Supervisor meeting
Wednesday, 22nd of March 2017

LQR Controller

- Test the step independently on each variable, the dynamics are not the same when turning if you are stationary, with constant speed or accelerating.

- The motors have some dynamics that we could include in the simulation because they are fast but not instantaneous.

- A first order model should be sufficient for describing the motors.

- Maybe it is a good idea to do a test in water (step). Use a tachometer on the coupling inside the boat to read the speed.

- It could be interesting to change the limits in the motors, for example allowing only forward movement or with different maxima.

Kalman Filter Implementation

- Maybe the estimator is not a Kalman filter in the implementation, Jesper will talk with Nick about it.

Path Following Algorithm

- Path following algorithm without taking wind into account gives an offset.

- The offset is corrected a bit measuring the real speed of the boat.

- Looking at the perpendicular distance in the path to the waypoint is good for going from one point to another.

- If you have a strict path you need to follow maybe it is a good idea to ensure that we pass through the waypoints.

- We could have a look at Helmsman's controller.

Exam Date

- 22nd or 23rd of June if possible. Jesper will find a censor and figure it out for next time.

Next Supervisor Meeting

Wednesday, 29th of March at 13:00