



# H-ROV

## Hybrid ROV for coastal applications

The **H-ROV** is an underwater vehicle, powered by on-board Li-on batteries, which can be deployed in both teleoperated mode (ROV) and autonomous mode (AUV), for coastal applications (up to 2500m) and from small vessels without dynamic positioning. This new vehicle will be operational in 2014.

### Missions

- Acoustic cartography
- Local inspection very close to the sea floor
- High resolution & geo-referenced optical imaging
- Samples collecting
- Light tools manipulating
- Ability to work on steep slopes

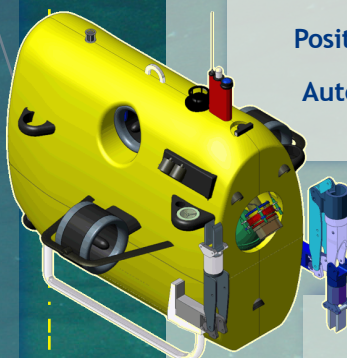
### Technical features

<b>Length</b>	2.2m
<b>Weight</b>	based on 1.5t (according to selected configuration)
<b>Immersion</b>	2500m
<b>Speed</b>	0 to 2nd
<b>Navigation</b>	Inertial - Doppler (Phins & DVL)
<b>Communication</b>	Optical fibre in teleoperated mode Acoustic in autonomous mode
<b>Power supply</b>	14 to 20kWh Li-on battery
<b>Positioning</b>	GAPS - USBL box
<b>Autonomy</b>	6 to 10h

### Concept

The **Hybrid ROV** is powered by on-board batteries that reduces the weight and volume of on-deck equipment. It can be operated in:

- **teleoperated mode (ROV)**, via a light optic fibre cable deployed from a depressor or a cage. This tether management system allows the vehicle to operate from vessels without dynamic positioning.
- **autonomous mode (AUV)**, with an optional acoustic communication link.



### Payloads

- Acoustic and optical cartography
- Dexterous manipulator arm and a grasping arm
- Light sampling devices
- High resolution images
- Possibility of adding sensors or specialized tools