Work Report Summary

Date Range: 3 April-7 April 2019
Name: Simran Malhotra
Subsystem: Coding

WRO 2019 Progress

- **Path Planning-** Tested FourSBase navigation code.The bot was tested for linear motion, on point rotation and motion at a specific angle.

https://github.com/RoboManipal-9-0/Coding-FirstYears/tree/Simran/Serial_Test

- **Open MV Colour Detection -**Completed Colour Detection code along with detection of which colours are most prominent.A list is displayed on the Serial Terminal in descending order of their prominence.

https://github.com/RoboManipal-9-0/Coding-FirstYears/blob/Simran/Colour_detection.py

- **Encoder Motor-**Worked with Rotary Encoder(lpd3806-400bm-g5-24c),Motor driver(MD30C) and Encoder Motor(RMCS-2284) and tested their functionality.Also installed the PIDController library.PID Functionality for the encoder motor is to be implemented later.

https://github.com/RoboManipal-9-0/Coding-FirstYears/blob/Simran/Encoder.ino

Current Issues

Path Planning

Issues Faced:

Electronics-
- Initially there was some issue with the wiring and the Arduino getting fixed on the Vero board but later they were resolved.

Open MV Colour Detection

Issues Faced:
- Faced difficulty distinguishing orange and red.This was fixed by alternating the threshold values and now it is working to a great extent.

Current Issues:
- Thresholds need to be adjusted every time the lighting of the surroundings change which results in colours being detected incorrectly or not being detected at times.

Encoder Motor

Issues Faced:
- Was unable to test the code, the motor got jammed.