

Final Prototype Submission + Safety and Ethics

5% Team Submission

Due Dec. 2nd, by 8pm on LEARN. Documents submitted in PDF format, videos submitted in MP4, links submitted in link format.

Create a short video demonstration of your prototypes. Maximum 10 minutes in length. Try to encode your video in a way that means it isn't 17GB in size. You can also support other documents, but the video is the component that will primarily be used for evaluation.

- 1. Descriptions of the System of Concern
 - What is the problem? Why is it important? Briefly provide context to the audience.
- 2. Descriptions of the target users.
 - Who are you designing for?
- 3. Diagrams/Illustrations/Pictures of the multiple design options considered.
 - What options have you considered?
 - What engineering approaches/techniques/methodologies are used in each?
- 4. Functional drawing/diagram of your current design direction or design solutions still under consideration.
 - How do your possible design solutions work at a functional level?
 - What engineering approaches/techniques/methodologies are used?
- 5. Prototype demonstration (~5 minutes)
 - Show the prototype in action demonstrating its most important and major functionality (don't waste time showing me email sign up if it's not important).
 - Think about demonstrating important use cases, but also the technical details.
 - Show "what it is", "how it works", and how you have "applied science" to get here.

Focus on the engineering aspects of the project, not making a "slick-pitch".

You must complete both the Safety and the Ethics components to receive the marks for your prototype video.

Safety - Complete/Incomplete

Identify any potential safety issues you can foresee with your prototype as you develop it further in SYDE462. Privacy and data issues would fall into this category of safety as well. Think broadly about “what could go wrong”, even if things may seem unlikely or improbable, please include them.

Use the “SYDE Prototype Safety Checklist” at the end of the document as a guide. All projects would need to pass inspection next term, including software projects, before public display. You do not have to complete the checklist. I am the person who would sign it next term.

Maximum 1 page.

Ethics and Testing - Complete/Incomplete

How would you like to validate your design, with particular focus on testing that you would like to do with humans or animals? Is there any more in-depth surveying or data collection you require? What would your ideal testing and validation scenario be, and what specifically do you think you would ask users to do? You will not be held to doing only these things, but keeping in mind ORE Research Ethics guidelines, how do you intend to go about testing your prototypes? What is your backup plan if you want to test with at-risk groups or other people, but you don't get ethics clearance to do so? Keep in mind not all testing will require an ethics application, but some might.

Maximum 1 page.

Final Prototype Review Rubric

Evaluator:

Team #:

Project Name:

U = Unsatisfactory (clearly below standard for a 4th year project, missing components)

M = Marginal (meets minimum expectation, but not more; I am disappointed in the quality);

S = Satisfactory (demonstrates basic design and engineering competence, about what I thought I'd see);

VG = Very Good (demonstrates above average design and engineering effort);

E = Excellent (exceeds expectations; strong design and engineering, I was pleasantly surprised);

O = Outstanding (I think this project is award-worthy).

Criteria	Rating
The team described what the problem is with a discussion of relevant background information, i.e. the situation of concern.	
Multiple design options were explored and evaluated against their user needs following a sound design methodology.	
Their prototype was functional and able to be demonstrated interactively for at least one major function.	
The prototype demonstration allowed for meaningful testing and showed engineering and prototyping skills appropriate for a fourth year project.	
Design deficiencies and future work are clearly identified and a plan is in place to complete the final project deliverables in SYDE462	

Grade /5

Comments: