

# Seafloor™ datasheet

The HyDrone™ is a one-man portable, catamaran platform developed for hydrographic survey applications. Working in conjunction with the HydroLite™ portable echosounder kit, the HyDrone™ accomplishes the same results as more expensive RC survey systems. The lightweight, wide profile and watertight construction provide stability, ruggedness and portability. It is manufactured from high quality marine materials and components and easily disassembles for transport and shipping.

Work environments include mines, sewage treatment plants, lakes, settlement ponds, harbors and rivers.

Remote control of the survey boat is easy using a long range remote control unit (RCU) that offers up to 2km range, with a survey endurance of over 8 hours at a survey speed of 3 knots on a single battery bank.



Lightweight and portable



Powerful differential thrusters for maneuverability

With our AutoNav option, the HyDrone™ is also semi autonomous; the vehicle can be monitored while under way, in both Auto and Manual modes.

The mission planner app runs on a base station laptop connected through a radio telemetry link, and displays the vehicle's geographical position and progress in real time against a background map of the survey area. Battery, voltage, current, and capacity remaining is monitored via this link.

Rev. April 16, 2019

## HyDrone™ Unmanned Surface Vehicle



HyDrone™ ASV with HydroLite echosounder, Trimble antenna and Trimble data collector

- ▶ *Remote Controlled or Autonomous*
- ▶ *Wide profile for stability*
- ▶ *Watertight, durable construction*
- ▶ *Easy disassembly for transport and shipping*
- ▶ *Competitive pricing*
- ▶ *Optional Auto Pilot module*



HyDrone™ RCV

# Seafloor™ datasheet

## HyDrone™ Unmanned Surface Vehicle

### Specifications

Typical Survey Speed.....	2/3 kn
Top Speed.....	6 kn
Hull Length.....	116 cm / 45.6 in
Hull Width.....	21cm / 8.2 in
Battery Endurance.....	8 hours at Survey Speed
Payload.....	35 lbs / 15 kg
Power.....	2x 14.8 vdc 16 Ah battery LiPo
ECU (Electronic Controller Unit).....	2x 120 amp
Motor.....	2x Brushless Thruster
Hull Material.....	UV Resistant HDPE
Frame.....	Aluminum Powder Coated
Steering.....	Differential Thrust
Empty Hull Weight & Batteries.....	9.8 kg / 25 lbs
Hardware.....	Stainless Steel
Hatches.....	4 x 7" Twist-Out Watertight Closure
R/C.....	2.4 GHz Long Range RCU
Remote Range.....	Up to 2 km

### Compatibility:

- ▶ Hypack
- ▶ Carlson
- ▶ EPOCH
- ▶ Leica
- ▶ Sokkia
- ▶ Topcon
- ▶ Trimble



HydroLite-TM™ with  
Trimble GPS and data collector

### Instrumentation Options

#### RTK GPS

#### Radio Telemetry

#### HydroLite-TM™

*HydroLite Pole Kit  
SonarMite MILSpec Echosounder  
Rugged Shipping Case*

#### HydroLite-DFX™

*Dual Frequency Echosounder 200/ 30 KHz*

#### Auto Pilot Module

*AutoNav Control System  
Embedded GPS and Compass  
Built-In Telemetry System*

#### PC Laptop

*Mission Planner Application  
USB Radio Telemetry*



AutoNav™ Control System



HyDrone™ ASV with  
Trimble SPS 585 and TSC3



Mission Planner application installed on  
a laptop showing preplanned survey



Survey data overlaid on Google  
Satellite Image (Mission Planner)

## Seafloor Systems, Incorporated

4415 Commodity Way | Shingle Springs, CA 95682 | USA  
530-677-1019 | info@seafloorsystems.com | www.seafloorsystems.com