


Moltek: The Biomechanical Mole Drone

Moltek the Mining Drone created by Ryu Heavy Industries in [YE 45](#)

About the Strange Creature


Designer:	Itatski Sachiko , Ryu Heavy Industries
Nomenclature:	RHI-O1a
Manufacturer:	Ryu Heavy Industries
Fielded by:	Takeda Mineral and Mining, Independent
Damage Rating (Version 3)	Tier 4 - Light Armor
Production Level	Mass Production
Pricing	8,500KS

The Biomechanical Mole is a remarkable creation of Ryu Heavy Industries, combining the natural digging capabilities of a mole with advanced biomechanical enhancements. Its appearance, personality, technology, speed, and power source make it an ideal tool for efficient mining operations. With its robust exoskeleton, specialized tools, advanced sensors, and reliable power supply, Moltek exemplifies innovation and resource extraction in even the most challenging underground environments. 

History

In [YE 45](#) the drone came to be as a side project that Sachiko Itatski had worked on, and later abandoned due to inability of using some of its requirements. Ryu heavy Industries, later discovered the plans, and were allowed to use them, due to their capabilities of working and creating biomechanical creatures. Later they added other technology, like [Mining Guild](#)’s Mole claws and the Plasma Cutter torch in addition to their own technology which improved the drone’s capabilities, then they sold it, to other buyers interested in mining.

Description

 Moltek’s design is inspired by the morphology of moles, with a sleek and streamlined body, specialized limbs, and powerful digging capabilities. Combining the characteristics of a mole and biomechanical enhancements its compact body is covered in a durable metallic exoskeleton, allowing it to withstand the rigors of mining operations. The creature has powerful digging forelimbs equipped with [reinforced claws](#). The Molyte's eyes emit a soft glow, providing enhanced vision in low-light environments, one of the many sensors on its head.

Dimensions and Weight

While “standing up” the Moltek is about 3’4 from the top of its head, to the ground. It had a pudgy kind of body similar to certain 🐹mole species,²⁾ It weighs 270 lbs

Function

³⁾ The Mole Drone has proven invaluable in various mining operations. Its key applications include:



Underground Excavation

The drone's ability to efficiently excavate and collect resources in underground environments significantly reduces the need for manual labor and enhances overall productivity.

Resource Mapping

Equipped with advanced sensors, the Biomechanical Mole Drone assists in resource mapping and identification, providing valuable data to mining teams and helping them optimize extraction strategies.

Hazard Detection

The drone's sensors and detection systems enable early detection of potential hazards, such as unstable geological formations or toxic gases, ensuring the safety of mining personnel and preventing accidents.

Remote Operation

The drone's autonomous navigation and wireless communication capabilities allow for remote operation, reducing the risks associated with direct human involvement in hazardous underground environments.

Technology

Below is the precise technology that the Biomechanical Mole, Moltek uses.

Core Personality

The Biomechanical Mole Drone exhibits a focused and determined personality, driven by its instinctive



desire to excavate, reflecting the purpose for which it was created. It is diligent, methodical, and efficient, displaying a tireless work ethic. The creature is highly adaptable and capable of analyzing its surroundings and adjusting its mining techniques as needed. Although primarily task-oriented, the drone also exhibits a curious nature and a sense of camaraderie with its fellow mining colleagues.

Sensors

To do its work the Drone has a large sensor network attached to its head and other parts of its body. Such as [Sensor Package](#)

Optics

The Mole drone enhanced optical sensors that allow it to see in dark places, in addition to infrared, and [Mineral Scanner](#) sensors that aid in the identification of valuable mineral deposits and additional sensors that spot potential hazards.

Scent

The drone is outfitted with experimental sensors that are madfe of a biomechanical technologythat Ryu Heavy Industries have access too. This allows the drone to sense hazardous gas in the environment, and allowed it to also sense if a Miner is intoxicated and possibly distracted.


Audio Sensors

The drone is outfitted with a set of sensitive Audio sensors that allow the drone to hear even the faintest of sounds. It is powerful enough that it will be able to hear through even the most solid rock. This is useful in detecting instability in the tunnels, as well as hearing if someone is trapped⁽⁴⁾.

Systems

There are multiple systems that aid, the drones in their work, as well as allows it to “live” as it were.

Communication Systems

The drones comes equipped with wireless [Communications systems](#) that allows it to relay real-time data to the control center of what ever entity controls it, receive instructions, and collaborate with other mining equipment and personnel. This facilitates efficient coordination, and resource allocation efficiency. 

Self-Repair Capabilities

As a biomechanical entity, the drone possesses self-repair capabilities that enable it to address minor malfunctions and damage sustained during mining operations. This self-healing ability minimizes downtime and increases overall operational efficiency.

Mind Transfer Control

Certain Mining Corporations are capable of taking control over the drones, allowing them to boost drone efficiency, with some oversight.

Power Core

The Moltek is powered by a compact fusion cell, within its body, providing it with a reliable and sustainable energy supply. The fusion cell harnesses the energy generated by a clean environmentally friendly fusion of Sun core⁵⁾ as well as plasma. his power source is capable of sustaining the drone's energy requirements over extended periods of operation in remote mining locations. This ensures that the drone has the power required to carry out its mining tasks without interruptions or the need for frequent recharging.


Servos

The drones use multiple powerful servos to move around as well as to work creating tunnels. Servos also allow the drones to turn its head, to figure out where it should go next. As a result of being a Ryu Heavy Industries creation, the servos, were likely [Muscular Systems](#)

Mining Systems

These systems are what allows the device to perform its intended function(s).

Autonomous Navigation Systems

 The drone is equipped with autonomous navigation algorithms⁶⁾, allowing it to effectively traverse complex tunnel networks and avoid obstacles. In addition to working with minimal non robotic intervention. It can adapt to changing terrains and adjust its digging strategy accordingly, ensuring efficient and optimized resource extraction.

Ore Detection Modules

Built-in sensors and [scanners](#), including ground-penetrating radar enable the drone to detect and analyze mineral deposits with high precision. These modules allow it to identify valuable resources, ensuring efficient mining and extraction.

Mineral Processing System

The drone has a compact integrated mineral processing systems within the body, which allows it to act as a smaller version of a [Dragon Class Mobile refinery](#), allowing it to refine and extract valuable minerals from raw ore on-site. This system enables real-time processing and collection of resources.



Mining Technology

The drones can use varies technologies that the [ANT Power Armor](#) can to mine for resources.

Storage Compartments

Built-in storage compartments within its body allow the drone, to act as a smaller version of [Power Armor Storage Unit](#) allowing the drone to collect and carry valuable minerals and ores during its digging operations

Mining Tools

 Like the animal,  [Mole](#), the drone's forelimbs, end in sharp metallic [Mole Claws](#), designed to dig through various types of soil, rock, and minerals. These claws are made from reinforced materials to withstand the rigors of mining operations and vibrate as they penetrate the ground. with the smaller, modified [Plasma Cutter/Torch](#), It can navigate through solid rock, to reach mineral deposits with precision and speed.

Excavation Capabilities

Equipped with specialized digging extensions and precision drilling tools, the Drone can efficiently excavate and extract valuable resources from underground locations.

Propulsion and Range

The drone is well-adapted to its underground environment, capable of rapid burrowing and maneuvering through compact spaces. Its powerful limbs and streamlined design enable it to move swiftly through the

earth, making it an efficient tool for mining operations. It possesses an impressive speed of 20 mph average, with a top speed of 35 mph. It is said to have a easy 7.8 hp⁷⁾ as part of its speed capability.

OOO Notes

[Charaa](#) created this article on 2023/10/04 20:22.

This article was approved by [Andrew](#) and [Wes](#) on 2024/01/04.⁸⁾

1) 3)

Moltek art by Demi

2)

and the creature from Fantastic beasts

4)

or is having a panic attack of some kind

5)

hydrogen and helium

6)

via advanced underground mapping and navigation systems

7)

Horse Power

8)

<https://stararmy.com/roleplay-forum/threads/moltek-a-biomechanical-mole-drone.71427/#post-443715>

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