- **Title**: Smart Walker, BME 400

- **Date**: 10/11/24 - 10/18/24

Last Name	First Name	Role	Email
Nimunkar	Amit	Advisor	ajnimunkar@wisc.edu
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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**: This week we began the fabrication process both with the calibration of load cells and work on the accelerometers

- **Difficulties / advice requests**: No difficulties or advice requests for this coming week.

- **Major team goals for the next week**: Work on integration of sensors as well as hopefully take a trip to the clinic to look at some of the equipment Dr. Kutschera is using

- **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: Analyze speed sensors to determine next steps in fabrication.

  Jacob: Compare the hall effect accuracy to the accelerometer and evaluate if the accelerometer is a better option.

  Nolan: Help with load cell circuit building, Calibration of load cells with some code setup possibly.

  James: Finish setting up load cell circuit and create a calibration curve to determine force input.

Project Goal	Deadline	Assigned	Progress	Completed
Initial meeting with client	9/12	Team	100%	Y
Gather research/project information	9/19	Team	100%	Y
Product Design Specification (PDS)	9/20	Team	100%	Y
Design Matrix	9/27	Team	100%	Y
Preliminary Presentation PDF	10/4	Team	100%	Y
Preliminary Report	10/9	Team	100%	Y
Order/Gather Materials	10/11	Team	100%	Y
Create prototypes, test	11/8	Team	15%	N
Final fabrication	11/20	Team	0%	N
Test and finalize final design	11/27	Team	0%	N
Poster Presentation PDF	12/6	Team	0%	N
Final Report	12/11	Team	0%	N
Final Notebook Team	12/11	Team	0%	N

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

  Team: The team began working on setting up and calibrating the sensors.

Eva: Worked on Solidworks for display box.

Jacob: Worked on setting up and calibrating the accelerometer,

Nolan: Worked on obtaining the base resistance values for the wires of the load cell

James: Created circuit diagrams for each component of the load cell circuit, and breadboarded most of it out.

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

	Eva	Jacob	Nolan	James
Week 1	3 hrs	2 hrs	2 hrs	2 hrs
Week 2	3 hrs	4 hrs	4 hrs	3.5 hrs
Week 3	2.5 hrs	3 hrs	3 hrs	3 hrs
Week 4	2.5 hrs	3 hrs	2.5 hrs	3 hrs
Week 5	3 hrs	3 hrs	2 hrs	2 hrs
Week 6	3 hrs	7 hrs	3 hrs	5 hrs