

Compliant Lower Body Exoskeleton

Abstract

Robotic exoskeletons that assist human locomotion are currently comprised of multiple actuators and motors driving link systems. Current designs, such as BLEEX and HAL, are active systems requiring multiple sensors coupled with a computer system that signals the actuators and motors. This project proposes a passive, compliant elastic exoskeleton to be worn in parallel with the entire lower limb. The goal of this project is to design, prototype and test a lower-body elastic exoskeleton that reduces the metabolic cost of human locomotion through a low weight, low-profile compliant mechanism.

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