



SpotMini

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AUTONOMOUS ROBOT DOG COULD BE USED IN CONSTRUCTION



COMPUTING & TECH

An autonomous navigating robot dog is capable of carrying heavy payloads and using a modular robotic arm.

Autonomous robots are impacting myriad industries. We've seen them inspecting [industrial tanks](#) and even [serving coffee](#). Usually, these robots are designed to perform repetitive simple tasks.

[Boston Dynamics](#), however, have now designed a multi-functional and nimble robot. Their latest invention, SpotMini, can perform a range of dynamic tasks which include navigating autonomously through complex environments. The quadrupedal robot (resembling the 'dogs' from the latest season of [Black Mirror](#)) uses multiple mounted stereo cameras fitted with Ladar lasers to map objects around it. This therefore gives the robot a sophisticated vision system. Additionally, the on-board software is capable of figuring out the best route forward. It is small, at 0.84 metres, can climb stairs on its four legs, and can also move in a crouched position under obstacles.

[Boston Dynamics](#) is pitching the SpotMini for a range of uses and environments, the most prominent being the construction industry. It can hold heavy payloads (14 kilograms) and is also tough to destabilise. It's also capable of a range of actions because of a modular robotic arm with a large range of movement. This arm can pick up and move objects and perform complex operations, such as opening doors or loading a dishwasher.

SpotMini is quiet, and therefore moves around innocuously, without disrupting work. It is powered by electricity, with a single charge allowing for 90 minutes of continuous use. [Boston Dynamics](#) is expected to roll out SpotMini commercially in 2019.

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Takeaway:

Autonomous robots like SpotMini can be built to spec for difficult jobs. Human lives are always in danger on a construction site or in other hazardous environments. Robots can carry heavy payloads without risk of injury to themselves, and the greater their sensors are the better they can perform around human coworkers. This could be applied to heights, water, extreme heat. What other aspects of the construction industry could benefit from robot dogs?