

# wheelchairASSIST

mock-up review

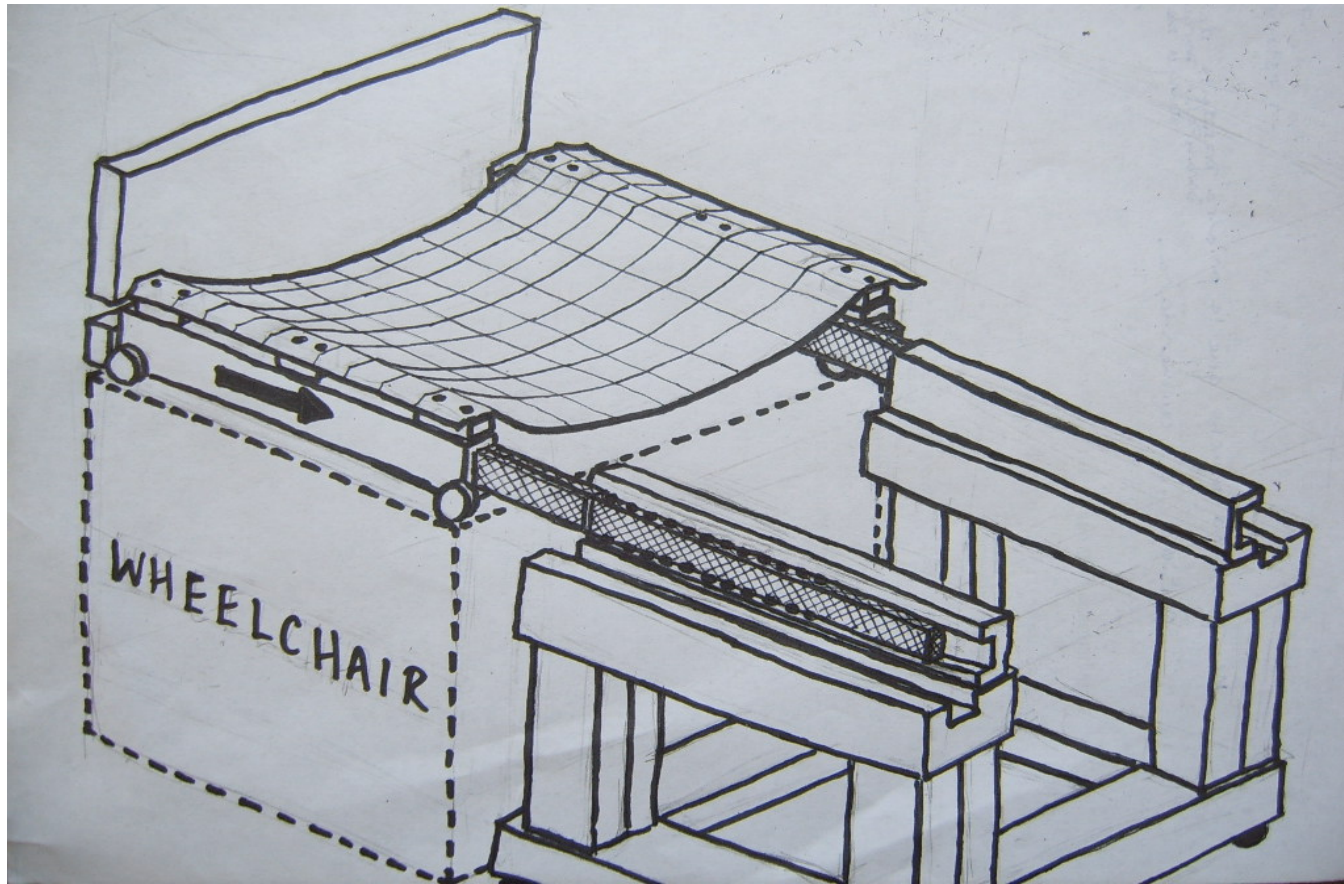
## 2.009 – Team Blue A

Andrew Bishara    Adelaide Calbry-Muzyka    Kwame Hall    Michelle Lustrino  
Jennifer Moore    Nicole O’Keeffe    Sam Phillips    Sarah Shieh

October 16, 2008

# product overview

*aiding caregivers transferring wheelchair users*



# technical features

- low force, low friction system to transfer user
- able to support up to 150 kg
- height and rotation adjustable to allow for versatile transfer options
- comfort, safety, and support during transfer

# target market

- **Caregivers**

- Approx. 2 million wheelchair users in the United States
- Nearly 60 percent of wheelchair users are overweight

- **Nursing Homes**

- 1.5 million occupants in the United States

# product contract

- **Product Description:** Portable slide mechanism for transferring wheelchair users
- **Intended Customers:** Caregivers and Nursing Homes
- **Market:** Wheelchair Transfer Devices

<b>Customer Needs</b>	<b>Product Attributes</b>
Move wheelchair user to various locations	Versatile Directionality
Lift user to various heights	Lifting Capability
Easy to use	Light, Low Force to Move
Convenient to store	Size, Collapsibility
Support the user safely during transfer	Safety

# risks addressed

- **Seat Option Changed--from pad to cloth**
  - *Benefits:*
    - Risk of infections reduced
    - Alignment is no longer a concern
    - Seat is less obtrusive
    - Allows for collapsibility
- **Integrating into Wheelchair, Ergonomics and Kinematics**

# future design challenges

- Torsional bending of railings
- New method of suspension
- Load, support a 150 kg person

