

liftAcart

sketch model review

2.009 – Team Blue B

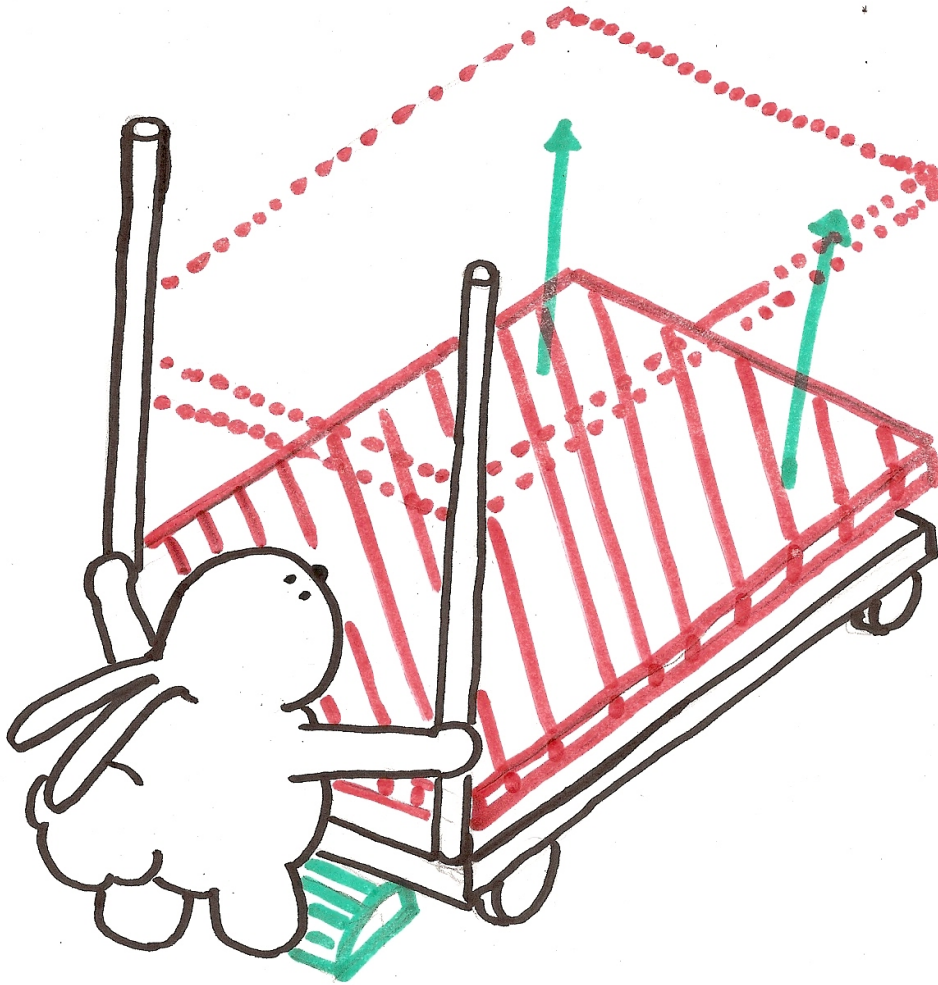
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the problem

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?