

New robot 'steered by human thought': Honda

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Honda Research Institute president Yasuhisa Arai (L) and Mitsuo Kawato, Japan's ATR computational Neuroscience Laboratories director, stand next to a brain-machine interface, equipped with special headgear to measure slight electrical current and blood flow change occurring in the brain, at Japanese auto giant Honda's headquarters in Tokyo.

Japan's Honda said Tuesday it had developed a robot steered by human thought, thanks to a helmet-like device that measures a person's brain activity and sends signals to the machine.

The latest version of ASIMO -- the celebrity [robot](#) of Honda Motor Co. that can already dance, run and guide guests through an office floor -- has now been fitted with a so-called "brain machine interface" (BMI), the company said.

The state-of-the-art technology means the [humanoid](#) can perform four basic movements with its arms, legs and tongue based on the non-verbal instructions a person sends to it by concentrating on performing the action themselves.

"By only imagining moving their right hand, for example, a test person can move ASIMO's right hand," said one of the scientists involved, Tatsuya Okabe of the Honda Research Institute Japan.

"The accuracy of a movement depends on the test person and whether that person is good at concentrating."

ASIMO can perform the motions correctly in 90.6 percent of cases -- a record in the field of BMI technology -- the scientists told a Tokyo news conference, where they showed video footage of the experiment.

The research aims to create a robot which can help people with house-keeping chores such as serving dishes or watering plants.

The project is jointly run with the state-backed Advanced Research Institute International and precision-equipment manufacturer Shimadzu Corp.

"What we are doing is still basic research, but we are working on the dream of commercialising it," said Yasuhisa Arai, president of the Honda Research Institute. "But there is still a very long way to go before commercialisation."

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