

Dynamic Balance Device, BME 200/300

Client: Mr. Daniel Kutschera

Advisor: Dr. James Trevathan

Team: Gabriela Cecon cecon@wisc.edu (Team Leader)

Gracie Hastreiter ghastreiter@wisc.edu (BWIG / BSAC)

Jack Zemlock zemlock@wisc.edu (Communicator)

Kyle Komro ktkomro@wisc.edu (BPAG)

Date: September 6 to September 12, 2024

Problem Statement

Many elderly people—especially those who have suffered from strokes—sustain lasting mobility problems as they attempt to recover and return to “everyday” life. Currently, the solutions for physicians to use in addressing this issue are either too expensive to easily acquire, or are inadequate and are too hard to use while giving sufficient attention and support to the patient. The goal of this project is to provide a solution that remedies the issues with current designs at an affordable cost.

Brief Status Update

We are currently working on setting up a video call or an in-person visit with our client so as to better understand their issues and figure out how to solve them. Additionally, we have reviewed the resources available to us and have set up our LabArchives and documentation processes.

Summary of Weekly Team Member Design Accomplishments

- Team:
 - Assigned team roles and expectations.
 - Set up our team’s LabArchives notebook where we will document our design process and the development of our prototype.
- Gabriela:
 - Set up LabArchives and shared it with the group (15 min)
 - Reviewed the project materials and wrote down some questions for the client (30 min)

- Gracie:
 - Created a list of specific questions to ask our client to gain a better understanding of the expectations and specifications of the project. (45 min)
 - Set up and updated LabArchives notebook. (10 min)
- Jack:
 - Emailed the client to set up a meeting time and discuss the starting point of our project. (10 min)
 - Discussed an in person visit at the hospital to view analogous devices. (10 min)
- Kyle:
 - Reviewed accounting principles to better understand my role on the team and how to get client funds or be reimbursed (in a last case scenario).

Weekly/Ongoing Difficulties

The main ongoing difficulty was trying to find a time where our team could meet as a whole with our client.

Upcoming Team and Individual Goals

- Team:
 - Effectively communicating and getting a time slot nailed down with our client, due to disparate schedules.
- Gabriela:
 - Have a first meeting with the client to understand the project and desired outcomes
 - Start brainstorming with the group
- Gracie:
 - Meet with our client to discuss the specifications and requirements of the project.
 - Create the product design specifications document to lay out the requirements for our project.
 - Begin researching existing products that relate to our project.
- Jack:
 - Let our client know who and when will be meeting with him
 - Schedule in person hospital visit
- Kyle:
 - Meet with client and understand problem better
 - Begin brainstorming solution ideas

Project Timeline

Project Goal	Deadline	Team Assigned	Progress	Completed
Preliminary Presentations		All	–	No
Preliminary Deliverables		All	–	No
Show and Tell		All	–	No
Poster Presentations		All	–	No
Final Deliverables		All	–	No

Expenses

Item	Description	Manufacturer	Part Number	Date	QTY	Cost Each	Total	Link
Component 1								

Component 2									
Component 3									
TOTAL:								\$0.00	