liftAcart

sketch model review

2.009 – Team Blue B

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the problem

When buying heavy goods from a warehouse store such as Home Depot, it is extremely difficult to bring out the items and load them into your car.
the idea
the design

- Lifting Mechanism
- Cart-length bed
- Easy to operate
- Safe
market

- Do it yourself homeowners: about 50% of Home Depot customers
- Buying heavy materials for the home
- Typically owning trucks and SUVs
- Has at least some difficulty with heavy lifting
existing products

Problem: not many in store … high demand
customer opinion

• High interest in a lifting cart design
• Easy to use
• Safe to use
• Simple design ... not an intimidating product
Home Depot opinion

• Primary contact
• High interest as well
• Concerns:
  – Expensive
  – Liability issue with customers: must be safe and easy to use
design issues

• High friction with pulley
• Cantilevered bed
• Friction on the sliders
other design possibilities

- Foot pedal ratchet
- Rack and Pinion
- Lead Screw
- Hydraulic Pump
questions?