



GUARDIAN

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The Guardian is a unique combination of size, payload capacity, reach, dexterity, manoeuvrability, operability and ability to negotiate a wide variety of urban and rural terrain combined with its “future proof” modular / open architecture construction, eclipse the capabilities of current competitors.

Guardian ROV comes complete with a control station, optional big wheel kit, hand held controller and ABL2000 disruptor.

REACH & DEXTERITY

Guardian has an arm that extends to a reach of 2.6m vertically or 2.1m horizontally

The Guardian’s hybrid extending / folding arm has been designed to be strong and robust allowing deployment of significant payloads with the arm extended and up to 30kg with the arm retracted. The arm extension capability avoids deployment difficulties in confined spaces often encountered with unfolding arm systems.

The elbow joint provides “reach over” and “reach in” capability as required when deploying equipment into such areas as aircraft overhead lockers and car boots. Maximum vertical reach with the vehicle in “tip toe” mode is 2.6m.





CONTROL

Guardian has four cameras on board.

The Guardian control station is housed in an attaché style case and has been developed to offer the operator maximum situational awareness with minimum operator workload and intuitive control. Video images from the four vehicle cameras are displayed on a dedicated 17" (430mm) high brightness TFT display.

Picture in picture capability allows display of multiple camera images in a variety of configurations. Key functions are achieved by dedicated controls whilst sub functions are controlled by a separate 10.4" (264mm) touch screen situated in the base of the case. A powerful and unique feature that provides the operator with crucial information is the 3D vehicle mimic displayed on the touch screen. This image is an accurate representation of the vehicle and its position and takes account of configuration and terrain position. This information allows the operator to automatically see potential instability or situations where actions such as weapon firings may impact on the vehicle. GPS is also included as standard to provide additional positional data. Communication between the vehicle and base station can be by either radio or fibre optic cable. The fibre optic cable can be deployed from a passive spooler.

MOBILITY

Guardian has a gap crossing capability of 500mm and a top speed of 2.8kph.

The Guardian's chassis has been developed to offer a highly stable and manoeuvrable platform. Track modules are able to move continuously through 360 degrees as independent front and rear pairs, ensuring great versatility in positioning, which in turn provides class leading obstacle negotiation capability and extremely stable stair climbing.

The ability to significantly change the vehicle's footprint ensures stability, allows extended arm reach when required and aids adjustment to minimum size when accessing confined spaces. Off road wheels are fitted to enhance the cross-country capability, whilst retaining the track modules to assist in obstacle negotiation. Maximum ground clearance has been maintained to prevent "beaching" on obstacles in uneven terrain.



VERSATILITY, ADAPTABILITY & EQUIPMENT INTEGRATION

Guardian has a lifting capacity of 30kg / 10kg.

A key design driver during Guardian development has been to ensure that integration with related equipment and payloads is straightforward. Guardian has a quick - change equipment carrier on the payload head to allow fitting of a variety of equipments including Disruptors, X-Ray systems, Laser range finder, chemical agent or explosive detectors and ECM equipment. A number of power supplies and data ports are positioned at the base of the arm to allow connection of customer specified equipment.



VISION / CAMERA SYSTEM*:

Forward Facing Drive Camera	1
Rearward Facing Drive Camera	1
Forward Facing Awareness Camera	1
Pan & Tilt Camera - x300 Zoo	1

**four colour cameras as standard*



SIZE & WEIGHT - ROV:

Weight*	70.5Kg (inc. battery)
Length	840mm
Width	420mm
(With Wheels)	610mm
Height	530mm

SIZE & WEIGHT - CONTROL STATION:

Design	28.6kg inc. Battery
Weight	475mm
Width	600mm
Length	289mm
Height	10.4" (264mm)
Touch Screen for Sub Functions	
TFT monitor for Video Images	17" (430mm)
Case Style	



PAYLOAD CARTING & DEPLOYMENT*:

Max. Vertical Reach "tiptoe"	2.6m
Drive Mode	2.1m
Maximum Horizontal Reach	2.1m (from mast axis)
Turntable	±185° (from centre axis)
Lifting Capacity	10kg (arm extended)
Maximum Payload	30kg (arm retracted)

*extending arm

COMMAND DATA LINK:

Radio Control	COFDM
Fibre Optic Cable Link	150m (optional)

POWER SYSTEM:

Vehicles	24V NiMH Battery
Control Station	24V Lithium-ion Battery / Mains / DC

OPTIONS / ACCESSORIES:

Disruptors	<i>*other manufactures may work</i> Wide range of ABP disruptors can be mounted*
Hand-Held Controller	Remote Control via ZigBee
Quick Fit Wheel Kit	For superior off-road operation
X-Ray System	Various mounts for industry standard X-Ray
Explosives / Chemical Detector	Bespoke mounts available

