

Blue Robotics

BlueROV2 Technical Specifications

Revision 10/16

Physical

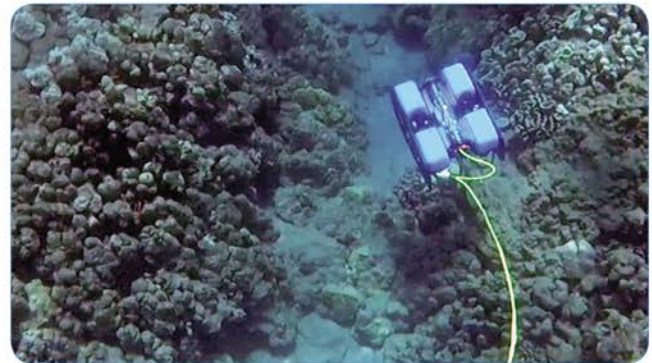
Length	457 mm	18 in
Width	338 mm	13.3 in
Height	254 mm	10 in
Weight in Air <i>(with Ballast)</i>	10-11 kg	22-24 lb
Weight in Air <i>(without Ballast)</i>	9-10 kg	20-22 lb
Net Buoyancy <i>(with Ballast)</i>	0.2 kg	0.5 lb
Net Buoyancy <i>(without Ballast)</i>	1.4 kg	3 lb
Watertight Enclosure Inner Diameter	102 mm	4 in
Watertight Enclosure Inner Length	298 mm	11.75 in
Cable Penetrator Holes	14 x 10 mm	14 x 0.4 in
Construction	HDPE frame, aluminum flanges/end cap, & acrylic tubes	
Main Tube <i>(Electronics Enclosure)</i>	Blue Robotics 4" Series w/ aluminum end caps	
Battery Tube	Blue Robotics 3" Series w/ aluminum end caps	
Buoyancy Foam	R-3318 urethane foam rated to 210 m	
Ballast Weight	6 x 200 g coated lead weights	
Battery Connector	XT90	

Performance

Maximum Rated Depth	100 m	330 ft
Maximum Tested Depth <i>(so far)</i>	130 m	425 ft
Maximum Forward Speed	1 m/s	2 knots
Thrusters	Blue Robotics T200	
ESC	Blue Robotics Basic 30A ESC	
Thruster Configuration	6 thrusters	
	- 4 Vectored	
	- 2 Vertical	
Forward Bollard Thrust	14 kgf	30 lbf
Vertical Bollard Thrust	9 kgf	20 lbf
Lateral Bollard Thrust	14 kgf	30 lbf

Tether

Diameter	7.6 mm	0.30 in
Length	25-300 m	80-980 ft
Working Strength	45 kgf	100 lbf
Breaking Strength	160 kgf	350 lbf
Strength Member	Kevlar with waterblock	
Buoyancy in Freshwater	Neutral	
Buoyancy in Saltwater	Slightly positive	
Conductors	4 twisted pairs, 26 AWG	



Lights

Brightness	2 or 4 x 1500 lumens each with dimming control
Light Beam Angle	135 degrees, with adjustable tilt

Camera

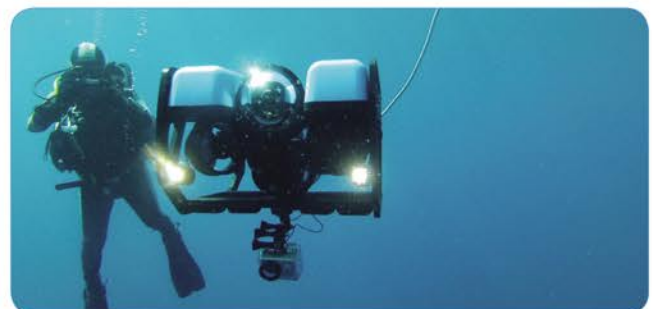
Camera	1080p digital
Camera Field of View	110 degrees horizontally
Tilt Range	+/- 90 degree camera tilt <i>(180 total range)</i>
Tilt Servo	Hitec HS-5055MG

Sensors

- 3-DOF Gyroscope
- 3-DOF Accelerometer
- 3-DOF Magnetometer
- Internal barometer
- Blue Robotics Bar 30 Pressure/Depth & Temperature Sensor *(external)*
- Current and Voltage Sensing
- Leak Detection

Battery *(can be changed in about 30 seconds)*

Battery Life <i>(Normal Use)</i>	2-3 hours w/ 18Ah battery
Battery Life <i>(Light Use)</i>	4-6 hours w/ 18Ah battery



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