

What Is a Disrupter?

Equipped with a water-based disruptor, Spot can help EOD teams investigate and render safe explosive devices.



Since its commercial availability, Spot has seen rapid and growing adoption to keep people out of harm's way. With its advanced mobility and ease of use, [Spot](#) can move far ahead of its operators, providing back crucial information to decision makers in dangerous and hazardous scenarios.

For these initial deployments, Spot has gone through doors first in a range of tense situations, like responding to a barricaded suspect or detecting chemical, biological, or radiological threats. Equipped with an arm, cameras, and other specialized sensors, Spot has been invaluable for [assessing risks from afar](#). Spot has also been added to bomb squads and EOD teams. In response to suspicious packages or potential improvised explosive devices, Spot could always look and carry, but now, with an all-new integration kit from technology partner, ELP GmbH, trained operators can render these threats safe with a water-based disruptor.

How Disrupters Work

A disrupter is a tool used by technicians as a bomb mitigation device, with its primary purpose to remotely open or render safe a suspected item or IED. The disrupter is positioned near the suspected item. Once triggered, water launches from the disrupter at a high velocity, hitting the suspected object with such force that it disables any electronics and separates the device's components. If the suspected object is in a backpack or other bag, the water has enough velocity to tear through the material to reach any electronics or firing mechanism.

Disrupters are a very effective tool for disabling explosive devices from a safe perimeter, but locating and investigating the explosive, as well as placing the disrupter in position, can all create risk for EOD technicians who may have to approach the hazard.

Robotics in EOD

The use of [robots in bomb disposal](#) missions is not new. However, Spot introduces several benefits for operators throughout the process. Most EOD robots are wheeled or tracked—and in some cases they can be quite large—adding barriers to deployment in areas with stairs, ground clutter, rough uneven terrain, or tight quarters. Spot's legged design and intuitive controls make it fast and simple to deploy in a variety of environments and situations.

Investigate & Identify

With advanced mobility and 360 cameras, Spot can easily be operated beyond line of sight to give operators situational awareness. Operators have full control using a handheld controller tablet—they can arrive at the suspected object quickly. With the Spot Arm and intuitive manipulation presets, you can carefully pick up objects, open doors, and get closer eyes onto the suspected object with the gripper camera.

Render Safe & Dispose

A water-based disrupter can be mounted to Spot's gripper, or rear position—using cameras on the robot, the operator can aim the disrupter at the suspect device, and remotely render safe. Once the object is disarmed, the operator can also use Spot's arm to pick-up and move the object for complete disposal.

Operator Safety

EOD technicians have a saying “initial success or total failure.” Their mission is to render safe threats while maintaining the highest possible amount of safety. Every time a robot is in use to disarm and dispose of a bomb, it means one less person walking down range in harm's way.