Hacked Kinect controller game changer for Parkinson's

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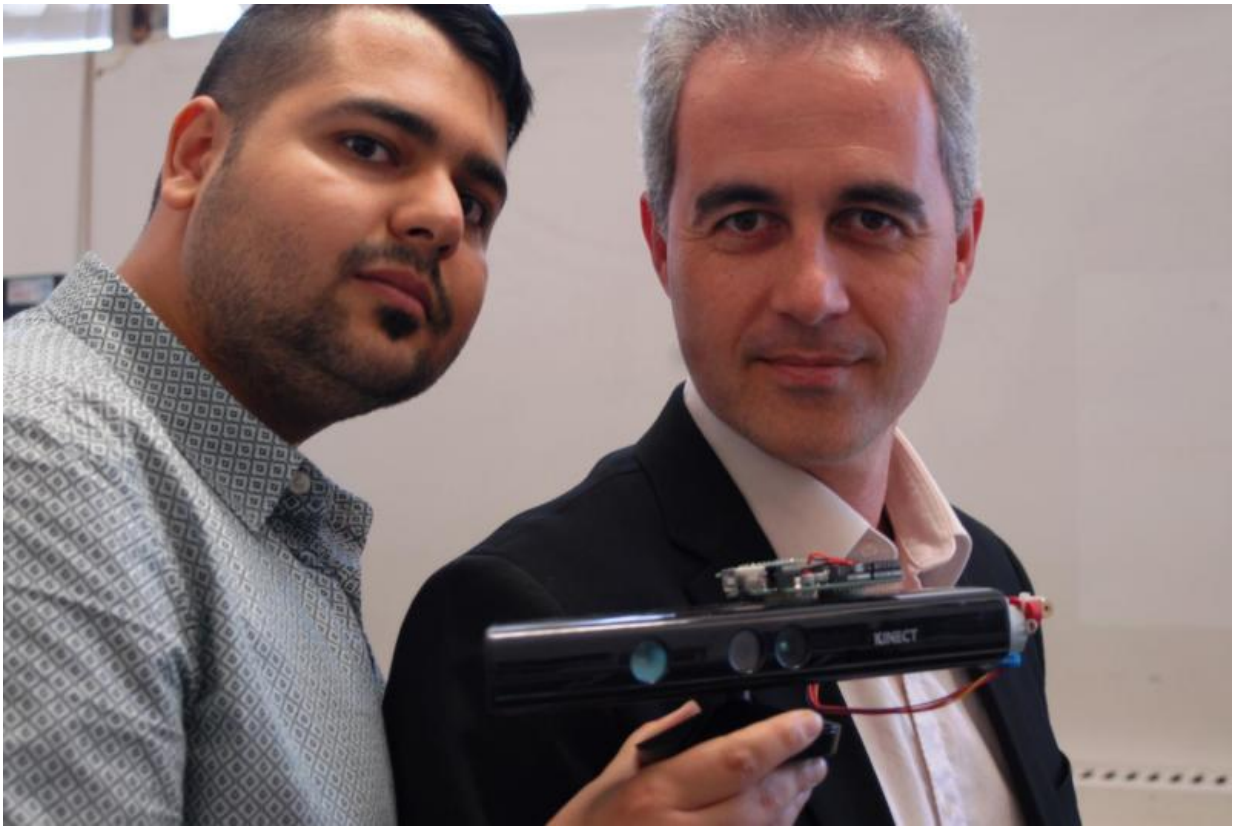

Amin and Dr Benitsas

Microsoft's Kinect games controller has been hacked by researchers at Brunel University London to relieve one of the most distressing symptoms of Parkinson's - freezing of gait.

Scientists at Brunel University London have developed a system for Parkinson's sufferers to counter two of the most common and distressing symptoms of the degenerative disease.

Many patients are afflicted by freezing of gait (FOG) where suddenly, in mid-stride, the muscles freeze and they are left unable to move forward or they simply fall over.

Previous research shows that giving visual clues such as projecting lines ahead on the floor "unfreezes" the muscles but current equipment has to be worn.

But Dr Konstantinos Banitsas and PhD candidate Amin Amini Maghsoud Bigy have turned Microsoft's Kinect computer games controller into a system that can be installed into a patient's own home.

Linked to a ceiling mounted laser, the Kinect can not only project prompt lines when the software detects a FOG incident but if a patient falls, the system not only detects that but also automatically triggers a video conferencing call.

Said Dr Banitsas: "All the other systems require a patient to wear sensors and power packs where our solution is unobtrusive and covers a whole room.

"By mounting the laser guide marker on the ceiling it can provide the visual clues in any direction. And it is only activated when a FOG incident occurs instead of having to be worn constantly.

"The system has already passed proof of concept stage and we will shortly begin patient trials."