



Drone **CAT-Surveyor**

Tele-operated / autonomous
Embedded Mini-ROV
80kg Payload
Range >5km
Max. speed 5 knots



The **CAT-Surveyor** is a **catamaran** type unmanned surface drone, **tele-operated** and/or **autonomous** for **hydrographic data acquisition** or **surveillance of underwater zones** in harbor and costal areas.

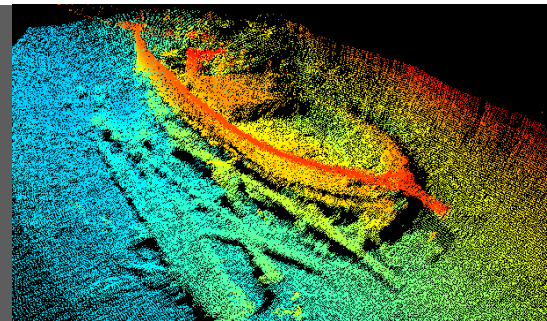
Applications:

Single- or multibeam bathymetry

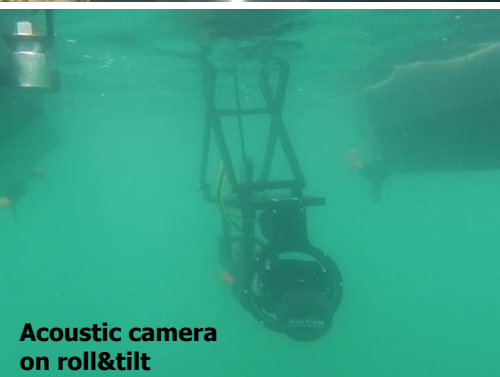
3D reconstruction of civil works

Wrecks and objects search

Target detection and identification

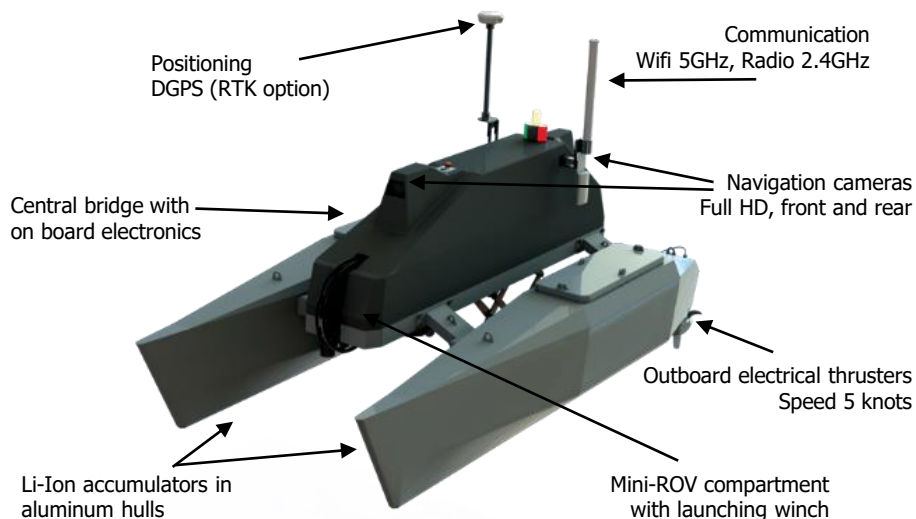


Deployed
Mini-ROV



Acoustic camera
on roll&tilt

Thanks to its open architecture and its **high speed PC to PC communication**, all kinds of sensor running under Windows can be easily integrated to the CAT-Surveyor. The shore control PC allows **real time visualization and control** of navigation and all onboard sensors.





Technical specifications

Main features

Control	Remote control through Wifi 5GHz (back-up radio link 2,4GHz)
Dimensions	Width 1,6m – Length 3m
Weight	270kg (without payload)
Max. speed	5 knots
Draft	36cm without payload
Max. wave height	1m
Operating current	2m/s

Propulsion and energy

Motors	2 outboard electrical motors brushless (2x400W, 2x2 pales)
Batteries	Li-Ion accumulators, 12h autonomy, charge level display on piloting PC, easily exchangeable
Alimentation	AC 110-220V to recharge batteries

System controls

Operator interface	Portable PC + joystick box + auto navigation modes
Communication	Wifi 5GHz, range >5km; radio link 2,4GHz
Navigation sensors	HD color cameras, compass, DGPS (RTK optional)
Sensors data display	Video/sonar images display on control PC
Position display	Position and trajectory display on all types of maps
On board electronics	PC104 + 5V/12V/24V power, in IP65 case
Sensors data interfaces	Serial, USB, Ethernet, others on demand

Documentation and packaging

Transport	On a trailer, in a container or on a pallet
Maintenance	No routine maintenance required
Documentation	Operator manual, digital and paper versions
Warranty	1 year, man-hours and parts, excl. transport costs

Sensors and options

Auto navigation	Automated navigation software (pre-programmed trajectories)
Single-beam bathymetry	Aymar Smart SS510 Sounder, 235kHz, Range 0.5-100m, Resolution 3cm
Multi-beam bathymetry	Norbit WBMS Sounder + INS + GPS RTK, range 0.5-200m
Side Scan Sonar	Tritech Starfish 450kHz / 990kHz
Imaging sonar	Teledyne BlueView M Series, 450kHz / 900kHz / 2250kHz
3D Lidar	VLP-16 «PUCK», FOV 30°, rotation 360°
Current profiling	ACPD Sontek, Flowquest or Teledyne RDI
Batteries	Additional battery packs to increase autonomy
Hulls color	Yellow as standard, others colors on demand
Support contract	Annual maintenance contract, including software updates
Other sensors	On demand

