

# Boston Dynamics robot has claw-arm to turn handle and hold door open

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You can comfortably predict any articles about Boston Dynamics will have the words "creepy," "scary," and "nightmare" taking up ample space. Each time Boston Dynamics announces a new robot version—even with few details on technology involved—one is reminded how much alarm the writers experience in viewing the videos.

One reads how they won't sleep after seeing the robots walk, run, fall over, get up, and how we are generally doomed because these robots are to take over the world. One wonders if they are really that scared or just seeking to entertain (which they do).

The latest video to apparently terrify many writers is of a spruced-up SpotMini, the dog-like four legged creature. Actually, it's about two SpotMini robots, but one is more decked out than the other. Here is what happens in the video:

"Hey Buddy Can You Give Me a Hand?" is the Title of the new video showing a SpotMini, as it spryly walks up to a closed door. Hmm. SpotMini has its technical limits. How to open the door? Will a human assistant scamper up to help? Or kick the robot in the side to coax it to just give up and fall down? Absolutely not. (Brian Heater in *Wired*: "Given the brevity of the video, however, it's tough to say whether someone's controlling the 'bots just out of frame.")

It arches, looks, turns sideways, retreats. Another SpotMini appears, this one with the same sleek new body but it also has an arm and claw: Step aside, junior. The enhanced SpotMini has a black contraption on its neck. It is a claw-arm that can work on [door handles](#), and once the handle is turned successfully, it can actually open the door wider for entrance. This machine is a helpful robot, allowing its companion, who has been waiting, to enter first.

SpotMini is described by Boston Dynamics's site as a small four-legged robot that weighs 25 kg (30 kg if you include the arm). All-electric, it runs for about 90 minutes on a charge, depending on action. "SpotMini is the quietest robot we have built," they said.

As for its special advantage, "[SpotMini](#) inherits all of the mobility of its bigger brother, Spot, while adding the ability to pick up and handle

objects using its 5 degree-of-freedom arm and beefed up perception sensors. The sensor suite includes stereo cameras, depth cameras, an IMU, and position/force sensors in the limbs. These sensors help with navigation and mobile manipulation."

Meanwhile, a number of writers were genuinely impressed with its technical skills.

Daniel Starkey in *Geek.com* wrote that "it's [smart](#) enough to understand the correct way to open a door without missing, and it can effectively use its own weight to hold the door open for its friend—an extraordinarily complicated feat of problem-solving that most cats and dogs never figure out."

This also impressed Alasdair Wilkins in *Inverse*: "The finesse of the operation and the various methods the robot uses to open the [door](#) as quickly and efficiently as possible is a testament to the robotics brilliance of Boston Dynamics."

Michael Hicks in *TechRadar*: "What we find especially exciting about this news isn't the impressive programming necessary to make the claw arm physically open a door; it's that the robots are trained to [recognize](#) doors and [door](#) handles. (That's assuming this wasn't remote controlled from off-camera)."

*Engadget's* Jon Fingas, meanwhile, sat up and took notice of something else in deciding what to make of all this:

"Robots have typically only had limited [cooperation](#) with each other, and this hints at more advanced team-ups where robots can supplement each others' abilities and accomplish more than they would by themselves." A real-world translation: search and rescue missions, posed Fingas, "or any situation where it would be impractical to equip every [robot](#) with the

same features."

Brian Heater's thought in *Wired* should not be ignored: "The team behind the [Big Dog](#) proves that it's still the master of viral robotic marketing, even after switching teams from Google to SoftBank."

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