

Group 7 - Mary Turner

Sit-to-Stand Walker

Problem Overview & User Needs

Identify the problem:

The device aims to address the problem of:

1. Limited hip and arm mobility due to cancer
 2. Extreme pain patient experiences in hips and shoulders
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Target User:

1. Those with difficulty standing and sitting due to mobility issues
2. Patients who are recovering from surgeries or cancer damage affecting their movement

User Needs:

1. Able to help support user
2. Safe with little risk of injury
3. Comfortable for daily use
4. Easy for patient to use or operate
5. Portable
6. Able to be used independently at home

Concept Overview, Prototype & Testing Plan

Device concept :

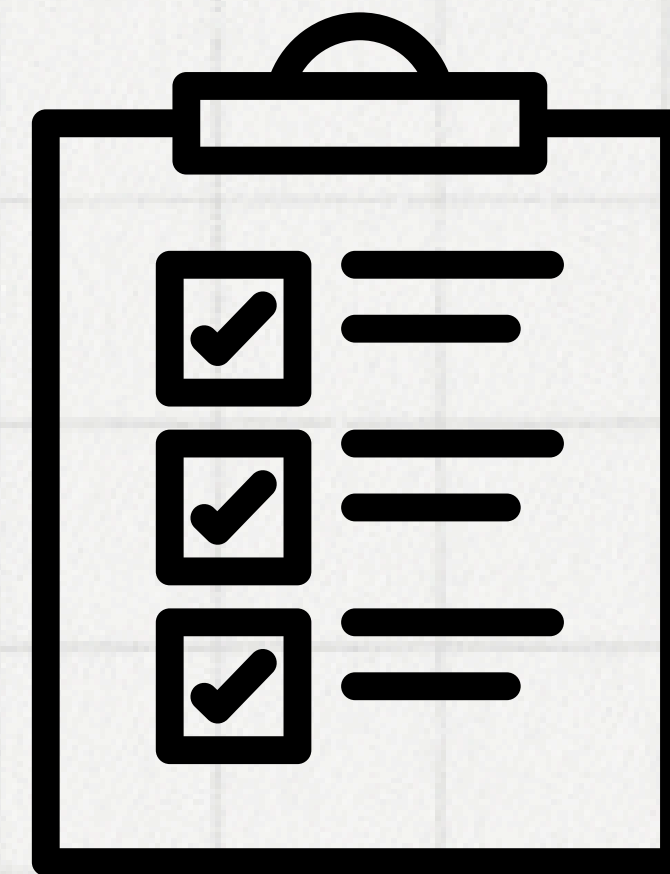
A portable sit-to-stand device that eases the strain in the transition to standing from a sitting position

Key Features:

- Adjustable seat from sitting, laying down and standing positions
- Handle and wheels that lock to move chair around easily

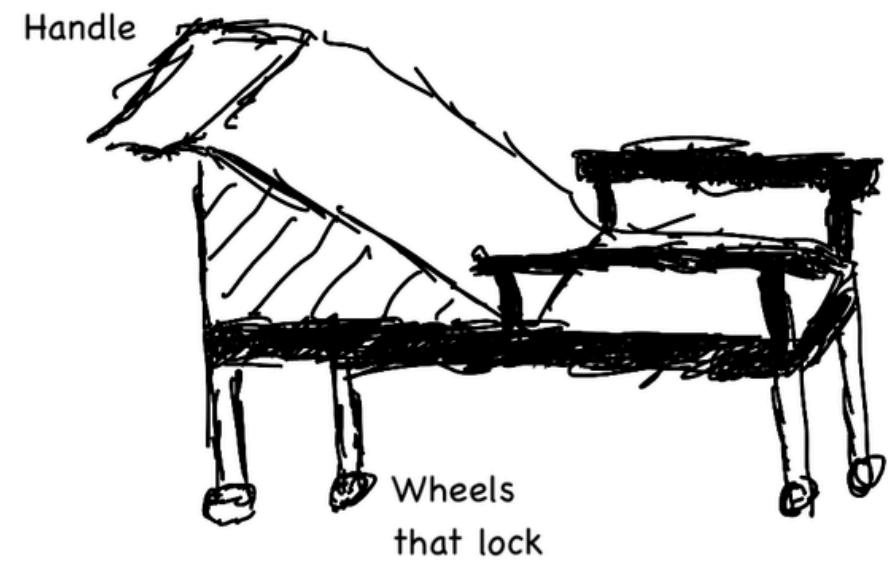
Testing Plan:

- Tests will be conducted to ensure device's functionality and comfort based on feedback
- Performance tests and weight resistance testing will also be conducted on CAD design of refined prototype
- Testing Plan will occur over the course of the next 4 weeks

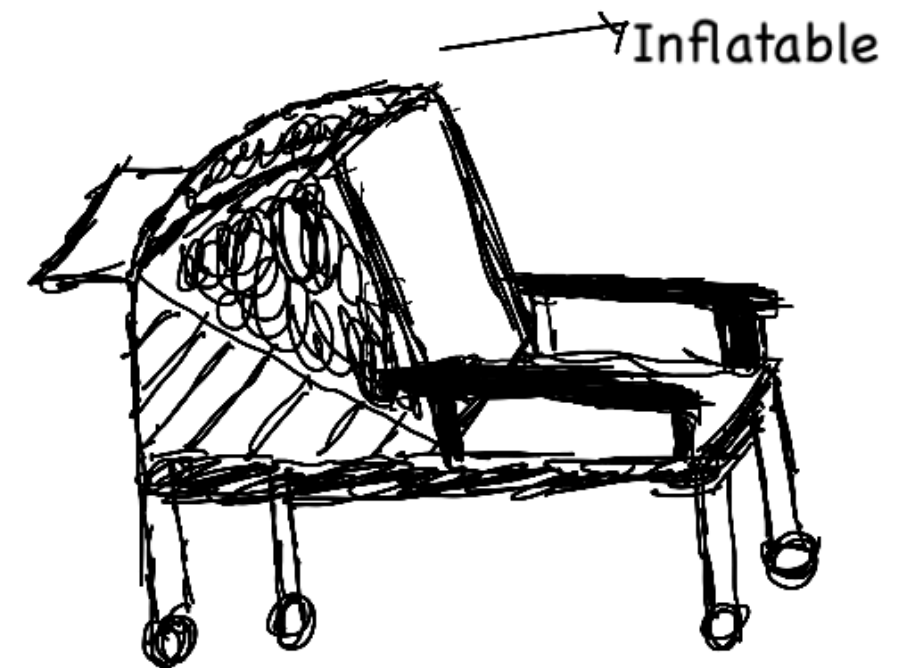


Storyboard

Lying Down



Sitting up



Standing Up

