

GAIT TRAINER WITH TREADMILL

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Meghan Kaminski - mfkaminski@wisc.edu - Leader

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Date: October 10, 2024 to October 17, 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 finished the preliminary report this past week. The preliminary report discussed the in depth plans for fabrication and our chosen design. The team additionally met this week to discuss moving forward and the next steps.

Summary of Weekly Team Member Design Accomplishments

- Team -
 - Preliminary report
 - Research
 - Order Materials
- Meghan Kaminski -
 - Create the progress report
 - Individual materials research
 - Create a time to meet with the team
- Belle Counts -
 - Met with team to discuss next steps
 - Continued research on materials
 - Began creating fabrication plan for prototype
 - Did research on UW makerspace tools & materials
- Jacki Szelagowski -

- Met with team
- Individual materials research
- Set up zoom meeting with client
- Kalob Kimmel -
 - Update website
 - Individual research
 - Meeting with team
- Navya Jain -
 - Discussed next steps for our project
 - Continued Researching Materials
 - Began discussing prototype for show-and-tell

| Team Member | Tasks (brief) | Weekly Time | Total time to date |
|-------------------|---|--------------|--------------------|
| TEAM | Preliminary report, preliminary presentation, research | 3 hrs | 14.5 hrs |
| Meghan Kaminski | Practice preliminary presentation, preliminary report | 5 hrs | 27 hrs |
| Belle Counts | practice preliminary presentation, research on materials, preliminary report work | 5 hrs | 27 hrs |
| Jacki Szelagowski | Preliminary report work, research of materials and testing | 5 hrs | 25 hours |
| Kalob Kimmel | Preliminary report, research practice preliminary presentation | 3 hrs | 23hrs |
| Navya Jain | worked on preliminary report, worked on material research | 4hrs | 22hrs |
| | | Total | hrs |

Weekly/Ongoing Difficulties

- The team is having trouble deciding which method to use for ordering materials. We can either go directly through the client or order them ourselves and get reimbursed at the end of the semester.
- 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 -
 - Begin Fabrication
 - Order materials
 - Prepare for show and tell
 - Meet with client to discuss updates
- Meghan Kaminski -
 - Continue research
 - Look over the materials and finalize order
 - Attend meeting with client and lead the conversation
 - Look at preliminary report once graded to see ways we can improve
- Belle Counts -
 - Continue researching materials
 - Order materials
 - Begin creating prototype for Show and Tell
 - Meet with client to update her on what our plans are
- Jacki Szlagowski -
 - Share materials research with group
 - Finalize material order
 - Meet with client to check in and go over everything
- Kalob Kimmel -
 - Begin show and tell prototyping
 - Continue individual research
 - Continue updating website
- Navya Jain -
 - Continue materials research
 - Order materials
 - Design prototype for show-and-tell

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 | N/A | N/A |
| Fabricate | | All | N/A | N/A |
| Show & Tell | 11/1/24 | All | N/A | 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 | Part Number | Date | QTY | Cost Each | Total | Link |
|-------------|-------------|--------------|-------------|------|-----|-----------|-------|------|
| Component 1 | | | | | | | | |
| N/A | | | | | | | | |
| Component 2 | | | | | | | | |
| N/A | | | | | | | | |