

Technical Details

Specifications

Parameter	Value
Performance	
Endurance @ 1 m/s (~30 W), no payload:	
2 Batteries (532 Wh, 2.4 kg)	18 hrs (65 km)
4 Batteries (1064 Wh, 4.7 kg)	36 hrs (130 km)
6 Batteries (1596 Wh, 7.0 kg)	50 hrs (180 km)
8 Batteries (2128 Wh, 9.3 kg)	62 hrs (220 km)
Solar Power (user equipped)	Indefinite
Maximum Speed (2 batteries, no payload)	3 m/s
Maximum Static Thrust	8.2 kgf
Temperature Rating	-25 to 40°C
Steering	Differential thrust
Payload and Expansion Capabilities	
Payload Capacity (batteries + payload)	15 kg

Parameter	Value
Payload Power	Battery Voltage @ 60 Battery Voltage @ 10 5V Auxiliary @ 5 A (F
Penetrator Holes (Starboard Hatch Lid)	2 x M10 Area to drill more
Penetrator Holes (Port Hatch Lid)	4 x M10 2 x M14 Area to drill more
Available Ports and Interfaces	3 x Serial UART Ethernet (Blue Robo 2 x USB 2.0 2 x USB 3.0 1 x 16-bit ADC (3.3 V 1 x 16-bit ADC (6.6 V
Physical	
Dimensions (Length x Width x Height)	120 x 93 x 46 cm (de 120 x 71 x 24 cm (fol 120 x 46 x 20 cm (pa
Weight (no batteries or payload)	14.5 kg
Freeboard (2 batteries, no payload)	160 mm
Maximum Draft (maximum payload)	320 mm
Propulsion	2x M200 Motor w/ W

Parameter	Value
Propeller Diameter	112 mm
Navigation Light	5V 2W LED, White AL
Primary Materials	LDPE (hulls) 30% Glass-filled Pol Anodized Aluminum Stainless Steel
Hull Color Codes	Mariner Blue - HEX # Garibaldi Orange - P Moray Green - PANT Axolotl Pink - PANTO
Communications	
Wireless Communications Protocol	802.11a/b/g/n (2412
Wireless Router	MikroTik RBGroove-5
Default Wireless Configuration	Client Mode (CPE)
BaseStation Router Default IP Address	192.168.2.3
BlueBoat Router Default IP Address	192.168.2.4
Included Antenna	7 dBi 2.4Ghz Omnid
Wireless Range for Telemetry and Control (w/ included antennas) ¹	up to 250 m
Wireless Range for Telemetry and Control (w/ directional antennas , not included)	>800 m

¹

Parameter	Value
Cellular & Satellite Communications	Capable
Software	
Vehicle Control	ArduRover
Onboard Operating System	BlueOS
Onboard Operating System Default Address	blueos.local (192.168.1.10)
Recommended Mission-planning Software	QGroundControl or Mission Planner
Navigation Capabilities	Manual Control (w/ Joystick) Waypoint Navigation Click-to-Navigate (Ground Station) Position Hold (Loiter) Return-to-Home (if configured)
Electronics and Electrical System	
Onboard Computer	Raspberry Pi 4 (2GB+)
Flight Controller	Navigator
Sensors	6-DOF IMU Dual 3-DOF compass Internal barometer
GPS	mRobotics M10034-1
Speed Controllers	Basic ESC 500 (Blue)

Parameter	Value
Power Load Switching	PowerSwitch (120A, Out)
Recommended Battery	Blue Robotics 4S Lite
Input Voltage Range	12–26 VDC ² (4S–6S L)
4S Low Battery Voltage Protection Cutoff	8 V
6S Low Battery Voltage Protection Cutoff	12 V
5V Auxiliary Output	5 A
Individual Battery Fuses	60 A MIDI
System Fuse	150 A MIDI
Fuse Board	Mini-ATC (2 A, 5 A, 1
Regulatory	
Harmonized code	8907.90.0090 (BlueB 9015.80.8080 (when
Compatible Operating System	
Windows	Windows 10 64-bit o
macOS	10.20 or later
Ubuntu	20.04 LTS or later

Parameter	Value
Recommended Control Computer Hardware	
Processor	i5 processor equivalent
RAM	8GB or more
Storage	Solid-state drive (SSD)

¹ Dependent on operating conditions. Weather, sea state, BaseStation height, connected peripherals, wiring.

² 6S input voltage is acceptable, but at reduced throttle level. Do not exceed 500W per motor.

2D Drawings

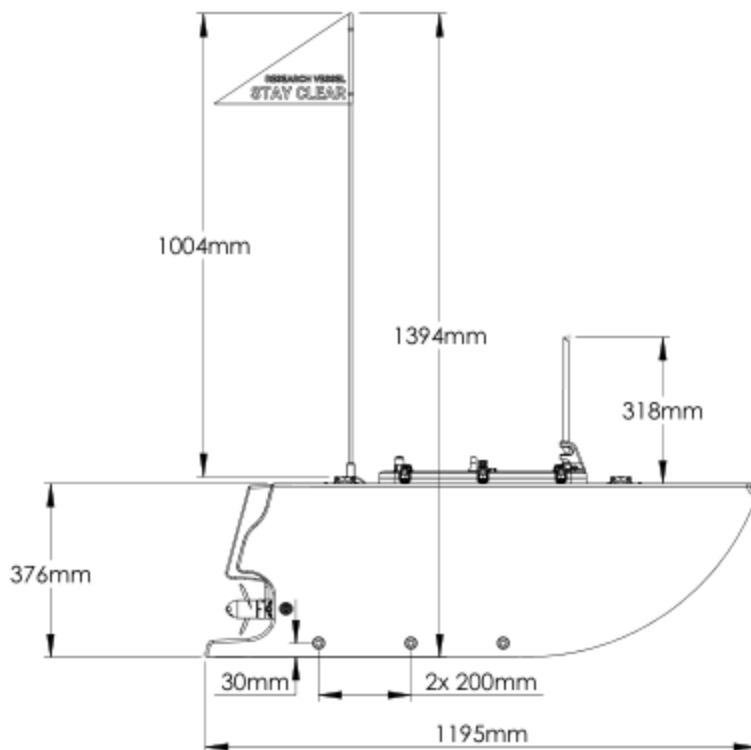
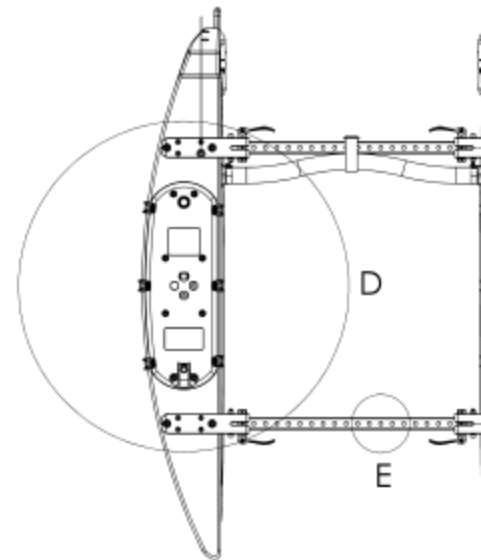
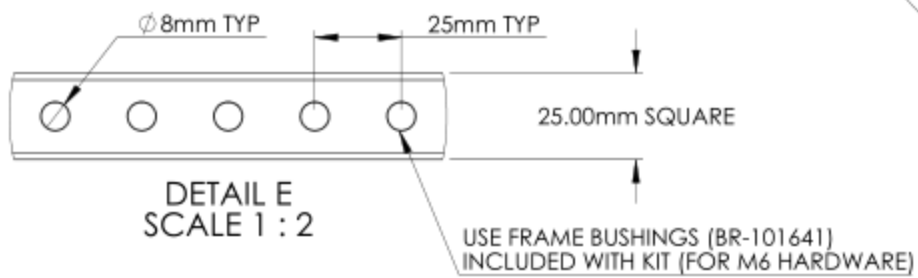
[Full-size drawing \(PDF\)](#)

BR-101447

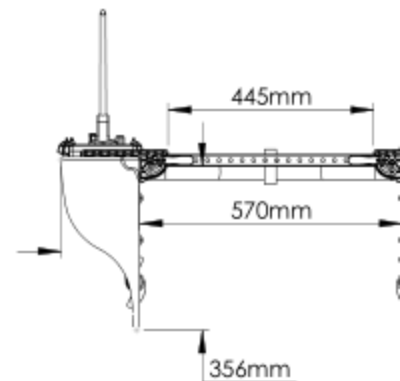
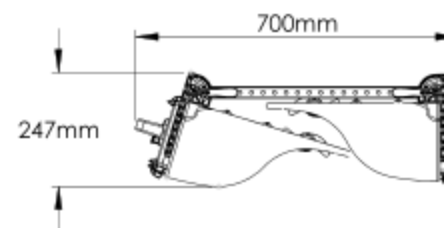
BlueBoat Uncrewed Surface Vessel, 120 cm

NOTE:

- MAX SPEED 3 m/s
- DEFAULT 2.4 GHz COMMUNICATION
- SEE <https://bluerobotics.com/> FOR PRODUCT SPECIFICATIONS



FOLDED CONFIGURATION



3D Models

[BLUEBOAT_120_BR-101447_RevA_PUB](#) (.zip)