

Guidelines for oral presentations

ITD 41920 Hands-on introduction to CPS

Høst 2022



The project presentation is worth 50 points, and the project report is worth 50 points

The next page has a list of information pieces expected, with the points they carry.

Expectations for the project report:

The purpose of the oral presentation is to:

[5 points] give a clear problem statement:

- [2 points] describe the basic atomic actions that you shall sequence. Describe any constraints that exist, on the ways that you are allowed to sequence these atomic actions.
- [3 points] describe the requirements for your solution

[10 points] describe the Cyber and Physical parts of the whole system

- describe for example, the hardware and software functions that are given to you. For example describe the appropriate motion primitives for the UR robots and the Conveyor belt, stating how much time it takes to execute the commanded motion. State also whether and how your software can know if the commanded motion has been executed.

Also for example, describe how Python's threading package facilitates parallel execution of atomic actions. And how it facilitates synchronization of such actions.

[10 points] describe your sequencing algorithm in detail. This should have enough detail so that a Python programmer can rely on your description and still manage to implement it.

[10 points] Demonstrate the performance of your implementation. The sensors shall lay out some blocks to be picked and sorted.

- Some blocks are laid out in each of the two picking areas. You pass this test and you get [5 points] if all the cube and cylinder blocks are sorted as quickly as possible.
- you get another [5 points] if the sensors add blocks in the middle of operation, and all the blocks are sorted as quickly as possible.

[15 points] answer the questions posed by the sensors.

Plan a presentation with about **20 minutes** for going over your slides, about **10 minutes** for the live demo, and about **15 minutes** for questions and answers.