



SCDF unveils a robot that tows burning electric cars 300m clear

Description

An electric car that has been on fire can look out for hours afterwards, and that is the problem Singapore's firefighters now have a machine for. The Singapore Civil Defence Force showed off its Vehicle Extrication Robot at the [Singapore-International Disaster and Emergency Management Expo](#) on Wednesday, 28 October. The tracked robot can drag a burnt-out electric vehicle up to 300m away from where it caught fire while spraying a water mist over the car.

The VXR lifts a vehicle's front wheels and tows it. Firefighters operate it from a distance, which means they are not standing beside a battery that could go into thermal runaway again.

Thermal runaway is the chain reaction that makes electric vehicle fires so stubborn. Heat builds inside one cell faster than it can escape, that cell sets off the ones next to it, and the whole pack goes. Even after the flames are out, the pack can hold enough heat to reignite.



Sim Ann at the Singapore Ride Safe launch on 12 September 2026. Photo: The Straits Times

Second Minister for Home Affairs Sim Ann opened the expo and gave the figure that explains the urgency. Electric vehicles made up more than 60 per cent of new car registrations in Singapore in the first half of 2026.

What the robot does in a fire

The VXR is about the size of a car, which matters because most electric vehicle fires here happen in car parks. A machine that cannot fit into a basement ramp is no use.

Once firefighters have knocked the fire down, they send the robot in, lift the front wheels and tow the car into the open. The water mist runs during the tow, shielding the robot from radiant heat and cutting the chance of the battery catching again. Out in the open, an unmanned firefighting machine takes over and cools the pack.

A damaged battery needs a response that keeps working after the flames are gone, because the vehicle cannot be left where it is.

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SCDF home fire-safety demonstration. Image: Singapore Civil Defence Force official editorial asset.

Where it will run

Operational trials start at Punggol Fire Station this month. Kallang Fire Station follows in April 2027.

The force has been building out unmanned equipment for several years, and the VXR joins a fleet that already includes machines for firefighting in spaces too dangerous or too hot for crews.

SCDF is also running research and burn tests to write new fire safety rules and operating procedures for electric vehicles, with the equipment to match.

For drivers, the practical point is the one the force keeps making. A burning electric vehicle is not something to tackle with a household extinguisher, and a car that looks out is not a car that is safe to stand next to.

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