

EM-G7 Emrys Environ suit

The EM-G7 Environ suit allows the wearer to operate in a hazardous environment safely. It was originally developed for use by the [Star Military of the Democratic Imperium of Nepleslia](#), it became available in [YE 33](#).



Emrys Industries

A Yamahagane Company

Manufacturer: [Emrys Industries](#) Nomenclature: Em-G7-1a Type: Environmental suit Class: Protection

About the EM-G7 Environ Suit

The latest product of the Dusk Project of [Emrys Industries](#). Originally intended to be the EM-G1-3a, the redesign of the suit warranted it being considered a new product entirely.

The EM-G7 features an armored upper body module that is worn over the flexible body suit. This upper body module provides better protection from space hazards, and serves as an integrated propulsive unit.

The EM-G7 can be worn with the [EM-G8 Gravity Boot](#), or the older [EM-G3 Mettolidae Boots](#).

History of the EM-G7

The EM-G7 started out as an effort to improve the venerable [EM-G1 Emrys Dusk Suit](#). After more than five years of use in the field the designers collected the various customer complaints and worked on solving them. With the advent of the [Star Army Environmental Suit, Type 28 \(AMES\)](#), the designers chose to focus their attention on non-Nekovalkyrja. After six months of design and trials, the EM-G7 was put into production.

The EM-G7 has been part of the [Nepleslian Star Navy's Nepleslian Standard Issue Equipment](#) since [YE 33](#) (OOC: FM approved in June [2012](#)) and is the Nepleslian equivalent of the [Star Army Environmental Suit, Type 28 \(AMES\)](#).

Specifications

- **Appearance:** The EM-G7 is a charcoal colored body suit that covers the entire body, and a smooth helmet. Custom colors are available at a small cost modifier. The Upper Body Module is typically a high gloss black.
- Length: Comes in a variety of sizes, around an inch larger than the wearer.
- Width: Comes in a variety of sizes, around an inch larger than the wearer.
- Height: Comes in a variety of sizes, around two inches larger than the wearer.

Range (Support): The EM-G7 is capable of operating for four days (this is using a human as the base wearer).

Lifespan: The EM-G7 is resilient, but being exposed to extremes tends to erode at it slowly. It is not recommended that a single suit should be used for more than six months, if used frequently.

Propulsion and Range

Maneuvering System

Maximum acceleration: .5m/sec²

Range: 7,200 seconds (120 minutes) of thrust at .5m

Booster System

Maximum acceleration: 10 meters/sec² Emergency acceleration: 20 meters/sec² (Note: Fuel Consumption doubled)

Range: 300 seconds (5 minutes) of thrust at 10 meters/sec²

Weight

- **Total Suit with UBM** 80 lbs
- **UBM Only** 60 lbs full, 50 lbs empty
- **Helmet** 5 lbs
- **Suit alone** 15 lbs

Damage Capacity

See [Damage Rating \(Version 3\)](#) for an explanation of the damage system.


- Upper Body Module (Only): Tier 4, Light Armor

Pricing

- 500 [KS](#)

Systems

Body Suit

The suit is made of the same base polymer developed for the [EM-G1 Suit](#), an outer  [Para-aramid](#) layer has been added for increased protection. The Polymer also does increase the wearer's strength, and if worn planet side, it can be used for its increased strength and durability. The suit includes a pair of gloves usually a different color than the main suit. On the lower legs of the suit there are electrical connectors to connect to the [EM-G8 Gravity Boot](#). There are small pockets on the forearms, and the upper thigh for storing items.

Upper Body Module

The Upper Body Module or UBM is worn over the shoulders and secures across the chest. It connects to a

number of ports on the sides of the EM-G7. It contains the control, power, environmental and propulsion systems. The UBM also has a number of accelerometers. The UBM is constructed of [Durandium Alloy](#) alloy, and resembles a breastplate with shoulder epaulets. The UBM is approximately 6 centimeters thick.

Control

The EM-G7 uses a voice control system that controls all aspects of the suit's operation. The computer's main task is to monitor the sensors that navigate the electric currents through the polymer. The computer has a location system and heads-up display in the helmet displaying the estimated amount of life support time remaining, the location of the home base, or other chosen way-point, and markers for degrees.

Sensors

The sensors of the EM-G7 are primarily ones on the inside of the suit that monitor the electric currents through the body, judging the brain's commands to move the limbs. However it also has cameras on the outside of the helmet that can see into the infrared spectrum.

Power

The EM-G7 uses a capacitor system to power the suit and all its systems. It has enough power for 96 hours of operation.

Environmental

Air Recycling System (ARS) the G7 has an improved air recycling system, based on the [EM-G1 Suit](#) but with longer performance.

Water purification system (WPS), the G7 has the same water purification system as the [EM-G1 Suit](#) mounted in the back of the UBM.

The UBM has a retractable emergency hose that can connect to a receptacle on another UBM. In the unlikely event of the ARS failing or if the UBM is damaged, this allows two suited individuals to use the buddy system to return to safety.

Communications

The EM-G7 can communicate using radio and laser. In the UBM there is a small subspace radio system tied to the helmet with a range of 500,000 miles, also capable of being used for an emergency distress beacon.

Propulsion

The EM-G7 has one significant improvement over the EM-G1. It comes with a built in propulsion system.

EM-G7-P3300 Maneuvering System

This is the primary maneuvering system and consists of a series of eighteen thrusters located on the axial points of the UBM. This allows the EM-G7 to execute, roll, pitch and yaw maneuvers. They are controlled by the user via voice command

When the wearer is at their desired location, they can place the suit in station keeping mode. The UBM will keep the user at their current position, countering any movement caused by the wearers moving or actions.

The fuel for this is stored in the small tank at the top of the UBM in the back. It is an inert fuel for the ion thrusters.

EM-G7-P3301 Boost System

The EM-G7 has a secondary set of thrusters, is located in the back of the unit. This system is controlled by the computer. The user specifies a particular distance or a point to reach. When they engage the system, the computer engages the thruster, and controls pitch and yaw with the primary controls. The computer calculates the necessary speed and acceleration to execute the maneuver. At the appropriate point the unit will rotate the user 180 degrees and start deceleration.

The fuel for this is stored in the lower portion of the UBM. It is an inert fuel for the ion thruster.

Belt

The EM-G7 comes with a webbed utility belt that the user can attach equipment to during EVAs. The belt is threaded through five loops on the body suit. The belt comes with a removable insulated drink holder.

Helmet

The helmet for the EM-G7 is backward compatible with the EM-G1. It features an internal HUD, two headlamps, and a laser range finder. Built into the helmet is the normal communications gear. The face shield is a self-polarizing polymer to protect the automatically reduce the amount of light that comes in.

Products & Items Database	
Product Categories	military equipment, survival
Product Name	EM-G7 Emrys Environ suit
Nomenclature	Em-G7-1a

Products & Items Database	
Manufacturer	Emrys Industries
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