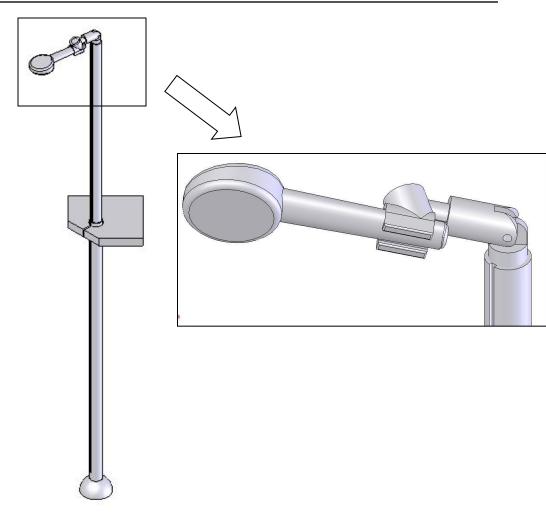
Mockup Review Orange A

Remote Shower Head

Objective

Create a device that will facilitate independent showering for those who take seated showers



Key Risks

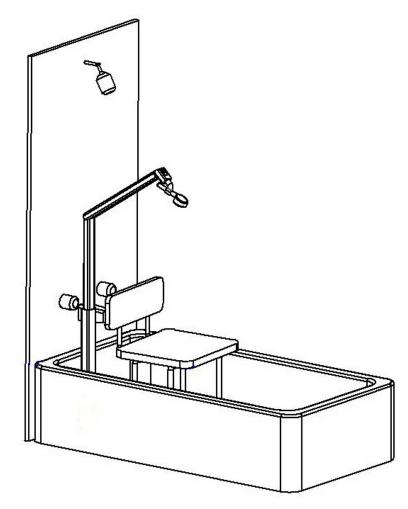
- Address customer needs
- Mechanical Design
 - Developed control system
 - Desired range of motion
 - Safety and waterproofing

Customer Needs

- Reach all body parts
- Adjustable while showering
- Intuitive to use

Proposed Product Design

- Reach front, back, and legs
- Remote/assisted actuation
- Back-drivable
- Fit in shower or bath



Risk Assessment

Complete

- Range of motion in shower head
- Height-adjustable

Incomplete

- Manual height adjustment
- Improved range of motion
- Waterproofing

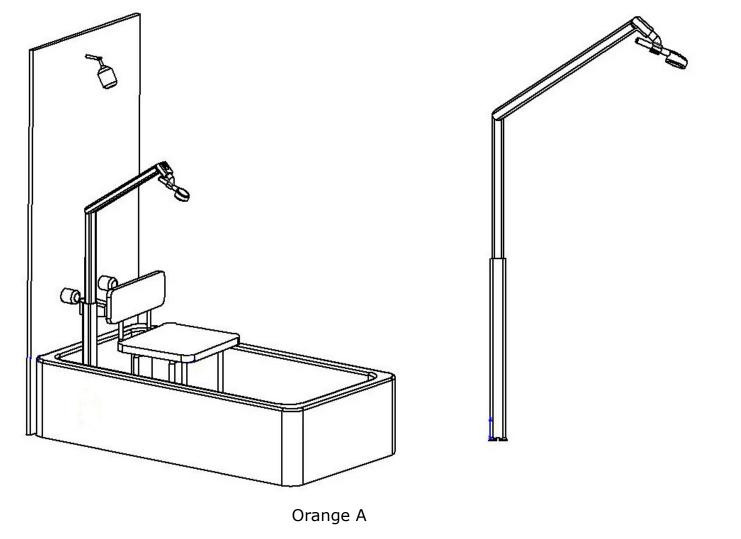
Mechanical Mockup Results

- Desired motions are possible
- Sizing is appropriate
- Actuation was not as smooth as desired
- Learned that speed needs to be carefully specified

Contacts

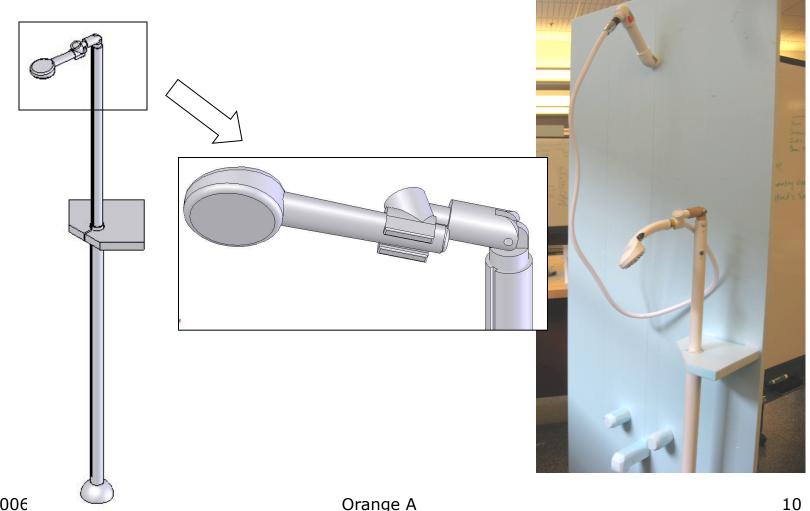
- Murray and Phyllis Kusmin
- Jose Luis Naranjo

Visual Concept



Fall 2006

Design Approach



Fall 2006

Orange A