

Technology orchestrates dreams of making music

JAMES BROSNAN says he likes the White Stripes. His mind works perfectly but his body is physically trapped, meaning he can only communicate and create using a switch placed just under his chin or by discreet movements of his face.

Although born with Cerebral Palsy, the 29-year-old looks set to lead the first orchestral musical piece composed by severely disabled people.

Thanks to a wondrous scientific invention, the Limerick man has just started composing music. A Media Lab Europe creation called Cipherscore is to give the severely disabled their first chance at making a melody.

Mr Brosnan's first musical notes are only days old and are now part of a plan for a grand concert.

Using a similar writing and speaking device to world famous scientist Stephen Hawking, he said: "I have used Cipherscore once or twice, it was fun making my first melody. It's no Beethoven but I can't wait to play some more."

Education, therapy and applied technology helps cerebral palsy sufferers lead productive lives, according to Media Lab Europe, the developers behind the invention. The Liberties-based non-profit research institute began in July 2000 as a collaborative

Juno McEnroe hears cerebral palsy victim's first melodies

venture between the Irish Government and the Massachusetts Institute of Technology (MIT). Pushing out the boundaries of human life, MLE have now opened up a dream for thousands around the country.

On his laptop, Mr Brosnan uses a head-mounted activation switch linked to a 'hacked' mouse going through an entire composition procedure, from creating short sequences of notes in a 'Tetris' fashion on the computer screen, to directing arrows moving across the digital score sheet. It's a one-touch, one movement technique, says the digital instrument's architect Morgan Brickley: "We're looking at using a motion detector

camera with other people, trying to make this as accessible as possible."

According to Mr Brickley, the project is just like a cipher, opening up a code or lock.

Mr Brosnan's first written words were composed when he began using a predictable text programme on a computer triggered by his neck movements when he was eight years old. After attending Mount Temple secondary school in Clontarf, Dublin, while receiving treatment in the Central Remedial Clinic, he achieved a first class degree in communications in DCU.

"They are customising it for me. Obviously some start up glitches. There are good technicians," he joked.

Already five teenagers with the CRC have added to the melodies.

With initial trials finished, the scope is there, depending on funding, to offer Cipherscore to others, explains the CRC's Ger Craddock: "It's about bridging the digital divide with their disability, this is their superhighway. Once they master the composing, there will be other benefits, such as employment."

For the next five months, the CRC and Media Lab Europe will work further with 22 students with severe disabilities, in both the Dublin clinic and St Gabriel's school in Limerick.