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論 文 要 旨

Thesis Abstract

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主論文題名	(Title)					
Development Rehabilitatior	Of Finger Contr	acture Prev	ventio	n System	For Early Post	Stroke
内容の要旨	(Abstract)					
A finger robotic exoskeleton developed to restore and rehabilitate hand and finger functions. The robotic exoskeleton is an active actuated mechanism implemented in rehabilitation systems in which each finger attached to an instrumented lead screw mechanism that						

systems in which each finger attached to an instrumented lead screw mechanism that allows force and position control, according to the normal human setting. The robotic device, whose implementation based on biomechanics measurements, is able to assist the subject in flexion and extension motions. It is also compatible with various shapes and sizes of human fingers. Main features of the interface include an integration of DC servomotor and lead screw mechanisms, which allow independent motion of the five fingers with small actuators. The device is easily transportable, possess user safety precautions and offer multiple modes of training potentials. This study presented the measurements implemented in the system to determine the requirements for the finger and hand rehabilitation device, the design and characteristics of the whole system.

Keywords: Continuous Passive Motion (CPM); Active Robotic Exoskeleton; Spasticity; Motor Hand Function, Contracture Prevention