

Boston Dynamics introduces self-charging robotic dog Spot

3 February 2021, by Peter Grad



Boston Dynamics has given Spot, its robotic canine, a leg up over the competition. Or more precisely, an arm.

The mobile robotics firm unveiled upgrades and improvements to the Spot family this week, including a fifth limb that brings new functionality to the robotic pooch it introduced for sale in 2020.

Until now, Spot was hyped as an agile hallway monitor that could navigate hallways and stairways and transmit video to an onsite control center.

But the new appendage greatly expands Spot's utility. Videos posted this week on Boston Dynamic's web site show the bulked up Spot pulling steam valve levers, twisting and opening doorknobs, picking up clothes strewn over a floor and placing them in a laundry container, and dragging a cement block across a road. It dug a hole and planted a flower and precisely drew the Boston Dynamics logo using chalk on parking lot pavement.

And in a scene reminiscent of the first videos of Spot dancing upon its release in 2018, three Spots

are shown in an impressive display of teamwork as they engage in several rounds of impeccable jump rope.

Boston Dynamics also unveiled Spot Enterprise, an enhancement of the original Spot that includes the ability to self-charge at an included power dock, which also allows Spot to upload data through an Ethernet connection.

Boston Dynamics said in a common blog that a hardware upgrade "offers greater safety, communications capability and allows it to operate autonomously across a greater range."

Rounding out the upgrades is Scout, web-based software that permits operators to control Spot from home or any other remote location. Boston Dynamics says this is particularly beneficial in operations taking place in hazardous environments.

Scout software allows users to direct Spot to a location simply by tapping on a screen. Built-in avoidance measures ensure Spot travels the fastest route while avoiding obstacles.

"Since first launching Spot, we have worked closely with our customers to identify how the robot could best support their mission critical applications," said Boston Dynamics' CEO Robert Playter. "Our customers want reliable data collection in remote, hazardous, and dynamic worksites."

The upgrades were made "with the goal of making it easy to regularly and remotely perform critical inspections, improving safety and operations," he said.

An improved 30x optical zoom camera with [thermal imaging](#) means Spot can patrol [oil rigs](#), for example, read meters, detect physical abnormalities, check for leaks, overheating, vibrations or other activity that could pose danger to human inspectors.

Currently there are 400 Spots employed at businesses globally. The robots have been used to reduce exposure of frontline workers battling the COVID 19 epidemic in Boston, herd sheep in New Zealand, monitor Ford Motors plants and inspect London construction sites.

"Customers in a lot of industries have sites with important equipment that are largely unstaffed, and it could take hours to dispatch someone to go check on something relatively simple," Zack Jackowski, Spot's chief engineer said. "What they want to do is to put a Spot there permanently. That way, the person who is attached to follow up on an alarm going off or a routine inspection can just dial into a robot, stand up, and go take a look around."

For those who may be thinking of more mundane reasons for acquiring Spot, just for the company or perhaps simply to help with all that messy laundry lying around the house, there is one caveat. Spot comes with a \$74,500 price tag.

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