

Compliant Bimanual Rehabilitation Device and Method of Use Thereof

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Technology description

Our researchers have developed a compliant bimanual rehabilitation device (CBRD) that improves the bimanual task performance of an individual by coupling their hand motions. This method allows for upper-limb rehabilitation devices that are significantly lower in cost than robotic systems. Much of the required force could be provided by the patient's healthy limb instead of the larger motors included on many current upper-limb rehabilitation robots. Unlike other bimanual devices that use either no coupling or a rigid coupling, the CBRD allows for a scalable coupling stiffness dependent on the needs of the user. This novel technology offers a safe rehabilitation method that can be used at home to increase rehabilitation access to those that need it most.

Researchers at the University of South Florida have developed a home-based upper-limb rehabilitation device that helps rehabilitation in patients with varying degrees of impairment.

Institution

[University of South Florida](#)

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