

Future Surveyor Will Control UAV by Thought

Surveyors today are already making use of cars with 3D cameras and controlling unmanned aircraft. In the future, however, the cars may not need an operator and unmanned aircraft could be controlled by thought. The first steps have now been taken to enable surveyors to make direct contact with UAVs using their brains and to manoeuvre them exactly as they wish.

A team of scientists from the University of Minnesota has succeeded in designing a drone that can be controlled merely by thought. Five 'pilots' piloted an unmanned mini helicopter through a large hall. In 2010, other researchers had also succeeded in controlling a small aircraft by thought, but that flew at a fixed height.

Controlling a UAV with the brain works as follows. Members of the test team were connected to a computer via 64 electrodes. Using the brain signals, the computer was then able to fly the helicopter with great precision around an obstacle course in the hall.

The 'pilots' were instructed beforehand to use clear, distinguishable thoughts to fly the helicopter. To make the drone move to the right the pilot had to imagine he was making a fist with his right hand. To let it climb, he had to imagine he was making a fist with both hands.

Although the project is actually focused on the use of this technique for people with a physical handicap – artificial limbs can be controlled in the same sort of way – it gives us a good insight into the way in which the mapping of our world may be done in the future.

Photo courtesy: University of Minnesota.

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