Mandatory assignment 8 — in5590

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Introduction

The last assignment in in5590 is more administrative than academic. Many of the resources like tools and actuators are quite expensive equipment; hence the focus for this assignment is to enable reuse of equipment the next time we run the course. In short you are required to (1) make your prototypes presentable, (2) calibrate your 3D printer, and (3) hand in electronics or spare materials.

The deadline for this assignment is **December 1st 14:00**.

1 Make your prototypes presentable

Unless you are using the prototype in your Master's thesis or you have an agreement with faculty, you are required to replace Dynamixel servos or other actuators that holds the prototype together with *dummy servos*.

If you've used Dynamixels in the project, print out dummy versions of the servo. Use Dynamixels step files[1] to replace the real ones.

2 Calibration

Before we can hand over the 3D printers to other students, the printers need to be calibrated. The task is to print a calibration test[2]. If the printer is lacking parts etc. please contact faculty.

Finally, leave the print on the build tray so faculty can inspect the quality. Leave the SD-card in the printer.

3 Handing in electronics, actuators, materials, and tools

Make sure to hand in any non-consumables to the engineer. Please hand in; Dynamixels, solenoids, Arduinos, Raspberry PIs, sensors, the fully equipped

[1] See step files here: `https://emanual.robotis.com/docs/en/dxl/ax/ax-12a/`

[2] See the calibration test here: `https://github.uio.no/in5590/in5590_assignment8/blob/main/stl/bed_level_print.stl`

toolbag etc. Faculty will be available for handing in this equipment **December 1st between 12:15 and 14:00** in lab 4318.

Are you going to use the prototype you have made in in5590 in your Master's thesis?

☐ No. (skip to Section 4)

☐ Yes.

If yes, please fill the following form:

Who is your supervisor? Username: _____

When is the deadline for your thesis? Date: _____

4 Deliverables

Meet up during **December 1st between 12:15 and 14:00 in lab 4318**, to hand in your equipment. You are also required to demonstrate that the prototype is presentable and that the 3D printer is properly calibrated.

Good luck with your Master's thesis and happy holiday!

– IN5590 faculty

Place and date: _____

_____ _____

Student signature Faculty signature

_____

Username/printer name