Work Report Summary

Date Assigned: 13th April, 2019.
Date Submitted: 19th May, 2019.
Name: Abhishek Deshpande
Subsystem: Coding

WRO 2019 Progress:

- Attempted to isolate the issue with the multiplexer logic for the interrupt handling. It could be a problem with the multiplexer itself or the portion of the code handling the change of multiplexer pins. Further debugging is required to diagnose and remove the issue.

  https://github.com/RoboManipal-9-0/Coding-FirstYears/blob/abhishekDeshpande/Abhishek/Arduino/multiplexer/multiplexer.ino

ROS (Issue #1):

https://github.com/RoboManipal-9-0/Coding-FirstYears/issues/1

- Read up on the tutorials regarding services, parameters, messages, topics and other terminology required to understand ROS and executed the given commands to better understand the terms and mechanisms involved.

- Read up on how to use rqt_console and roslaunch and how to use rosed to edit files in ROS.

Summer Project – Control and Dynamics of Biped:

- Created a new branch for the project on the Coding-FirstYears repository – The basic python script for 3 degrees of freedom will be pushed as soon as the derivation for it is done. Additional knowledge about DH parameters is required for this.

  https://github.com/RoboManipal-9-0/Coding-FirstYears/tree/SummerProject--ControlDynamicsOfBiped

- Read up on basic Machine Learning and Deep Learning terminology including how some of the types of networks work.

- Started learning about CS231n (Convolutional Neural Network for Visual Recognition)

- Learned about Forward and Inverse Kinematics of a 2-Joint Arm for 2 degrees of freedom.

- Started reading up on Denavit-Hartenburg (DH) parameters.

Issues Faced

- Current issues:
    - Further debugging is required to find the problem with the multiplexer or the error in the logic of the multiplexer handling code.