To: Students, EE 286

From: Jie Yang

Date: November 27, 2018

Re: Project 3 Report Guidelines

The guidelines for Project 3 follow. Again, it may be worthwhile to visit the rubric for writing I supplied in the Syllabus and Policies section to see what I expect for content style. The guidelines below address required content more than style.

1. Memo cover sheet – the memo should introduce the report and list all attachments to the report. The report should begin on a new page.
2. Introduction and problem statement: The introduction should explain how the report is organized and explain the problem.
3. You were required to create a backstory for this project. Describe the customer’s problem and summarize it with a formal problem statement.
4. The customer needs, requirements and constraints: a bullet list of the customer needs, requirements that were developed from the customer needs and any extra requirements imposed by the team, a bullet list of the project constraints. (These are three separate lists!)
5. Describe the different designs consider for this project. Include the pairwise matrix and decision matrix used to decide on the initial design. The matrixes must be fully documented and summarized.
6. Summarize the background research your team did on the design concept.
7. Build and test – describe the building and testing of the device. Document any changes made from the initial plans, explain the procedures including the mistakes or changes made along the way. At least two photographs are required. Additional photographs and sketches are encouraged and may be included in the matrix.

A one paragraph summary at the end of this section is required.

(This is possibly the most important part of the report, a minimum of two pages is expected.)

1. Summarize the actual demo results with an explanation of any failures. How would you revise the model to overcome these failures and/or what improvements would you make to the model if you were to do it again?
2. A discussion of the design process – use this project to illustrate each step in the design process referring to the overly simplified 4-step process and the more detailed design process steps as outlined in the text. This is not a rehash of the steps taken by the team. Use this project to illustrate the design process! (You must refer to the design process overview on page 6 of the textbook and the 4-step design process.)
3. Appendixes:
   1. Team development: Discuss the team’s evolution through the four stages team development – forming, storming, norming and performing.
   2. Gantt chart: Update and revise the team’s Gantt chart to accurately reflect the teams progress up through the report writing. Compare this to the original Gantt chart submitted on November 13. Fully explain any and all changes made to the Gantt chart. The Gantt chart may be displayed in “landscape” orientation if this will facilitate reading it.
   3. Flow Charts: a flow chart that is focused on the mechanical aspect of the project, a second flow chart for the Arduino program.
   4. Schematic – prepared electronically with correct circuit symbols, functionally correct. Use a box or a circle for the motors.
   5. Arduino code properly documented.

This report may be formatted as a series of sections, problem statement, customer needs, requirements, etc., but be sure to introduce each section. The report must be easily understood by someone who has no prior knowledge of the project!

All appendixes are on separate pages and must include sufficient documentation to understand the need for and the content of the appendix.

Be sure to include page numbers and a header on each page except for the cover memo.

Submit to Bb Learn as a single Word document.

Use bold headers for each section.

Proofreading is a required element of this assignment!

Diagrams and images should be professional, not scanned sketches.

**The report is due Tuesday, December 4 at 11:59 pm.**

**No submission will be accepted after December 5 at 11:59 pm.**

Attachments: none