Outline

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Team Introduction

David Evenhouse, Nick Memmelaar, Connor VanDongen, Jack Kregel
Project Introduction

Therapeutic and recreational trike for people with paraplegia or limited mobility

Design Norms:
- Caring
- Stewardship
- Justice
Acknowledgements

- Professor Wunder
- Professor Tubergen
- Progressive Surface
- Boston Square Community Bikes
- TerraTrike
- Foot & Ankle Specialists
- Custom Frame Coatings
- Pierre Vos-Camy
- Phil Jasperse
- Lisa Van Arragon
DisArt
Design Decisions

Frame: New and Improved Design

Before

After
Gears
Leg Bracing

- Knee bracing
  Independent of leg supports
- Supports large enough for shoes, comfortable
Steering

- Independent of hand cranks
- Brake handles connected to steering column
Braking

- Ability to control both brakes with each hand
Current Status
Testing

Completed:
- Turning Radius:
  - 21.1 ft
- Top Speed:
  - 8.92 mph

Upcoming:
- Acceleration
- Braking
Issues Encountered

- Chain Tension
  - Designed Chain Tensioner
  - Developed U-bracket for derailleurs
What We’ve Learned

- Communication
- Plan Ahead
- Utilize Available Resources
- Measure twice, cut once
- Collaborative Design
Questions?