



## **TE3001B Robotics Foundation Final Challenge Report Rubric**

The grade consists of two parts:

- Video Report TBD

Deadline: TBD.

### **Teams:**

- The students must form teams for this mini-challenge.
- The students must respectfully help each other to understand all the topics.

## 1 Video Report

- Duration: Under 5 min. (If longer, increase speed)
- Show the team, names. Only one team member can speak at a time (not necessary for the whole team to speak in the video).
- Video on YouTube (Unlisted)
- Video English

### Task

Brief introduction (problem to be solved, solution strategy, team tasks, etc.)

Explain how the program works (launch files, libraries made, the structure of the project, etc.)

- The student must show pseudocode/flowcharts explaining how the control strategy was implemented (no code).
- If custom messages were implemented, parameter files or namespaces implemented, how were they implemented, and why were they required?
- The student must explain the selection of the sampling time.
- The student must show the methodology for parameter tuning e.g., if done by trial and error, the student must demonstrate the algorithm followed, restrictions (Hardware, software, ROS), acceptance criteria, etc.
- Advantages and disadvantages of the controller and its implementation in ROS.

Show the results of the (motor moving at different speeds with different inputs), and the methodology followed to solve it.

- The student must show a series of reflections about the problems presented during the implementation of the motor control in ROS (Hardware and software), and its relationship with the theoretical foundations.
- Reflect and compare with the simulated system

A brief set of conclusions from the task.



Robotics For Everyone