

- **Title:** Smart Walker, BME 402

- **Date:** 2/21/25 - 2/27/25

Last Name	First Name	Role	Email
Nimunkar	Amit	Advisor	ajnimunkar@wisc.edu
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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:** The team has trouble worked issues in regards to the IR sensor. Drilling for load cell holders was successful as well as attaching nuts and bolts to stabilize holders.
- **Difficulties / advice requests:** No difficulties or advice requests for this coming week.

- **Major team goals for the next week:** The team plans to complete the IR sensor testing and begin the fabrication of the complete circuit on the protoboard and the associated code. Additionally, we aim to insert the load sensors into the load cell holders and begin preliminary testing.
- **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: Assist with load cell holder assembly with the walker and testing.

Jacob: Complete IR sensor testing and begin working on comprehensive code for the entire circuit.

Nolan: Help with completion of load cell holder fabrication.

James: Finish soldering protoboard, get wire connectors

Owen: Order wiring sheathing. Dremel the holes in the legs for better load cell holder attachment. Put heat inserts into the new load cell holder.

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	0%	N
Executive Summary	4/18	Team	0%	N
Outreach Materials	4/18	Team	20%	N
Final Presentations	4/25	Team	0%	N
Final Deliverables	4/30	Team	0%	N

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

Team: The team completed the journal. They also made further advancements in troubleshooting the IR code and creating holes in the walker legs for load cell holder mounting.

Eva: Helped with assembly of the load cell holders with the walker and worked on the preliminary report

Jacob: Began making new code to troubleshoot IR sensor errors and worked on Journal.

Nolan: Worked on the journal and helped Owen with load cell mounting.

James: Started protoboard soldering, worked on preliminary report.

Owen: Ordered Protoboard and switches. Printed thicker access door for the display holder. Helped Nolan in the team lab drill holes for load cell mounting. Worked on a preliminary report/journal.

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

	<b>Eva</b>	<b>Jacob</b>	<b>Nolan</b>	<b>James</b>	<b>Owen</b>
<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	2hrs	4 hrs	9 hrs
<b>Week 5</b>	2.5 hrs	4 hrs	4.5hrs	2 hrs	5 hrs