

Japanese rescue-bot can sniff out disaster survivors (w/ Video)

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Japanese emergency services are to trial a small tank-like rescue robot that can search rubble for survivors and deliver water, food or cellphones in disaster zones.

The fire department of Chiba City, east of Tokyo, will test the QUINCE prototype from next month, said Eiji Koyanagi, robotic engineering expert at Chiba Institute of Technology.

"People die because they despair. If the robot delivers a cellphone, they won't feel alone. If the robot delivers water and food, they can hold out," said Koyanagi. "We want to make this the world standard."

The QUINCE, the size of a toddler's play car, has a [robotic arm](#) that can

be remote-controlled to turn doorknobs, manoeuvre through rubble and carry crucial survival items after an earthquake or other disaster.

Human rescuers manipulate the arm from afar using a computer link that shows them robo-view camera images.

The machine also features infrared and carbon-dioxide sensors to find survivors by detecting their body heat and their exhaled breath, and creates three-dimensional maps of the site as it crawls.

Four sets of wheels, each driving a tank-like rubber track and powered by a total of six electric motors, enable the machine to push ahead over bumps and up and down slopes as steep as 82 degrees.

People trapped under rubble can also hear the voices of rescuers through a speaker fitted to the robot.

Koyanagi, speaking at Tokyo's Robotech fair, said it is essential for the [robot](#) to be tested by real rescuers to improve and "fine-tune" its design.



This picture, taken on July 18 and released by Japanese college Chiba Institute of Technology shows the crawler rescue robot "QUINCE" during a demonstration at the college campus of Narashino city in Chiba prefecture, suburban Tokyo. Japanese emergency services are to trial a small tank-like rescue robot that can search rubble for survivors and deliver water, food or cellphones in disaster zones.

Engineers may develop the wrong ideas, he said: in the past, "we made touch panels... only to find [rescuers](#) wear gloves and can't use them."

Japan is prone to earthquakes, with about 20 percent of the world's most powerful tremors striking the island nation.

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