




(50 pts) Approx. 3 days

The first part of our unit requires that you make a choice for what you want to work on as our semester wraps up, and that you create a good plan for making progress! It all starts by choosing a project. You can either choose something to *learn*, or you can choose something to *build*. Some ideas of each are listed below to get you thinking:

Learning Ideas		Building Ideas	
Programming	Autodesk	Board Game	Puzzle
Beginning of Aerospace Eng.	Beginning of Digital Electronics	Gift for Family	Custom Name Plate

- Brainstorming:** Start by watching the short introductory video *Mini Project Overview*. Then, brainstorm ten (10) ideas for possible project topics or things to learn about.
- Pick the idea you want to work on. If you think it's a pretty wild or big idea, double check with Mr. Benschopf to make sure we have the needed supplies!
- Design Brief:** Next, make complete design brief in your engineering notebook! Your design brief must outline what you're trying to accomplish and what will make it a success. Remember that a complete design brief has to include the following 5 ideas:
  - Problem Statement & Justification
  - Deadlines
  - Criteria
  - Constraints
  - Audience/Scope
- GANTT Chart:** Finally, you need to make a plan for completing your work. Start with a GANTT chart to plan out your work between now and the end of the semester!
- Diagram & Plan:** Next, make a plan for what you're going to do based on what you want to do:
  - If you plan to learn a new topic:** Create a flow-chart that shows the progression of things you want to learn and what you might build/create with that knowledge to show that you've learned it!
  - If you plan to build something:** Draw a careful diagram that shows what you'll build, how big it will be, and what materials you will use. This will help make sure we have the tools to get it done!

Part 1: Tasks	10 points	9-5 points	4-0 points
 Project Brainstorm	+ You brainstormed 10 ideas for different projects	- You brainstormed between 5 and 9 ideas for different projects	- You brainstormed fewer than 5 ideas
	<b>20-17 points</b>	<b>16-10 points</b>	<b>9-0 points</b>
 Design Brief	+ Your design brief is complete, including all 5 of the necessary parts + Your design brief is specific to you in this project	- Your design brief is missing a component - Your design brief is generic and does not apply to you specifically	- Your design brief is missing more than one component - Your design brief is missing
 Diagram & Plan	+ Your plan includes a GANTT chart + Your plan includes a picture of a prototype OR a flowchart of things to learn and work on!	- Your plan does not include a GANTT chart - Your plan does not include a picture	- Your plan is missing

