



UNDERWATER SOLUTIONS WORLDWIDE

Mako

Remotely Operated Vehicle (ROV)

The Phoenix owned Mako remotely operated vehicle, built by Seamor Marine, features a large open-frame design with versatile mounting options. With a payload of 14 kg (30.8 lbs), the Mako can accommodate heavy instrumentation, including multi-beam imaging sonars.

The ROV system can support a wide range of subsea missions, including:

- Inspection, Maintenance, and Repair of Offshore Infrastructure
- Mooring and Buoyancy Installation
- Oil Rig Movement and Drilling Operations
- Accident and Forensic Investigations
- Recovery Operations
- Route & As-built Surveys
- Photographic & Video Documentation
- Biological & Oceanographic Sampling
- Subsea Cable Installation & Maintenance
- Dam Inspection & Repair
- Photogrammetry
- Wind Farm Services
 - Platform & Cable Installation
 - Subsea Installation Monitoring
 - Seabed Survey
 - Foundation Repairs

Contact us to learn more

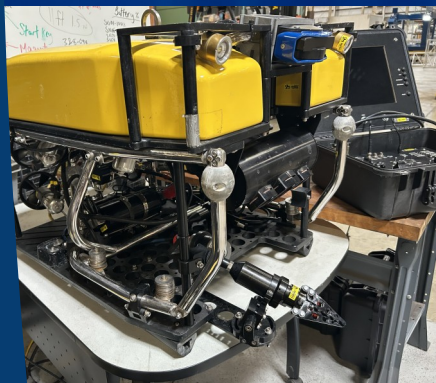
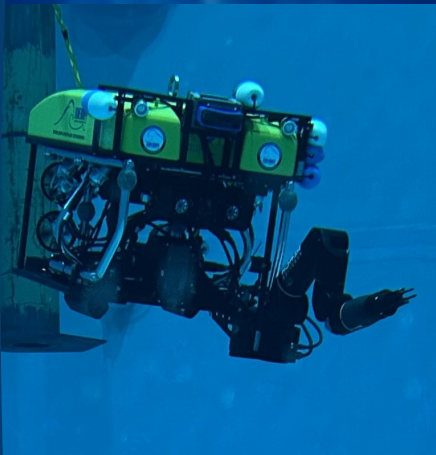
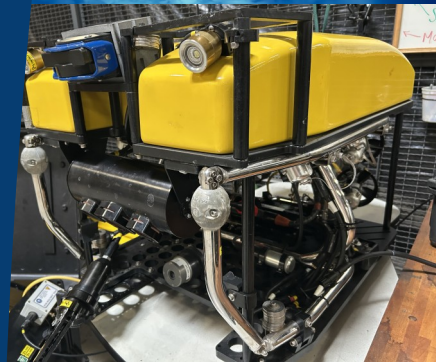
www.phnx-international.com

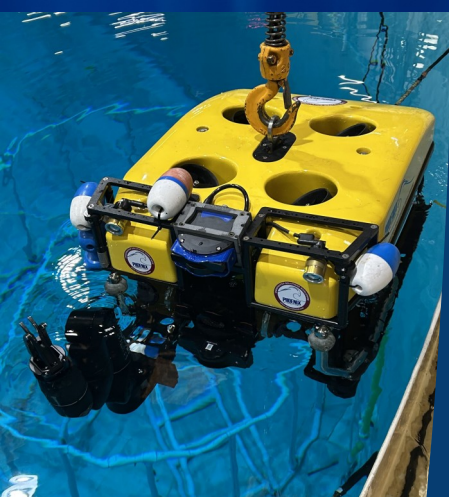
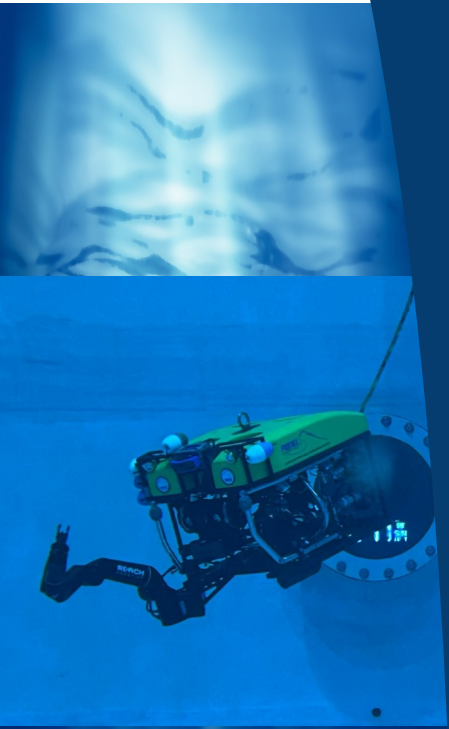
985.399.0606—Bayou Vista, LA | 954.523.4038—Ft. Lauderdale, FL

281.815.8050 —Houston, TX | 301.341.7800—Largo, MD

757.855.7516—Chesapeake VA | 808.486.6595—Aiea, HI

619.207.0871—San Diego, CA | 228.731.7898—Stennis Space Center, MS





Vehicle Description

Maximum Operating Depth	300 m (1,000 ft)
Weight in Air	72 kgs (160 lbs.)
Dimensions	Length: 840 mm (33.07 in) Width: 635 mm (25 in) Height: 674 mm (26.54 in)
Diagonal	890 mm (35 in)
Construction	Anodized aluminum, stainless steel, syntactic foam & marine-grade polymers
Payload	14 kg (30 lbs.) standard
Manipulator (Optional)	Reach Robotics Bravo 7-Function In-Built Kinematics; Master Arm Controlled; End Effectors: Grabbers, Probe Handlers, Cutters; Full Reach 10kg (22 lbs.)
Manipulator	2-Function (optional)

Thrusters

Configuration	4 x Horizontal; 4 x Vertical/Lateral
Speed	2 knots

Forward Camera & Lights

Format	NTSC or Pal (full broadcast quality)
Focus	Manual & Automatic
Zoom	3x optical, up to 32x total zoom
Lights	2 x 1,500 lumens (3,000 lumens) Dimmable, high-intensity LED

Sonar

Maker	Gemini 720im World's Smallest Multi-beam Sonar 120° Horizontal Field of View, 120m Range 720 kHz
-------	---

Sensors

Pressure/Depth; Compass Heading; Pitch & Roll; Dedicated leak & temperature sensors in both the electronics & camera canisters

Control

Pelican case mounted controller; Built-in 15" LCD monitor; Digital video recorder; Video overlay: depth, heading, auto-depth, auto-heading, pitch/roll, & tether turns counter

Phoenix International Holdings, Inc.
An employee owned company

