Teledyne SeaBotix

SARbot

MiniROV Systems

The SARbot® Search & Rescue MiniROV system is the world's first rapid response underwater rescue system designed to save lives. The SeaBotix SARbot is capable of being deployed in less than four minutes, allowing first responders to locate and potentially rescue people in demanding conditions regardless of water clarity and without further risk to human life.

Search and Rescue ROV System

Keeping Rescue Teams out of Harm's Way

The SARbot has powerful brushless DC thrusters that enable deep operations to 150 m (500 ft) in strong currents. Integrated, wide angle, high resolution imaging sonar (acoustic camera) help operators quickly locate and navigate to victims at ranges of up to 60 m (197 ft). Even in conditions with zero visibility. A high-resolution video camera provides real-time images of recovery efforts and a large interlocking jaw is designed for effectively grasping victims.

The all copper (no optical fiber required) ruggedized tether has a 100 kgf (220 lbf) working strength, a 700 kgf (1,543 lbf) breaking strength, and can easily be used to recover a person in water.
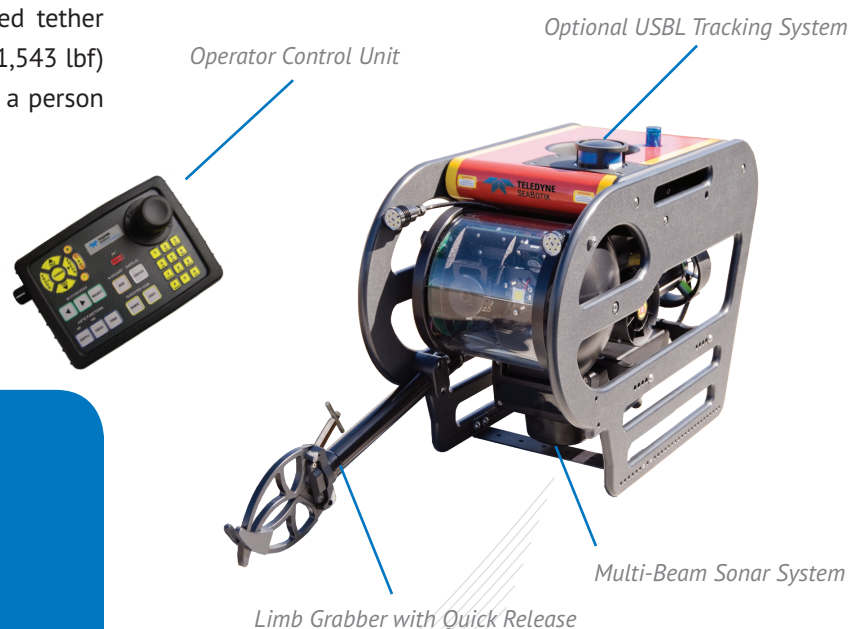
The SeaBotix SARbot is a purpose built, rescue-centric, enhanced version of our proven MiniROV systems, currently deployed in critical operations worldwide.

The SARbot design employs hardened technologies and includes an intuitive control system, direct sunlight-readable monitor, ultra-bright LED lighting, emergency locator beacon, and low-drag tether that is reinforced with Kevlar.

Operator Control Unit

Optional USBL Tracking System

Multi-Beam Sonar System

Limb Grabber with Quick Release

PRODUCT FEATURES

SARbot MiniROV Systems

- Quick Release Limb Grasping Grabber
- Fast-Start Sensor and PC Package
- Zero Visibility Imaging Sonar
- Rapid Setup & Deployment < 4 Min.
- Direct Sunlight-Readable Monitor
- Emergency Locator Beacon for Nighttime Operations
- 150 m (500 ft) Depth Rating

TELEDYNE SEABOTIX
Everywhere**you**look™

A Teledyne Marine Systems Company

TECHNICAL SPECIFICATIONS

GENERAL

Depth Rating:	150 m (500 ft)
Length:	550 mm (21.6 in) grabber retracted
Width:	250 mm (9.8 in)
Height:	368 mm (14.5 in)
Weight In Air:	17 kg (38.4 lbs)

THRUSTERS | PERFORMANCE

Configuration:	2 forward, 1 vertical, 1 lateral
Motor Type:	Brushless DC direct drive
Bollard Thrust:	Forward - 8.5 kgf (18.7 lbf)
	Lateral - 3 kgf (6.6 lbf)
	Vertical -3 kgf (6.6 lbf)
Speed at Surface:	3 knots (1.54 m/sec) fully equipped

CAMERAS | LIGHTING

Camera:	680 line high resolution color
Camera Tilt:	180 degrees
Focus:	Manual (90 mm to infinity)
Format:	NTSC or PAL
Lighting:	Internal 700 Lumen LED array, tracks color camera

CONTROL SYSTEM

Configuration:	Single rugged case w/monitor, OCU & SPS
Monitor:	51 cm (20 in) LCD sunlight readable, transflective
Power Requirement:	1,200 Watts, 100-130/200-260 VAC
Safety:	Isolated power, circuit breaker, LIM, leak monitor
Auto Functions:	Depth, heading, trim
Video Overlay:	Depth, heading, lights, thruster gain, turns counter, camera angle, time, date & user programmable characters
Video Enhancement:	HeliosTM
GPS:	Built-in GPS receiver

TETHER | REEL

Diameter:	8.9 mm (0.35 in) nominal
Length:	150 m (500 ft) standard
Working Load:	100 kgf (220 lbf)
Breaking Strength:	700 kgf (1,543 lbf)
Buoyancy:	Neutral in fresh water, slightly positive in seawater
Core:	Copper (no fiber)
Reel:	Heavy duty w/slip ring

OPTIONS

Tracking:	Tritech Micron Nav, USBL Positioning System
Attachments:	Grabber - three jaw, cutting tool, small interlocking jaws

SONAR

Manufacturer:	Tritech International Ltd.
Model:	Gemini 720i
Range of View:	120° horizontal

Grabber

Attachment:	Quick release large (limb) grasping jaws
Opening Size:	119 mm (4.7 in)

SARbot miniROV Systems Components

- SARbot MiniROV
- Integrated Control Console
- Tether/Reel
- Quick Release Large (Limb) Grabber
- Spares/Tools/Manuals
- Transit Cases