

## CAPABLE

The SeaBotix LBV family of MiniROVs are proven tools for underwater commercial applications. By implementing large ROV features into a small package, the LBV can perform difficult tasks not expected of smaller ROVs.



Unique to the LBV line of ROVs is an industry-leading small diameter umbilical (<8mm). The smaller diameter means significantly less drag at each LBV's full depth rating, and the ability to deploy standard umbilical lengths to 750m (2460ft) and beyond.



In addition to the low drag umbilical, powerful Brushless Thrusters offer high bollard thrust in 4 axis; forward, up, down, and lateral. Each Thruster is oil-compensated for increased reliability and routine operations to 600m (2000ft).

The ideal mass/weight ratio of the LBV provides exceptional stability allowing the vehicle to hold a stable position without excessive influence from the umbilical.

[www.seabotix.com](http://www.seabotix.com)



## PROVEN

Hundreds of LBVs are deployed worldwide in a variety of industries including military, oil & gas, research, hydro, search & rescue, and port security. The LBV is trusted everyday in ROV applications.

Scientists and students use basic LBV systems to extend their research capabilities, while Navies worldwide deploy the revolutionary LBV Crawler in critical Maritime Security applications.

SeaBotix is continuously developing and producing more capable systems and options while always providing an upgrade path for current LBV owners. The pursuit of new and unique systems and capabilities, such as the LBV Crawler and lightweight Launch and Recovery System, demonstrate our continuous pursuit of new technologies and engineering excellence.

We Do Small in a Big Way.



## LITTLE BENTHIC VEHICLE

## INTUITIVE

The many unique features and intuitive functions of the LBV enhance its capability beyond traditional small ROVs.



The control system is an ergonomic console that enables both new and experienced ROV pilots to quickly and confidently pilot the LBV. All of the LBV controls are at their fingertips allowing the operator to focus on the task at hand. A precision joystick and embossed keypad help operators to quickly develop an intuitive sense of all controls so that the focus is more on the sensor outputs and less on piloting.

Other features unique to the LBV include a 270o camera field of view, auto-heading, depth and trim, and informative video overlay information. All of these features combine to make the LBV the most intuitive ROV available.

The LBV has earned the reputation as the simplest ROV to operate.



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## RUGGED

The LBV is designed to withstand the difficult and harsh environment typical in offshore conditions. The topside controls are designed for inclement weather, while the reel is industrial grade. The standard umbilical has a 318kg (700lb) breaking strength and is encased in a cut resistant jacket. The LBVs themselves are encased in protective shells and/or durable bumper frames.

Each system is a complete, flexible platform that requires only a power source to operate, while every LBV can be mobilized by a one or two man crew. All components are packaged in rugged protective cases for transport and storage.



The intelligent system design requires only basic maintenance ensuring a long service life. The design enables moderately trained personnel to field service the LBV. All systems are backed by 24/7 Call Service Center and a standard 24-month warranty.



World Leading MiniROV Manufacturer



## LBV150/LBV200

The LBV150 and LBV200 are the benchmark MiniROV systems by which all small ROVs are compared. Each model offers large ROV capability in a compact, stable, and flexible platform with more sensor options than any ROV in its class.



- 150m/200m (500/660ft) depth rating
- 100-250m (328-820ft) umbilical
- 4 Brushless DC thrusters
- Hi-res color & B/W cameras
- 180° camera tilt/270° field of view
- Internal LED lighting (SE & L)
- Fiber optic video (SE & L)
- Spare RS232 channel (SE & L)
- Auto depth, heading & trim
- Video overlay
- Integrated console (S, SE & L)
- 3 knot forward speed

Models: LBV150BE • LBV150S • LBV150SE • LBV200L

## LBV150SE 5

The LBV150SE-5 offers unprecedented stability, versatility, and control. The dual vertical thrusters aid in carrying a complement of sensors, while the optional Crawler Skid allows for precise video and sensor deployment in ship hull, dam, and seawall applications.



- 150m (500ft) depth rating
- 175m (574ft) umbilical
- 5 Brushless DC thrusters
- Hi-res color & B/W cameras
- 180° camera tilt/270° field of view
- Internal LED lighting
- Fiber optic video
- Spare RS232 channel
- Auto depth, heading & trim
- Video overlay
- Integrated console
- 3 knot forward speed

Models: LBV150SE-5

## LBV300

The LBV300 series of MiniROVs offer both extended depth and long line inspection capabilities. Two additional forward thrusters provide strong current capability and plenty of pulling power for up to 2,000m (6,560ft) of umbilical in custom applications.



- 300m (1,000ft) depth rating
- 350-750m (1,082-2,460ft) umbilical
- 4-6 Brushless DC thrusters
- Hi-res color & B/W cameras
- 180° camera tilt/270° field of view
- Internal LED lighting
- Fiber optic video & data
- Spare RS232 & 485 channels
- Auto depth, heading & trim
- Video overlay
- Integrated control console
- 3-4 knot forward speed

Models: LBV300S • LBV300S-6 • LBV300XL

## LBV600

The LBV600 is the most compact, rapid response deep-water solution in any ROV class. An optional lightweight Launch and Recovery System makes this the most portable and capable offshore package available.



- 600m (2,000ft) depth rating
- 750m (2,460ft) umbilical
- lwLARS with powered sheave
- 6 Brushless DC thrusters
- Hi-res color & B/W cameras
- 180° camera tilt/270° field of view
- Internal LED lighting
- Fiber optic video & data
- Auto depth, heading & trim
- Video overlay
- Integrated control console
- 3-4 knot forward speed

Models: LBV600XL

### Three Jaw Grabber

The Three Jaw Grabber provides the ability to lift up to 45kg (100lb) in water. Beside incredible gripping force for object retrieval, the Grabber is useful for line deployment and location stabilization.



### Grabber Attachments

The Grabber can be fitted with a variety of attachments including a parallel two jaw, interlocking jaws, and a powerful cutting tool capable of cutting non-ferrous objects up to 20mm (3/4in) in diameter. Each attachment installs quickly for simple operation.



### External LED Lighting

Every LBV system can be fitted with the latest external LED lighting offering incredibly bright white light over a greater area than traditional Halogen lighting. All LBV lighting is fully adjustable for precise image enhancement.

### Laser Scaling

All LBV systems offer an optional internal laser scaling system consisting of two parallel lasers spaced 50mm (2in) apart. The two projected dots aid in sizing and distance estimations.

### Crawler Skid

The LBV150SE-5 can be fitted with the patented crawler skid assembly enabling the LBV to adhere to hard surfaces with the use of a powerful vortex generator. Once attached the four-wheel drive system can be driven rather than flown. This ability offers incredible stability and precision over traditional ROV mode. No longer a helicopter in heavy wind, more a tank on solid ground. In addition to the greater control and stability is the ability to work in more difficult conditions beyond that of ROVs.



### Radiation Sensor

The optional CCD-based internal radiation sensor includes recordable data logging software. Unlike other large radiation sensors mounted externally, this sensor is internal to the LBV and tracks with the cameras for precise positioning.

### Color Zoom Camera

All 150m to 300m LBVs accept a 10x optical color zoom camera. The zoom camera option includes auto/manual focus and includes an optically corrected view port.

### Scanning Sonar

All systems can be fitted with the Tritech Micron 360° scanning sonar for object avoidance and identification. The very small sonar produces an impressive image at ranges to 75 meters (246ft).



### Multi-Beam Sonar

The available BlueView ProViewer systems provide high-definition sonar images for object identification and navigation in poor visibility. By utilizing a fiber Ethernet link, the scan rate is incredibly fast and smooth. A choice of 450KHz, 900KHz, and dual frequency 900-2250KHz packages are available.



### Positioning System

The Tritech Micron Nav USBL positioning system provides accurate location of the vehicle, providing hemispherical coverage to 1000m. The intuitive software works in tandem with the Micron sonar for complete and intuitive navigation.

### Echosounder

The Tritech Micron Sounder is mounted to the underside of the LBV to provide accurate distance measurements to the seafloor. The software works on its own or integrates seamlessly with the Tritech sonar and positioning software.

### Thickness Gauge

The Cygnus Ultrasonic Thickness probe accurately measures ferrous metal thickness. The probe is mounted on the LBV Tool Skid for easy installation and removal.



### CP Probe

The LBV can be fitted with a contact cathodic protection probe providing accurate data to the surface. A small probe and electronics are fitted in a tool skid for quick installation when the probe is needed.



### Video Enhancer

A real time video enhancer significantly cleans up images affected by poor water clarity. The system is simple to control and processes both real time and recorded video for easier navigation and object identification.

### Navigation Console

For LBVs requiring a PC for sensors, the Navigation Console offers a rugged, integrated solution for use with any LBV system. The Navigation Console includes GPS and video capture.