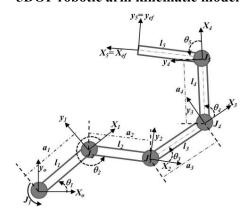
QuadChart of your proposed project

Motion path planner (5 DOF Robotic Arm)

Objective:

Our objective is to create a IK solver and a path planning software for a 5DOF robotic arm. Today at every scale of manufacturing from minutely detailed VLSI board assembly to heavy industry such as automobile production as well as in warehouses for pick and place application, robotic arms are being used. Similarly Acme robotics can use a robotic arm for various activities once they have a software which can navigate their arm to desired location efficiently.

5DOF robotic arm kinematic model



Approach:

- Develop an Inverse kinematic solver algorithm for 5DOF robotic arm.
- Develop a custom path planning algorithm for the robotic arm to reach the end effector position given by the user avoiding obstacles in the middle.
- Testing and simulation of developed software using google styling guide and tests

Key milestones:

- *Phase 0 (Week 1):* Developer Level documentation, proposal.
- <u>Phase 1 (Week 2):</u> Kinematic modelling, initial implementation of code and simulation
- <u>Phase 2 (Week 3):</u> Final implementation, documentation, testing and licensing.