

GNG 2101

Design Day Pitch

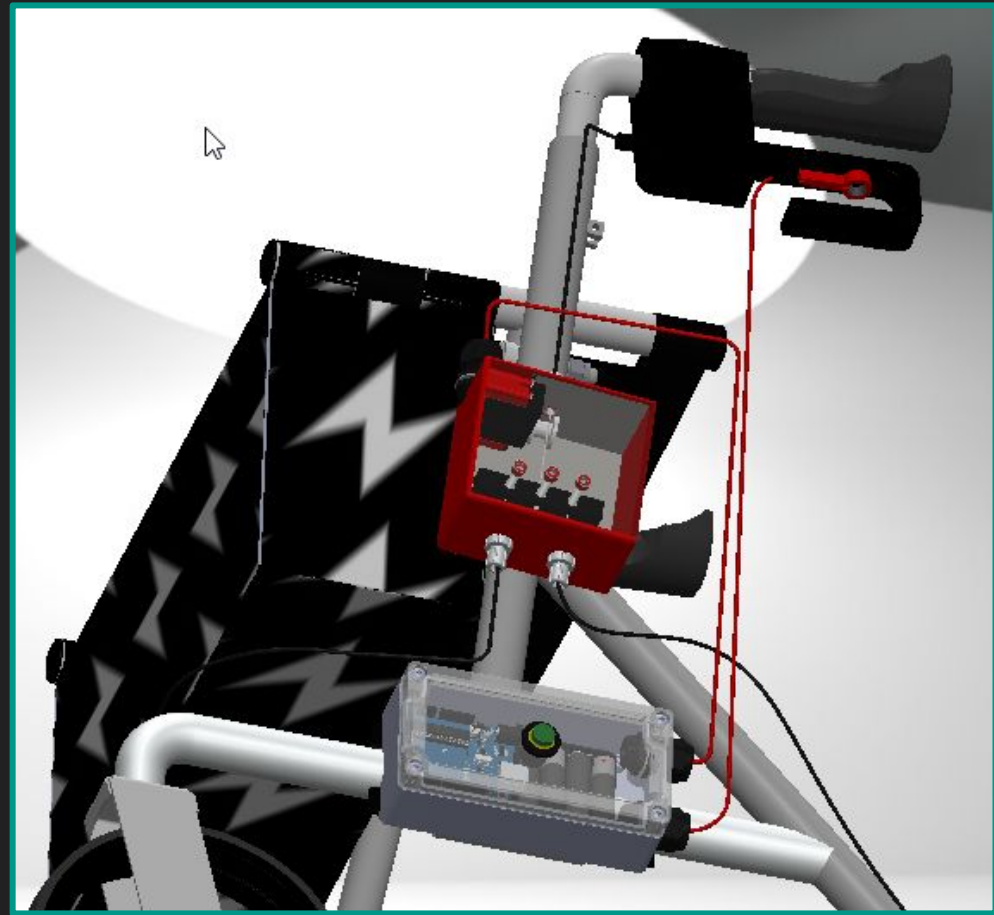
e-Walkers[®] presents the design of a walker brake system

Meghan, Chris, Wyse, Ahsan, Sandeep, Victor

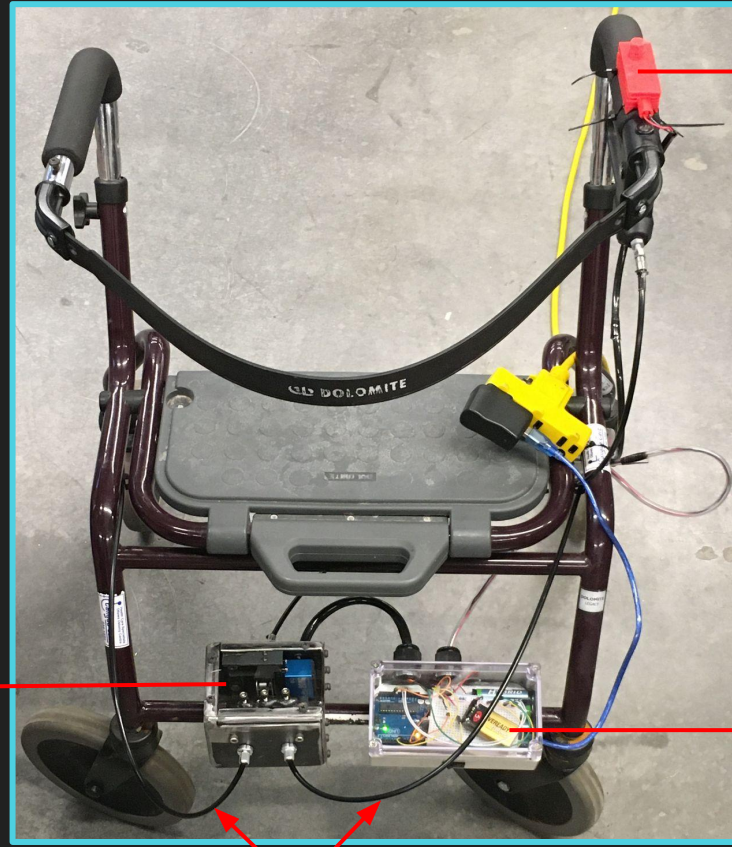
Problem Analysis

- Client has mobility issues as his current walker spins, leaving him unbalanced.
- Client desires a **safe** and a **waterproof** braking system that requires only **1-hand interaction** to stop the walker.
- There are other one handed walker brakes on the market, but they are more expensive.
- Alternative solutions don't include a force sensor.

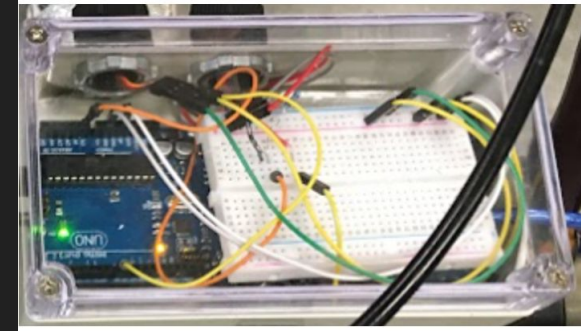
3D Modelled Prototype



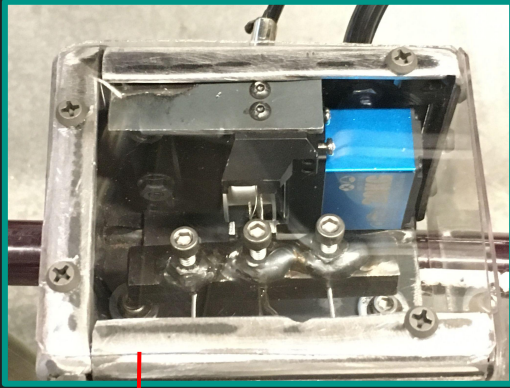
Physical Prototype



Force Sensor



Circuit sealed in a waterproof box



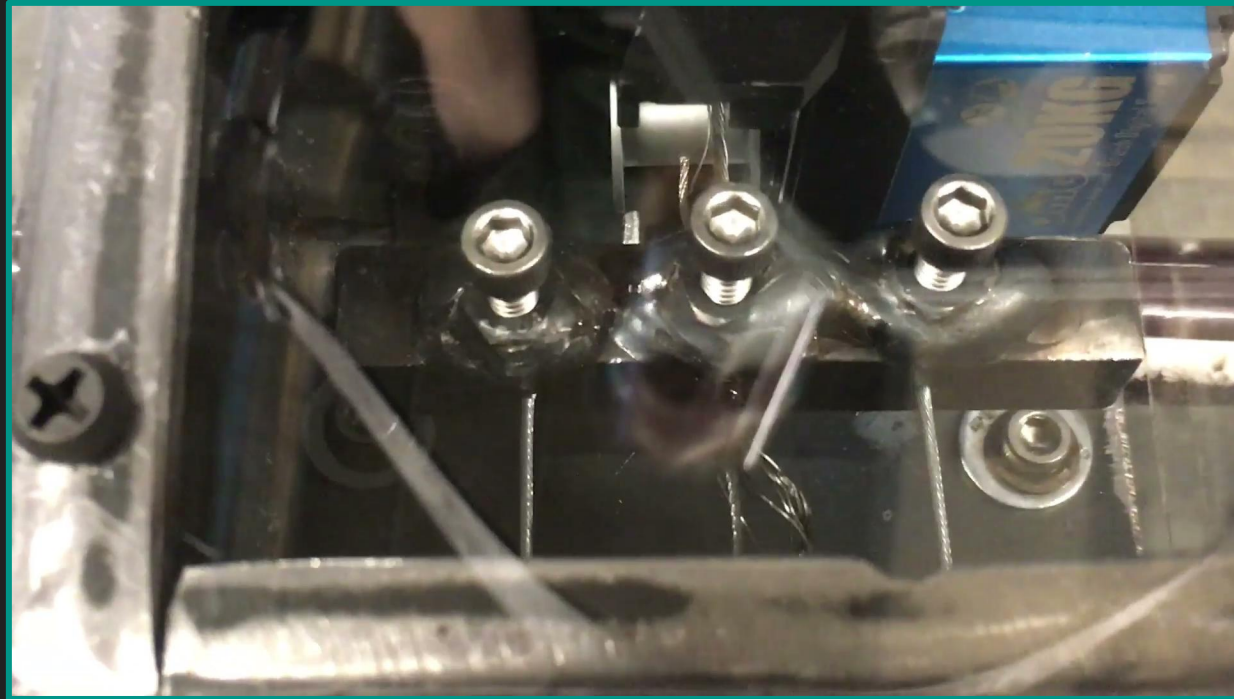
Cable splitter & winch wheel in a waterproof enclosure

Rear brake cables in waterproof tubes

Video Demonstration of Force Sensor / Servo Brake



Video Demonstration of One Hand Brake Lever



Design Criteria

Metric	Test Results
Waterproof	Yes
One-hand interaction	Yes
Safe for client use	Yes

Concluding Statement

Prototype is highly functional & it satisfies all critical needs of the client

Thank You for Your Time

Questions?

