

SE101—Project

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Introduction

In this lab you are given an opportunity to follow the full software development cycle and to be creative with the microcontroller board. This lab is flexible. However, your mark is proportional to both the difficulty of the project you attempt, as well as the performance of your execution. Please use both the microcontroller board as well as the Orbit Booster Pack. Keep in mind that you should be able to complete the project with minimal assistance.

Requirements

- Form a group of 2 students
 - Email Rollen D’Souza (see Piazza for contact info) with the Quest/WATIAM ID and Student Number of group members.
 - Rollen D’Souza will respond with your project directory on `svn`.
- In your group, submit a proposal of the project you would like to complete. The document must:
 - Be a PDF.
 - Clearly state full name, ID number, and Quest/WATIAM ID for both students in the group.
 - Be at most 1 page long.
 - Be submitted to your project folder on `svn`.
- The proposal document must describe the following:
 - Your project. What will it do?
 - The major software components of your project (e.g. implement LCD user interface, implement accelerometer data collection).
 - The hardware components you intend to use in the project.
 - The challenges you anticipate. For example: if you are using the LCD screen, you may anticipate the challenge of drawing and moving a complex object.
- You must *develop* and submit the project using `svn` in the directory provided to your group. Marks will be deducted for not using source control effectively. That is, we expect to see at least two non-trivial commits. Trivial commits are those that consist of only changes to whitespace.

Important Dates

| | |
|-----------------------|--------------------------|
| Proposal Due Date | October 24, 2016 @ 23:59 |
| Proposal Feedback | October 27, 2016 @ 11:30 |
| Project Demo Due Date | December 1, 2016 @ 11:30 |

Marking Scheme

| Criteria | | Mark Contribution |
|------------------|-------------------------------|-------------------|
| Project Proposal | | 10 |
| Execution | Low Difficulty | 10 |
| | Average Difficulty | 10 |
| | Above Average Difficulty | 10 |
| | Naming | 2 |
| Style | Whitespace Usage | 2 |
| | Easy to Modify | 2 |
| | Use of Control Flow and Types | 2 |
| | Use of Source Control | 2 |
| Total | | 50 |
| Bonus | | 5 |

Submission

You must submit your assignment using the ECE SVN (subversion) repository. You are graded on your use of Subversion. We expect to see at least two non-trivial commits. Trivial commits are those that consist of only changes to whitespace.

Please see Piazza for more information on using SVN.

Please commit your solution to the URL provided to you by Rollen D'Souza. Email Rollen D'Souza or Patrick Lam if you can't commit to that address.

Tips

- The moment you have a working program, commit it! If things go wrong, you can always go back.
- Expect to stumble upon unexpected hurdles. Always give yourself an ample amount of time to finish the project!

References