

WATCH VIDEO: Spot the robot dog performs tricks at Pickering nuclear plant

New addition can climb stairs, spin, access sensitive areas

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Employees at the Pickering Nuclear Generating Station have a new four-legged friend that isn't furry like a living dog, but it's also agile and can perform plenty of tricks.

Spot the robot dog was introduced to Ontario Power Generation's Pickering plant in November.

The yellow [25-kilogram robot dog can spin, walk and climb](#), and can safely and efficiently perform inspections while being controlled by an application on a tablet.

OPG and the mobile robot company that built Spot, Boston Dynamics, have been training the robot dog to perform tasks normally performed exclusively by operators under challenging conditions.

"The robot is very agile and is designed so intuitively where training is easy," said Eddy Zhou, one of the lead nuclear operators working with Spot.

Within a few hours, Spot knew basic commands, and can now navigate hard-to-reach areas like boiler rooms, moderator rooms, and fuel conveyor tunnels to perform important inspections. Spot's abilities help protect workers from unnecessary safety risks while saving on costs and time.

OPG does have other robots, but Spot is unique.

"This is our first quadruped robot with four legs," Zhou said.

Spot's four legs allow it to easily avoid obstacles, open doors and climb up stairs, which other robots cannot do.



Neil Mohan, a shift manager at the Pickering station, explained if he points the controller to a sensitive piece of equipment, Spot will intuitively move around.

Also, Spot's 360-degree, high-resolution camera relays valuable information and visuals to station staff. OPG and Boston Dynamics are working together to give Spot even more features, and Zhou said 60 operators have signed up to learn how to handle the robot.

Mohan led the charge to get Spot into OPG.

"We've been really pushing robotics and innovation for the last little while," he said.

(continued below)



Some OPG staff were talking about the need to access sensitive areas to

perform inspections and Mohan started looking into different possibilities and found Boston Dynamics.

Zhou says this new robot shows that even though the [Pickering Nuclear plant is near the end of its life](#), the aging station still remains innovative.

“The robot is one snapshot of how the innovation in OPG has (advanced) in the last few years,” he said.

Spot has done some work at the Darlington plant as well and other OPG facilities are interested in the robot. Even outside companies that have learned about Spot are looking into getting their own quadruped robot.

“Now we’re really seeing the payoffs,” Mohan said.

(continued below)



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