



Excavation Squad & Energy Squad Swarm Robotic Mining

Key Features

- Running on OffWorld's interoperable robotic platform
- Standard APIs for third-party integration
- Unrivaled machine learning architecture leveraging reinforcement learning
- -20C to 40C (extended temperature range of -20C to 60C is available upon request)
- IP65 (dust-tight, protected against water projected from a nozzle), IP68 option is available upon request (water immersion)
- Extreme terrain autonomous navigation with object detection and collision avoidance
- Built-in behaviors to avoid unsafe operation beyond maximum specification
- Turn-key system, establishes its own network to operate and transmit data to the remote supervisor
- Operates in comms and GPS-denied environments
- Articulated robotic arm-integrated tools for selective excavation

We offer a capability expansion of our Swarm Robotic Mining (SRM) Excavation Squad: Surveyor, Excavator, Collector, and Hauler robots. The Energy Squad (Battery and Charging Station units) extends the operational run time of each robot by performing autonomous in-situ battery swapping and charging. Our swarm intelligence layer enables all robots to coordinate behaviors to optimize overall mining task performances.

Optimization happens at the task execution and planning layers, where the overall operation is distributed into squads to maximize the customer-defined key performance indicators for mining operations. The Excavation Squad and Energy Squad can accomplish various tasks across industrial verticals around the clock, making workflow more efficient and keeping humans out of harm's way.

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Customizable

We don't believe one-size-fits-all equipment works for everyone, so we offer options from our industrial toolkit to customize the robots to your specific needs. Their height, tools, and materials are tailored to your projects and the elements present in your collection site.

Built Strong

The SRM robots can handle working in extreme environments and confined spaces. They have been built with a strong chassis and rugged dust-proof sensor mounts to enable continuous operations. They can traverse unstructured terrain and operate in inclines. They are fully sealed to protect against dust and water and can handle various temperatures. They interact with the environment and can identify and handle diverse types of material, adjusting behaviors based on the rock mechanics and ore presentation.

Smart & Collaborative

Our SRM squad can be customized to each use case. It can share sensor data aggregation, allowing it to learn from humans and other robots. Each robot shares critical information to perform a complex task in a collaborative and coordinated manner.

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Supervise Instead Of Operate

Our robots are fully autonomous with intuitive interfaces to define and customize behaviors. Users monitor each robot's progress in a purely supervisory role, as opposed to remote operation with real-time or frequent intervention.

Training & Support

We're here for you every step of the way. User friendly product documentation accelerates easy deployment, supervision, and maintenance. Product training and customer adoption program options are available. Every one of our robots comes with a one-year standard warranty. We also offer extended support through our OffWorld Care program.

Company Overview

- Deployed the world's first autonomous excavation robot in an operating mine
- Integrated novel microwave technology for weakening and preconditioning materials
- Multi-year contracts with top-tier mining companies
- We reduce the carbon footprint of heavy industrial applications
- Adapting our universal robotics platform for applications in the space sector
- First company to have mining development contracts on two celestial bodies
- ISO 9001 Certified

*Now accepting orders.
For inquiries, contact
sales@offworld.ai*

**Robot design and specifications are subject to change.*



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