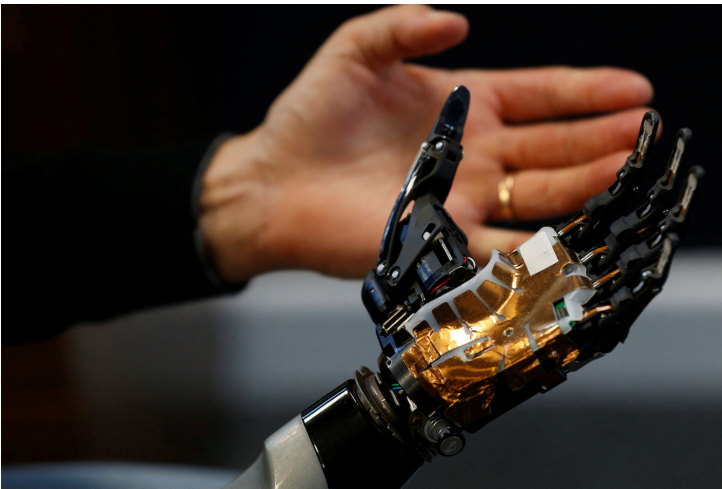


Korea designs wrist rotation module to enhance usability and efficiency in prosthetic limbs

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The advanced prosthesis operates by interpreting signals to the muscles through sensors



Robotic assistive devices play a crucial role in supporting the daily activities of individuals with congenital disabilities or those who have experienced unfortunate accidents. Despite their benefits, achieving truly natural movements remains a significant challenge for these robotic assistive devices.

Professor Keehoon Kim from the Department of Mechanical Engineering and the School of Convergence Science and Technology and Dr Seoyoung Choi, a research fellow from the Department of Mechanical Engineering at Pohang University of Science and Technology (POSTECH), South Korea, have made a noteworthy contribution to addressing this challenge. They have successfully integrated a wrist rotation module into a robotic prosthesis, allowing for more natural movements without straining the user's body.

The innovative prosthetic hand is tailored for a patient who lost their thumb and index finger in a car accident. This advanced prosthesis operates by interpreting signals to the muscles through sensors and determining the motion intention. Unlike conventional prosthetics, it incorporates a wrist rotation module, enabling patients to enjoy unrestricted movement of their wrists.

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The team's prosthetic hand exhibited over a 30% improvement in hand function compared to a traditional prosthetic hand.