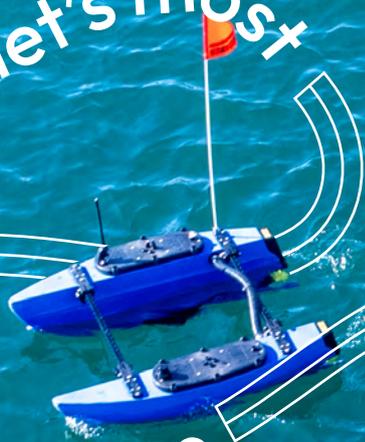


# BlueBoat

surface vessel

the planet's most

affordable



It's a hydrographer's pickup truck, an ocean farmer's tractor, a marine biologist's assistant, and all kinds of stuff in between. It can map seagrass in the shallows, reveal sunken treasure, monitor kelp farm biomass, and even help you listen to whales!

It's the BlueBoat: an uncrewed surface vessel that is accessible, customizable, reliable, and can even fit in the trunk of your car – all at a fraction of the price of other vehicles out there.

The BlueBoat has an array of expansion options, flexible payload mounting, and open-source BlueOS software to make it easy to integrate any payload from sonars and sensors to cameras and communications. It comes out-of-the-box with autonomous GPS waypoint navigation and easy-to-use control software.

The BlueBoat is the result of years of meticulous design and testing, from the weedless hull and propeller design to the quick-opening hatches. We designed the BlueBoat to help you unlock the potential of the surface. We did our thing, now it's time for you to do yours.

## PERFORMANCE

Endurance @ 1 m/s (~30 W), no payload  
 2 batteries (532 Wh) \_\_\_\_\_ 18 hrs (65 km)  
 8 batteries (2128 Wh) \_\_\_\_\_ 62 hrs (220 km)

Maximum Speed  
 2 batteries, no payload \_\_\_\_\_ 3 m/s (6 kts)

Steering / Hull-type \_\_\_\_\_ Differential Thrust / Displacement Hull Catamaran

Payload Capacity  
 batteries + payload \_\_\_\_\_ 15 kg (33 lb)

Payload Power \_\_\_\_\_ Battery Voltage @ 60 A (Direct Connection)  
 Battery Voltage @ 10 A (Fuse Board)  
 5V Auxiliary @ 5 A (Fuse Board)

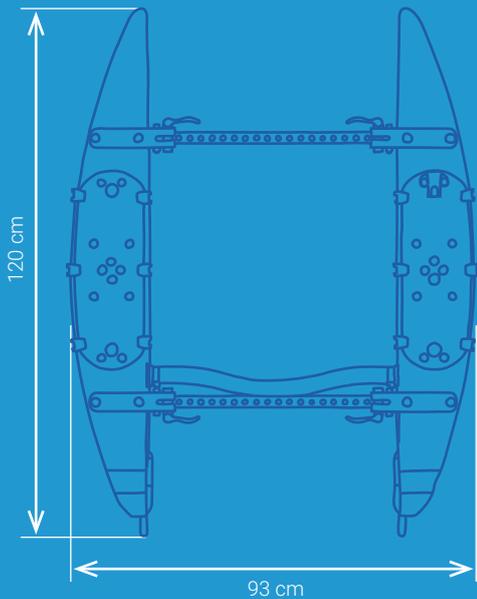
Available Ports & Interfaces \_\_\_\_\_ 3 x Serial UART  
 Ethernet  
 2 x USB 2.0  
 2 x USB 3.0  
 1 x 16-bit ADC (3.3 V)  
 1 x 16-bit ADC (6.6 V)

## PHYSICAL

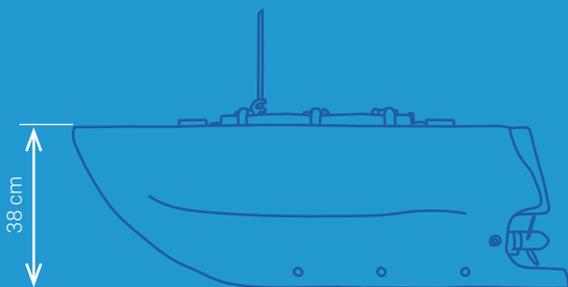
Dimensions  
 (Length x Width x Height) \_\_\_\_\_ 120 x 93 x 46 cm (Deployed) // 47 x 36.5 x 18 in (Deployed)  
 120 x 71 x 24 cm (Folded) // 47 x 28 x 9.5 in (Folded)  
 120 x 46 x 20 cm (Packaged) // 47 x 18 x 8 in (Packaged)

Weight  
 no batteries or payload \_\_\_\_\_ 14.5 kg // 32 lb

Propulsion \_\_\_\_\_ 2 x M200 Motor w/ Weedless Propeller



top



side

# technical details

## COMMUNICATIONS

Wireless Communications Protocol	802.11a/b/g/n (2412-2462MHz)
Included Antenna	7 dBi 2.4Ghz Omnidirectional, N-type male connector
Wireless Range for Telemetry & Control (w/ included antennas)	up to 250 m // up to 820 ft
Wireless Range for Telemetry & Control (w/ directional antennas, not included)	>800 m // 0.5 mile
Cellular & Satellite Communications	Capable

## SOFTWARE

Vehicle Control	ArduRover
Onboard Operating System	BlueOS
Recommended Mission-Planning Software	QGroundControl or Mission Planner
Navigation Capabilities	Manual Control (w/ Joystick) Waypoint Navigation (Auto) Click-to-Navigate (Guided) Position Hold (Loiter) Return-to-Home (if connection lost)
Compatible Operating Systems	Windows - Windows 10 64-bit or later macOS - 10.20 or later Ubuntu - 20.04 LTS or later

## ELECTRONICS & ELECTRICAL SYSTEM

Onboard Computer	Raspberry Pi 4 (2GB) w/ BlueOS
Flight Controller	Navigator Flight Controller
Sensors	6-DOF IMU Dual 3-DOF compasses Internal barometer
GPS	mRobotics M10034-M9N (NEO-M9N, IST8308)
Input Voltage Range	12-26 VDC (4S-6S Batteries)



## BlueOS

BlueOS is a software ecosystem that runs onboard the BlueBoat. It provides all of the features you need and has the tools and flexibility for you to add the features you want.

BlueOS is open-source, community-oriented, and a blast to use!

## integrations

### single beam echosounder

Blue Robotics Ping Sonar  
Altimeter & Echosounder  
Range: 100m  
Beam Width: 25 degrees

### multibeam echosounder

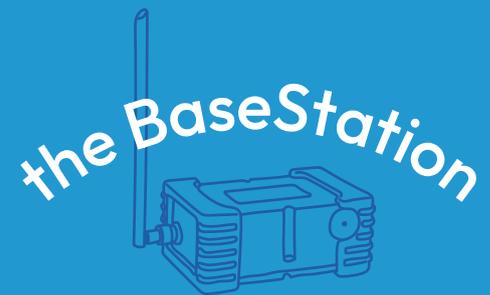
Cerulean Surveyor 240-16  
Multibeam Echosounder  
Range: 50m  
Total Beam Width: 80 degrees

### side scan sonar

Cerulean Omniscan 450 Side Scan Sonar  
Range: 150m  
Beam Height: 50 degrees

### other stuff

The world is your oyster: put some solar panels up top, strap some sensors down below, maybe add a weather station (yes!).



The BaseStation is a wifi radio access point for the BlueBoat with a 2.4 Ghz MikroTik radio, internal battery and charge management, and USB-C connectivity.