ECSE211 – Final Reports and Project Submission

Instructions for Students

Due: Wednesday, April 12th 2023, 23:59 EST

You are required to submit **a Final Design Report**, and **a Project Debrief Report** along with **your design files** by the above due date. The Final Design Report (presented in detail below) should outline your team's design process, decisions, and the design of the final design output with the client as your primary audience. The Project Debrief report is meant to provide a point of reflection for your team's hands-on practice of the engineering design principles and methods. **The two reports and all design related files** should be produced and **submitted as a team (i.e., no individual report submissions will be accepted)**. An outline of the content required for the Project Debrief Report is available as a separate file on myCourses.

Final Design Report

There is no template provided to the students for the final project report. There is a page limit of 25 pages maximum of content (i.e., title page, table of contents, and contents in the Appendix don't count towards your page count). You should feel free to arrange the subheadings, ordering of contents and the presentation of the contents as you find most appropriate for your team. However, at minimum, the following contents must be included in the report, and presented in a way that makes it easy for your team members and your readers navigate the contents:

a) A title page listing the member of your team, version of the report being submitted, and date associated with the version
b) Introduction of the team members, how the team was organized (e.g., roles, team contracts, schedules etc.), and a description of your team's project management (e.g., what milestones did you have, how did you track your team's progress over the design weeks, how did the budget shift over time accordingly etc.)
    - At the end of reading the report, readers should have an understanding of how they might tackle the same design problem differently (e.g., form a team with different set of expertise, budget the time or prioritize tasks differently, have a different team contract to enable more effective teamwork).
c) The problem statement translated into the scope of the problem, requirements, constraints, and specifications by your team
    - At the end of reading the report, readers should have a clear idea of how *you* understood the design problem (in your team's words), your team's assumptions about the task, what it meant for your team's design process.
d) Description of your designed system, including how the system and its components evolved from the initial idea to the final product, and hardware and software design of your system.
    - At the end of reading the report, readers should have a clear idea of how your system works, how each components of the system functions and are built, how to recreate the final system using your existing documentation, and what design modifications to avoid trying (because you've tried them before and they didn't work, for reasons you've outlined).
e) Tests that have been conducted and their results, their implications to meeting the design specifications, with a description of how these test results affected design decisions for your hardware/software/system design.
    - At the end of reading the report, readers should know what tests were conducted when, what the results were, and how they impacted your subsequent design decisions. They should also have an idea of limitations of different components of your system (e.g., sensors and actuators used) based on your test reports, as well as be able to reproduce the results following your team's documented procedures.
f) Performance and limitations of the final system
    - At the end of reading the report, readers should know what the system is capable of, how performant the system is, how one might use the system, and what the system cannot do or should not be used for.

You may include detailed data from tests conducted, system build instructions etc. in the Appendix of your report, as long as you reference them in the body of your report. The report should also be professional (i.e., no slangs, hard-to-read font sizes or colours), as the primary audience of your report is your client.

Submission Guidelines

Both reports and all other documents and design files (including all versions the code) should be handed in on myCourses. **Two assignment boxes** are available on myCourses for your submission. You should submit the Project Debrief Report as **a single PDF** in the **Project Debrief** assignment box. Your **Final Design Report** should be submitted as **a single PDF** file in the **Final Report** assignment box along with **a single .zip file containing all your design and other relevant files** (i.e., you should be uploading one PDF file and one zip file in the Final Report assignment box). Name the .zip file as Team*xx*_final_submission.zip where *xx* is your team number. You should error on the side of including more contents in your .zip file than less. For instance, you are encouraged to provide multiple versions of design files (e.g., versions of drawings, prototypes, code from Week 1 through Week 5) in your submissions.

The ONLY documents that will be reviewed as your final project documentation part of the mark on this course will be the ones uploaded on myCourses by the due date.

Make sure that all of your design and project related files (e.g., your .py files with source code), are included in the .zip file rather than as URLs to a GitHub repo or a cloud storage in your documents. Exceptionally, if you have large videos that prevent you from uploading your full submission on myCourses for some reason, you may host the videos elsewhere (e.g., YouTube, Dropbox, Vimeo etc.) and provide links to them. The links should be available at least until the end April 2023.

Creating a .zip Archive

For Windows users, WinZip is recommended and can be downloaded as a trial version which will be sufficient for this exercise. See https://download.winzip.com/gl/nkln/winzip24-downwz.exe

For Mac users, A-Zippr is recommended and can be downloaded for free from the App Store.

If you're a linux user, you probably already know how to do this from the shell prompt (also available on the mac in Terminal).

Since we have a very short timeline between the design submission due date to your final design review with the professors, it is strongly recommended that you test your archive before submitting!