Deliverable E - Project Schedule & Cost

Group 3

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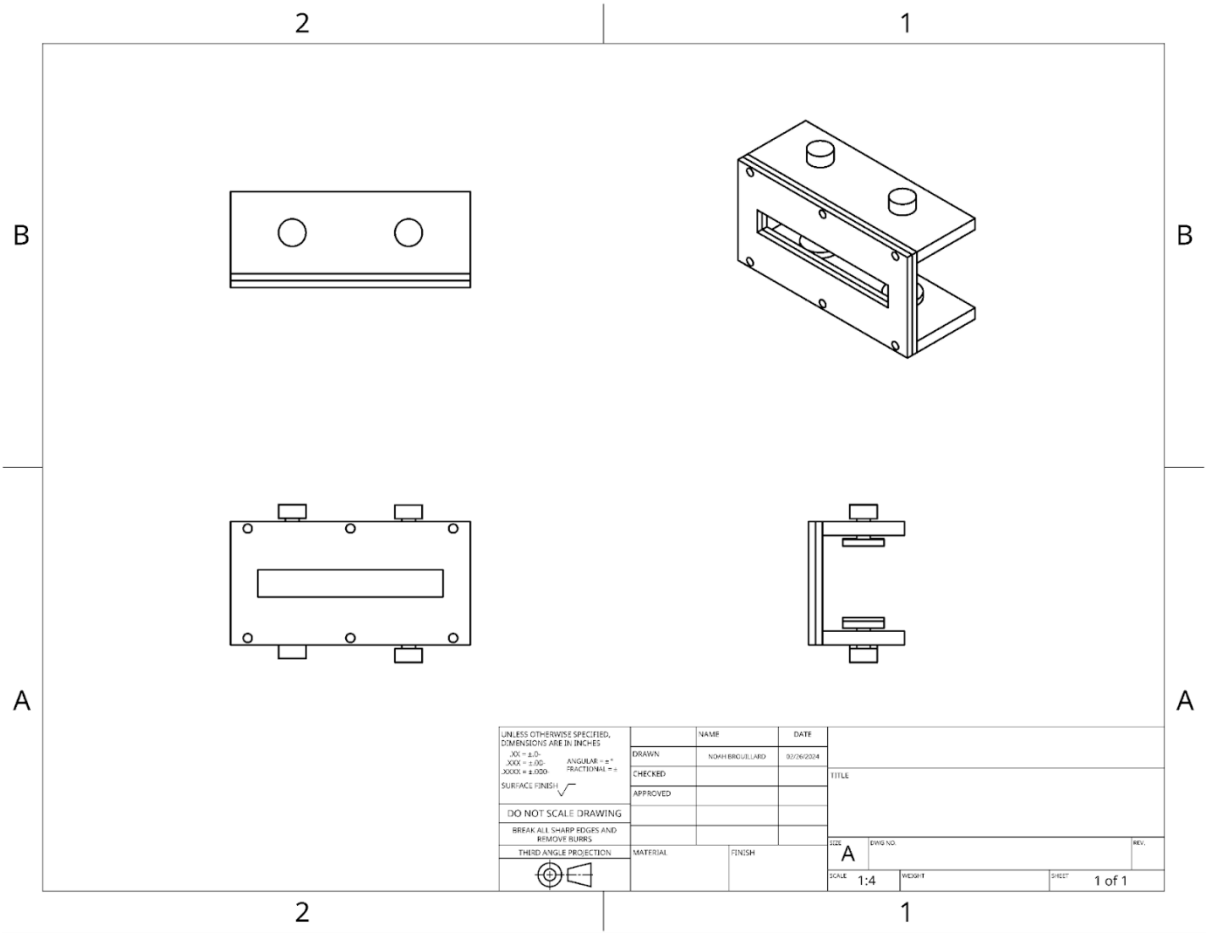
Design Drawing



Project Schedule

Tasks and Timeline & Responsibilities:

Component procurement & Prototype I Assembly: 1 week (Feb 26th - March 3rd)

- Noah, Nnamdi and Obaidah: Design Prototype Components, 3D Printing of Prototype Components.
- Nate: Develop test plan, Conduct Prototype testing & Communication

- Ziyan: Purchasing materials, and finished components, support to test plan

Prototype II Assembly & Client Feedback: 1 week (March 4th - March 10th)

- Noah, Nnamdi and Obaidah: Design Prototype Components, 3D Printing of Prototype Components.
- Nate: Develop test plan, Conduct Prototype testing & Communication
- Ziyan: Purchasing materials, and finished components, support to test plan

Prototype III Assembly, Development & Client Feedback: 1 week (March 11th - March 24th)

- Noah, Nnamdi and Obaidah: Design Prototype Components, 3D Printing of Prototype Components.
- Nate: Develop test plan, Conduct Prototype testing & Communication
- Ziyan: Purchasing materials, and finished components, support to test plan

Design Day Presentation Documentation (March 25th - April 4th)

- Team members create slides based on their responsibilities, and then work together to the final PPT.

Project Presentation (April 5th- TBD)

- Everyone will be there, but the present order and parts will to be decided later.

User and Production Manual (April 10th)

- Noah, Nnamdi and Obaidah: conception of design in details, demonstration of the product,safety notification, tips and warning
- Nate: business request, testing analyzing
- Ziyan: Previous references and a brief conception of design

Project Risks and Contingency Plans:

Risks:	Contingency Plans:
Materials delay	Communicate with suppliers to track deliveries

Technical Issues or development stuck	Have backup components or solutions ready
Budget overruns from unforeseen expenses	Prepare backup materials that are adjusted for the increase in cost
Failure to meet quality standards that are required	Implementation of quality assurance throughout product development.

Cost Estimation and BOM:

Assembly hardware (tbd) - 10$

Printing Material - 10$

Metal Plate - 10-15$

Total - 30-35$

Equipment Needed:

Onshape

3D Printer

Drill

Aluminum sheet

Laser Cutter

Prototype Test Plan:

Test ID	***Test Objective (Why)***	***Description of Prototype use and of Basic Test Method (What)***	***Description of Results to be Recorded and how these results will be used (How)***	***Estimated Test duration and planned start date (When)***
1	Clamping to the door	The prototype will be placed onto a door or something	We will attempt to move the jig while it is clamped and	The test should take 1-3 days depending on how many

		of similar thickness to test if the clamping mechanism is strong enough	determine how much force is cam withstand before shifting	adjustments need to be made. Start date:
2	Increasing and decreasing the clamp width.	The different step sizes of the prototype's clamp width would be checked for stability and accuracy.	We will check each of the step sizes of the clamp and measure with an external device for accuracy. We would also check for any sign of wobbling to ensure stability.	The test should take 1 to 2 days. This includes the testing and any adjustments needed to be made.
3	time to clamp and unclamp	We will be clamping the jig to a door and unclamping it to determine how much time is consumed during this process	If the time is fast (<30 seconds), adjustments are not necessary. If the time is slow, adjustments are necessary to increase time efficiency	This test can be conducted any time after conducting the clamping test and should take less than an hour. This test can also be conducted as many times as needed as it is not time consuming