



Surveyor

Map and Survey

Key Features

- Extreme terrain autonomous navigation
- Flippable design allows for dual-side driving
- Compatible with various sensors like optical, LIDAR, XRF, and GPR
- Protected payload sensor bay with direct line of sight to ground
- Gimbaling payload bay available
- <20cm accuracy maps generated within minutes
Operates in comms and GPS-denied environments
- Standard APIs for third-party integration

Surveyor is a state-of-the-art rugged autonomous robotic system for mission-critical use cases in extreme environments. The robot conducts autonomous mapping and surveying in unstructured locations via a fully mobile and versatile platform. Our unique machine learning approaches help provide critical intelligence for mapping, surveying, ore identification, and a variety of other use cases. Our turn-key system does not require any existing infrastructure, including communication networks or cloud servers, to navigate and generate real-time 3D reconstructed maps

Smart & Customizable

Surveyor's behavior is easily customizable. We offer options from our robotic industrial toolkit to customize Surveyor to your specific needs with a payload bay that enables specialty sensor integration with contact or low clearance to the ground.

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Built Strong And Ready To Flip

Surveyor can handle extreme environments with steep elevation variations. Even if pushed beyond its 30° climbing capability, its patented dual inverted tracked suspension design enables upside-down mobility to continue operations after toppling over. All the mapping sensors have been integrated symmetrically so that mapping can continue even when toppling over. Its high torque motors enable climbing over rocks and obstacles during payload operations.

Works Well With Others

We are developing a new generation of rugged AI-powered robots based upon our core swarm robotic architecture that enables multi-robot collaborative behaviors and collective intelligence. All robot species are built from industrial-grade interoperable modules sharing a common structure, power, sensing, and data design.

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.

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Items

Specifications

Dimensions	158 cm L x 128 cm W x 78 cm H
Dry Mass	480 kg
Mobility	1.1 m/s max speed
	320 Nm Torque (up to 1000 Nm peak)
Power	All electric 11.7 kWh, 8 kW instant power (30s)
	Battery module swapping capability
Environmental Rating	-20°C to 40°C (-20°C to 60°C range available upon request)
	5-95% RH (non-condensing)
	IP65 (IP68 for dust-tight and water immersion available upon request)
Sensor Suite	LiDAR (50 m range, 64 channels, 360° x 90° FOV, dust and fog-proof)
	9x RGBD Camera (360° surround view, high and low to ground navigation cameras, payload facing camera)
	2x industrial stereo cameras
	Dual-antenna GPS system with RTK correction allowing centimeter-level accuracy
Payload Capacity	Volume: 54 cm L x 57cm W x 37 cm H
	Mass: 100 kg
Climbing/ Obstacle Negotiation	37° climb/descent (75% grade), 40 cm obstacle climb capability (subject to payload mass)
	17 cm ground clearance
	Flip over-proof operations
Safety	Emergency stop, warning/Information lights, headlights, audio alarms on remote controller, steel plate to protect against rocks
Features	Turn-key system inclusive of robot and remote operator equipment.
	Full suite survey software capability (offline/real-time planning, autonomous execution, instant data analysis, and reporting)
	Protected payload bay open volume protected in the middle of the chassis with rotating mount for customizable sensor integration.

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

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

