,000 'Needle' payload contained in detachable drum-magazine.

**Discharge Payload**<sup>3)</sup>: QNC Power Cell, ten-thousand round capability without power cell replacement.

## Mounted "Hik'id" Plasma Weapon System

An armor integrated version of the [LSDF "Hik'id" Plasma Assault Rifle](#) with trigger assembly removed and weapon power output increased to scale with Maelstrom power systems.

**Location:** Left Forearm **Number:** Two, Side-by-side mounted **Primary Purpose:** Anti-Armor

**Secondary Purpose:** Anti-Infantry **Damage:** Tier 5 **Range:** 500 Meters **Payload**<sup>4)</sup>: QNC Power Cell, Five Minutes Sustained Discharge Duration

## Anti-Personnel Laser System

The anti-personnel laser system is a step back to the ordinary, utilizing basic laser beam technology, this system incorporates small one inch thick 150kw liquid-medium laser emitters tied into the armor's power systems. Each laser is mounted on a pivoting mount which allows for the angle of the emitter to be adjusted. The pilot can also set the mount to rapidly oscillate the emitter mount while firing to optimize the area effected by the laser discharge by rapidly moving the laser's beam to pass over a larger target area much faster than the pilot could move to sweep the weapon.

**Locations:** Two rear units on pivoting 'ball' mount, two per hand located on back of hand module placed on a 45 degree mount. **Purpose:** Anti-personnel, obstacle removal **Effect:** The anti-personnel laser systems are designed to deliver burning and melting damage to light armor, and total incineration of organic matter which comes into contact with the laser. **Secondary Setting Effect:** The laser system can be adjusted in power and intensity to produce various levels of damage, thus is able to be decreased in intensity to the point where the laser would only be able to harm sensitive targets, such as the eyes of an organic target, or sensitive electronic systems. **Damage:** Tier 3, Heavy Anti-Personnel **Range:** Can be scaled and focused between and to 1 M effective range, to 10 km effective range. **Rate of Fire:** Streaming

## Antimatter Munitions Launcher

The Maelstrom includes a [Antimatter Munitions Launcher](#) system mounted upon its right shoulder on a pivoting mount capable of adjusting to 120 degrees. This mount allows for the launcher to be folded behind the shoulder of the Maelstrom, while at the same time being able to be brought into a forward position.

**Location:** Right Shoulder Mount, Capable Of Folding Back **Primary Purpose:** Anti-Armor **Secondary Purpose:** Precision Strikes on Starships and Planetary Installations **Damage:** Tier 8 **Payload** 5 Round Magazine **Rate of Fire:** One Round Per Three Seconds **Notes:** The antimatter munitions in use aboard the Maelstrom incorporate UOC and UMC missile propulsion technology. Additionally, this unit incorporates an automated reloading mechanism. The launcher is also capable of utilizing Lorath S-Size munitions.

## Plasma Saber

The Maelstrom includes a retractable [Magnetically Contained Charged Plasma Saber](#) which includes its own power supply, and is also tied into the armor's power systems. The saber can be deployed upon the forearm, or can be extended and grabbed onto by the hand module.

## Mini-Missile Pods

Adapted from the original application on the [Tenshi no Yoru 'Tenshi' Light Mechanized Power Armor](#), the [Mini-Missile Launchers](#) have been designed to be incorporated upon the Maelstrom's leg modules in the thigh region. Due to this mounting, ammunition capacity is reduced.

**Locations:** Left and Right Thighs, Outer Area **Primary Purpose:** Countermeasure and Munition Deployment **Secondary Purpose:** Medical Drone Deployment **Damage:** Varies Payload 25 Missiles Per Launcher **Notes:** Along with the standard UOC munitions, the Mini-Missile Pods can also utilize Lorath Mi-Size munitions.

## Hand Module Melee Augmentation

Each hand of the Maelstrom includes a set of retractable [Nerimium](#) claws. These claws, when extended, allow for a 'maw' like structure to be formed. This 'maw' is designed to be placed over an opposing armor's head, or latch onto the torso of an opposing armor. The claw system is assisted by a magnetic servo system which allows for the 'maw' to be closed upon a target, either crushing or slicing the grasped target.

**Intended Damage:** Vs. Individual: Tier 3

## Dedicated Countermeasure Deployment System

Placed on the hips of the Maelstrom are two six-shot launchers which are capable of deploying UOC-type mini-missiles and Lorath-type Mi-Size missiles. By regulation, these launchers are dedicated to deployment of countermeasure ordinance and ordinance with a damage rating not to exceed DR 1. Each launcher is configured to have three launch tubes arranged in the forward facing position, and three arranged in the rear facing position.

## Solid Munition Countermeasure Deployment System

Placed in the knees, upper-arms, and chest of the Maelstrom are a total of ten<sup>5)</sup> four-shot 10-Gauge smooth bore firing ports intended for high-velocity nerimum-ball shot by default and are intended to be utilized as fire anti-ordnance munitions. Alternatively, the firing ports can be loaded with [20mm Lorath munitions](#). These firing ports are intended for defensive usage, however, they are capable of accepting

offensive munitions.

**Damage Rating:** Nerimium Ball Shot, Tier 2, Medium Anti-Personnel. Alternative ammunition damage ratings vary.

## Systems Descriptions

### External Armor

The exterior armor shell of the Maelstrom has been designed to optimize surface area available for the attachment of components. The chest, shoulders, upper arms, and forearms have been bulked up considerably in comparison to a majority of conventional armors. These regions of the Maelstrom are comprised of a solid armor shell placed over an insulation layer of radiation absorbent materials and smart materials designed to aid the armor in repairing itself after damage is sustained.

The mid-torso region was developed to have increased thickness but due to the need of being able to bend and move, the torso region was designed to incorporate [Structural Layering System](#) technology, the structural mesh region is protected by a series of solid armor plates configured in a band-like horizontal configuration with each band overlapping.

The legs of the Maelstrom are designed to promote range of motion while also allowing for optimal protection. The thighs and shins of the armor are comprised of two solid plate shells placed over an insulation layer and smart material layer much like the upper torso. The joints however are comprised of a smart material to aid in motion.

Additionally, a set of retractable armor shells are included beside each joint which can be moved into place to effectively lock the armor's limbs in place in the event of a pilot requiring structural support.

### Armor Composition

**Exterior Shell Component Composition:** [Duremium Alloy](#) **Joint Composition:** Class-A [Structol](#)  
**Insulation Layer Composition:** Boron-Carbide

### Structural Support

The Maelstrom's interior supports which hold together the armor's plates and components are comprised of [Duremium Alloy](#) and Class-B [Structol](#). These supports consist of duremium tube structures with Class-B structol interior compositions. These tubes are capable of transmitting data regarding the armor's status and are also capable of directing armor functions.

Placed between the duremium support tubing is a filling of Class-A Structol which is utilized as a motion augmentation feature by using the structol as a synthetic muscle material which facilitates the power armor augmented pilot motions.

## Interior Control Suit Options

Due to the size of the Maelstrom, conventional pilot compartments found aboard the AMX-Series armor could not be utilized. As a measure to promote survivability of the Maelstrom and the pilot of the Maelstrom, the option was taken to incorporate a pre-existing armor system as a control suit. This feature also accounts for providing the Maelstrom with a sizable portion of its operational equipment without actually dedicating a portion of the Maelstrom itself to the functions covered by the control armor. The inserted control suit effectively wears the Maelstrom upon it. The Maelstrom's systems are connected to the control suit through hardwire interface thus allowing for the two systems to work in tandem. To promote optimal fit, the interior of the Maelstrom includes an insulation layer of soft structol material which conforms to the inserted control suit and utilizes Class-B structol to create hardwire interfaces.

### Lo-M1-3 / SDI-M3 Hunter Powered Suit

An option for interior control suit includes the [Lo-M1-3 \(SDI-M3\) Hunter Powered Suit](#).

### Gust Armor System

Part of the original Maelstrom project concept founded by the Lorath, the option of utilizing a '[Wind Armor Series](#)' with [Gust Armor Kit](#) remains available.

### Tenshi no Yoru Light Mechanized Power Armor

To facilitate usage by Peacekeeper forces, the Maelstrom includes the possibility of utilizing the [Tenshi no Yoru 'Tenshi' Light Mechanized Power Armor](#) as an internal control suit.

## Integrated Storage

The Maelstrom armor includes a series of panels placed on the thighs, torso, and upper arms which can be slid aside to reveal an adjustable [Stone Thread](#) strap which can be utilized as a means of holding extra weapons or equipment upon the armor.

A storage compartment can be added which can be mounted onto the back of the armor system. The back mounted storage area is a hollow and padded section which is 80cm in length, 35cm in width, and 10cm in depth.

## Power Systems

## **QNC Reactor**

The Maelstrom is powered by a pair of High-Performance Military Vehicle Grade [QNC](#) power systems.

## **Energy/Matter Converter**

To facilitate some of the Maelstrom's needs such as structol nutrient supplies, weapon system plasma, and engine plasma the Maelstrom includes a basic energy-to-matter converter which can convert power from the QNC into matter which is distributed from the converter to needed systems through a series of Class-A structol tubes which utilize a pulsating motion to push matter through the armor much like a vascular system. The energy/matter converter found aboard the Maelstrom is a purely utility model, with no capability of offensive or even defensive use.

## **Strength Assist Augmentation**

As a means of increasing the strength of mechanical motions, the Maelstrom includes a layer of Class-A Structol layers placed in a manner comparable to muscular tissue. The structol placed is conditioned to respond to control-armor motions and pilot data output. When instructed to do so, the structol either expands or contracts in a manner consistent to what is desired by the armor pilot. The result of the strength augmentation is a drastic increase to the internal control suit's mechanical motion output.

The strength assist augmentation system also doubles as a structural stabilization system when the Maelstrom is in high speed atmospheric flight or in high-G maneuvers, this prevents the limbs of the Maelstrom from 'rag-dolling'.

## **'Torrent' Plasma Thrusters**

The 'Torrent' plasma thruster system is much the same [propulsion technology](#) which can be found aboard a majority of Lorath vehicles. However, these systems have been augmented with AMX-Series technology to deliver greater performance. Plasma thrust is generated by utilizing a focused laser and microwave system to super-heat plasma which is forced into the thrust system by electromagnetic conduits. Plasma is forced from the conduit to a vent system which expels the pressurized plasma as thrust. However, the innovation comes in the form of the plasma vents which consist of specialized venting channels designed to promote casimir forces which force the released plasma out in a finer more precise stream. Due to this precision, less plasma is required to produce higher speeds.

The 'Torrent' thrusters are placed upon a pair of folding and pivoting 'wings' or 'fins' which extend from the shoulder blades of the Maelstrom. The thrusters are configured in a cluster formation which allows for rapid re-allocation of thrust which allows for rapid course corrections. Additional smaller plasma thrust units are placed upon the rear of the Maelstrom's thighs, within the 'feet' modules, middle-torso, and shoulders.

## CDD Field Generator

Borrowing from the Tenshi armor series, the UMC added a low-power CDD system to the Maelstrom. Unlike in other projects, the CDD in this application is not dedicated to interstellar travel, instead, it is dedicated to maneuvering. In the event of high-speed combat situations, the CDD of the Maelstrom can be activated to allow the Maelstrom to continue to move in a direction while at the same time using its plasma thrusters to turn itself to face a target without changing its course.

## Subspace Drive System

The Maelstrom includes a compact [Enhanced Subspace Wave Drive](#). However, due to the compact nature of the system it is only able to deliver a maximum speed of 3000c.

## Gravity Field Generator

The Maelstrom includes a gravity field generator integrated to allow for greater ease of handling, and as a defense against scalar based weapon systems.

## Shield System

The Maelstrom utilizes [Lorath Shield System Technology](#) mixed with Motoyoshi Fleetyards grade engineering. This meeting of technology allows for the optimal output of the Lorath shield systems, thus allowing for peak efficiency from the system. The Maelstrom includes the Lorath's plasma, electromagnetic, and gravitational shield technology.

## Damage Rating

Heavy Armor, SP x1.0

## Sensor System

The Maelstrom includes common and uncommon [Lorath Sensor Packages](#) in tandem with the sensors which could be found aboard the control-suit within the Maelstrom. Certain sensors of the internal control suit are rendered ineffective due to being concealed within the Maelstrom, such as visual and audio sensors.

## Communications



The Maelstrom includes [Lorath Communications Systems](#) including hyperspace and subspace systems.

## **Psionic Scrambler**

Included on the Maelstrom is a Lorath produced [Psionics Scrambler Device](#)

## **Mobility Enhancement System**

To enhance the ground mobility of the Maelstrom, a series of electromagnetic driven rollers are included in the feet of the Maelstrom. These rubber-treaded rollers are capable of moving the Maelstrom at considerable speeds over ground surfaces. These rollers can include an adhesive system for traveling on starship hulls.

## **Exterior Mounting System**

The Maelstrom includes mounting brackets on its forearms, upper arms, upper back, lower back, hips, thighs, lower legs, hands, and head. These mounts allow for the Maelstrom to have additional systems installed upon its exterior. Each mounting bracket includes a secure power and data port which requires pilot permission to have power and data fed through the mounting point.

## **Internal Armor Ejection System**

In the event of catastrophic system failure, the Maelstrom is capable of utilizing a gas-pressure system to eject the internal control armor from within the Maelstrom. A set of disposable liquid-fuel propulsion boosters are also attached to the internal control armor and are ejected after use. When the ejection system is activated, the structure of the Maelstrom separates into its individual components to allow for the internal armor to escape.

## **Emergency Medical Drone Launcher System**

A pair of small launch tubes are included on the thighs of the Maelstrom, these launch tubes are specially designed to launch S-Size [Remote Medical Drones](#). Each tube holds one drone.

## **Grappling Cable Launcher**

Located on the undersides of the forearms of the Maelstrom are two small launch tubes intended solely for the purpose of launching a grappling hook device. The grappling hook itself is designed to utilize a set of retractable prongs and magnetic forces to secure itself upon an anchor point. The grappling hook is secured to the Maelstrom by a stonethread weave cord which is capable of sustaining up to one-hundred tons of pressure before cord failure. Each launcher contains two-hundred meters of cable fixed onto a

magnetic reel system.

## **Sensitive Material Disposal System**

In the event of potential capture or disabling of the Maelstrom, the Maelstrom includes a self-destruct mechanism which activates in the event of pilot death, remote command by command-level staff, or by pilot command. The Maelstrom self-destruct utilizes a series of small plasma vents placed throughout the interior of the Maelstrom's structure. When activated, plasma is routed from the Maelstrom's power and propulsion systems and delivered throughout the self-destruct tubing network. This results in the vaporization of all key Maelstrom system and structural components. In the event of plasma system failure, antimatter can also be utilized in the self-destruct system or the Maelstrom's ammunition magazines can also be internally detonated.

## **Unit Cooling System**

To prevent the Maelstrom from becoming excessively 'pronounced' to sensors due to its power systems, and to prevent system burn-out due to the high levels of heat produced by the Maelstrom's systems, the Maelstrom includes a series of cooling systems designed to prevent unit burn-out.

### **Coolant Circulation System & Refrigeration**

Placed through key points of the Maelstrom is a 'circulatory system' designed to convey liquid nitrogen to points of the Maelstrom which require cooling. The circulatory system functions by utilizing conventional pumps to force the liquid nitrogen through the system. When circulated, the liquid nitrogen eventually evaporates due to temperature increase. Evaporated material is routed through a series of smaller circulation passages which convey the material to a magnetic cooling system which cools the material to the point of condensation. Once the evaporated nitrogen is liquefied once more, it is routed back into the circulation system.

### **Thermic Cyclor Units**

Incorporated into the Maelstrom are a series of specialized cooling and power supply units which function like the [Thermic Cyclor](#) found on AMX-Series armor units. Unlike the AMX-Series, the Maelstrom does not utilize its structure to provide the casimir fields involved in the process, but instead utilizes dedicated units intended as cooling devices which are used to draw heat from certain systems and route the heat to reclamation systems within the Maelstrom which process the thermal energy into electrical energy or route the excess thermal energy to interact with the coolant circulation system, thus reducing excess heat.

## Active Refrigeration

A series of 'Active Refrigeration Units' are placed adjacent to high-heat producing systems, such as plasma focusing systems, laser emitters, etc. The active refrigeration system utilizes a combination of heat-sinks, thermic cycling, and magnetic cooling to produce a cooling constant within and on the surface of key structural components and systems.

1)

In sufficient numbers

2)

Full Equipment

3) 4)

When not receiving power from Maelstrom's reactor

5)

Two per limb, two on chest

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