AUXROV Specification

The Aleron Subsea intelligent AUXROV System was designed for delivering power and positioning underslung tools. There are a number of tools that can be used with the system including Rock Grabs, Mass Flow Excavation Tools, Rock Bag Deployment frames and cutting tools. These tools cannot be used with conventional ROV's due to the weights associated with them.

The system can also be interfaced with a number of sensors for survey operations such as cameras, Multi-Beam Sonars and has auto heading and depth feedback as standard.

AUXROV Vehicle Specification

Mechanical Features

- Docking Bullet
- Corrosion resistant stainless steel frame
- Weight 2.7 te
- Dimensions (L x W x H) 2.15m x 2.15m x 1.7m
- 20 Tonne SWL lift frame complete with hydraulic locking pin for locking underslung equipment with magnetic sensor and software feedback to show that the lock is fully engaged.

Hydraulic Features

- 4 x 380 Aleron Subsea Hydraulic Thrusters
- A combined 300HP
- Max Flow 520 L/min
- Fully proportional flow and pressure

Electronic Features

- Fibre optic control system
- Auto Heading
- Altimeter
- Depth sensor
- Gyro – Tritech IGC (IFG upgrade available)
- Depth Rated to 3000 MSW
- 4 x LED Lights
- Cameras (3)
- Thruster Control Unit
- 10 Station Valve Pack
- Power/Control Can
- Main J/B
- MUX System; c/w, 12 x RS232, 12 x RS485 serial channels, 4 Ethernet and 6 video channels

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Control / Power Containers

Control Van – L4880mm x W2600mmx H2590 (8te)

- Aleron Subsea Rock Grab Control System
- Touch screen control system computer, joystick controller
- Media Wall; c/w 6 x monitors

Workshop / Power Distribution Container
L6100mm x W2600mmx H2590 (8te)

- HVTU
- Transformers
- A/C Unit
- Power Distribution Unit
- Lighting

Gladiator Control System

The Gladiator system has been tailored specifically for the AUXROV application. It can be modified to suit different applications and can be used to control full ROV systems. The system has the following key features:

- Touch Screen Control Page; the main system controls are displayed on an easy access touch screen control page.
- Custom Joystick; the control joystick is used to power the AUXROV thrusters, control the auto functions and give commands to the underslung tooling
- Aleron Subsea control software. Our software was developed specifically for controlling full work class ROV systems. It is flexible and reliable and utilises the same main control PCB throughout allowing for easy cost effective spares.
- Flying Screen as shown below; complete with full sensor feedback information displayed visually for the pilot to review all key system information

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Underslung Tooling Options

There is a variety of tools that can be used with the AUXROX by simply installing the universal docking plate to the tools. The AUXROV hydraulically locks into each tool and provides locking ram position feedback through the software. Some of the tools include;

- Hydraulic Grabs – Tine / Clam Shell
- Mass Flow Excavators
- Tracked Skids for seabed excavation or survey
- Rock Bag Installation Frames
- Dredging Tools
- Cutting Tools
- Survey Skids

Above is the AUXROV Connected to the T4000 MFE

Above is the AUXROV shown with a 6 Tine grab and below is the clam shell grab.

Above is AUXROV Connected to Hydraulic Tracks for high current or fixed seabed applications

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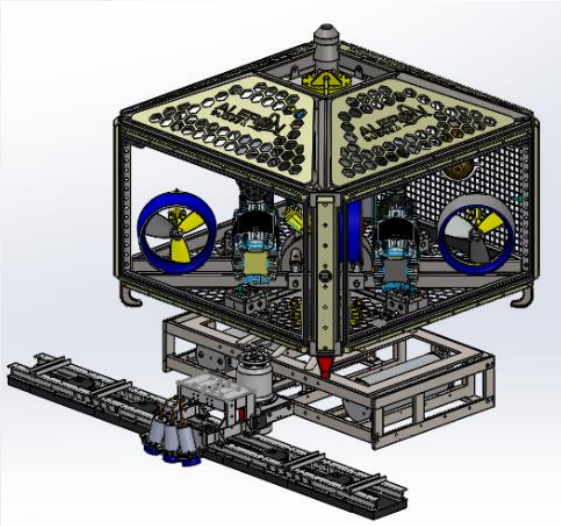
UXO and Survey Operations

The AUXROV provides the ideal platform for performing survey operations. Controlling the altitude through its active heave compensated winch the AUXROV can maintain a stable height from the seabed in stronger currents and sea states than traditional ROV's.

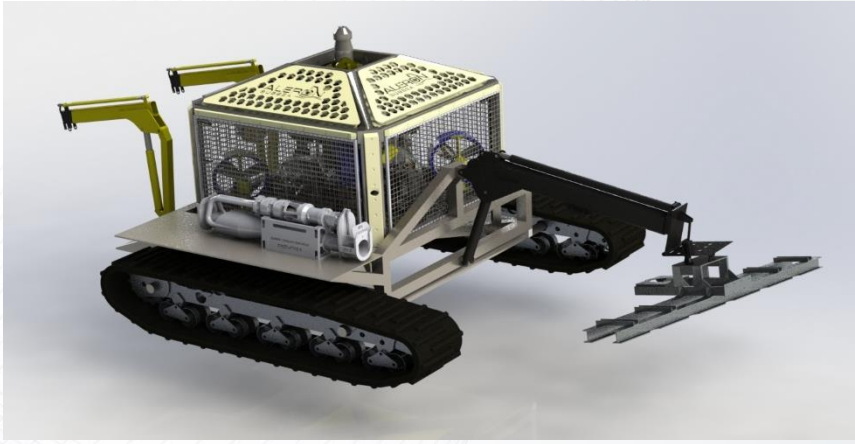
This means tools such as the Pangeo Subsea SBI can be used to perform depth of burial surveys and identify seabed targets.

Further to this be configuring in different modes the AUXROV can adapt to different seabed conditions giving maximum flexibility in difficult project areas as described below:

'Free Flying' Mode – in this configuration the AUXROV hangs from the ship on active heave comp and is used to survey difficult seabed terrain



'Tracked mode' – in this configuration we now have dredging and excavation capability and can still survey while tracking along the seabed if the seabed conditions allow for this.



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