

# **Workshop: Discrete PID control**

## **ME493 Drone Control**

**D.M. Luchtenburg, November 11, 2020**

# DC motor control

- 1) Write down the EOM. Use parameters as given in parameters.py
- 2) Implement a PID controller for setting a desired speed.
- 3) Implement a PID controller for setting a desired angle.
- 4) Can you implement a cascaded PID controller for setting a desired angle, with fast inner and slow outer loop?

# 2D Drone control (seesaw)

- 1) Write down the EOM. Ballpark the parameters.
- 2) Implement a PID controller for setting a desired speed.
- 3) Implement a PID controller for setting a desired angle.
- 4) Can you implement a cascaded PID controller for setting a desired angle, with fast inner and slow outer loop?