# Cambridge Scientists Develop Controllable 'Third Thumb' Prosthetic to Enhance Human Motor Capabilities



Scientists at the University of Cambridge have developed a controllable prosthetic called the "Third Thumb," designed to enhance human motor capabilities. The extra digit is worn on the side of the hand opposite the natural thumb and controlled by pressure sensors placed under the user's big toes. These sensors communicate wirelessly with the thumb, enabling a range of motion in response to toe pressure.

Designer Dani Clode began the Third Thumb project at the Royal College of Art, later collaborating with Cambridge's MRC Cognition and Brain Science Unit. The prosthetic can perform tasks such as picking up objects, opening bottles, and threading needles. In trials with 596 participants ranging from three to 96 years old, 98% were able to manipulate objects successfully within the first minute of use, indicating quick adaptability.

The Third Thumb is currently not commercially available, but researchers believe it could pave the way for more inclusive human-centered wearable technologies. This innovation has potential applications for amputees and could generally expand human motor functions beyond biological limitations.