

## Coming soon: A robot controlled by human brain cells

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LONDON: British scientists are on track to develop a new robot which they claim will be controlled by a blob of human brain cells.

According to the 'New Scientist', a team at Reading University, which has already used rat brain cells to steer a simple-wheeled robot, is now trying the same thing with human brain cells.

In fact, for the robot with rat brain cells, 300,000 rodent neurons grown in a nutrient broth and producing spikes of electrical activity were connected to output of the robot's distance sensors. The neurons proved capable of steering the robot around a small enclosure.

According to the scientists, observing how the neuron culture responds to stimulation can improve the understanding of neurological conditions such as epilepsy.

To make the system a better model of human disease, a culture of human neurons will be connected to the robot once the current work with rat cells is completed. This will be the first instance of human cells being used to control a robot.

One aim is to investigate any differences in the behaviour of robots controlled by rat and human neurons. "We'll be trying to find out if the learning aspects and memory appear to be similar," said team leader Kevin Warwick.

The scientists can proceed as soon as they are ready, as they won't need specific ethical approval to use a human neuron cell line. That's because the cultures are available to buy and "the ethical side of sourcing is done by the company from whom they are purchased", team member Ben Whalley said.