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Remote Visual Inspection (RVI) Magnetic Crawlers - Visual Inspection

SEE VIDEO: <https://youtu.be/5GJy03ISqo>



FEATURES:

- **Lightweight & Man-Portable:** Easily hand-carried and able to carry a 10lb payload on horizontal surfaces
- **Expansive Navigation:** Low-profile vertical surfaces all-terrain, mud, gravel, water, unstructured terrain, and confined spaces as narrow as 7 inches
- **Real-Time Communication:** Transmits two-way video audio and sensor data while the operator stays at a safer distance
- **Cloud Connected:** Command Center provides robot control data gathering analytics and secure communications

APPLICATIONS:

- Boiler visual inspection - first look leak identification
- Coal Transport Systems
- Coal and Silo Bunkers
- Economizer-Back pass
- Tool and debris retrieval
- Hi energy pipe inspection

Sarcos

Guardian-S Magnetic Robotic Crawler System

Pine Item #56045

DESCRIPTION:

Ideally suited for commercial, industrial, public safety, and defense applications. Premier surveillance and inspection tool, the GuardianS magnetic robotic crawler is uniquely capable, cost-effective and man-portable, weighing approximately 17 lbs. The robot can reliably traverse challenging terrain and facilitate two-way, real-time video, voice and data communication, all from a safe distance. In the context of inspecting operational facilities and equipment, robotic technology can be looked at as an element of digitally transforming the asset management process. Various studies at IDC have found that transforming the asset management process can yield significant improvements in key areas such as 20% improvements in asset uptime, 15%-20% reductions in maintenance labor costs, and 8%-10% improvements in mechanical efficiencies. Again, while the use of robotics is only one part of a transformation effort, the technology has a role and will yield tangible value for the operation.



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Product Specifications

	Guardian S	Guardian S Magnetic
Dimension Snake Mode: Tank Mode:	52 in. L x 4.7 in. W x 5.2 in. H 21.7 in. L x 17.4 in. W x 5.2 in. H	
Weight (w/o external radio)	~17 lb	~18 lb
Max Speed (unloaded)	1.4 MPH	0.6 MPH
Max Payload Horizontal Surface: Vertical Surface:	10 lb NA	10 lb 5 lb
Operating Temperature	-4 to 140 °F -20 to 60 °C	
Ingress Protection	IP65	
Battery Usage Rated Voltage: Total energy capacity:	3 Lithium-ion (user-swappable) 14.4 V 147 Wh	
Charging Times	~3 hrs	
I/O	One USB2 (power only)	
Communications	Wireless: Wi-Fi IEEE 802.11ac Options: RF Module (multiple ISM bands: 915 MHz, 2.4 GHz, 4.9 GHz & 5.75 GHz LTE)	
Built-in Sensors*	Variable LED illumination, GPS, Inertial Measurement Unit (IMU) and optional Infrared *Guardian S robot can support/carry customer-sourced, 3rd party sensors via optional payload platform with tripod mount adapter	
Cameras (Images and Videos)	Six (6) 4K color cameras with digital zoom (front view, 2 side views, rear view, upward view, and forward-facing rear navigation) for normal visual range 360-degree coverage Options: FLIR hi-res camera	
Audio	Built-in microphone and speaker to enable two-way audio between the OCU and robot (half duplex PTT)	
Accessories	Two-bay battery charger Options: Payload platform with tripod mount adapter, safety tether, Picatinny rail, six-bay battery charger, hard and soft carrying cases	



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