iRobot® PackBot® 510 with HazMat Kit performs multiple missions, detecting and identifying dangerous chemical, radiological and organic compounds and other hazards:

**HazMat Detection**
Detect toxic chemicals, materials, warfare agents and radiation.

**Surveillance / Reconnaissance**
Evaluate danger zones and inaccessible areas, including urban settings, with real-time video, audio and sensor readings.

**Route Clearance**
Sweep for IEDs and other threats on roads, mission routes and troop routes.

**Bomb Disposal / EOD (IEDs / VBIEDs / UXOs)**
Neutralize roadside bombs, car bombs and other IEDs, as well as unexploded ordnance.
**HazMat Sensors**
Multiple integrated sensors provide TIC, TIM, Blood Blister, VOC, Radiological and Temperature/Humidity detection and reporting.

**Vision and Targeting Head**
Equipped with powerful cameras, the vision and targeting head ensures that the operator can see and overcome anything in the robot’s path. The included QuickClamp Accessory Mount allows for fast installation and removal of a variety of tools at the head.

**Manipulator 1.0**
A more powerful 80” (203.2 cm) manipulator doubles lifting, carrying and manipulation capacity. The base rotates 360° to allow for precise targeting and placement of disrupters.

**Stronger Manipulator Joints**
Strengthened elbow joints enable the robot to lift up to 30 lbs (13.6 kg) with the arm in a compact position or 10 lbs (4.5 kg) while fully extended.

**Color Cameras**
Two 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.

**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 LED provide both white and IR LED arrays for illumination in all ambient light conditions.

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**iRobot PackBot 510 with HazMat Kit Contents**
- PackBot 510 chassis
- Rugged 15” laptop OCU (Amrel)
- 2.4GHz radio
- Manipulator 1.0 w/ 2 way audio comms
- QuickClamp w/ freest and aux port
- Dismounted firing circuit
- 2 hand controllers
- Headphone w/ microphone
- 4 BB-2590 U batteries and battery charger
- 2 BB-2590 battery cradles
- MultiRAE sensor kit
- - Calibration accessories
- - Extra filter packs
- LCD sensor kit
- - Confidence tester
- - Battery cassette
- - Sieve packs
- Radiac sensor kit
- - Dual accessory port payload adaptor
- Rugged, sealed hard case
- Users manual & user documentation
- Aware® 2.0 license

**PackBot 510 Chassis Specifications**
- Microelectronics & sensors
- Speed: Up to 5.8 mph (9.3 km/h)
- On-board computer with overheat protection, compass, accelerometers, inclinometer
- Height: 16” (41 cm) with manipulator in stowed position
- 87” (221 cm) with manipulator fully extended
- Width: 16” (41 cm) with quickflip flippers off
- 20.5” (52 cm) with flippers on
- Length: 32” (81 cm) with flippers stowed
- 40” (102 cm) with flippers extended
- Weight: Approx. 68 lbs (32 kg), including
- 2 BB-2590/U batteries

**Total Capacity:**
- Eight payload bays
- Carries up to 46 lbs (20.9 kg)

**Communications:**
- RF: Fully digital 2.4 or 4.9 GHz;
  - (up to 3,280’ / 1000 m range*) line of sight
- Optional 2.4 or 4.9 GHz radio and long range antenna
- Fiber spooler
- Configuration dependent

**Battery Endurance:**
- 4 BB-2590/U
- Lithium Ion) batteries
- 8+ hours, depending on mission profile
- Up to 6+ miles (9.6 km) of travel

**OCU Specifications and Capabilities**
The ruggedized, lightweight 15” OCU provides pre-set manipulator positions and 3-D active robot on-screen display, enabling the operator 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**
- Removable 11.1V/660mAH lithium-ion battery
- AC Adaptor 90V–240V 50/60Hz input. Complies with military power source AC 115V 400Hz

**Software**
- Aware® 2.0
- 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 to USB stick
- Gauge display of batteries
- Gauge display of fiber
- Three (3) speed ranges
- Multi-lingual