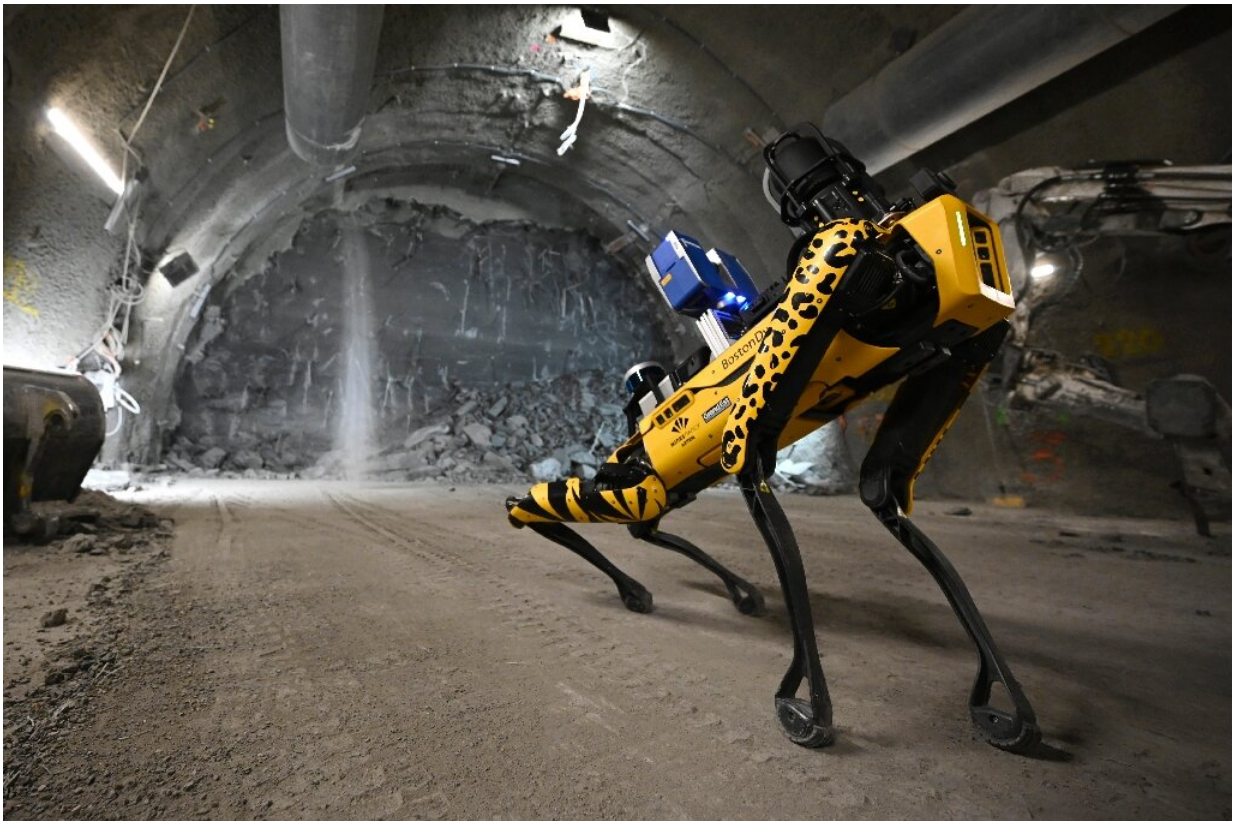


Researchers' new best friend? Robot dog gets to work

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"Scar" at the Cigeo lab in eastern France, destined to house thousands of tons of nuclear waste.

Deep underground in eastern France, a four-legged bundle of energy named Scar steps gingerly through vast caverns, loaded with sensors for

taking measures in places where humans might fear to tread.

It's an ideal training ground for Scar, a robotic "dog" being groomed by researchers at the Ecole des Mines engineering school in Nancy.

Its name is a French acronym for "Advanced Robotic Assistance System", and the Ecole des Mines was the first in France to purchase the Spot robot from the US firm Boston Dynamics last September.

On Tuesday, a team from the university tested out Scar's abilities at the Cigeo lab 500 metres (1,600 feet) below the village of Bure, slated to become a permanent home for thousands of tonnes of toxic waste from France's [nuclear power plants](#).

At times the black-and-yellow robot was guided by [remote control](#), but at times it could navigate on its own, opening up the possibility for researchers to programme autonomous tasks.

Scar can also enter and inspect areas that are hard to reach or could expose humans to radiation risks.

"We're now interested in developing [artificial intelligence](#) so it could be deployed for surveillance of deep geological storage," said Guillaume Hermand, an engineer with France's ANDRA nuclear waste management agency.



The robot can navigate areas and terrain that could be dangerous to humans.



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Students at the university will work on advanced AI applications for Scar that will be tested at the lab.

One possibility is to have it carry out regular data capture surveys of the same room or route, which could give early warning to the lab's operators of minute geological shifts at the site.



Data capture missions could be carried out autonomously.

It could also be deployed quickly in case of accidents where larger equipment would be impractical.

"We're at the early stages of a shift in how we work and organise tasks with the digital shift in industry," Ecole des Mines director Francois Rousseau said.

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