EE486 DR 4 Documentation

Final Status Update

General Information

- *Due Date*: This deliverable will be due at 11:59pm on Friday April 12th.
- *Grading*: Grading will be done at a team AND individual level (see below and the Rubric).

You are almost there! This is nearly your last deliverable too. Following this, you'll have one more presentation (UGrads practice, and then the UGrads day of), a final peer evaluation, a final client evaluation, your final product manual and write up, and your final website update. Two of those five tasks are small (the evaluations) and shouldn't take much time.

This being your last status update before the manual, it will be similar to your DR3, but with a final status update spin to it. This is where you want to conclude on what you have done (and expect to finish in the few weeks that follows). This isn't your final user manual, so don't go into the depth of "this is how this part works, and works with the others, to do that task" for the purposes of instruction yet. There are some similarities to your final manual here, such as the format, project overview, and an explanation of design. You will also be able to carry those forward into the final manual, but don't think about those aspects as a draft here - try to get it right the first time.

Expand (through paragraph text) on your DR3 document, making sure that you hit the following major points:

- Describe your client's problem. What was it that they hired you to do? Be sure to include both the big picture, how this project was intended to enable them to do something they couldn't do before, or disrupt the market / field of science? You were tasked with developing a widget, physical or virtual (such as a process), so how does the development of this widget fit into that picture?
- Describe your design process. We talked a lot about subsystems, you even presented a lot on your subsystems, so why did you pick those subsystems to be components of your solution? How does each serve a purpose, and how does it all fit together. What about your prototypes? What experiments or purpose did your prototypes serve? How did you utilize them to test out either a process, or design idea? What did you learn from them? Some figures would probably be helpful here.
- All groups dealt with project constraints. Some of these constraints were client imposed, but some were also imposed by availability of parts, budget, and time. What were the client imposed design constraints, and how did those constraints impact the design? What about the many other constraints? You should be able to name at least three constraints for each subsystem. Do so and discuss the impact of those constraints.
- With the work breakdown structure (WBS), you outlined some (hopefully) very specific metrics of success for each task and activity. How does your final project fit into these guidelines you had outlined earlier on? How did any aspects of the WBS change over time? This might feel like a constraint problem, but it's not. Here you are describing how your team went about taking the project from the fuzzy concept introduced last semester, to a functional widget. A Gantt chart that shows when things were actually completed, or a discussion around a Kanban, are both acceptable approaches here. You will need to include your WBS tables from other reports to successfully describe your metrics though, so don't skip out on that.

Most teams have four members. Above, as you can see, there are four points I want you to focus in on. Each team should break up the four above points amongst its members. *Label who did each section, with only one person taking credit for each section.* If your team has only three members, then *one* of the above sections can be done by the group. You will probably all need to talk with

each other about the various subsystems, but the person who claims credit for an above point should be the person who actually wrote that section.

Like DR3, you also need to include the following basics. And yes, you can expect to be required to include them in your final report too. These sections can be written by the group, and need not be labeled as to who did them. Note that you are responsible for deciding where the topics from above fit into these other sections.

Cover Page and Table of Contents

The usual cover page, with "Design Review 4" as prominent title.

Include a brief Table of Contents after the title page. This should list the sections listed below at a minimum. If any section is more than four pages, please be sure to have subsections listed in the table of contents.

Introduction

This is simple, just one page. Just briefly touch on the broad motivations of previous documents, then dive right in, e.g., "We are pleased that you have chosen [team name] for your business needs. There is a strong need for [this product], as evidenced by [the need]. We provide for you here a powerful system for [overall statement of what it does] that has been custom-designed to meet your needs. Some of the key highlights include: [bullets of 3-5 coolest features]." Or something along those lines.

Status of Planned Features (WBS)

Each person in the group should write their own WBS wrap up here, but weave that story into a group level view of the WBS. Remember you have all agreed on a matrix that shows who is responsible for what. You should convey to the client and your professor what was ultimately finished as planned, came up short, or wasn't even touched. Importantly for your grade, you also need to explain what happened. If everything was finished, this can be short, highlighting what parts provide to be a challenge, and how you were able to overcome these challenges. If you weren't able to finish everything to the degree originally outlined, you'll need to do two things. First, report a metric of how close it was. For example, if your widget was required to sink less than 500mA and yet in the end it sinks 700mA, you would want to report that it requires 200mA, 40% more than originally intended. Then, explain why this is. Maybe you, and your client, didn't account for the fact that your project required 15 high current LEDs in addition to the processing components. So by some metric, you might think this is a failure, but if you can explain why you didn't hit the mark, you'll likely be fine. Let's take another case for a moment, let's say that you didn't hit your marks because you didn't devote enough time to the project (uh oh). You should be honest on this, as you know your professor and your client have a good idea of what you need to do to complete the project, and if major milestones were omitted, it will be obvious. I hope this will not be the case for any of you - the semester isn't over yet, so grab a caffeinated drink of your choice and get to work!

Conclusion

This just formally closes the document, with a short recap of what you discussed above.

Deliverables

- **Upload to BBLearn** a final pdf version of this assignment by the deadline.