SEASAM
Your autonomous underwater drone

Vehicle

Size: 55cm x 45cm x 23cm / 22in x 18in x 9in
Weight in air: 9 kg / 20 lbs
Handling: 1 person for launch / recovery, no ROV pilot needed
Max Speed: 1.25 m/s (2.4 knots)
Maximum depth: 100 m / 330 ft
Bumper Frame Material: PEHD
Hardware architecture: modular platform allowing tailor-made design for each use (vector performance, carrying of other sensors...)

Camera

Sensor: 1/2.8" CMOS Sony IMX290 Sensor
Video Streaming Resolutions: 2MP (still image) , Full HD 1080p (30 fps)
Responsivity: low light
DFOV: 117° (air) – 80° (water)

Interface

Underwater control (follow the diver): selection of navigation scenario, filming mode, recording start/stop, lights on/off, **Emergency surfacing**
Supported Operating Systems: Android Tablet, Linux (Notilo Plus API)
Communication Interface: WiFi, Ethernet
Communication Protocol: UDP
Control Input: Android Tablet, Bluetooth Joystick

Sensors

Depth Sensor (Meters or Feet), Internal **Temperature**, **Tether Counter** (Meters or Feet), **GPS**, 9-Axis IMU, **Magnetic Power Switch.**

Medium Battery

Capacity 6600 mAh
Voltage 14,6V
Chemistry: NMC
Charging Time 2.5 hours
Battery life: 1.5 hours, interchangeable
Battery Weight: 800g

Thrusters

Max Thrust Force: 5,1 kgf
Reverse Thrust Force (Max / Min) : 4,1 kgf / 0,01 kgf
RPM: 300-3800 Rev/min
Max Power: 350 Watts
Voltage: 6-20 V
Max Current: 25 A
Weight in Water: 156 g

Standard Light set-up

Illumination: 2*1000Lm
Beam Angle: 110°
Energy: drone-powered
Orientation: Facing drone

Large Battery

Capacity 10400 mAh
Voltage 14,6V
Chemistry: NMC
Charging Time 4 hours
Battery life: 2.5 hours, interchangeable
Battery Weight: 1050g

Tether

Diameter : 4 mm
Length : 100 m
Max Working Strength: 500 N
Buoyancy: neutral in Fresh Water
Conductors: Twisted Pair

Turbidity Light set-up (option)

Illumination: 2*10000 Lm
Beam Angle: 110°
Energy: battery-powered
Orientation: deported from camera

Navigation

Navigation: autonomous navigation, emergency surfacing and obstacle avoidance modules, wall servoing, locked heading, speed & depth.
Engines: 7 (6 degrees of freedom)

Options *(Seasam as a modular solution)*

Seasam's capabilities **can be upgraded on demand** (depth, speed, tether's length, etc.).
Other sensors can also be embedded : underwater GPS, 3D Sonar, thickness gauge, etc.