

(30 pts) Approx. 2 days

This project starts with the creation of your E-Group teams. Those teams will change throughout the year, but the team you're on for this project will be your team for the next three weeks. As a team, you need to start by identifying a problem in the community, in our school, or in your daily life. Once your team has decided what problem they want to address, then it's time to start developing your solution. Work with your team to follow the steps carefully below:

- Process** - Start by watching the video on the Engineering Design Process. Pay close attention to the six steps in the process and take good notes on what each step involves.
- Problem** - Talk with your team and officially decide what problem you want to tackle. Remember, the problem can be something impacting Fairbanks, Lathrop, or just your team as individuals. Some different problems that could be addressed by your team include:






Unhealthy air in the winter

Cold noses walking outside

Not waking up on time for school

Lathrop Students getting tardy passes quickly

- Design Brief** - Now that your problem has been decided, work with your team to write out your design brief. Watch the "Design Brief" video to get started. Each person needs to write the design brief in their own engineering notebook. "One per team" doesn't work. Make sure that your design brief includes a definition and explanation of the problem, a deadline, criteria for success, and building constraints.
- Approval** - Have Mr. Benshoof *approve your design brief* before moving on!
- Research & Brainstorm** - Watch the short video "Research & Brainstorm". Take some time as a team to do some research on your problem. Then brainstorm at least 20 ideas for possible solutions. Every person must record all 20 ideas in their engineering notebook!
- Brainstorming Assignment** – You completed the Brainstorming Assignment linked from the website *before* you took the Unit 1 Quiz. You can complete the Brainstorming Assignment in your engineering notebook or on the handout sheet. Have Mr. Benshoof check off your completed brainstorming sheet before you take the quiz!

Part 1: Tasks	5 points	4-3 points	2-1-0 points
 Engineering Design Process Notes	+ Complete notes from the Engineering Design Process Video. + Notes cover all 6 steps in the EDP	3 points only if: - Notes are missing 1 of the design steps	- Notes are missing 2 of or more steps in the design process
 Design Brief	+ Design brief is written in engineering notebook + Design Brief has all 5 components	- Design brief is missing 1 or 2 pieces	- Design brief not in notebook - Design brief missing more than 2 pieces
 Design Brief Continued	+ Design brief includes criteria + Design brief includes constraints	- Design brief is missing either criteria or constraints	- Design brief is missing BOTH criteria AND constraints
 Research & Brainstorm	+ At least 20 ideas have been brainstormed and recorded in your engineering notebook + All ideas are addressing your chosen problem	- More than 10 ideas have been recorded - Many ideas are not connected to the problem	- 10 or fewer ideas have been recorded - Ideas are not connected to the problem
	10 points	9-5 points	4-0 points
 Brainstorming Assignment	+ You completed the Brainstorming Assignment sheet + You completed the Brainstorming Assignment before taking the Unit 1 Quiz	- You did most of the Brainstorming Assignment	- You did not complete the Brainstorming Assignment

