

# Lower Limb Exoskeleton

**Status:** Filled

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## Project Description

Human locomotion can be influenced by several factors such as neuromuscular and joint disorders. These factors affect the functionality of joints in many individuals and can cause partial or complete paralysis depending on the level of its development. Many individuals require mobility assistive technologies to keep up with their daily life and the demand for those devices increases with age. A wearable exoskeleton robot is an external structural mechanism with joints and links corresponding to those of a human body and synchronized with its motion to enhance or support natural body movements. The exoskeleton transmits torques from its actuators through rigid exoskeletal links to the human joints and thereby augments human strength. The objective of this capstone project is to create a wearable lower limb anthropomorphic exoskeleton robotic system (WLLAE) that is battery powered, light weight, ergonomic, low cost, highly maneuverable, stable, and safe.