



Discovery Program: Designing a hip flexion assistance mechanism for a lightweight exoskeleton

Description:

The Myosuit, our wearable lightweight exoskeleton is capable of assisting a wide range of patients by actively providing extensor torques to the knee and hip joints. However, the current version can only assist passively the flexion of the hip joint.

The aim of this project will be to research and develop several setups that can provide active flexion support to the hip. Ideally, the proposals that come out of the project can be embedded in a system like the Myosuit.

- 10% literature research
- 20% Requirement and specification definition
- 50% Prototyping.
- 20% Testing the designs on users

Requirements:

- Enrolled in mechanical or electrical engineering, robotics, mechatronics or a related master program.
- Knowledge of CAD software
- Proven experience in prototyping other complex projects.
- Knowledge of C and Python programming languages.

Would be great if the candidate has:

- Previous experience in biomechanics, exoskeletons.
- Feels comfortable working in very open ended problems.

Other information:

Duration: 6 months

Starting date: February

Affiliated ETHZ Lab: Sensory-Motor Systems lab

Apply:

Send CV, latest transcripts and a motivation letter to discovery@myoswiss.com. State the name of the position in the subject of the email.