

Title: Smart Walker, BME 402

- **Date:** 4/3/25 - 4/10/25

Last Name	First Name	Role	Email
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- **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:** The team worked all together to combine components and work on the WARF application
- **Difficulties / advice requests:** No difficulties or advice requests for this coming week.

- **Major team goals for the next week:** Finish integrating the walker with the load cell holders and begin the integration of the walker with the circuit. Test the load sensors when possible. Reprint a few broken components.
- **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 walker fabrication and begin testing.

Jacob: Finish integrating all of the wires into the central housing. Then conduct final testing.

Nolan: Work on testing components of the walker

James: Help get the wires into the housing and attached to their respective spots on the protoboard.

Owen: Print new IR holder, new bottom load cell holder, and new screen plate. Test the load cells.

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	90%	N
Final Presentations	4/25	Team	0%	N
Final Deliverables	4/30	Team	0%	N

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

Team: Finished writing the Executive summary and continued fabrication of the walker with the load cell holders. Finished the first draft of the WARF disclosure document. Drilled new bolt holes and wire holes in the walker. As a team we ran all the necessary wiring through the frame for all the sensors.

Eva: Worked on walker fabrication and wiring.

Jacob: I worked on integrating the wiring into the walker. This included soldering and pulling wires through.

Nolan: Worked on fabrication of walker and made edits to the WARF disclosure

James: Worked on wiring and assembling the walker.

Owen: I worked on fabrication of the new walker frame. This involved drilling bolt holes for the attachment of the load cell holders. I attached the new load cell holders and printed new load cell holder washers. I also met twice for about 3-5 hours each with the entire team to run wiring through the frame.

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

	Eva	Jacob	Nolan	James	Owen
Week 1	3 hrs	4 hrs	2.5 hrs	2 hrs	3 hrs
Week 2	2 hrs	3 hrs	5 hrs	2.5 hrs	6.5 hrs
Week 3	3 hrs	4 hrs	2.5 hrs	4 hrs	4 hrs
Week 4	2.5 hrs	8 hrs	2 hrs	4 hrs	9 hrs
Week 5	2.5 hrs	4 hrs	4.5 hrs	2 hrs	5 hrs
Week 6	3 hrs	6 hrs	5 hrs	3 hrs	7 hrs
Week 7	2 hrs	3 hrs	2 hrs	5 hrs	4 hrs
Week 8	2 hrs	5 hrs	2.5 hrs	4 hrs	12 hrs
Week 9	3 hrs	3 hrs	4.5 hrs	2 hrs	7 hrs
Week 10	7 hrs	10 hrs	6 hrs	7 hrs	16 hrs