IROBOT PACKBOT 510

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iRobot Corporation is an American advanced technology company founded in 1990 and incorporated in Delaware in 2000, the iRobot **Corporation** designs robots such as an autonomous home vacuum cleaner (Roomba), the Scooba that scrubs and cleans hard floors, andmilitary and police robots, such as the PackBot. iRobot is a public corporation (NASDAQ: IRBT), based in Bedford, Massachusetts. **PackBot** is a series of military robots by iRobot. More than 2000 are currently on station in Iraq and Afghanistan, with hundreds more on the way. PackBots were the first robots to enter the damaged Fukushima nuclear plant after the 2011 Tōhoku earthquake and tsunami.

Current **PackBot 510** variants:

PackBot 510 is the current base model. It uses a videogame-style hand controller to make it more familiar to young operators. Configurations include:

PackBot 510 with EOD Bomb Disposal Kit designed for improvised explosive device identification and disposal.

PackBot 510 with Fast Tactical Maneuvering Kit designed for infantry troops tasked with improvised explosive device inspection. This is a lighter weight robot.

PackBot 510 with First Responder Kit designed to help SWAT teams and other first responders with situational awareness.

PackBot 510 with HazMat Detection Kit collects air samples to detect chemical and radiological agents.

PackBot 510 with Fido utilizes the Fido Explosives Detector from ICx Technologies as a payload in order to "sniff" out explosive materials. With the Fido, the PackBot now has the capability of locating explosive devices and subsequently disarming them using on-board robotic capabilities.[3]

PackBot 510 with REDOWL Sniper Detection Kit utilizes the Acoustic Direction Finder from BioMimetic Systems to localize gunshots with azimuth, elevation, and range.

510 PackBot for Infantry Troops easily adapts to the ever-changing requirements of bomb identification and other life-threatening infantry missions:

- Explosive Hazard Identification (EIDs/VBIEDs/ UXOs)
- Surveillance / Reconnaissance
- Route Clearance

510 PackBot for EOD Technicians quickly adapts to a variety of EID, conventional ordnance and SWAT missions^

- Bomb Disposal / EOD (IEDs/ VBIEDs/ UXO)
- Checkpoints / Inspections / Explosives Detection
- Route Clearance

510 PackBot for HazMat Technicians detects and identifies dangerous chemical, radiological and organic compounds, providing warfighters, first responders and SWAT teams with critical information on a range of missions:

- Hazardous Material Detection
- Surveillance / Reconnaissance
- Route Clearance
- Bomb Disposal / EOD (IEDs/ VBIEDs/ UXOs)

510 PackBot for First Responders provides SWAT teams, bomb squads, HAZMAT units and other emergency personnel with situational awareness in dangerous scenarious:

- SWAT / First Responders / Bomb Squads
- Bomb Disposal / EOD (IEDs/ VBIEDs/ UXO)
- Surveillance / Reconnaissance
- Checkpoints / Inspections / Explosives Detection

510 PackBot for Combat Engineers provides military and civil defense engineers with a single, advanced solution for multiple missions:

- Route Clearance
- Checkpoints / Inspections / Explosives Detection
- Explosive Hazard Identification (EIDs/VBIEDs/ UXOs)

Previous PackBot variants:

Packbot Scout is the basic configuration. It has five payload bays for assignable purposes and can be dropped from a height of six feet (1.83m) onto concrete without being damaged. The Packbot scout version weighs about 40 pounds (18 kg).

PackBot Explorer has a camera head equipped with multiple cameras, laser pointers, audio and other sensors.

PackBot EOD (explosive-ordnance disposal) can be controlled by radio or wired control to handle situations involving potential explosives, thereby reducing the risk of personal injury.

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