

## **Title: Low-Interference Wheelchair Footrest**

Date: 2/2/2024

Client: Dan Dorszynski

Advisor: Dr. John Puccinelli

Team:

Charles Maysack-Landry — Leader

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### **Problem statement:**

The project aims to innovate wheelchair footrest design to overcome the limitations of current models which are often cumbersome, heavy, and restrict leg movement or access to the ground. The goal is to create a footrest that is lightweight, easily detachable, and foldable, enhancing the wheelchair user's comfort, and allows interactions with surroundings through the footrest.

### **Brief status update**

We have been researching general information about wheelchairs, Muscular Dystrophy, electronics, and difficulties with footrests. We introduced ourselves to each other and our client through email.

### **Difficulties / advice requests**

Arranging meeting time with clients.

### **Current design:**

No current design is yet created for this semester. Last semester's BME 200/300 Design is the only current design available.

## Materials and expenses

Item	Description	Manufacturer	Mft Pt#	Vendor	Vendor Cat#	Date	#	Cost Each	Total	Link
<b>Category 1</b>										
									\$0.00	
									\$0.00	
<b>Category 2</b>										
									\$0.00	
									\$0.00	
								<b>TOTAL:</b>	<b>\$0.00</b>	

## Major team goals for the next week

1. Set up a meeting with the client and ask questions related to project logistics.
2. Continue research on low interference wheelchair footrests.
3. Reflect on previous team's successes and needed improvements.

## Next week's individual goals

- Jayson
  - Continue research and come up with an initial design prototype
  - Work on PDS
  - Review the previous BME teams work
- Sam
  - Research on Standards and patents
- Bobby
  - Further research on demographic
- Charles
  - Research further into standards, and more specifics about our project
  - Look into the previous projects lab journal
  - Come up with a PDS

## Timeline

Task	Jan	Feb				March					April				May	
	26	2	9	16	23	1	8	15	22	29	5	12	19	26	3	10
<b>Project R&amp;D</b>	X	X														
Empathize	X	X														
Background...	X	X														
Prototyping																
Testings																
<b>Deliverables</b>																

Progress Reports																
Prelim presentation																
Final Poster																
<b>Meetings</b>																
Client																
Advisor	X	X														
<b>Website</b>	X	X														
Update	X	X														

Filled boxes = projected timeline  
 X = task was worked on or completed

## Previous week's goals and accomplishments

- Sam previous goal 1
  - Wheelchair/ footrest research
  - Muscular Dystrophy/ posture balancing research
  - Hospital wheelchair Design research
- Bobby previous goal 1
  - Completed research on footrest position's influences on ulcers for patients
- Charles previous goal 1
  - Researched wheelchair finite element analysis
  - Found things to further research
- Jayson previous goal 1
  - Completed four initial research entries.
  - Found some code standards related to wheelchairs.
- Team previous goal 1
  - Brainstormed questions

## Activities

Name	Date	Activity	Time (h)	Week Total (h)	Sem. Total (h)
Sam	2/2/2024	Research	2	2	2
Bobby	2/2/2024	Research	1	1	1
Jayson	2/02/2024	Research Entries, Emailed Client, Meetings	4	4	4
Charles	2/02/2024	Research	3	3	3