In-class Presentation

Project 2 features the first group presentation, which is to be delivered by the group during Studio. Presentations are an effective way of communicating to many people at once and receiving quick feedback.

The presentation is worth **8 points** and is graded using the rubric table shown on the following page.

The **Purpose** for this presentation is to review your design and the results of the design process for Project 2.

The **Audience** for this presentation is a group of engineering peers and managers, represented by your classmates and instructor.

Your presentation should include relevant information from all phases of the engineering design process. For the given **Purpose** and **Audience**, your presentation should focus on:

- Defining the design requirements from the *Ask* phase
- Describing the design selection process from the *Imagine* and *Plan* phases, especially covering the reasons you selected your conceptual design
- Sharing the final results of the *Create* phase, including models and prototypes
- Reviewing the test results from the *Test* phase, especially the performance versus the design requirements
- Describing the next steps of the *Improve* phase, especially covering the planned changes to meet any failed requirements

The expected time allotted for each presentation is **8 – 12 minutes**. A visual timer will be provided to help your team manage your presentation time.

Questions will follow your presentation and are not included in the time allotment.

Presentations typically (but are not required to) use PowerPoint and should have a logical progression of information and also involve all group members. To allow enough time for every group to present, please have at least one team member arrive early to Studio on the day of the presentation to load any required materials onto the PC in ET 311.

Names: _____ _____

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	Exceeds Expectations (100%+)	**Project 2 Target** Meets Expectations (100%)	Needs Improvement (75%)	Inadequate (0%)
Message (2 points)	The presentation conveys the desired message to the target audience	The presentation contains extraneous material or could be condensed with tables and figures	The presentation is missing material that is important to the target audience	The presentation is not for the target audience
Delivery (1 point)	The presentation is clear and concise, well-constructed, and fits within the allotted time	The presentation includes minor errors or is rushed	The presentation includes substantial errors or is too long or too short	The presentation is ineffective at delivering the message to the audience
Knowledge (2 points)	The presentation team demonstrates a complete and in-depth knowledge of the design	The presentation team stumbles on design concepts or provides superficial answers to questions	The presentation team is unsure of the design concepts or is unable to answer questions	The design team does not convey any knowledge of their design or design plan
Explanation (1 point)	The presentation team uses the presented material to make effective arguments and conclusions	The presentation team includes extraneous information that detracts from the material	The presentation team supports the design or design plan with conclusions that are merely speculative	The presentation team fails to address why the selected design is worth using or why the design plan should work
Participation (2 points)	The team members contribute to the presentation in a clear and beneficial manner	The team members contribute but make minor mistakes or ramble on design topics	The team members participate but do not contribute to the effectiveness of the presentation	The team members do not participate in the presentation

Technical Report

Project 2 requires a group technical report that should cover all phases of the engineering design process.

The technical report is worth **12 points** and is graded using the rubric table shown on the following page.

The technical report should consist of four sections, in the given order: **Introduction**, **Methods**, **Results**, and **Conclusions**.

The **Introduction** section provides a summary of the rest of the report. Be sure to include the reason for doing the project as well as your top conclusion(s). As such, the Introduction section is usually the last part of the report you should write.

The **Methods** section documents the design from the *Ask* phase through the *Plan* phase of the engineering design process. This section deals heavily with how you framed the problem and made decisions towards a solution. Common information that is part of the Methods section includes:

- Design requirements, along with any background research used to uncover and improve the requirements
- The conceptual design (i.e. the design on paper) and the decisions made to choose this particular design
- The values of the design parameters along with the equations used to choose these particular values

The **Results** section documents the design through the *Create* and *Test* phases of the design process. This section focuses on what you did to bring the design to life and understand how it really works. Common information that is part of the Results section includes:

- The build of the design (e.g. a model and/or prototype)
- Raw test results displayed in a cohesive manner (i.e. a table or a figure)
- Analysis of the test results, including whether or not the design met the requirements

The **Conclusions** section documents the learning and planning done in the *Improve* phase. Most times in Studio, your team won't actually have the opportunity to continue working on the design. This section should be a bulleted list of key findings your team has learned through the design <u>as well as</u> the steps you would take to continue the design process given the time.

The technical report should also start with a cover page and additional information should be added to the end in an appendix.

Names: _____   _____

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	Project 2 Target **Meets Expectations** **(100%)**	**Needs Improvement** **(75%)**	**Below Expectations** **(50%)**	**Inadequate** **(0%)**
Formatting **(1 point)**	The report includes all required sections and has an effective Introduction section	The report has mislabeled sections or the Introduction is inadequate	The report is missing the cover page or a required section	The report formatting guidelines were not followed
Methods **(3 points)**	The report accurately and completely documents the *Ask*, *Imagine*, and *Plan* phases of the design process	The design methods have 1-2 minor errors or omissions	The design methods have 3-5 minor errors or omissions or have a major error or omission	The design methods have too many errors or omissions
Results **(3 points)**	The report accurately and completely documents the *Create* and *Test* phases of the design process	The design results have 1-2 minor errors or omissions	The design results have 3-5 minor errors or omissions or have a major error or omission	The design results have too many errors or omissions
Conclusions **(3 points)**	The report includes valid and insightful conclusions from the *Improve* phase of the design process	The design conclusions do not describe the next steps of the design process	The design conclusions are superficial or do not follow from the provided results	The design conclusions are not completed or are contrary to the results
Presentation **(2 points)**	The report is easy to read, spelling and grammar are correct, and figure, table, and equation labels are correct	The report includes minor spelling and grammar mistakes or incorrect labeling	The report includes repeated spelling and grammar mistakes or lacks labels entirely	The report is difficult to read