

Date: 17/02/22	Time: 1130 - 1145	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. Discuss the ordering of the missing components (power regulator and cable)
 - b. Discuss the plan with 3D print filament
 - i. AS was in touch with Kimmo Silvonen
 1. we can use the 3D printers and other equipment in the lab
 2. if we are going to use a lot of filaments, we should order our own
 3. He recommended using only Ultimaker's own materials, apparently, there have been lots of issues with filaments from other brands
 4. No reservation system, printers most likely free early morning or late afternoon
 - ii. Are we ordering anything?
 1. Use lab materials to start with then use our own once they arrive
 2. Found Helsinki filament shop: <https://www.3d-tulostus.fi/>
 3. See what materials we can try in the lab?
 - c. Progress update
 - i. Lab access plan
 - ii. What we have tried this week (3D printed parts), how well it went
 1. Printed leg piece (print time 1h15min)
 2. body plate (approx. 3 hours)
 - iii. JuM - Modified STL file for soft legs
2. Project plan track
 - a. Overdue Tasks: None
 - b. This week 14/02 – 18/02:
 - i. Task 2.2: Learn to use 3D printers
 - ii. Task 3.1: improvements
 - iii. Task 3.2: Learn necessary skills in 3D/CAD design
 - c. Next week 21/02 – 25/02
 - i. Task 2.3: Print legs (4x or more)
 - ii. Task 2.4: Print body plates (2x or more)
 - iii. Task 3.3: Design alternative parts
3. Any other business

Outcomes:

Good link for filament comparison: <https://www.simplify3d.com/support/materials-guide/properties-table/?highlight=flexible>

1. RK going to look at ordering the parts. A list of parts is listed in the Teams chat
2. Updated RK on what has happened this week as detailed in the agenda
3. There are different types of filament but not the filament we are looking for in the lab

Group #1-10

Quadruped Robot

4. Currently on track with time plan. AS is going to 3D print all the parts in this next week. Other tasks for group members this week
 - a. Look at modifying the design to incorporate soft parts. We may not use the design, but it can teach you some CAD skills
 - b. Start looking at the Business part of the project

All the last week's research questions were answered. Most of them are answered in the agenda, here are some that were not.

- **What software to use?** – Lots of software can be used and is up to user preference. For now, most people are using cura.
- **What filament to use?** – Going to use default PLA and for the soft material Ultimaker TPU 95A 2.90mm
- **What are available 3D printers we can use, and how we would use them?** – We can freely use the 3D printers in the TUAS lab. More details in agenda (1.b.i).
- **How to use 3D printers?** - AS organised a meeting where we learnt how to use them earlier this week.

Action Log

Action to be taken	Who is responsible	Deadline
Order Parts <ul style="list-style-type: none"> • USB-A to Micro-B Cable • SMPS • SMPS board • PLA filament (White) • Softer filament (Red): 	RK	03/03/22
3D print remaining parts so we have: <ul style="list-style-type: none"> • 4 legs • 2 body plates 	AS	24/02/22
Start looking at business plan or modifying the design	All bar RK	24/02/22