

Happy Wheels Fan Club
Group B4



The **S.T.E.P.** Wheelchair Attachment

Sliding Therapeutic Ergonomic **P**latform



Problem Statement

- Feet get tangled easily
- Entanglement is injury
- Existing solutions fail



Large gaps for
feet to fall
through!



Solution

Selected Concept



Safety



Movement



Attachment Style

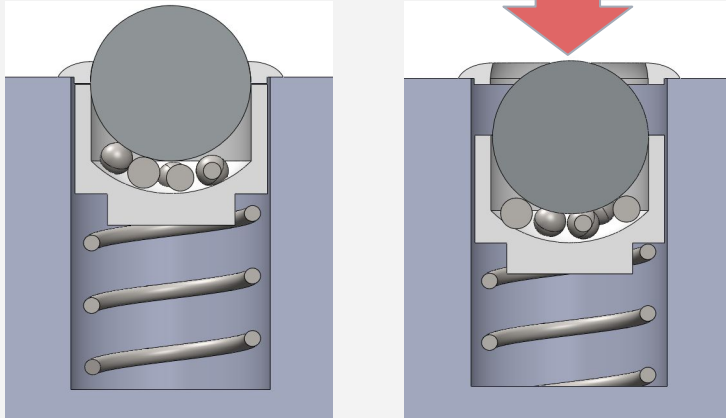


Entanglement

Trackball Mechanism



- Omnidirectional platform - free movement in all directions
- Excess force lowers ball into platform
- Patient can stand on flat surface without risk of slipping

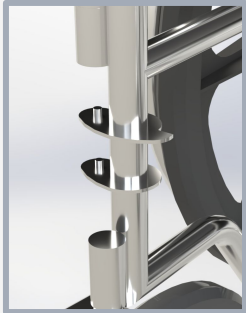


Attachment Mechanism



- Removable hinge system
- Pin secures it in place
- Locks to prevent unwanted outward swing and detachment

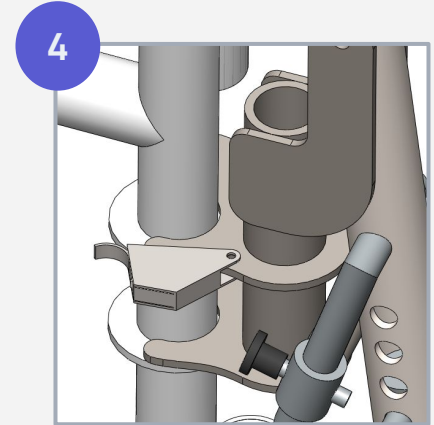
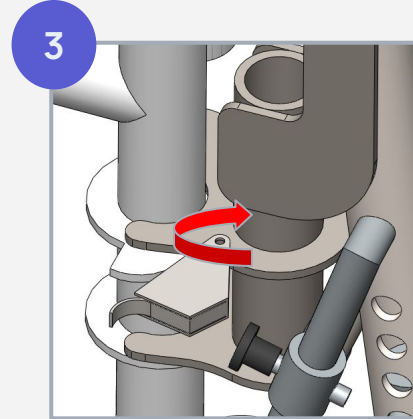
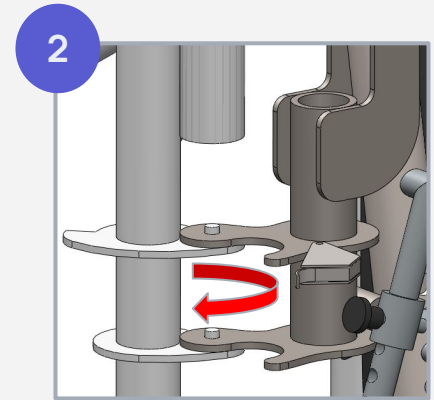
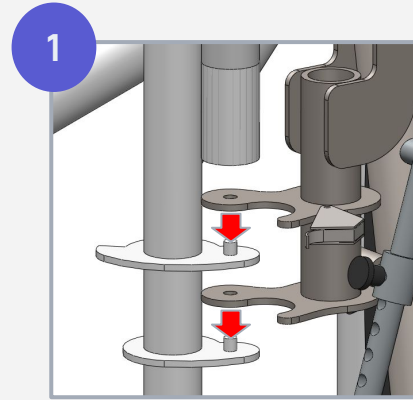
Existing footrest mounts



Left side



Right side



Folding Mechanism



Folding Mechanism

- Easy access to patients for healthcare providers
- Ease of wheelchair entry and exit for patients
- Folds 110° outwards

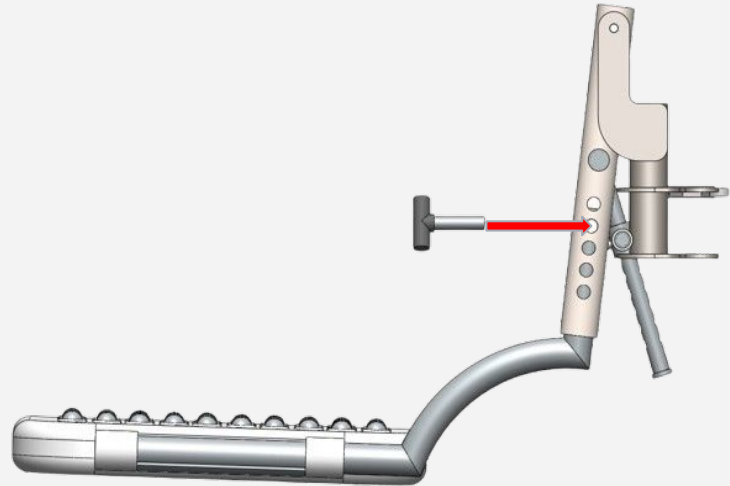
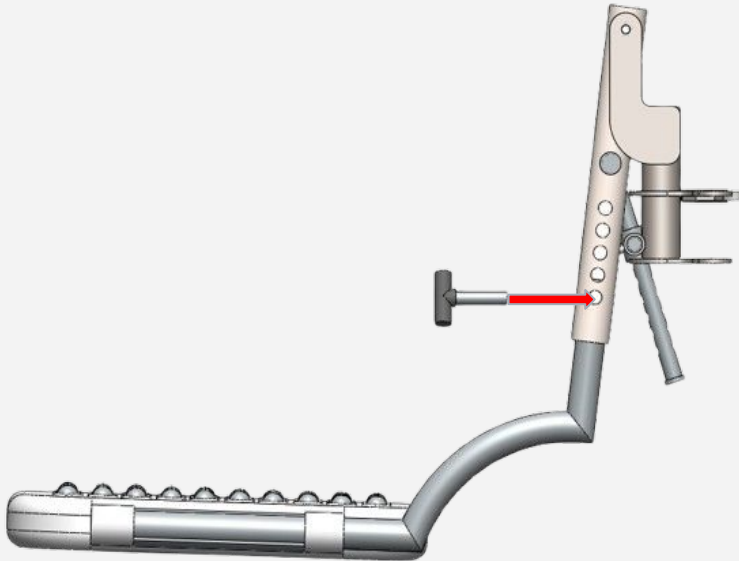




Adjustable Height

Adjustable Height

- Customizable height of platform
- Locking pin at varying height intervals
- Ensures feet are in an optimal height
- 3in Adjustable length



Adjustable Angle





Adjustable Angle

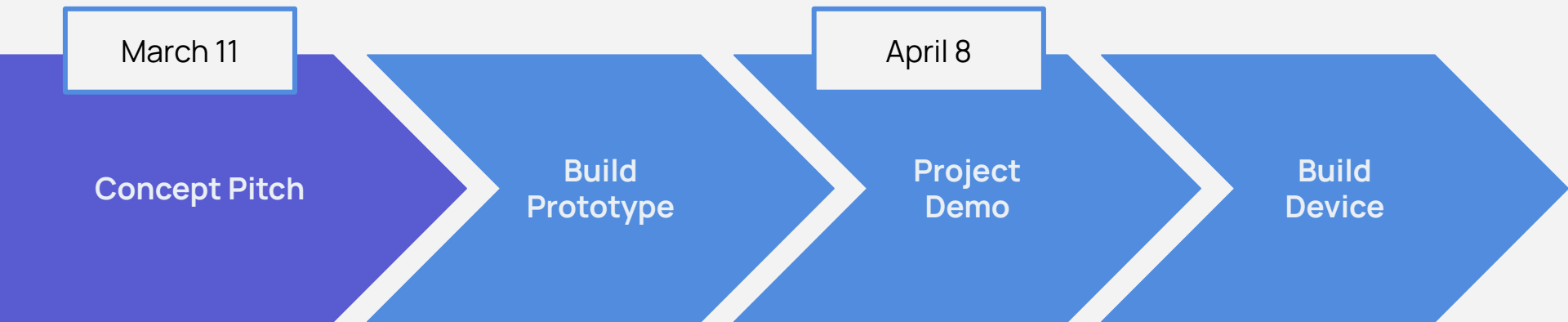
- Customizable platform angle
- Ensures feet are in an optimal angle
- Adjustable from 0° to 55°

Padding Attachment

Wide Platform



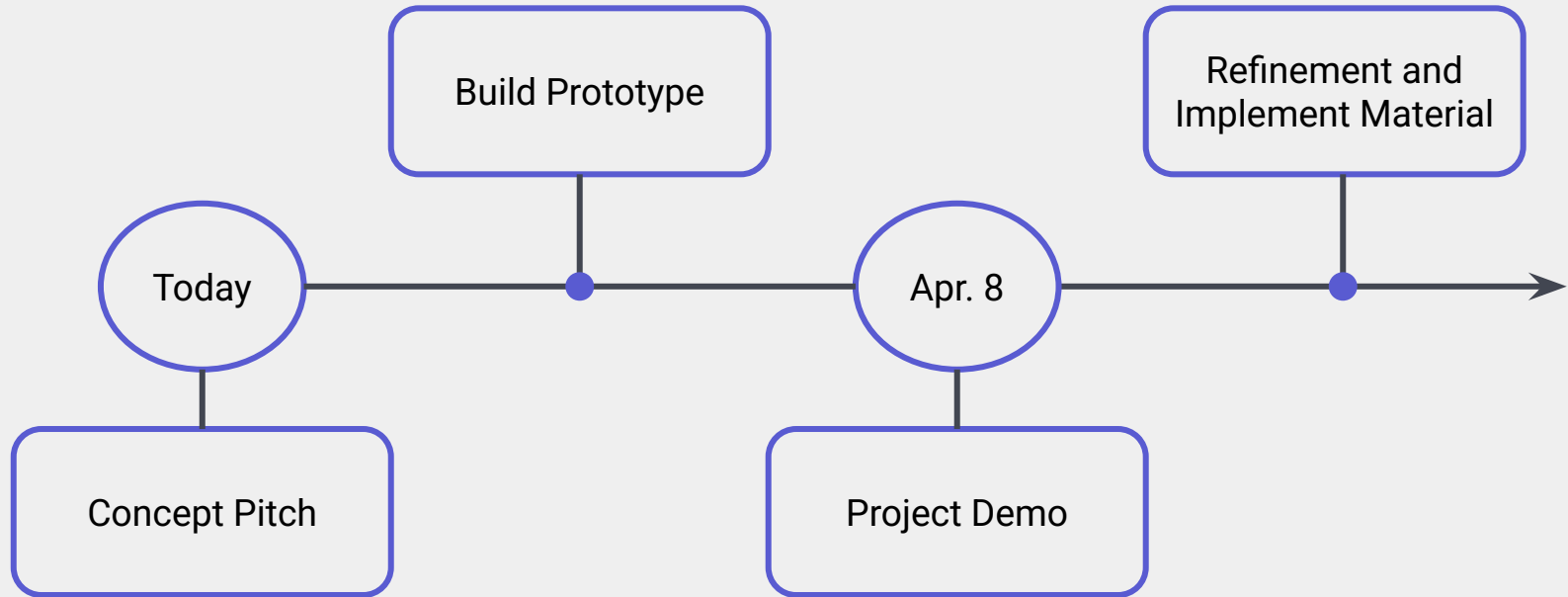
Future Plans



Thank you!



Future Plans



Padding Attachment



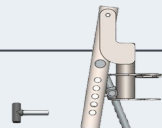
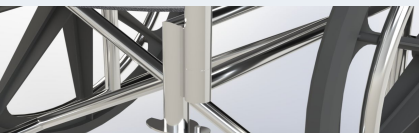
Wide Platform



Pitch Deck (for BMEG 357):

- Problem (pain)
 - Solution (value proposition)
 - Users/stakeholders
 - Feasibility
 - Team
-

Rendered models



Features

Visuals

Showcase the design of your product

Price

Share the cost and price with investors

Availability

When is the product expected to be ready?



Features

What makes your product unique?

Users

Speak about the target audience

Updates

Do you plan on updating it?