

# Title: Gait Trainer with Treadmill (Step Masters) 200/300

Date: 11/14/2025 - 11/20/2025

Client: Amanda Pajerski

Advisor: Dr. Ashton

Team:

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## Problem statement

A woman with a significant mobility impairment due to a seizure disorder requires support while walking because of seizure risks and poor postural strength. She has a Rifton Pacer Gait Trainer which has allowed her to resume walking outdoors; however, it is unsafe to use in winter. It is crucial for her to be able to use the gait trainer for daily walks in order to maintain her muscular strength and mental health. The solution is to design a transfer device that will allow her to use her gait trainer on a Horizon T101 treadmill to give her the opportunity to maintain her muscle conditioning when weather conditions are not favorable. The transfer device will need to allow the gait trainer to be wheeled onto the treadmill and secure the wheels in position so it cannot fall off the side while she's walking. It will need to hold the weight of the gait trainer, the user, and one caregiver, totaling to 173.6 kg. It will need to be easy for caregiving staff to use, taking no more than 5 minutes to assemble, under 22 kg, and have the ability to fold in order to maintain the functionality of her living environment.

## Brief status update

This week, the team finished bolting the wheels and handles to the ramp, as well as grinding sharp edges on the ramp. Once fabrication was completed, the team conducted final testing to determine the ease of use of the device. Originally, the plan was to use straps, carabiners, and D rings to strap the tracks together; however, the client was not comfortable with this attachment method and wanted a more rigid method. The team decided to move forward with 80-20, and sliding brackets to attach the front of the side tracks together while still allowing adjustability of the width. Additionally, to stabilize the ramp, the team plans to use pins to connect the ramp into oval-shaped holes in the wood of the side tracks.



Device in the storage position.



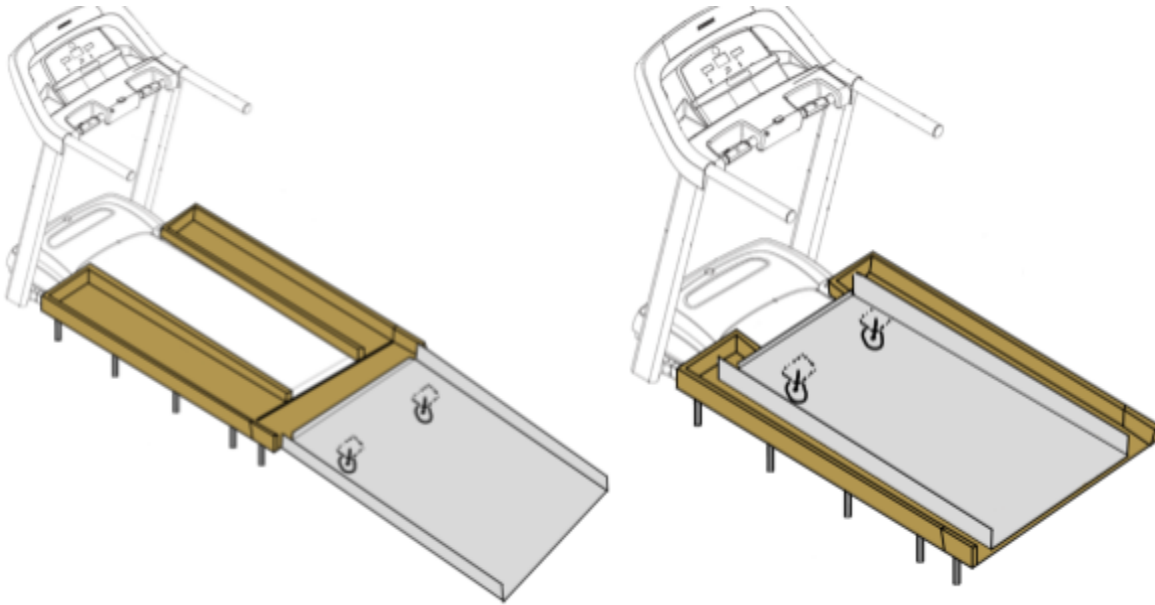
Assembled device on the treadmill.



Gait trainer on treadmill with side tracks.

**Difficulties / advice requests**

**Current design**



## Materials and expenses

| Item                          | Description                                                              | Manufacturer  | Mft Pt# | Vendor       | Vendor Cat# | Date          | # | Cost Each     | Total   | Link                            |
|-------------------------------|--------------------------------------------------------------------------|---------------|---------|--------------|-------------|---------------|---|---------------|---------|---------------------------------|
| <b>Requested for Purchase</b> |                                                                          |               |         |              |             |               |   |               |         |                                 |
|                               |                                                                          |               |         |              |             |               |   |               |         |                                 |
|                               |                                                                          |               |         |              |             |               |   | <b>TOTAL:</b> | \$0.00  |                                 |
| <b>Purchased</b>              |                                                                          |               |         |              |             |               |   |               |         |                                 |
| Rubber End-Caps               | 20-pack; to cover exposed ends of screws from handles.                   | DMiotech      | N/A     | Amazon       | B0B59 MCLHN | 11/20         | 1 | \$5.03        | \$5.03  | <a href="#">Rubber End-caps</a> |
| D-Rings                       | 4-pack (black) for secondary stabilization system.                       | TKYPZY        | 2065 76 | Amazon       | B0DJ4R HB5Q | 11/19         | 1 | \$6.75        | \$6.75  | <a href="#">D-Rings</a>         |
| Nylon Staps                   | For securing the side tracks to each other. (2-pack)                     | NatureBlend   | N/A     | Amazon       | B0F8N3 X88V | 11/15         | 1 | \$17.99       | \$17.99 | <a href="#">Straps</a>          |
| Carabiner Clips               | For securing the side tracks to each other. (2-pack)                     | Rhino Produxs | N/A     | Amazon       | B08DL4 19TT | 11/15 & 11/19 | 2 | \$8.99        | \$17.98 | <a href="#">Carabiner Clips</a> |
| Hardware                      | Additional Hardware purchased. Washers and new screws for Kayak Handles. | N/A           | N/A     | DI Lab @ ECB | N/A         | 11/17         | – | –             | \$8.80  | N/A                             |
| Hardware                      | ¼ in - 20 x 2.5 Round Head Brass Machine Screws;                         | Everbilt      | –       | Home Depot   | –           | 11/15         | 7 | \$1.47        | \$10.29 | <a href="#">Handle Bolts</a>    |

|                         |                                                                                                                                             |                |             |                |               |       |    |               |                 |                                        |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------|----------------|---------------|-------|----|---------------|-----------------|----------------------------------------|
|                         | #8-32 x 3/4 in Round Head Machine Screws; #8-32 Plated Nylon Lock Nuts; #10-24 x 2-1/2 Round Head Machine Screws; 1/2 in. Zinc Flat Washers |                |             |                |               |       |    |               |                 |                                        |
| Felt Furniture Pads     | To line the bottom edge of the ramp                                                                                                         | VOCOMO         | N/A         | Amazon         | B0C814K7QW    | 11/15 | 1  | \$9.99        | \$9.99          | <a href="#">Felt Furniture Pads</a>    |
| Kayak Handles           | 4-pack: Double Hole Nylon Rubber Kayak Carry Handles                                                                                        | HDCBMCD M-US   | DF25F ED    | Amazon         | B08RWMXQ7S    | 11/12 | 1  | \$11.59       | \$11.59         | <a href="#">Kayak Handles</a>          |
| Wheels                  | Red Polyurethane 3" Rigid caster wheels                                                                                                     | Everbilt       | 4120 424E B | Home Depot     | 074523 212042 | 11/5  | 2  | 11.37         | 22.74           | <a href="#">Red Caster Wheels</a>      |
| 1 x 4 Lumber            | Two 55" Aspen boards and Two 52" Aspen boards were purchased.                                                                               | N/A            | 2070 5905 4 | Home Depot     | 100000 5744   | 11/2  | 18 | \$2.17        | \$39.06         | <a href="#">1 x 4 Aspen Boards</a>     |
| 2x10 - 8ft Lumber       | Premium Southern Yellow Pine for side track base                                                                                            | N/A            | 8524 81     | Home Depot     | 852481        | 10/22 | 2  | \$8.35        | \$16.70         | <a href="#">2 x 10 - 8 feet SYP</a>    |
| 1x5 - 6ft Lumber        | Common Board for side tracks.                                                                                                               | N/A            | 2057 3868 9 | Home Depot     | 100163 8967   | 10/22 | 2  | \$4.94        | \$9.88          | <a href="#">1 x 5 - 6ft Whitewood</a>  |
| Ramp                    | 5' L x 36" W Aluminum Threshold Ramp (10" max rise)                                                                                         | Silver Spring  | N/A         | Discount Ramps | STR-536       | 10/21 | 1  | \$329.99      | \$329.99        | <a href="#">Aluminum Ramp</a>          |
| Adjustable Leg Supports | 4 pack adjustable height center support leg. Adjusts from 7.2" to 14.8"                                                                     | Signature Home | SDB1 305-3  | Home Depot     | 3283660 91    | 10/21 | 2  | \$35.05       | \$66.59         | <a href="#">Adjustable Height Legs</a> |
|                         |                                                                                                                                             |                |             |                |               |       |    | <b>TOTAL:</b> | <b>\$575.88</b> |                                        |

## Major team goals for the next week

1. Finish fabrication of the prototype
2. Complete all necessary testing
3. Begin working on final deliverables

## Next week's individual goals

- Grace
  - Finish prototype
  - Begin working on final deliverables
- Sierra
  - Finalize the prototype
  - Begin working on final deliverables
- Julia
  - Finish prototype
  - Work on final deliverables
- Sara
  - Work on final deliverables
- Katelynn
  - Process returns and reimbursement requests.
  - Work on final deliverables.
  - Finish prototype

## Timeline

| Task                   | Sept |    |    | Oct |   |    |    |    |    | Nov |    |    |    | Dec |    |
|------------------------|------|----|----|-----|---|----|----|----|----|-----|----|----|----|-----|----|
|                        | 11   | 18 | 25 | 3   | 8 | 10 | 17 | 24 | 31 | 7   | 21 | 20 | 28 | 5   | 10 |
| <b>Project R&amp;D</b> |      |    |    |     |   |    |    |    |    |     |    |    |    |     |    |
| Empathize              | X    | X  | X  |     |   |    |    |    |    |     |    |    |    |     |    |
| Background...          | X    | X  | X  |     |   |    |    |    |    |     |    |    |    |     |    |
| Prototyping            |      |    |    |     |   | X  | X  | X  | X  | X   | X  |    |    |     |    |
| Testings               |      |    |    |     |   | X  |    |    | X  | X   | X  | X  |    |     |    |
| <b>Deliverables</b>    |      |    |    |     |   |    |    |    |    |     |    |    |    |     |    |
| Progress Reports       | X    | X  | X  | X   | X | X  | X  | X  | X  | X   | X  | X  |    |     |    |
| PDS                    |      | X  | X  | X   | X | X  | X  | X  | X  | X   | X  | X  |    |     |    |
| Design Matrix          |      |    | X  |     |   |    |    |    |    |     |    |    |    |     |    |
| Prelim Presentation    |      |    |    | X   |   |    |    |    |    |     |    |    |    |     |    |
| Prelim Deliverables    |      |    |    | X   | X |    |    |    |    |     |    |    |    |     |    |
| Show and Tell          |      |    |    |     |   |    |    |    | X  |     |    |    |    |     |    |

|                    |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Final Poster       |   |   |   |   |   |   |   |   |   |   |   | X |  |  |  |
| Final Deliverables |   |   |   |   |   |   |   |   |   |   |   | X |  |  |  |
| <b>Meetings</b>    |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Client             | X | X | X |   |   | X |   |   |   |   | X | X |  |  |  |
| Advisor            | X | X | X | X | X | X | X |   |   |   | X | X |  |  |  |
| <b>Website</b>     |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Update             | X | X | X | X | X | X | X | X | X | X | X | X |  |  |  |

Filled boxes = projected timeline

X = task was worked on or completed

## Previous week's goals and accomplishments

Last week, the side tracks were stained with Red Mahogany wood stain, and the adjustable legs were attached to the bottom of the tracks. The team performed preliminary testing of the side tracks and ramp on the treadmill. The sidetracks showed some displacement during testing, but overall good stability. The team began brainstorming a way to attach the sidetracks to each other to add further stability.

### Activities

| Name           | Date      | Activity                               | Time (h) | Week Total (h) | Sem. Total (h) |
|----------------|-----------|----------------------------------------|----------|----------------|----------------|
| Grace Neuville | 9/7/2025  | Wrote problem statement                | 0.5      | 2              | 40             |
|                | 9/7/2025  | Researched ramp standards              | 0.5      |                |                |
|                | 9/7/2025  | Worked on timeline in progress report  | 0.5      |                |                |
|                | 9/8/2025  | Researched portable ramp designs       | 0.5      |                |                |
|                | 9/16/2025 | Worked on my section of the PDS        | 1.5      | 1.5            |                |
|                | 9/24/2025 | Refined the suitcase ramp design       | 0.5      | 1.5            |                |
|                | 9/24/2025 | Researched importance of gait trainers | 0.5      |                |                |
|                | 9/25/2025 | Worked on the design matrix            | 0.5      |                |                |

|  |            |                                                                                     |     |     |  |
|--|------------|-------------------------------------------------------------------------------------|-----|-----|--|
|  | 9/29/2025  | Worked on my section of the preliminary presentation                                | 0.5 | 3.5 |  |
|  | 9/29/2025  | Created a treadmill part in solidworks                                              | 2   |     |  |
|  | 10/2/2025  | Created final design drawing                                                        | 0.5 |     |  |
|  | 10/2/2025  | Worked on final design section of preliminary presentation                          | 0.5 |     |  |
|  | 10/6/2025  | Researched testing methods                                                          | 1   | 3   |  |
|  | 10/6/2025  | Worked on testing section of the preliminary report                                 | 1   |     |  |
|  | 10/7/2025  | Met with Fabrication staff                                                          | 0.5 |     |  |
|  | 10/8/2025  | Revised preliminary report                                                          | 0.5 |     |  |
|  | 10/9/2025  | Researched aluminum availability and created a new design idea                      | 1   | 6   |  |
|  | 10/10/2025 | Researched design alternatives and created a new design idea                        | 2   |     |  |
|  | 10/15/2025 | Helped create CAD model of the side tracks and performed load testing               | 2   |     |  |
|  | 10/16/2025 | Updated CAD model                                                                   | 1   |     |  |
|  | 10/16/2025 | Updated notebook with the side tracks solidworks data                               | 1.5 | 2.5 |  |
|  | 10/18/2025 | Determined how to conduct simulation testing with multibody and multimaterial parts | 1   |     |  |
|  | 10/26/2025 | Helped with updating the sidetracks solidworks model                                | 2   | 8   |  |
|  | 10/27/2025 | Helped with fabrication of sidetracks                                               | 2   |     |  |
|  | 10/29/2025 | Worked on SoldiWorks FEA of sidetracks                                              | 3   |     |  |
|  | 10/29/2025 | Helped with fabrication of sidetracks                                               | 1   |     |  |
|  | 11/3/2025  | Helped with fabrication of sidetracks                                               | 1.5 | 1.5 |  |
|  | 11/11/2025 | Created testing protocols                                                           | 1   | 2   |  |
|  | 11/12/2025 | Updated solidworks model                                                            | 1   |     |  |
|  | 11/16/2025 | Updated FEA study of side tracks                                                    | 3   | 8.5 |  |
|  | 11/17/2025 | Ramp fabrication                                                                    | 2.5 |     |  |
|  | 11/19/2025 | Final home testing and attachment method brainstorming                              | 3   |     |  |

| Name          | Date       | Activity                                                                                                    | Time (h) | Week Total (h) | Sem. Total (h) |
|---------------|------------|-------------------------------------------------------------------------------------------------------------|----------|----------------|----------------|
| Sierra Loosen | 9/8/25     | Brainstormed questions for client meeting                                                                   | 0.5      | 1              | 36.5           |
|               | 9/8/2025   | Researched ADA compliant ramp dimensions                                                                    | 0.5      |                |                |
|               | 9/14/2025  | Research relating to the importance of physical activity and current designs of portable ramps              | 1.5      | 4              |                |
|               | 9/14/2025  | Completed assigned sections of PDS                                                                          | 1.5      |                |                |
|               | 9/18/2025  | Proof read and formatted PDS                                                                                | 0.5      |                |                |
|               | 9/18/2025  | Individual preliminary design brainstorming                                                                 | 0.5      |                |                |
|               | 9/20/2025  | Refined individual preliminary design idea                                                                  | 0.5      | 2              |                |
|               | 9/21/2025  | Wrote descriptions for design matrix criteria                                                               | 0.5      |                |                |
|               | 9/24/2025  | Helped finish design matrix                                                                                 | 1        |                |                |
|               | 10/1/2025  | Brainstorming for final design                                                                              | 0.5      | 1.5            |                |
|               | 10/2/2025  | Preliminary presentation prep                                                                               | 1        |                |                |
|               | 10/4/2025  | Updated PDS                                                                                                 | 1        | 3              |                |
|               | 10/6/2025  | Individual work on preliminary report                                                                       | 1.5      |                |                |
|               | 10/7/2025  | Research on prefabricated ramps                                                                             | 0.5      |                |                |
|               | 10/14/2025 | Brainstorm design with prefabricated ramp                                                                   | 1        | 3              |                |
|               | 10/15/2025 | Work on dimensions and SolidWorks                                                                           | 2        |                |                |
|               | 10/20/2025 | Researched more stable adjustable legs                                                                      | 0.5      | 2              |                |
|               | 10/22/2025 | Discussed design/purchasing materials with Dr. P, provided transportation to Home Depot for lumbar purchase | 1        |                |                |
|               | 10/22/2025 | Began brainstorming for fabrication plan of side tracks                                                     | 0.5      |                |                |
|               | 10/27/2025 | Helped with fabrication of side tracks                                                                      | 2.5      | 5.5            |                |
|               | 10/29/2025 | Helped with fabrication of side tracks                                                                      | 1        |                |                |
|               | 10/30/2025 | SolidWorks model of ramp                                                                                    | 2        |                |                |
|               | 11/3/2025  | Side tracks fabrication                                                                                     | 1.5      | 4.5            |                |
|               | 11/4/2025  | Updated side tracks fabrication protocol                                                                    | 0.5      |                |                |
|               | 11/5/2025  | Returned wheels and purchased new                                                                           | 1        |                |                |

|  |            |                                                              |     |     |  |
|--|------------|--------------------------------------------------------------|-----|-----|--|
|  |            | ones at Home Depot                                           |     |     |  |
|  | 11/6/2025  | Assembled adjustable legs                                    | 1   |     |  |
|  | 11/12/2025 | Preliminary in home testing                                  | 1.5 | 2.5 |  |
|  | 11/12/2025 | Researched ways to attach side tracks to each other          | 1   |     |  |
|  | 11/17/2025 | Ramp fabrication                                             | 2.5 | 7.5 |  |
|  | 11/19/2025 | Testing at Nadine's home and attachment method brainstorming | 3   |     |  |
|  | 11/20/2025 | Attachment method fabrication                                | 2   |     |  |

| Name           | Date      | Activity                                                                                  | Time (h) | Week Total (h) | Sem. Total (h) |
|----------------|-----------|-------------------------------------------------------------------------------------------|----------|----------------|----------------|
| Julia Shefchik | 9/8/2025  | Wrote questions for client meeting                                                        | 0.5      | 1.5            | 32.5           |
|                | 9/8/2025  | Reviewed given information on pacer gait trainer and treadmill to answer client questions | 0.5      |                |                |
|                | 9/11/2025 | Researched material options                                                               | 0.5      |                |                |
|                | 9/14/2025 | Further research on aluminum as a potential material                                      | 0.5      | 3              |                |
|                | 9/17/2025 | Formatted and contributed to the team PDS document                                        | 1.5      |                |                |
|                | 9/17/2025 | Researched the treadmill and gait trainer the client uses                                 | 0.5      |                |                |
|                | 9/17/2025 | Edited the problem statement                                                              | 0.5      |                |                |
|                | 9/19/2025 | Individual preliminary design and research to inform design                               | 1        | 4              |                |
|                | 9/21/2025 | Help format preliminary design presentation                                               | 0.5      |                |                |
|                | 9/22/2025 | Refined preliminary design                                                                | 0.5      |                |                |
|                | 9/24/2025 | Refined preliminary design using client feedback                                          | 0.5      |                |                |
|                | 9/24/2025 | Wrote design matrix discussion and contributed information for design 1                   | 1.5      |                |                |
|                | 9/26/2025 | Begin brainstorm for preliminary design presentation                                      | 0.5      | 1.5            |                |
|                | 10/2/2025 | Prepare for preliminary design                                                            | 1        |                |                |

|  |            |                                                                          |     |     |  |
|--|------------|--------------------------------------------------------------------------|-----|-----|--|
|  |            | presentation                                                             |     |     |  |
|  | 10/5/2025  | Set up design meeting and inform staff of project                        | 0.5 | 2   |  |
|  | 10/7/2025  | Meet with design staff                                                   | 0.5 |     |  |
|  | 10/7/2025  | Individual work on preliminary report and revising                       | 1   |     |  |
|  | 10/12/2025 | Created new design folding                                               | 1   | 3.5 |  |
|  | 10/13/2025 | Wrote questions for client meeting                                       | 0.5 |     |  |
|  | 10/14/2025 | Created new design with prefabricated ramp                               | 1   |     |  |
|  | 10/14/2025 | Search for materials and hardware                                        | 0.5 |     |  |
|  | 10/16/2025 | Talk with design staff                                                   | 0.5 |     |  |
|  | 10/19/2025 | Find leg alternatives for tracks design                                  | 0.5 | 2.5 |  |
|  | 10/20/2025 | Review procedures in SolidWorks                                          | 0.5 |     |  |
|  | 10/22/2025 | Search for adjustable leg models and start designing model in SolidWorks | 1.5 |     |  |
|  | 10/24/2025 | Design legs in SolidWorks                                                | 2   | 6.5 |  |
|  | 10/25/2025 | Finish legs in SolidWorks                                                | 1   |     |  |
|  | 10/27/2025 | Begin Fabrication of sidetracks                                          | 2.5 |     |  |
|  | 10/29/2025 | Continue Fabrication of sidetracks                                       | 1   |     |  |
|  | 11/3/2025  | Continued fabrication of sidetracks                                      | 1.5 | 2.5 |  |
|  | 11/5/2025  | Begin sanding and detaching sidetracks                                   | 1   |     |  |
|  | 11/10/2025 | Consult with design staff for wheel attachment methods                   | 0.5 | 2   |  |
|  | 11/12/2025 | Preliminary Testing at Clients house                                     | 1.5 |     |  |
|  | 11/14/2025 | Research sidetracks attachment method                                    | 1   | 3.5 |  |
|  | 11/14/2025 | Brainstorm friction determination method                                 | 0.5 |     |  |
|  | 11/14/2025 | Source materials and find desired bolts                                  | 1   |     |  |
|  | 11/19/2025 | Research injury prevention with mobility devices                         | 1   |     |  |

| Name | Date | Activity | Time (h) | Week Total (h) | Sem. Total (h) |
|------|------|----------|----------|----------------|----------------|
|------|------|----------|----------|----------------|----------------|

|             |            |                                                                                                           |     |     |    |
|-------------|------------|-----------------------------------------------------------------------------------------------------------|-----|-----|----|
| Sara Mlodik | 9/9/2025   | Brainstormed/looked over client meeting questions and progress report                                     | .5  | 1.5 | 30 |
|             | 9/11/2025  | Analyzed the 2024 project process in the team notebook and found areas for improvement                    | 1   |     |    |
|             | 9/14/2025  | Finished analyzing the 2024 project process and notes and wrote questions for the upcoming client meeting | 1   | 4   |    |
|             | 9/14/2025  | Completed assigned sections of PDS                                                                        | 1.5 |     |    |
|             | 9/18/2025  | Made a design sketch, a ramp model, and brainstormed specific questions for the design team               | 1.5 |     |    |
|             | 9/19/2025  | Researched the background information on gait trainers                                                    | 1   | 2.5 |    |
|             | 9/23/2025  | Refined preliminary design #1 into preliminary design #2                                                  | .5  |     |    |
|             | 9/24/2025  | Worked on slides and notes for the Preliminary Presentation                                               | .5  |     |    |
|             | 9/24/2025  | Helped finish design matrix                                                                               | .5  |     |    |
|             | 9/26/2025  | Brainstormed design ideas and telescoping legs                                                            | .5  | 1.5 |    |
|             | 10/2/2025  | Worked on slides and notes for the Preliminary Presentation                                               | 1   |     |    |
|             | 10/6/2025  | Individual work on preliminary report                                                                     | 1   | 2   |    |
|             | 10/9/2025  | Research on material and design alternatives                                                              | 1   |     |    |
|             | 10/12/2025 | Brainstorm and sketch proposed new design                                                                 | 1   | 2   |    |
|             | 10/12/2025 | Create model for proposed new design                                                                      | 1   |     |    |
|             | 10/17/2025 | Sketch the team new design with dimensions                                                                | 1   | 1.5 |    |
|             | 10/20/2025 | Research adjustable legs                                                                                  | 0.5 |     |    |
|             | 10/26/2025 | Helped with updating the sidetracks solidworks model                                                      | 2   | 5   |    |
|             | 10/27/2025 | Woodshop Training                                                                                         | 1   |     |    |
|             | 10/27/2025 | Helped with fabrication of side tracks                                                                    | 2   |     |    |
|             | 11/3/2025  | Side tracks fabrication                                                                                   | 1.5 | 1.5 |    |
|             | 11/10/2025 | Finished staining the side tracks and attached adjustable-height legs to base                             | 2   | 3   |    |

|  |            |                                                              |     |     |  |
|--|------------|--------------------------------------------------------------|-----|-----|--|
|  | 11/13/2025 | Brainstormed tracks attachment methods                       | 1   | 5.5 |  |
|  | 11/17/2025 | Ramp fabrication                                             | 2.5 |     |  |
|  | 11/19/2025 | Testing at Nadine's home and attachment method brainstorming | 3   |     |  |

| Name             | Date      | Activity                                                                                                                                                                | Time (h) | Week Total (h) | Sem. Total (h) |
|------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------|----------------|
| Katelynn Johnson | 9/9/2025  | Brainstormed questions for client meetings.                                                                                                                             | 0.5      | 1.5            | 33.5           |
|                  | 9/9/2025  | Reviewed previous group's final report and client comments.                                                                                                             | 0.5      |                |                |
|                  | 9/10/2025 | Reviewed BPAG resources and funding options.                                                                                                                            | 0.5      |                |                |
|                  | 9/16/2025 | Reviewed NIOSH lifting guidelines and other safety research relating to caregiver safety.                                                                               | 1        | 3.5            |                |
|                  | 9/17/2025 | Completed assigned sections of the PDS and Progress Report #2                                                                                                           | 1        |                |                |
|                  | 9/18/2025 | Used information gained from client meetings to brainstorm designs.                                                                                                     | 1.5      |                |                |
|                  | 9/21/2025 | Researched how the gait trainer wheel locks operate, and brainstormed how to allow the best access to these locks while the gait trainer is elevated with wheel tracks. | 0.5      | 2.5            |                |
|                  | 9/21/2025 | Updated my preliminary design to account to reduce design weight, and to make the folding process easier.                                                               | 1.5      |                |                |
|                  | 9/22/2025 | Researched pre-existing aluminum ramps that could be modified for the design.                                                                                           | 0.5      |                |                |
|                  | 9/26/2025 | Set-up budgeting and materials tracking system after reviewing additional BPAG resources and guidelines at BPAG meeting.                                                | 1        | 2              |                |
|                  | 9/30/2025 | Edited slides for our preliminary presentation                                                                                                                          | 0.5      |                |                |
|                  | 10/2/2025 | Practiced for preliminary presentation.                                                                                                                                 | 0.5      |                |                |
|                  | 10/7/2025 | Individual work on preliminary report                                                                                                                                   | 0.75     | 2              |                |
|                  | 10/8/2025 | Individual work on preliminary report                                                                                                                                   | 0.75     |                |                |
|                  | 10/8/2025 | Investigated BME department funding                                                                                                                                     | 0.5      |                |                |

|  |            |                                                                                                                 |     |     |  |
|--|------------|-----------------------------------------------------------------------------------------------------------------|-----|-----|--|
|  |            | opportunities.                                                                                                  |     |     |  |
|  | 10/12/2025 | Research for new design                                                                                         | 1   | 5   |  |
|  | 10/13/2025 | Sketched out new design                                                                                         | 0.5 |     |  |
|  | 10/14/2025 | Research for new design                                                                                         | 0.5 |     |  |
|  | 10/15/2025 | Sketched out new design                                                                                         | 0.5 |     |  |
|  | 10/16/2025 | Sourced Preliminary Fabrication Materials                                                                       | 1.5 |     |  |
|  | 10/16/2025 | Submit BME department funding request                                                                           | 1   |     |  |
|  | 10/21/2025 | Coordinated BME funding and purchase requests.                                                                  | 1   | 1.5 |  |
|  | 10/22/2025 | Updated budgeting documentation to reflect purchases and changes to design.                                     | 0.5 |     |  |
|  | 10/27/2025 | Updated purchasing information and documentation.                                                               | 0.5 | 5   |  |
|  | 10/29/2025 | Constructed a 3D cardboard model of our design for show and tell.                                               | 3   |     |  |
|  | 10/30/2025 | Designed a slideshow to support the team's 60 second pitch for show and tell on Friday.                         | 1.5 |     |  |
|  | 11/3/2025  | Assisted with the fabrication of the side tracks.                                                               | 1   | 2   |  |
|  | 11/3/2025  | Woodshop training                                                                                               | 0.5 |     |  |
|  | 11/6/2025  | Updated purchasing information and documentation.                                                               | 0.5 |     |  |
|  | 11/7/2025  | Assisted with staining the side tracks                                                                          | 1.5 | 5   |  |
|  | 11/10/2025 | Finished staining the side tracks and attached adjustable-height legs to base                                   | 2   |     |  |
|  | 11/12/2025 | Researched vendors for handles, submitted a new purchase request and updated budgeting/materials documentation. | 1.5 |     |  |
|  | 11/17/2025 | Assisted with ramp fabrication                                                                                  | 1.5 | 3.5 |  |
|  | 11/20/2025 | Made purchases, updated documentation, and sourced additional hardware.                                         | 1   |     |  |
|  | 11/20/2025 | Assisted with Attachment Method Fabrication                                                                     | 1   |     |  |