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WATCH

Relevant for: Science & Technology | Topic: Science and Technology- developments and their applications and effects in everyday life

Disasters like earthquakes and building collapses often lead to survivors being trapped under the rubble, unable to move themselves due to injury or being buried too deep to call out for help. First responders risk their lives trying to find these people before they die of their wounds or suffocation.

Ever imagined insects being the ones to save human lives?

You heard that right.

Researchers in Japan are working on a “cyborg cockroach,” or a remote-controlled insect wearing a tiny backpack of solar cells and electronic hardware.

This set-up would let the cockroaches to explore dangerous ruins and obey commands from remote controllers in order to find survivors trapped under stone.

In order to make this idea a reality, Kenjiro Fukuda and his team at the Japanese research institute Riken, located close to Tokyo, developed a solar cell film that is 4 microns in width.

In other words, a strand of your hair is about 25 times thicker than this ultra-thin film, which is attached to the cockroach.

While the insect moves around, solar cells on its body power signals sent by its controller and guide the cockroach to move in a desired direction.

For this purpose, a Madagascar Hissing Cockroach was chosen. Unlike the cockroaches we see in households, the Madagascar Hissing cockroach is large, wingless, and can turn itself over after falling on its back - even if its wearing the cyborg suit.

The backpack can also be removed from the insect, so the cockroach is not a cyborg in the true sense of the word.

When will we see cyborg cockroaches in action? Read the full story.

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