

# Japanese researcher unveils 'hummingbird robot'

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Professor Hiroshi Ryu of Japan's Chiba University displays his flying robot, which flaps its wings 30 times per second like a hummingbird, at his laboratory in Chiba city, suburban Tokyo, December 28. The robot, whose development cost has topped 200 million yen (2.1 million dollars), may be used to help rescue people trapped in destroyed buildings or search for criminals, Ryu said.

Japanese researchers said Monday they had developed a "hummingbird robot" that can flutter around freely in mid-air with rapid wing movements.

The robot, a similar size to a real hummingbird, is equipped with a micro motor and four wings that can flap 30 times per second, said Hiroshi Liu, the researcher at Chiba University east of Tokyo.

It is controlled with an [infrared sensor](#) and can turn up, down, right or left.

The robot, which weighs 2.6 grams (0.09 ounces), can fly in a figure of eight more stably than a helicopter with rotor blades, said Liu, 46, who specialises in developing robots based on living creatures.

"The next step is to make it hover to stay at one point in mid-air," Liu said, adding that he also plans to equip it with a micro camera by March 2011.

The [robot](#), whose development cost has topped 200 million yen (2.1 million dollars), may be used to help rescue people trapped in destroyed buildings, search for criminals or even operate as a probe vehicle on Mars, he said.

"First, we need to learn about effective mechanism from natural life forms, but we want to develop something to go beyond nature eventually," Liu said.

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