

Paralysed student walks with aid of robot skeleton

Simon de Bruxelles

A rugby player paralysed in a car crash two years ago has walked for the first time with the help of a robotic exoskeleton controlled by his thoughts.

Rob Camm, 21, was left with no movement at all by the accident a week before he was due to start a degree in politics, philosophy and economics at the University of York. He had just played his final rugby match for his local team when he was injured. He spent 96 days in intensive care at Frenchay hospital in Bristol before being transferred to a specialist spinal injuries unit in Salisbury.

He is able to control the mechanical exoskeleton through a skullcap fitted with 79 electrodes that converts his thoughts into movement.

The £95,000 wearable robot — Rex — allowed him to take a few steps at a robotics conference in Rome. He now hopes to be able to buy one.

Mr Camm, from Berkeley, in Gloucestershire, said: "You are strapped into it and it moves so you move with it. Most people would use a joy stick to control it but I can't."

The researchers from the University of Houston who developed the thought control system for the British device asked Mr Camm to think about the process of walking. Then the next time he had those thoughts the machine made the movement for him.

"So, left leg up, left leg for-

ward, left leg down, and so on — that was the mapping bit, so Rex knows what to listen for. I have no idea how it works at all," he said.

"When you haven't been doing that for quite a while, it's a strange experience to see your feet moving underneath you."

The robotic exoskeleton was developed by two Scottish engineers who had emigrated to New Zealand. Robbie Irving had had multiple sclerosis diagnosed and he and Richard Little wanted to ensure that he could remain mobile.

Rex Bionics was bought last year by a British investment company which then raised £10.3 million on the alternative investment market to develop the device. The company is about to recruit patients for global clinical trials.



Rob Camm was paralysed in a car crash now walked using the £95,000 device



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