

'Wind' Armor Series

History and Background

The majority of Lorath conflicts have taken place primarily in ground conflicts between infantry groups. Due to this history, the Lorath have a strong fondness and proficiency in planetside combat operations. Unfortunately, due to the nature of the Lorath's current enemy, the SMX, the current state of Lorath armor technology is unable to stand up to the punishment which it would have to endure. Thus, a new armor system would be needed.

About the 'Wind' armor series

The 'Wind' armor series is an armor system designed to be used by infantry soldiers in a variety of different environments. Due to the demands of war, the 'Wind' armor system has been developed to allow for the system to be designed for a number of applications, each variant of the 'Wind' armor would have a separate designation. The 'Wind' system has been dubbed as a 'Powersuit' design, due to the difference in capability between it, and its powerarmor counterparts.

Price

The Core 'Wind' unit costs 3000 KS to Lorath and Yugumo Cluster citizens. 10,000 KS for export.

Armor Kit Add-Ons

- [Gust Armor Kit](#)

Core Statistical Information

Government: Lorath Matriarchy Organization: Lorath Self Defense Force Type: 'Wind' Class: Powersuit Designer: Lorath Self Defense Force in cooperation with Lorath Fyunnan Caste Manufacturer: Lorath Self Defense Force Production: Mass Production

Crew: 1 Maximum Capacity: 1 Appearance: Humanoid armored shell with optional helmet.

Width: .5 to 1 Meter Height: 1.5 to 3 Meters Mass: 45 - 100 Kg

Speeds

Ground speed: 40 Mph Air speed: 75 Mph Zero Atmosphere: 250 Mph\

Lifespan

Range: In atmosphere, indefinite. In vacuum, three days. Lifespan: Five years

System Packages

The 'Wind' armor system has been broken up into separate packages for different armor kits to be attached to the initial 'Wind' suit. The standard component to all load-outs is the 'Wind' suit which comprises the interior of the armor system. The 'Wind' suit itself is capable of granting the user added survivability, life support, and various augmentations to capabilities.

'Wind' Standard Components

'Wind' Framework System

The 'Wind' Framework System is a system reliant on several layers of material which each serve as insulation, armor, and as a mounting point for 'Wind' integrated components and allows for the addition and support of additional exterior armor.

[Damage Rating](#): 4

Internal Frame System

The 'Wind' internal frame system is the system which is in contact with the user, provides essential distribution of impact damage, insulation, and provides structural integrity to the unmodified suit. The internal frame also creates a seal against external atmospheric influences, thus providing protection in zero atmosphere or in hostile environments.

The internal frame is composed of a thin ribbing of flexible carbon fiber material, and a dense [stone thread](#) weave. Built into the internal frame are a number of 'Memory Fibers' which are designed to tighten when an electrical current is passed through them. These fibers have been placed throughout the internal frame to allow for the material of the frame to fit snug to the user's body, like a second skin. This second skin also allows for a rigid pressure to be maintained, this allows for resistance to atmospheric pressure changes, and to allow vulnerable or injured portions of the user's body to be held in place like a splint and to be protected from blunt force trauma.

The interior of the internal frame system also includes essential interface surfaces, devices, and systems which allow for the user to interact with the suit's systems and with exterior components and devices.

Also the interior of the internal frame includes a [Neural Interface](#) physical link.

Exterior Frame

The exterior framework of the 'Wind' suit consists of a number of flexible plates composed of a highly compressed stonethread mesh. These flexible plates allow for a wide range of movement, while at the same time providing a high degree of protection. Embedded in each plate are a number of sensor devices allowing for the user of the 'Wind' to be able to maintain a full range of tactile response. Also included on the exterior frame are a number of optic sensors which allow for the interfaced user to gain a 360 field of vision. There is also an option of including a layer of OLED material or holographic projectors to allow for alterations to the appearance of the 'Wind' suit or increased stealth capabilities.

The exterior frame of the 'Wind' also includes ports to allow for user interface components to interact with the suit's systems, a series of ports to allow for power supply interaction, and a system of magnetic and mechanical connectors, designed to allow for the attachment of external armor systems to add-on to the 'Wind' system.

Power System

Power for the 'Wind' portion of the armor system is provided by four thin [bacterial power cells](#) which are placed on the exterior of the internal frame in the area of the user's thighs, two power cells are on each thigh.

Life Support

Atmosphere Regulation

The 'Wind' incorporates an air recycling system which utilizes a filtering system which is approximately the size of a small fist. This system is located near the collar of the suit.

The filtering system in place is a picoscopic mesh which is capable of contracting to filter out femtoscopic particles. Between each filter, are a number of artificial bacterial colonies which have been engineered to ingest atmospheric gas and particles, producing nitrogen and oxygen as a byproduct. At the center of the filter system is a pressure regulator which is capable of regulating interior and exterior pressures. Exterior pressures can be regulated to a positive or negative, to allow for the intake, ejection, or intake denial of atmosphere. Interior pressures can be increased, decreased, and regulated depending on the user's needs.

Air exhaled by the user is able to be rapidly recycled by the unit. Due to the efficiency of this, the unit is capable of providing the user with breathable air in a zero atmosphere environment for an indefinite amount of time when a helmet is present.

Temperature Control

Temperature in the suit is regulated through the use of an integrated fluid circulatory system. Fluid pumped through this circulatory system flows throughout the suit and provides the user a regulated interior temperature in temperatures ranging from -270C¹⁾ to 1680C²⁾. Fluid for the temperature regulation system is pumped throughout the suit through pump systems located behind the neck of the unit, biceps, calves, and the small of the back. The unit operates through the use of a tight-confinement EM field projector which forces material in, and out of the pump. The EM field projectors have also been designed to influence the fluid on a molecular level, causing molecules in the fluid to rapidly decelerate or accelerate, thus generating cold or heat. Notably, this temperature control system may begin to fail after prolonged exposure to thermal extremes, and is not designed for long-term routine exposure to extremes such as temperatures which would be encountered inside of a geological event, or the vacuum of open space.

Waste Management

Waste from the user, such as dead skin, sweat, unbreathable gas, fluid waste, and solid waste, is collected by a series of tubes and deposited into the bacterial power cell system where the waste is promptly turned into power for the suit. Byproduct from the digestion process results in a mixture of oxygen and carbon-dioxide gas. Oxygen from the process is cleaned of any odors through a filter system, and circulated to the atmosphere regulator system.

Radiation Countermeasure

To prevent radiation exposure to the user, a layer of radiopaque nano-polymeric compound has been fused to the stonethread insulation of the internal frame. This layer of material prevents exposure to ambient radiation, and provides protection versus directed radiation. The boundary of the nano-polymer is that it can not provide protection to radiation when the radiation's effect produces heat beyond what the 'Wind' suit's cooling system can endure.

Biological and Chemical Countermeasures

Integrated into the fibers of the 'Wind' and applied heavily to the interior of the suit are Lorath developed [nanomachines](#) designed to counteract pathogen infiltration and to neutralize and remove chemical compounds which may harm the user or suit.

Emergency Support

Included in the 'Wind' system are a series of armor panel covered membrane-like ports allowing for the connection of a [nutrient supply pack system](#) or IV line. Embedded in the suit's interior are a number of

life support monitoring devices which can be interfaced through neural interface, or by plugging a monitoring device to a port located on the chest of the suit.

Port membranes are located on the forearms, biceps, thighs, calves, and chest and require user or medical authorization to remove the armor panel covering.

Communications

The 'Wind' is capable of utilizing [conventional communication technology](#) and is able to interact with the Lorath Matriarchy Network.

Strength Assist

A weave of flexible artificial fibers is integrated into the 'Wind' suit, these fibers have been designed to react differently to various electrical pulses. When electrical current is applied to these fibers, these fibers contract much like muscle tissue. A series of sensors integrated into the suit detect the user's intended movements, and interpret the user's movements to electrical pulses which are applied to the fibers, this system allows for the user's strength to be augmented by the assisting fibers. The assisting fibers allow for a 300% increase to a Lorath Fyunnan user's strength, or a 500% increase to a Yamataian user in comparison. Due to the assist from the artificial fibers, users are also capable of increasing movement speed, and enduring physical strain for longer amounts of time due to the artificial fibers bearing a majority of the workload.

Lorath User Specific System

An additional system of strength assist fibers and suit surface area can be added to the 'Wind' suit, allowing for functional use of Lorath wings to achieve flight. This system is optional due to the nature of the Lorath belief system in relation to flight.

Motor Control Assist

Due to the demands of long-range combat engagements, often aiming weapons at extended ranges can be demanding and require precision operation. The Motor Control Assist system relies on the same fibers utilized for the strength assist. Through the neural interface system, a 'Wind' user is capable of utilizing the artificial fiber weave in their 'Wind' to assist in aiming weapons, coordinating movements in melee combat, and even augmenting speeds in tactile control panel interfacing. These results are delivered by utilizing the fiber system to overcome irregularities in muscle movements, such as involuntary twitching, or wavering due to muscle fatigue. The user is also able to utilize the fiber system as a second set of muscles, which can work independently of the user's muscles, this allows for the user to move about without requiring the use of their own muscles. The Motor Control Assist system is a closed system, only able to be connected to by tactile contact with the user's neural interface device and is keyed to the user's individual neural pattern, preventing exterior influence of the system.

Neural Interlink

The 'Neural Interlink' is a modification of the neural interface system. The Neural Interlink allows for low-latency instantaneous communications between infantry squad members. This interlink allows for the rapid sharing of sensory data, communications, and even the sharing of thoughts and emotions. Needless to say this system allows for a collective consciousness to be formed between members of a squad, allowing for all parts of the squad to function as a whole.

The Neural Interlink also includes a buffer system which adjusts itself depending on the users of the system. The buffer prevents sensory overload, personality influences, and loss of self-awareness.

External Locking System

The external locking system is a magnetic locking system designed to lock the user's limbs, torso, and head into place in the event of free-fall deployment. Additional uses of this system can be applied in activities such as load-lifting, and combat situations.

Basic Helmet

The basic helmet included with the 'Wind' is a form-fitting stonethread hood and mask which includes memory fibers to allow for the helmet to either hug to the user's head, or to provide a rigid structure to prevent pressure damage. The mask of the helmet is able to be peeled back to allow for the user's face to be exposed. Helmet models can also be requested which allow for the user to open the top and rear of the helmet system to allow the user's hair to be let down. Helmet systems also include a self adjusting feature to adjust for the user's hair, and they also include a microphone and speaker system to allow for the amplification of ambient sounds to be relayed to the user's ears and to transmit sound outside of the helmet.

The helmet system is designed to create an atmospheric seal around the user's head, and to be able to connect with the seal of the primary suit. To provide visual support, the helmet includes a pair of circular carbon material lenses. These lenses have an OLED coating to allow for them to be used as display screens and to create a HUD over the user's typical vision. A light amplification system has also been built into the lenses to allow the user to see in very low light conditions.

Wind Appearance

The appearance of the 'Wind' armor system is a skin-tight suit which has been plated with a number of form-fitting armored plates. 'Wind' armor systems come in a variety of colors, and sizes.

1)

Cosmic background temperature

2)

Temperature slightly above that of molten steel

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