## **Group #1-10**

#### **Quadruped Robot**



Date: 03/02/22	Time: 1130 - 1215	Place: Zoom
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### **Attendance**

**Attended:** Jed Muff (JeM), Eric Hannus (EH), Julius Mikala (JuM), Antti Sippola (AS), Jere Vepsä (JV), Rituraj Kaushik (RK)

Apologies: Missing:

### Agenda

- 1. Session aims
  - a. Report on how far we have gotten with the Project plan
  - b. Ask questions referring to the project plan
    - i. Can we restructure the document? Or should we leave it in a similar format to how they gave it to us?
    - ii. Who is out customer for the project? Referring to quality the only way to ensure it is through the 'customer'.
    - iii. Discuss work packages and tasks: are the correct tasks identified and what should the expected workload be?
    - iv. How do we organize the storage of components and other materials?
  - c. Decide date to complete project plan and deliver to Instructor (RK)
    - i. Due a week today, 10/10/22
  - d. Organize what needs to be done on the project plan.
- 2. Any other business

# **Outcomes:**

Two parts again, the first part everyone attended, second part only the group (everyone apart from RK) attended:

- 1. First part
  - a. The project plan's first draft is essentially complete, with one section missing 'project management'.
  - b. RK has done the order form and put the details in the chat. It will take six weeks to get the parts
  - c. We can restructure the document how we want, don't change it too much as to keep some resemblance to the original template
  - d. The project's customer is other research groups focusing on reinforcement learning in a business sense. The Intelligent Robotics research group is interested in the material robot's outcome and documentation. We can artificially make other customer specifications for the deadlines.
  - e. Essential work packages are outlined. There is no expected workload from the Intelligent Learning research group, just that the robot is built.
    - i. Considering the predicted workload, this gives rise to what the final report will look like. E.g. does it include theory or is it essentially a progress report. Might need to follow up with an email to course leads.
  - f. From the perspective of the Intelligent Learning research group, they want the build and the manufacturing process documented. From the perspective of this course, they want mainly the project management side/ business aspects of the project. The only other requirement is what we, as a group, want from this project
  - g. Components of the project will be stored in RK's office. We will need RK to be on campus to access parts and the lab.

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- h. When it comes to improving the robot, ordering is the primary concern, considering how long it can take.
- i. The research groups goal is not to improve the cost of the quadruped robot because they know the actuators give accurate information about the torque and power of the motors. And for a research group, any robot less than € 1000 is not a significant concern. However, it could be one of the goals within the group, if the group deem we need more goals.
- j. RK mentioned that we need to research soft materials for 3D printing to make some of the parts more flexible (eg underbelly and legs).
- k. This project is not a research project and, therefore, won't be influenced by theory. The critical outcome is the physical outcome of the robot and documentation.
- I. We should try and do the construction of the robot and the improvement of robustness in parallel.
- m. Next week's meeting will be in-person to get to know the facilities and possibly see the robot. Seeing the robot will help with actually putting together the robot later.
- n. The group needs to finish the project plan and return it to RK before Tuesday next week. Then he can review it, give feedback and edit it on Wednesday for the deadline Thursday.

### 2. Second part

- a. Short review of where project plan is at
  - i. The first version of everything was done apart from the project management section.
  - ii. JeM will do the project management section today
- b. Everyone needs to review the entire project plan document before Saturday
- c. Then on the weekend, we can adjust the project plan to make it ready to send off to RK on Monday or Tuesday next week.

### **Action Log**

Action to be taken	Who is responsible	Deadline
Do project management part	JeM	Today
		03/02/22
Everyone read and review the current project plan. Provide feedback as comments on Word document.	All apart from RK	04/02/22
Everyone finishes their part of the project plan. Everyone's part is defined in the last meetings and minute document. + JeM doing project management section	All apart from RK	07/02/22
Instructor review and sign off on project plan	RK	08/02/22