

- Get situational awareness in hostage situations...
- Gain the tactical advantage on SWAT missions...
- Protect first responders and the community from danger...

iRobot PackBot 510 with First Responder Kit helps SWAT teams, bomb squads, HAZMAT units and other first responders successfully tackle dangerous situations, including the investigation and disposal of explosive materials, hostage situations, search and rescue missions and other incidents.



The safer solution for civil defense operations

PackBot 510 performs multiple missions:

SWAT / First Responders / Bomb Squads

Resolve high-risk scenarios safely, including bomb disposal, hostage situations, search and rescue and other dangerous incidents.

Bomb Disposal / EOD (IEDs / VBIEDs / UXO)

The PackBot 510 with First Responder Kit safely disposes of makeshift bombs, unexploded ordnance and other hazardous materials. The robot supports a variety of disrupters, including the PAN.

Surveillance / Reconnaissance

The iRobot PackBot 510 with First Responder Kit evaluates hostage situations and other dangerous scenarios, giving first responders the tactical advantage.

Enhanced Next-Gen Features:

Rugged, lightweight Operator Control Unit and Game-Style Hand Controller increase ease of use and mobility.

Advanced chassis for 30% faster speeds, better navigation and increased dragging capacity

Improved manipulator doubles lifting, carrying and manipulation capabilities.

Multiple disrupter support allows first responders to select the ideal tool for each mission.

Vision and Targeting Head

Equipped with powerful cameras to ensure that operators can see and overcome whatever is in the robot's path.

Manipulator 1.0

Doubles lifting, carrying and manipulation capabilities. 360° base rotation allows for precision targeting and placement of disrupters. Elbow joints enable the robot to lift up to 30 lbs (13.6 kg) with arm in a compact position or 10 lbs (4.5 kg) while extended.

Arm Cameras (2)

Color arm cameras provide enhanced views and operation. One camera points at the head, allowing for maneuvering in tight situations. The second camera points at the gripper on the manipulator, enabling easier handling of objects.

Surveillance Camera

Continuous pan and 220° tilt, color CCD with 312x zoom, auto-focus, image stabilization and low-light capabilities.

Drive Camera

Wide-angle, mounted on base of unit with multiple positions allowing for forward, rear and downward views. It can also view manipulator positions.

Lights

Variable-intensity LEDs are mounted at each camera location. Surveillance camera has both white and IR LED arrays for illuminating in all ambient light conditions.

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iRobot PackBot 510 with First Responder Kit Contents

- PackBot 510 Chassis
- Rugged 15" Laptop OCU
- GPS
- 2 Hand Controllers
- Headphones
- QuickClamp Accessory Fireset with Accessory Port
- 2 NiCad Batteries
- 1 MicroCharger
- Rugged Shipping Cases
- User Documentation
- Aware® 2 License

Optional Accessories

- 4.9 GHz CommSelect 5140 Kit
- Picatinny Rail Mounting System
- SmartSpool Fiber Optic Spooler

Specifications

- Microelectronics & Sensors
- On-board Mobile Pentium® PC, 256 MB SDRAM, on-board overheat protection, compass accelerometers, inclinometer

Total Capacity

- Eight payload bays
- Can carry up to 46 lbs (20.9 kg) at one time

Battery Endurance

- 2 NiCad packs
- 2-8 hrs depending on mission profile (optional 4-16 hrs w/ Battery Expansion Kit)
- Up to 6+ miles (9.6 km) of travel

Communications

- RF: Fully digital 2.4 GHz (up to 3,280' / 1000 m range* line of sight) Long range antennae (optional)
- * Configuration dependent

Manipulator Specification

- Extension: 80" (203.2 cm)
- Lifting capacity:
 - 10 lbs (4.5 kg) at full extension
 - 30 lbs (13.6 kg) at close-in position
- Degrees of Freedom (DoF):
 - 8 independent DoF

Shoulder rotation: Continuous

- Shoulder pivot: 220°
- Elbow 1: 340°
- Elbow 2: 340°

Gripper rotation: Continuous

- Gripper open: 180°

Head rotation: Continuous

- Head tilt: 220°

OCU Specifications and Capabilities

The ruggedized, lightweight 15" OCU provides operators with pre-set manipulator positions and 3-D active robot on-screen display enabling operators to easily position and visualize the robot.

Size

- 13.5" (35.1 cm) W x 11.6" (29.4 cm) L x 3.1" (7.8 cm) H

Weight

- Approximately 14 lbs (6 kg)

Environmental

- All Weather Operation

Screen

- 15.1" (38.4 cm) XGA (1024 x 768) anti-reflective TFT LCD

Power

- 2 Battery Slots, interchangeable with robot

Software

- Aware® 2
- Multi-image display with full screen option
- Multiple pre-set manipulator positions
- Auxiliary USB, Ethernet, video output
- Two way audio communications
- Power-saving sleep mode
- 3-D active model of vehicle
- Image capture capability
- Gauge display of batteries
- Multiple speed ranges
- Multi-lingual



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