

# Micro-ROV Guardian



150 m depth



5 thrusters



2 color cameras



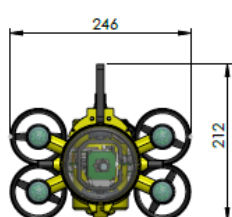
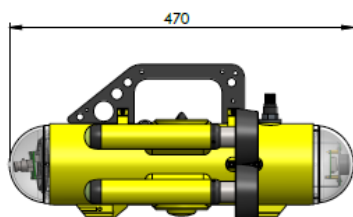
Ultraportable



**SUBSEA TECH**  
Marine and Underwater Technologies

**The Guardian Micro-ROV** is a high-performance, ultraportable underwater inspection solution, ideal for observation and diagnostic missions down to 150 m depth. Its compact and lightweight design (7 kg) allows for easy transport and rapid deployment in the field.

With its front camera mounted on a Pan & Tilt turret, the Guardian provides a 180° panoramic view, unique in its category, enabling detailed inspections of submerged structures, hydraulic networks, port facilities, and confined environments. An optional Pan & Tilt is available on the rear camera, and high-intensity LED lighting ensures clear imaging even in low-light conditions.



## CAMERAS

The front Full HD camera on the Pan & Tilt turret allows for orientable observation up to 180°, enabling inspection of complex areas without repositioning the ROV.



## PROPULSION

The Guardian is powered by five brushless outrunner motors (4 horizontal and 1 vertical), providing stable and reliable propulsion. Its maximum measured speed is 2.7 knots.



## OPTIONS AND MOUNTING BASE

Thanks to its dedicated mounting base, the Guardian can accommodate various sensors and tools, quickly adapting the configuration to the specific needs of each mission, including sonars, measurement probes, manipulators, or acoustic positioning systems.

# TECHNICAL SPECIFICATIONS

## GENERAL – ROV

Maximum depth	150 m
Dimensions	L 470 mm × W 246 mm × H 212 mm
Weight	7 kg in air / neutrally buoyant in water
Maximum speed	2.7 knots (measured)

## PROPULSION & POWER

Thrusters	5 brushless outrunner motors (4 horizontal, 1 vertical)
Power supply	External – 220 VAC (110 VAC on request) - 1 kW max.

## SYSTEM CONTROL

Control	Option 1: PC 17" + controller Option 2: Semi-rugged PC 14" + joystick unit Option 3: Integrated console 17"
Video display	via PC or console with overlays
Recording	PC + 250 GB hard drive
Automatic functions	Heading, depth, speed
Video output	HDMI + USB

## INTEGRATED SENSORS

Cameras	Full HD (4K option), 1080p resolution, 0.01 lux sensitivity, 130° lens, 60 fps
Pan & Tilt	Integrated on front camera, optional on rear camera
Lighting	4 × 1200 lumens front, 1000 lumens rear, intensity adjustable
Sensors	Compass, depth sensor, temperature, internal humidity detector Option : IMU

## UMBILICAL

Standard	See table Neutral diameter 7.9 mm, outer diameter 6.3 mm, Kevlar braid with 100 kg breaking strength
Option	Custom lengths up to 300 m (500 m for long-range option)

## PACKAGING

Transport (option)	Case containing the ROV, the umbilical cable, the power supply, and the control unit
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## MAINTENANCE & WARRANTY

Documentation	Digital operator manual
Maintenance	No specific maintenance required
Warranty	1 year parts and labor (excluding transport)
Technical support	Response: < 8h (business days) Resolution: < 48h average

## OPTIONS


Acoustic camera	BluePrint Oculus imaging sonars
Mechanical sonar	Tritech Micron DST or equivalent
Acoustic positioning	BluePrint Seatrac USBL
Thickness measurement	Cygnus
CP measurement	Buckleys
Physico-chemical measurements	Salinity, pH, turbidity, etc.
Manipulator	2-function manipulator arm
Samplers	Water and sediment
Mesure	Laser pointers with software
WiFi link	video transmission up to 1000 m

LEVELS OF FINISH		STARTER	MAX	ULTRA
CAMERAS	Front full HD camera	●	●	●
	Front Pan & Tilt	●	●	●
	Rear Full HD camera		●	●
	Rear Tilt			●
LIGHTING	4 × 1200 lumen LEDs at the front with adjustable intensity	●	●	●
	1000 lumen LED lighting at the rear with adjustable intensity		●	●
SENSORS AND AUTOMATIC FUNCTIONS	Humidity	●	●	●
	Temperature	●	●	●
	Depth	●	●	●
	Compass		●	●
	Automatic		●	●
ACCESSORY PORTS	Basic	●	●	●
	Additional			●
UMBILICAL	Standard umbilical*	100m	100m	150m

\* Umbilical extendable up to 300 m

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