



UBC OPEN ROBOTICS

Robocup@Home Arms - Mechanical Designer

Position Description:

As mentioned on our website, the Robocup@Home project involves cutting-edge R&D in the realm of service robotics. The team is progressing towards competing in the internationally-acclaimed Robocup Competition, @Home League. The Arms team is responsible for determining specifications, designing, and building an autonomous robotic manipulator for our Robocup@Home robot.

Number of Positions Available: 2

Responsibilities:

- Reading various research papers on various implementations of robotic manipulators
- Skimming through various robotics textbooks to understand and correctly implement robotics control concepts
- Using Computer-Aided Design (CAD) software to design a functional robotic manipulator
- Create Bill of Materials (BOM) with accurate documentation on where parts can be acquired, as well as pricing for funding applications
- Manufacturing and Assembling the arm, along with the Electrical subteam under Robocup Arms
- If interested, have the opportunity to work on path planning simulations for robotic manipulator control

Preferred Qualifications:

- Minimum second year standing with experience in one or more of the following qualifications.
- Proficient in CAD prototyping with software such as Solidworks and Onshape, with emphasis on Finite Element Analysis (FEA)
- Experience in Design for Manufacture and Assembly (DFMA)
- Machine shop experience is a bonus