The Observer Mini-ROV is an ultra-portable underwater inspection robot fitted with 2 high resolution color video cameras, one on pan&tilt, and LED lighting. Embedded batteries allow 4h autonomy and operation in the most remote areas down to 150m depth. Thanks to an ancillary plug, various accessories such as sonars, gauges and manipulator can easily be mounted on the Observer.

The complete system with its umbilical is packaged in one single transport case with a total weight of 32 kg.

VIDEO CAMERAS
The Observer mini-ROV embeds 2 high sensitivity 700 TVL video cameras. Rear camera is fix while front camera is mounted on pan&tilt.

BATTERIES
Thanks to its two NiMh embedded batteries, the Observer mini-ROV has fully autonomous energy supply allowing operations up to 4h in the most remote locations.

ANCILLARY PLUG
The quick plug interface available on the Guardian mini-ROV allows easy integration of many options such as sonars, USBL positioning system, US and CP probes, etc.
**TECHNICAL SPECIFICATIONS**

### MAIN FEATURES

- **Depth rating**: 150m
- **ROV dimensions**: L 490mm x W 270mm x H 210mm
- **ROV weight**: 6.4kg in air / neutral in water
- **ROV max. speed**: 2 knots (max. operational current 1.5 knots)

### PROPULSION AND POWER SUPPLY

- **Thrusters**: 3 magnetic coupling thrusters: 2 horizontal and 1 vertical
- **Batteries**: NiMH accumulators, 4h autonomy
- **External power**: External power 220 VAC (110 VAC on demand)

### SYSTEM CONTROL

- **Piloting**: Console integrated in a waterproof case
- **Video display**: 8” LCD screen with data overlay
- **Control**: 2 multi-function joysticks and soft touchpad
- **Recorder**: Digital recorder/reader on SD card
- **Auto functions**: Heading, depth, Up/Down, speed
- **Video outputs**: 2 RCA connectors

### INTEGRATED SENSORS

- **Front/rear cameras**: Colors video cameras, 700 TVL, 0.01 lux
- **Pan & Tilt**: Pan & Tilt unit integrated on front camera, optional on rear camera
- **Lighting**: Front: 2 x 900 lumens, Rear: 1000 lumens, intensity control
- **Sensors**: Compass, depth, temperature, leak detector (internal moisture level)

### UMBILICAL

- **Standard**: 100m: 80m (Ø 6.3mm) + 20m buoyant (Ø 7.9mm), integrated Kevlar braid
- **Optional lengths**: Extensions with customized lengths up to 250m on demand

### PACKAGING

- **Transport**: All in one transport case including ROV, console, umbilical and transformer
- **Dimensions**: L 640mm x W 500mm x H 380mm
- **Weight**: 32 kg

### MAINTENANCE AND WARRANTY

- **Documentation**: Operator manual in hard and soft versions
- **Maintenance**: No specific maintenance needed
- **Warranty**: 1 year parts and labor excluding transport costs

### OPTIONS

- **Acoustic camera**: 2D imaging sonar Teledyne Blueview M900 or BluePrint Oculus
- **Mechanical sonar**: Tritech Micron DST or equivalent
- **Acoustic posit.**: BluePrint Seatrac USBL
- **Thickness measurement**: Cygnus US gauges
- **CP measurement**: Buckleys CP probes
- **Physico-chem. measures**: Salinity, pH, turbidity gauges
- **Manipulator**: 2 functions manipulator
- **Samplers**: Water and sediments samplers
- **Defect scaling**: Laser pointer scaling tool with software
- **Video enhancement**: LYYN Hawk Board
- **WiFi link**: Wifi video transmission