



FACULTY MENTOR

Silberman, Jack

PROJECT TITLE

Affordable Open Source Smart Wheelchair

PROJECT DESCRIPTION

<https://smartwheelchair.eng.ucsd.edu/>

Currently, commercially available power wheelchairs may not be affordable by low income families especially in developing countries. Moreover, these don't have computers and sensors on-board to enable smart safety behavior to aid navigation. The UC San Diego Smart Open Source Wheelchair will deliver an affordable modular design that can be replicated around the world and used as a testbed for future development in healthcare safety for patient that requires use of wheelchairs.

We are a team of undergraduate students with a goal of designing a smart wheelchair that can potentially change the lives of many people who struggle with permanent debilitating diseases that cause mobility and motor control. This research is led by Jack Silberman Ph.D., an engineering lecturer at UC San Diego with over 20 years of industry experience in medtech, robotics, and biotech. The smart wheelchair project is providing our team opportunities for medical and robotics research in the area of Quality of Life (QOL) which will help them develop into professional engineers with applicable skills when they enter the job field while providing an open source hardware and software design.

Be free to contact Dr. Silberman for any further information and visit the lab.
jacks@eng.ucsd.edu

INTERNS NEEDED

We will accept as many interested undergrads and graduate students as the ECE Department submits. We will have a large lab working area at EBU II that can easily accommodate 20 students. We divide the students in sub-teams to enable them to have meaningful contributions and the sense they are learning new skills for the rest of their professional life.

PREREQUISITES

No previous skills required - can do attitude and perseverance to deliver what was promised, and team work will be welcome

Not afraid of making mistakes to learn will show that you are pushing your comfort zone to learn ...