

## 10. Assignment – Control with Look-ahead Point and GPS

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[https://github.com/frimuell/catkin\\_ws\\_user/blob/master/tasks\\_wise1819/ub10/](https://github.com/frimuell/catkin_ws_user/blob/master/tasks_wise1819/ub10/)

### Exercise 1 – Closest Point with Prediction

Lane 1 Point (3,2): (3.5, 0.78)

Lane 2 Point (1,1): (0.86, 0.86)

Code:

[https://github.com/frimuell/catkin\\_ws\\_user/blob/master/tasks\\_wise1819/ub10/drive\\_on\\_line\\_with\\_l oc.py](https://github.com/frimuell/catkin_ws_user/blob/master/tasks_wise1819/ub10/drive_on_line_with_l oc.py)

### Exercise 2 – Follow lane with ceiling camera GPS

Plot:

[https://github.com/frimuell/catkin\\_ws\\_user/blob/master/tasks\\_wise1819/ub10/RO-10-Mueller-Mueller-Casares-Lemming%20Ex%202.jpeg](https://github.com/frimuell/catkin_ws_user/blob/master/tasks_wise1819/ub10/RO-10-Mueller-Mueller-Casares-Lemming%20Ex%202.jpeg)

Video:

[https://github.com/frimuell/catkin\\_ws\\_user/blob/master/tasks\\_wise1819/ub10/RO-10-Mueller-Mueller-Casares-Lemming%20Ex%202.mp4](https://github.com/frimuell/catkin_ws_user/blob/master/tasks_wise1819/ub10/RO-10-Mueller-Mueller-Casares-Lemming%20Ex%202.mp4)