

Robot arm helps paralyzed man have drink using only his thoughts

Erik Sorto hasn't been able to move his arms or legs in a decade, after a gunshot wound 13 years ago rendered him quadriplegic. But after scientists implanted chips into his brain three years ago, he's been able to move a robotic arm — to shake hands; play rock, paper, scissors; and yes, drink beer, according to [a study in the journal *Science*](#).

Sorto is one of a handful of people who have been given brain implants to help move objects with their minds since 2006, when a [paralyzed man named Matthew Nagle](#) moved a cursor on a computer using only his thoughts. Since then, scientists have been trying to refine the process to benefit other paralyzed patients. Today's study differs from most previous research in the area of the brain researchers targeted for implants — and may lead to better control for patients.

Previously, scientists focused on the primary motor cortex, a part of the brain which coordinates the contractions muscles require to move — but that made for jerky movements. That may be because human limbs can move about 27 different ways, says researcher [Richard Andersen](#), a neuroscience professor at CalTech. Instead, his group targeted a different area in the brain, one he'd studied in animals, called the posterior parietal cortex. While the primary motor cortex focuses on specific muscle movements, the posterior parietal cortex is about planning movements. Information from the implants in the posterior parietal cortex transmit the intent to pick up a pint of beer and lets the computer figure out how to make the movement.

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis. Read full, original post: [Paralyzed man sips beer with robot arm he controls with his mind](#)