

# BlueROV2

## Technical Specifications

### Physical

Length:	457 mm	18 in
Width:	338 mm	13.3 in
Height:	254 mm	10 in
Weight in Air (with Ballast):	10-11 kg	22-24 lb
Weight in Air (without Ballast):	9-10 kg	20-22 lb
Net Buoyancy (with Ballast):	0.2 kg	0.5 lb
Net Buoyancy (without Ballast):	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 (Electronics Enclosure):	Blue Robotics 4" Series with 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 (so far)	130m	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 1	10 degrees horizontally
Tilt Range	± 90 degree camera tilt (180 total range)
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 (Normal Use)	2-3 hours w/ 18Ah battery
Battery Life (Light Use)	4-6 hours w/ 18Ah battery

