

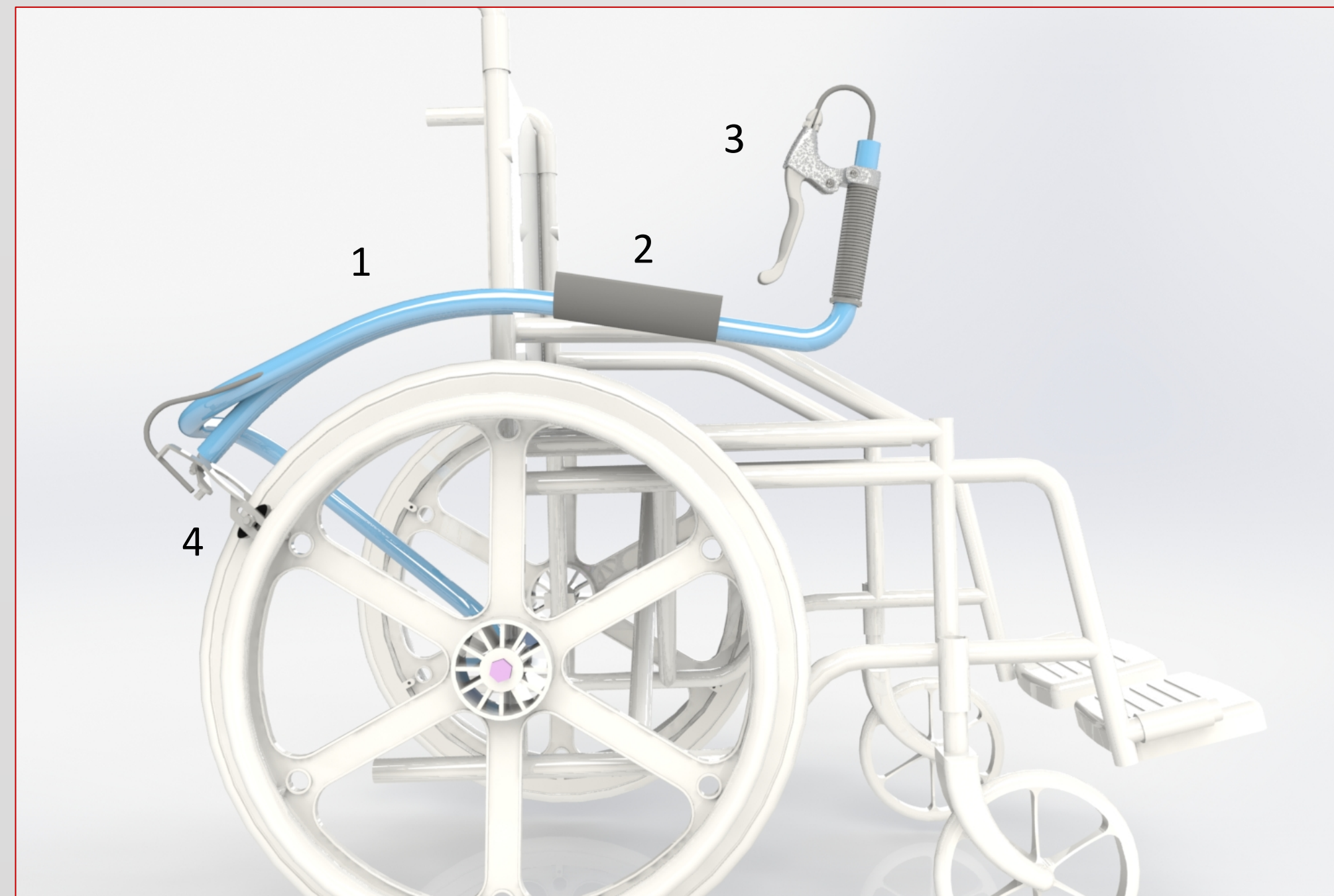
Manual Patient Operated Wheelchair Rehabilitation Device

Goals & Innovation:

Manufacture and create a prototype of a wheelchair rehabilitation device that can be detached from the wheelchair and transported independently.

Computer-Aided Design Model

The CAD Model below displays different viewpoints of the design.



Key components to the design:

1. Lever
2. Arm Rest
3. Brake Clutch
4. Brake Pad

Timeline:

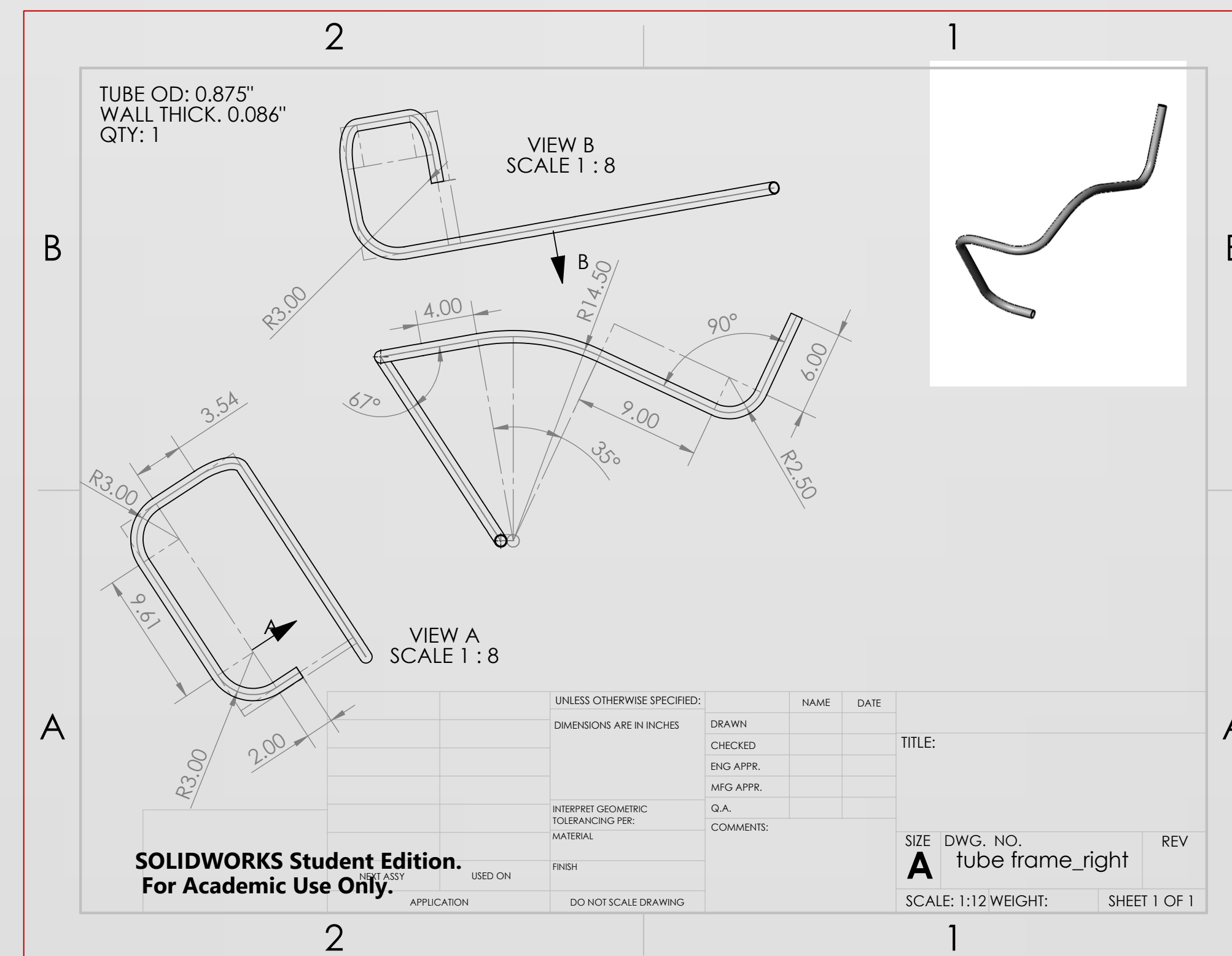
- Week 3:** Deliver Drawings to Tubing Fabricator
- Week 5:** Receive Tubing from Fabricator & Weld Frame
- Week 7:** Deliver and Receive Frame from Powdercoating Vendor
- Week 9:** Final Assembly
- Week 11:** Assembly Complete

Sponsors:

- Tube Technology** – For tube bending for frame
- Precision Powder** - Powder coating frame

Technical Drawing:

Pictured below is the drawing for the right lever arm, the main component of MPOWRD, with three views. There is a complimenting symmetric piece for the left lever arm.



Budget: \$300

- Fasteners** - \$100
- Metal/Plastic Stock** - \$0
- Mechanical Components (Bearing, cable)** - \$200

Progress:

Pictured below is the prototype assembly of our design.



Team:

- Team Manager: Selina Eich, seich@uci.edu
- Purchasing Manager: Scott Bahl, snbahl@uci.edu
- Safety Officer: Kevin Pelletier, pelletik@uci.edu
- Document Manager: Lawrence Hipolito, lhipolit@uci.edu
- Advisor: David Reinkensmeyer, dreinken@uci.edu