



## The project

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The term project will be completed in a group of students of up to 5 members. The project is to define an interesting robotics problem and develop a solution for it, as well as the associated documentation, verbal defence, and teamwork.

The term project as a whole consists of the following components:

- Pre-proposal face-to-face discussion.
  - Discuss your project with the assistant or lecturer, and get help on forming a proposal.
- Proposal document & project plan.
  - Set out the problem that you will solve, your approach, plan, and division of labour. Here you will allocate responsibilities – you will be graded ultimately on that allocation.
- Post-proposal face-to-face defence.
  - Discuss your project with the assistant or lecturer, determine the criteria on which you will be graded, and defend your proposal.
- Interim face-to-face demo & defence.
  - Show what you have done so far to the lecturer. It will be graded according to decisions made at the proposal defence.
- Final demo.
  - Present the final state of the project artefact. No slides, just demo.
- Final report & video.
  - Formally present the results of your project and optionally make a short video about your project for prospective ITU and BL456E students.

## The proposal

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This is a group assignment. This assignment is to submit the proposal for your term project as well as a plan for completion. Your proposal should be submitted in PDF format and contain:

- Title area (not necessarily title page):
  - The title of the project.
  - Subtitle: BLG456E Project Proposal
  - Team name (required).
  - Date.
  - All authors and group members + student IDs.
  - Table of contents.
- An introduction stating:
  - The problem to be tackled and the platform (problem statement).

- Why the problem is important or interesting.
- A very short summary of approach to be taken.
- An outline of the contents of the rest of the report.
- Background.
  - Details about problem.
  - Details about the robot platform.
  - Any information necessary to understand the solution.
- Methods
  - Suggestions about how you propose to solve the problem.
  - Any alternate approaches to the problem you might try.
  - Project evaluation, stating how the project's degree of success will be measured.  
(that is, how will you know how close you are to achieving what you want to achieve).
- Schedule & outcomes, containing:
  - What will be produced by the interim demo.
  - What will be produced by the final demo.
  - What each team member plans to work on.  
*(Warning: your decisions here will directly affect the grading structure for your final project.)*
  - Assign one team member to be responsible for each item, even if all of you will be doing it, as they will be the one receiving marks for that item. There should be a balance in terms of responsibilities. Everyone will need to be involved in the demo and able to answer questions.
  - Estimate the amount of time needed for each item. In your final report you will evaluate how close you were to this estimate.
  - **You must determine the marks allocated to each item.** This will determine team member's overall grade and also each team member's share of the grade.
- Conclusion:
  - Repeating main points made in the document above.

**\* Variations on the default document structure are, of course, permitted if justified. \***

As far as format is concerned, the following are requested:

- Informative section headers.
- Page numbers.
- All figures numbered with captions.
- Full reference list.
- 11pt font.



**DO NOT COLLECT TEXT VERBATIM. IF YOUR TEXT IS VERBATIM YOU MUST QUOTE IT AND GIVE A LINK OR CITATION.**

**TRY TO CITE ALL NON-TRIVIAL CONCEPTS**

## The proposal defence

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After you submit your proposal, you will sign up for a proposal defence. In order to receive any marks for your proposal, you need to defend it in person. The marks attached to each component of the project will be determined in the defence.

In the defence you will defend your proposal, discuss it with the lecturer, and together with your lecturer, make a final determination of the goals and evaluation criteria for the components of your project (that is criteria on which your project components will be graded, which depend on the goals of your project).

## Submission policy

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- **Each team:**
  - **Sign up for your proposal defence.** Details will be announced in a separate assignment. This is not the same as your pre-proposal meeting which comes before the defence.  
*In order to receive any marks for your proposal you must defend it in person.*
  - Submit (only electronic submissions through **Ninova** will be accepted):
    - As a **PDF file**:
      - The project proposal in English.
      - Multiple submissions of the proposal are encouraged but only one submission will be examined.
    - As an **XLSX file**:
      - The completed grade/task allocation form.
- **Each team-member:**
  - Submit (only electronic submissions through **Ninova** will be accepted):
    - As an **XLSX file**:
      - *Separate for each team-member*: an evaluation of the process of team performance in the writing of the proposal.
- Late submissions or those submitted otherwise than according to instructions will not be accepted.
- Academic dishonesty, including cheating, plagiarism, and direct copying, is unacceptable.

**\* Remember to always quote borrowed text and cite borrowed text and ideas. \***

## Grading policy

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### Components:

- *Project quality (from report & defence) (50%):*
  - *Accurate assessment of work involved.*
    - *3: Both substantial and achievable as-is in time available.*
    - *2: Either stretching to make into a substantial project or to complete in time available.*
    - *1: Either highly unlikely to make into a substantial project or to complete in time available.*
    - *0: Either highly trivial or won't be finished.*
  - *Well defined approach:*
    - *3: Problem, platform, and solution all specified and correctly detailed.*

- 2: *Generally specified, but one of these components poorly specified, or the occasional gap.*
- 1: *Some attempt at specifying all parts of the project, or some parts well specified.*
- 0: *Scope of problem unknown or platform unspecified.*
- *Relevance/imagination.*
  - 3: *Project is highly relevant or interesting with respect to robotics and its common, open or important problems.*
  - 2: *Project inspires some curiosity or makes inroads into dealing with relevant robot problems.*
  - 1: *Project does not entirely miss the point or has some relevance to relevant robotics problems.*
  - 0: *Project is trivial or has nothing to do with common, open or important robot problems.*
- *Research done.*
  - 3: *Platform, problem and a potential solution well-understood & described.*
  - 2: *Some of these components well described, or all described to some degree.*
  - 1: *Some substantial research done has been done somewhere.*
  - 0: *Nothing new has been studied.*
- *Planning:*
  - 3: *Tasks are balanced and realistically divided. Way-points are logical.*
  - 2: *The occasional inconsistency in order, or imbalance in division of labour.*
  - 1: *Some thought has gone into division of labour and time.*
  - 0: *No plan, unchanged boilerplate, or nonsense.*
- *Report (see content breakdown above) (50%).*
  - *Completeness:*
    - *Title, abstract, intro, conclusion.*
    - *Background & methods.*
    - *Plan.*
  - *Format/polish.*

#### **Bonus marks:**

- *Novel approaches.*
- *Clarity of presentation, use of graphics.*
- *Depth of understanding.*
- *Extended design or analysis.*
- *Surprise us!*

#### **Deductions:**

- *Spelling errors.*
- *Messiness / lack of proofreading.*
- *Lack of content.*
- *Irrelevant / mistaken content.*

**\* See the shared rubric to learn how these are applied in practice. \***