

## ***GAIT TRAINER WITH TREADMILL***

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Date: November 14, 2024 to November 21, 2024

### **Problem Statement**

Gait trainers are used to assist and support those who have issues with significant mobility impairments. In the winter, it is difficult to utilize the gait trainer outside. Due to the lack of access, users may suffer significant damage to physical and mental health. Utilizing a treadmill during the imperfect weather conditions would allow for increased mobility and less drastic damages to the overall health of the client. Creating a system to allow this will provide the fix needed for the client to use her gait trainer while on the treadmill.

### **Brief Status Update**

The team has almost concluded fabrication. During the week, we successfully fabricated the tracks and ramp. We additionally met with the client to complete testing in person. We have also completed testing on SolidWorks and are sending a survey to the client to collect feedback.

### **Summary of Weekly Team Member Design Accomplishments**

- Team -
  - Fabrication
  - Testing
  - Research
  - Team meetings
- Meghan Kaminski -
  - Assisted in fabrication
  - Created survey for the client
  - Continue research
- Belle Counts -
  - Assisted in Fabrication
  - Drove to client's house to test device
  - Continued Research
- Jacki Szelagowski -

- Fabrication of design
- Met with client to test
- Kalob Kimmel-
  - Fabrication on the project
  - Update webpage
  - Research
- Navya Jain -
  - Fabrication on project
  - Continued research
  - Updates Team notebook in lab archives

Team Member	Tasks (brief)	Weekly Time	Total time to date
TEAM	Fabrication and research	8 hrs	33.5 hrs
Meghan Kaminski	Fabrication, research, and meetings	6 hrs	42 hrs
Belle Counts		6 hrs	45 hrs
Jacki Szelagowski	Fabrication, Meetings	7 hrs	43 hours
Kalob Kimmel	Fabrication, Meetings, Research	8hrs	38hrs
Navya Jain	Research, Fabrication Planning	8 hrs	39 hrs
		<b>Total</b>	<b>hrs</b>

**Weekly/Ongoing Difficulties**

- The team is having difficulty finding resources to use on campus for fabrication. Because of our busy schedules, we are only able to meet at 2 hour increments. The fabrication would be ideal to complete in a longer period of time.
- The team is having trouble finding time to meet outside of the two hour block period. If there continues to be an issue of time, the team will utilize the extra thirty minutes left after the advising meeting to collaborate.

**Upcoming Team and Individual Goals**

- Team -
  - Final touches of the project
  - Begin final report
  - Begin final poster
- Meghan Kaminski -

- Continue research
- Create poster document
- Continue work over break
- Belle Counts -
  - Continue research
  - Make revisions to device
  - Work on final report and poster
- Jacki Szlagowski -
  - Work on final poster and report
  - Make final changes to design
- Kalob Kimmel -
  - Begin Final poster
  - Work over break
  - Update webpage
- Navya Jain -
  - Continue fabrication and make revision to design
  - Continue testing
  - Work on final poster and report

### Project Timeline

Project Goal	Deadline	Team Assigned	Progress	Date Completed
Contact Client and Meet	9/12/24	All	100%	9/12/24
Research	9/20/24	All	N/A	N/A
Create PDS	9/20/24	All	100%	9/20/24
3 Preliminary Designs	9/27/24	All	100%	N/A
Preliminary Presentations	10/4/24	All	100%	N/A
Preliminary Deliverables	10/9/24	All	100%	N/A
Order Materials		All	95%	N/A
Fabricate		All	90%	N/A
Show & Tell	11/1/24	All	100%	N/A
Final Poster Presentations	12/6/24	All	N/A	N/A
Final Deliverables	12/11/24	All	N/A	N/A

### Expenses

Item	Description	Manufacturer	Mft Pt#	Vendor	Vendor Cat#	Date	QTY	Cost Each	Total	Link
<b>Category 1: Tracks</b>										
	Neoprene Rubber Sheet roll	Pamaz		Amazon		10/24/2024	1	\$20.03	\$20.00	<a href="https://www.amazon.com">Amazon.com</a>
	Stainless Steel C-Clamp	WOPPLY		Amazon		10/24/2024	1	\$17.92	\$17.92	<a href="https://www.amazon.com">https://www</a>
	Non Slip Silicone Pads	3M		Amazon		10/24/2024	2	\$8.43	\$16.86	<a href="https://www.amazon.com">https://www</a>
<b>Category 2: Ramp</b>										
	4x8 ft Pressure Treated Plywood	The Home Depot				11/9/2024	1	\$50.08	\$50.08	<a href="https://www.homedepot.com">https://www</a>
	2inx8inx10ft Lumber	The Home Depot				11/9/2024	2	\$8.82	\$17.64	<a href="https://www.homedepot.com">https://www</a>
									<b>TOTAL:</b>	<b>\$122.50</b>