Weekly Report - Week 2

Project: Mapping RW Coords to Galvo Voltage

(07.01.19 - 11.01.19)
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1 Project Summary Status

Budget		• Hours this week: 27 • Hours total: 62
Schedule		So far the schedule looks ok. Good progress on the task to estimate world coordinates from voltages.
Quality		• Found several articles that describe what we want to do • Bad news: Spent a while trying to get OpenGL to work
Risks and issues		Continuing down the path of visualising with OpenGL could end up taking a lot of time. Might not be worthwhile if it will only be used for debugging purposes. Will have to make decision next week.

1.1 Overall Project Plan

- System in 2D
  - Get to know task (1 week)
  - Create virtual system (2 weeks)
  - Obtain voltage values from world coordinates (2 weeks)

  - Calibration of laser system (3 weeks)

- System in 3D
  - Create virtual system (1 week)
  - Obtain voltages from world coordinates (1 week)
  - Calibration of laser system (2 weeks)

- Practical testing
  - Calibrate system using real laser points (2 weeks)
  - Test precision of system (3 weeks)

2 Key Accomplishments This Week

2.1 Milestones Reached

No milestones reached this week.

2.2 Tasks Performed

- Found paper describing how to calibrate galvanometers
- Implemented functions estimating world coordinates from voltages
- Started implementing visualisation app using PyQt and OpenGL

3 Plan For Next Week

3.1 Overall Goals

- Get OpenGL to work properly
- If get OpenGL to work, start implementing visualisation app. If not, abandon this by the end of the week

3.2 Daily Plan

Monday	Tuesday	Wednesday	Thursday	Friday
Work on getting OpenGL to work	Work through OpenGL tutorial	Start implementing visualisation app	Visualisation app	Visualisation app

4 Upcoming Deliverables

No deliverables for next week

5 Issues

It turned out to be quite difficult to get OpenGL to work on a Mac.

6 Risks

Getting OpenGL to work might take a while. If can't get it to work, it will have been a waste of time. Will probably still need to implement a visualisation app and will then have to switch to Mayavi again or another library. This will again take time.

7 Resources Planning

NB! Need private git repository