

EU project builds artificial brain for robots

Scientists in Spain have achieved a giant leap for robotkind by building the first artificial cerebellum to help them interact with humans. The cerebellum is the portion of the brain that controls motor functions. The project will now implant the man-made cerebellum into a ...



Scientists in Spain have achieved a giant leap for robotkind by building the first artificial cerebellum to help them interact with humans. The cerebellum is the portion of the brain that controls motor functions.

The project will now implant the man-made cerebellum into a robot so as to make its movements and interaction with humans more natural. The overall goal is to incorporate the cerebellum into a robot designed by the German Aerospace Centre in two year's time. The researchers hope that their work will also result in clues on how to treat cognitive diseases such as Parkinson's

The four-year project, dubbed Sensopac (SENSOrimotor structuring of perception and action for emerging cognition) is funded by the EU under its Sixth Framework Programme (FP6) and brings together physicists, neuroscientists and electronic engineers from leading universities in Europe.

The scientists at the University of Granada are focusing on the design of microchips that incorporate a full neuronal system, emulating the way the cerebellum interacts with the human nervous system.

Implanting the man-made cerebellum in a robot will allow it to manipulate and interact with other objects with far greater effectiveness than previously managed.

'Although robots are increasingly more important to our society and have more advanced technology, they cannot yet do certain tasks like those carried out by mammals,' says Professor Eduardo Ros Vidal, who is coordinating the work at the

University of Granada.

'We have been talking about humanoids for years but we do not yet see them on the street or use the unlimited possibilities they offer us,' the Professor added.

One possible use for the robots would be as home-helpers for disabled people.

The next step for the Sensopac project will be to develop an artificial skin for the robots, making them look more human-like, as well as making them information-sensitive in the same way as human skin is.

Countries

Spain

Last update: 27 August 2007

Permalink: <https://cordis.europa.eu/article/id/28240-eu-project-builds-artificial-brain-for-robots>

European Union, 2025