

MIARA Ground Mobility System

An acronym for “Mecha Integrated Anti-Resistance Array”, the MIARA is ground mobility system intended for use by legged mecha and power armor. First conceptualized by [Mazaki Seina](#) in [YE 44](#), the MIARA went into full production for the [Yu-M1-2B Series "Molly" Light Mechanized Power Armor](#) in [YE 45](#). Production rights to the MIARA were given to [Ketsurui Zaibatsu](#) for potential inclusion in any future [KFY](#) power armors or bipedal mecha, though [Yugumo Corporation](#) retained the ability to use the technology internally or sell it on the civilian market.

Year of Creation	YE 45
Designer	Yugumo Fleetworks , Mazaki Seina
Nomenclature	See: Nomenclature Catalog
Manufacturer	Yugumo Corporation
Fielded by	Yugumo Corporation , Star Army of Yamatai
Availability	Mass Production
Price	Varies

History

Dazzled by the [Glide Boosting^{1\)}](#) capabilities of mechanized frames in the [New Dusk Conclave](#), [Mazaki Seina](#) sought to create a system which would allow power armors and bipedal mecha utilized by the [Star Army of Yamatai](#) and [Yugumo Corporation](#) to replicate the maneuver, due to its benefits in simultaneously maintaining speed, agility, and a stable firing platform. To that end, Seina created a design based around an array of micro-scale vibration emitters placed in the lower legs and feet of a mecha or power armor, used to reduce or increase friction at will.

The MIARA was first tested in early prototypes of the *Molly*. The system showed promise during these trials, earning the right to further development and funding for inclusion in the production version of the *Molly* and in future bipedal mecha or power armor designs. With the full production of the *Molly* beginning in [YE 45](#), the MIARA would first see use in the field by the [Star Army of Yamatai](#) during testing.

Function and Design

The MIARA is based around an array of micro-scale vibration emitters placed in strategic locations on the lower legs and feet of a mecha or power armor. The vibration output of this array can be modulated by the computer or the user directly, increasing or decreasing friction as needed. However, more often than not, the output is geared towards minimizing friction to facilitate Boost Skating maneuvers via the mounting platform's propulsion systems.

When used with CFS, the onboard computer system creates openings in the CFS at the bottom of the feet to allow for unobstructed vibration output against the surface the power armor or bipedal mecha is moving on.

While the MIARA's computer takes much of the weight from the user, Boost Skating²⁾ is still known to be *extremely* technically demanding. It is recommended that users have at least a hundred hours of practice in simulations (or have received the *rough* equivalent in coaching or mental download) before attempting skating maneuvers in live combat. However, with practice, Boost Skating will become ingrained. Advanced users can do things such as firing weapons, dodging, traversing rough terrain, *and* moving at dazzling speeds while skating with instinctive ease. In addition, advanced users often prefer to tune down computer modulation in order to have a more direct, precise control of the friction levels for enhanced performance, a practice akin to turning off traction control in a race car or assists in a flying simulator. For most, it is only a matter of practice, persistence, and dedication to reach such a level of mastery.

Compatibility

By itself, the MIARA is not capable of independent movement as the system only serves to increase or reduce friction. As such, a mounting platform must have some form of drive or motive system to generate propulsion. This can include (but may not be limited to) CFS, conventional thrusters, or gravitic drives. A platform must also have [KAIMON](#), [Armor Integrated Electronics System \(AIES\)](#), [Compact Integrated Electronics System \(CIES\)](#), or an equivalent computer system to regulate the strength of the micro-scale vibration emitters as needed, based on data from the terrain sensors and the neural feedback from the user. However, very experienced users may take a more direct role in regulating this system. Finally, the MIARA requires a direct neural link to interface with the user, whether via [SPINE](#), [SQUID](#), or a comparable system.

Sensors

The MIARA includes a suite of short-range terrain composition sensors which are designed to assess the terrain in the immediate area of the platform, in order to modulate the output of the vibration emitters based on the incoming terrain. As these sensors are passive, they do not put out any emissions and are relatively stealthy. In addition, while the MIARA is capable of handling rough terrain, the sensors will give the user prior warning before going over potentially hazardous areas.

Cost

The MIARA has cost that varies by application:

Tier	Type	Factory Cost	Retrofit Cost
4	Light Armor	2000 KS	2500 KS
5	Medium Armor	2500 KS	3000 KS
6	Heavy Armor	3000 KS	3500 KS
7	Light Mecha	6000 KS	7000 KS
8	Medium Mecha	7000 KS	8000 KS
9	Heavy Mecha	8000 KS	9000 KS

Nomenclature Catalog

Catalog of [Standard Product Nomenclature System](#).

Yoru no Tenshi 'Tenshi II' Light Mechanized Power Armor	Yu-M1-M4500
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OOO Notes

[Immortal Cyan](#) created this article on 2022/11/13 16:18. [Approved](#) by [Wes](#) on November 21, 2022.

Products & Items Database	
Product Categories	subsystems
Product Name	MIARA
Nomenclature	See Nomenclature Catalog
Manufacturer	Yugumo Corporation , Yugumo Fleetworks
Year Released	YE 44

¹⁾

See: [Glide Boost](#) from Armored Core. [Example](#).

²⁾

SAoY term for Glide Boosting

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