

**Title:** Smart Walker, BME 402

- **Date:** 4/19/25 - 4/25/25

Last Name	First Name	Role	Email
Nimunkar	Amit	Advisor	ajnimunkar@wisc.edu
Kutschera	Dan	Client	kutschera@att.net
BlomWillis	Nolan	Communicator	blomwillis@wisc.edu
Schiltz	Eva	BSAC	emschiltz@wisc.edu
Parsons	Jacob	BPAG	jcparsons@wisc.edu
Waldenberger	James	BWIG	jwaldenberge@wisc.edu
Kolnik	Owen	Leader	okolnik@wisc.edu

- **Problem statement:** In the rehabilitation process of acute strokes or similar conditions, it is necessary for the patient to be able to walk independently so they can safely return home. Our team must design a device that works in conjunction with a standard walker that will measure the speed and distance the patient walks and the pressure applied to the walker.
- **Brief status update:** All issues regarding the walker are resolved and all tests on the walker have been completed. Upcoming events for the group are the poster presentation and deadline for the final report.
- **Difficulties / advice requests:** No difficulties or advice requests for this coming week.

- **Major team goals for the next week:** Finish deliverables and give the walker to Mr. Kutschera. Possibly test the battery life of the walker as well.
- **Next week's individual goals:** A concise statement of intended action to continue progress on the project - be specific, i.e. what will you research.

Eva: Finish the report and lab archives.

Jacob: Finish the report and update Lab Archives.

Nolan: Finished the report and update notebook entries

James: Finish the report and update notebook entries.

Owen: Work on report, notebook, and other deliverables.

Project Goal	Deadline	Assigned	Progress	Completed
Select Journal	2/7	Team	100%	Y
Preliminary Presentation	2/7	Team	100%	Y
Preliminary Deliverables	2/26	Team	100%	Y
Invention Disclosure Report (optional)	3/7	Team	100%	Y
Executive Summary	4/18	Team	100%	Y
Outreach Materials	4/18	Team	100%	Y
Final Presentations	4/25	Team	100%	Y
Final Deliverables	4/30	Team	25%	N

- **Previous week's goals and accomplishments:**

Team: We met with the WARF people to talk about the design and completed the final fabrication, assembly, issue-resolving, and testing of the walker. The poster was also uploaded to the website.

Eva: Met with WARF, worked on final testing and prepared for the final presentation.

Jacob: Met with WARF, debugged code and wiring issues. Worked on final testing with the team. And finished and prepared for the poster presentation.

Nolan: Met with WARF, helped calibrate load cell, edit poster and add content.

James: Fixed some issues with the load cell circuit and IR sensor, helped test force and distance measurements, did some aesthetic work on the walker, completed data analysis and figure creation for the report/poster, and met with WARF.

Owen: Worked with the team to debug code, meet with WARF, check for wiring issues, and perform an additional load calibration. Additionally, worked with other members on speed and distance testing, along with force testing. Lastly, I worked on creating the poster and added content to my sections.

**Activities:** a concise accounting of time spent working on the project.

	Eva	Jacob	Nolan	James	Owen
<b>Week 1</b>	3 hrs	4 hrs	2.5 hrs	2 hrs	3 hrs
<b>Week 2</b>	2 hrs	3 hrs	5 hrs	2.5 hrs	6.5 hrs
<b>Week 3</b>	3 hrs	4 hrs	2.5 hrs	4 hrs	4 hrs
<b>Week 4</b>	2.5 hrs	8 hrs	2 hrs	4 hrs	9 hrs
<b>Week 5</b>	2.5 hrs	4 hrs	4.5 hrs	2 hrs	5 hrs
<b>Week 6</b>	3 hrs	6 hrs	5 hrs	3 hrs	7 hrs
<b>Week 7</b>	2 hrs	3 hrs	2 hrs	5 hrs	4 hrs
<b>Week 8</b>	2 hrs	5 hrs	2.5 hrs	4 hrs	12 hrs
<b>Week 9</b>	3 hrs	3 hrs	4.5 hrs	2 hrs	7 hrs
<b>Week 10</b>	7 hrs	10 hrs	6 hrs	7 hrs	16 hrs
<b>Week 11</b>	3 hrs	10 hrs	2.5hrs	8.5 hrs	10 hrs
<b>Week 12</b>	12 hrs	24 hrs	12 hrs	24 hrs	37 hrs