JRD301: Mini Project in Robotics (Second Semester 2019-20)

Path following

- 1. Instead of following only a point, we used an approach to follow a path.
- 2. At the initial point, we took the path that we were able to see in the frame and store 10 centre points (blue) of the path to be followed points in an array.
- 3. Also at the same "y" coordinate of the 10 path points, we stored 10 points (green) showing car direction in another array.
- 4. Then we found the 10 angles from those 10 path and direction points and stored in a separate array.
- 5. As soon as the car reaches the stored "y" coordinates of a point, we gave the angle car should steer which was calculated from the points just ahead of the point. This correction was based on the initial position of the car only. New steer values were calculated and used only after all the previous 10 values were used and the car reaches to a point which was not in the view of the car earlier. This prevented the deviation of the car from the intermediate values and helped car follow a path not only a point.



Fig 1. Path following

Submitted by (student's name with signature)

Group member 1: Harman Mehta (2016BB50003)

Group member 2: Tanmay Goyal (2016ME20757)

Endorsed by:

Supervisor 1: Prof. Sunil Jha