Three Link Robot Project Overview

For this project, I collaborated with a partner to design and code a three-link, six-axis robotic arm. We utilized Python and the PyFirmata library to connect with an Arduino and implement the Inverse Kinematics (IK) algorithm. The robotic arm was tested in a custom 3D grid arena we created. In the accompanying video, you'll see the arm reaching for the top of thin sticks that represent various points in our coordinate system. We also developed an obstacle avoidance algorithm, which worked well in simulation, but we were unable to implement it successfully on the physical robot. You can find the source code on my partner's GitHub at https://davider3.github.io/ in the portfolio section under robotic arm.