

Slocum Sentinel Glider

Next Generation Long Endurance Glider

The Slocum Sentinel Glider is the next generation of autonomous ocean gliders – this ultra-long endurance uncrewed vehicle allows for persistent ocean monitoring on the scale of years and has the size and energy to address the widest range of oceanographic missions.



Operations with greater quantities and higher-energy hardware/sensors

- Greater volume for additional batteries
- Greater internal space available for sensors and other hardware
- Multiple locations available for external hardware integrations
- Up to 8 sensors can be operated simultaneously

Operations over greater distances and more diverse operational areas

- Operations in areas with greater changes in density
- Operations in areas with higher currents
- Data gathering over larger operational areas
- Faster boat-free transit to remote areas of operation

Operations for extended mission endurance

- Energy available to execute missions in terms of years, not months
- Energy available to operate several high-powered sensor / hardware options simultaneously
- Less rationing of energy, more data gathering
- Decreased operational cost of launch and recovery due to greater mission lengths

Trusted Capabilities of the Slocum Glider

- Builds on the trusted technology and capabilities of the most-used glider vehicle in the world
- Piloting, communications, and data visualization through the Slocum Fleet Mission Control (SFMC) software suite
- Sensor, Hardware, and Software options available on the Slocum G3 Glider are also available on the Sentinel Glider
- Decades of glider engineering and support experience from Teledyne Webb Research

PRODUCT FEATURES

Longest Endurance Glider on the Market

With 25.2 kWh of power available, the Sentinel Glider can operate at sea for over 18+ months.

Largest Buoyancy Engine on the Market

The 3.4 Liter (+/- 1.7 Liter) Buoyancy Engine of the Sentinel Glider offers greater flexibility in the speed of the glider and the diversity of operational areas.

Integrated Thrusters

Included on every Sentinel Glider, these thrusters allow for burst speeds of up to 2.5 knots when facing strong currents or to shorten transit times.

Wide-Ranging Sensor Suite

The Slocum Sentinel Glider accommodates the sensor and hardware options available for the Slocum G3s Glider – the most options available of any glider platform.



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TECHNICAL SPECIFICATIONS

	PHYSICAL
Depth Rating	1000m
Length	2.57m
Diameter	.33m
Volume	170 L
Mass	171 kg
Max Payload Mass	3.5 kg
	ENERGY
Total System Power	25.2 kWh
System Voltage	31.2 - 25.6
Capacity	900-1080 Ah
Battery Chemistry	Lithium Primary
Battery Quantity	6x 48cell packs
Endurance	Up to 18+ months
	BUOYANCY ENGINE
Ballast Drive Volume	±1.7L
Average Glide Speed	.75 knot
Max Glide Speed	1.5 knots
	NAVIGATION & COMMUNICATION
Navigation	GPS, Pressure Sensor, Altimeter, Dead Reckoning
Communication	RF Modem, Iridium (RUDICS), ARGOS

SENSOR OPTIONS
Acoustic Doppler Current Profiler (ADCP)
Acoustic Modem
Passive Acoustic Monitoring
Optical Transmissient Beam Attenuation
CTD Pumped or Unpumped
Echosounder Options
Fish Tag Detection
Hydrophones
Nitrate
Optical Backscatter Options
Optical Attenuation Options
Optical Fluorometry Options
Oxygen Options
PAR
Particle Size Analyzer
Particle/Biology Imaging
Radiometer
Turbidity
Turbulence
Custom Solutions Available

