Seafloor™
datasheet

HyDrone™
Unmanned Surface Vehicle

The HyDrone™ is a one-man portable, catamaran platform developed for hyrdrographic 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, contaminated lakes, harbors and rivers.

Remote control of the survey boat is easy using a high-power remote control system 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 pack.

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

Lightweight and portable

Power differential thrusters for maneuverability

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

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 graphical 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.

HyDrone™ RCV

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Unmanned Surface Vehicle

Specifications

Typical Survey Speed	1-2 ft/s
Top Speed	7 ft/s
Hull Length	116 cm / 45.6 in
Hull Width	21m / 8.2 in
Battery Endurance	8 hours at Survey Speed
Payload	35 lbs / 3 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	Futaba® 2.4 GHz long range
Remote Range	Up to 2 km

Compatability:

- 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*

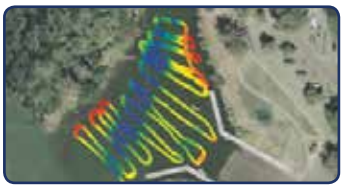
Auto Pilot Module *AutoNav Control System*
Embedded GPS and Compass
Built-In Telemetry System

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 PC laptop showing preplanned survey



Survey data overlayed on Google
Satellite Image (Mission Planner)

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