

## **Week 4 Group 22 Journal**

**Date: 04/11/2018**

### **1. Action Items from last week**

The group had 3 meetings last week, the first was right after the supervisor's meeting in which we decided on the deadline for handing in the individual sections of the DR1 and that was Tuesday at 9 pm. We also discussed further details on how to write the relevant parts of the report with the correct format that agrees to the required guidelines. The meeting lasted 70 minutes.

The second meeting took place on Wednesday (90 mins) in which the group reviewed the final parts of the DR1 and decided what needed to be amended including:

- Use Arial 12 for body, 14 for headers
- Remove irrelevant tables if they're addressed in the graphs.
- Tone down unrequired bolding
- Have all tables same format
- Numbering of equations, graphs and tables is dependent on the relative section in the report such as Figure 3.1
- Make graphs and paragraphs in the Motor Characterisation part smaller and neater
- Have consistency in captions

During the meeting, we decided on Subhi to proofread and finish off the report. DR1 was successfully submitted on Thursday

In the third meeting on Friday, we decided that everyone should list all tasks required to progress in the project accordingly to reach DR2 safely. Furthermore, the group collectively decided on the 10 risks needed for the project risk register, Osama was assigned to finish it off and submit it. Regarding the gantt chart, amendments were made and ready for Subhi to allocate resources.

### **2. Project status and statement of progress**

DR1 reviewed and submitted successfully on Thursday. Project risk register was completed and submitted successfully on Sunday. The gantt chart was completed and submitted successfully on Sunday as well. Everyone is aware of their duties regarding the next phase of the project. In the meantime, the project is in the research phase with each member responsible for a section.

### **3. Individual Student Contributions**

**Aarambh Sinha:**

- made measurements on sensors OVL5521/SFH203 and TCRT5000 with 10k resistor with Osama
- completed motor characterisation section of the DR1 report. I focused on analysing graphs and defining the motor constants
- completed the summary section of the report ensuring that all the criteria are met for the report with the outcomes
- initially compiled all the separate sections of the DR1 report to one document
- started looking at the criteria for the DR2 report, making notes on the lines sensing algorithms to begin planning for the structure of the report itself

**Abdullah Ahmed Akhtar:**

- Worked on the final draft of DR1 report and made the necessary changes, to my part, after discussing in the team. This included adding caption to the figure, removing bullet points and writing in paragraph etc.
- Participated in the discussion with team and gave examples of risks associated with our ESP project.
- I have started my research for "hardware overview" section of the DR2 report and have read pages 26-29 of the procedures handbook to improve my understanding of what I'm required to do for this task.

**Marlon Guanoluisa:**

- I have helped Osama testing the TCRT5000, some mistakes were realised, and some improvements were made for testing the other sensors.
- After the suggestion made to improve our final DR1 and discussed with all the members of my group, I have put the captions in each graph for Motor Characterisation and tried to make our content more compact to don not exceed the limit of number of pages.
- I participated giving examples for our Risk Register, everyone ideas and examples were analysed and discussed.
- I have started doing some research for the Software part in our DR2, I have read the lecture notes to get an idea how this part should be done.

**Osama Othman:**

- Researched a sensor trct5000 with a 10K resistor but I may need to repeat experiment due unsuitable light conditions
- Researched and made criteria for the sensors and underway on completing measurement procedures that must be done to obtain valid results that could be used to evaluate sensitivity under different test conditions.
- Completed my draft for dr1 presentation and submitted group report
- Completed the group risk register for the Embedded systems project semester 1 and 2
- Added my part of design and research needed for the line and non-line sensing circuits to Gantt chart

**Subhi Alsous:**

- Finished and reviewed the gearbox selection part of the DR1 with amendments done based on the discussed meeting outcomes
- Compiled the final version of the DR1 report by making sure the whole report looked coherent by making sure all the formatting was consistent such as the equations, tables and figures and finished off by proofreading it.
- Submitted and compiled the final version of the gantt chart by adding a few more subtasks and allocated resources to all relevant tasks in the chart.
- Made initial research on the proportional controller theory for the control algorithm yet limited research due to most time spent on finishing the DR1.
- Wrote this week's group journal

#### **4. Other issues**

No problems within the team and everyone is contributing. Subhi missed the Friday meeting due to the necessity of attending an assessment centre in Oxford for a placement, he was posted with the meeting's outcomes shortly after.