

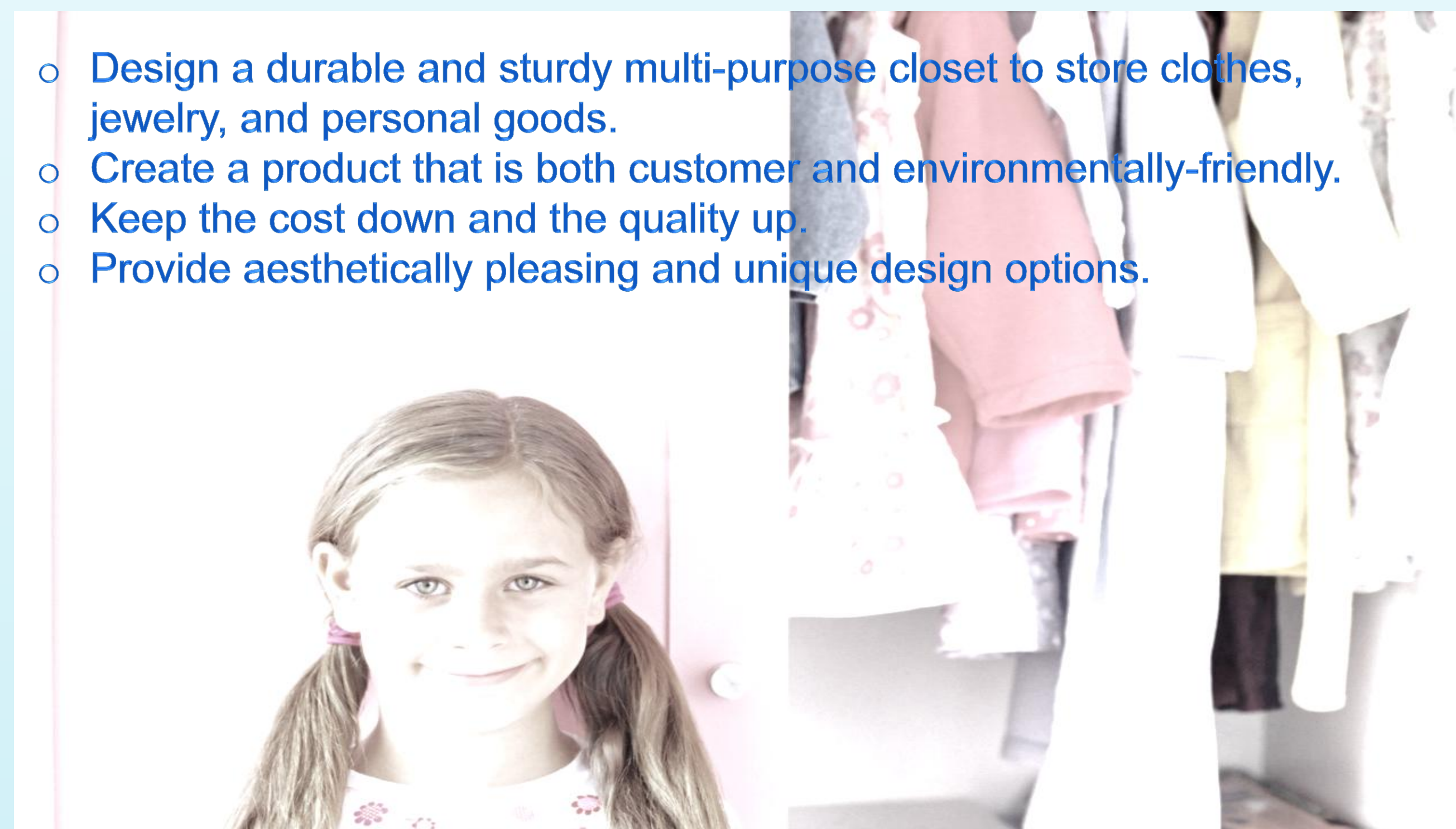


PROJECT MISSION

"Our mission is to design a multi-purpose closet that is not only sturdy and durable, but also mobile and environmentally-friendly. An inexpensive closet of this type is in high demand, and we are seeking to fill the void in the market."

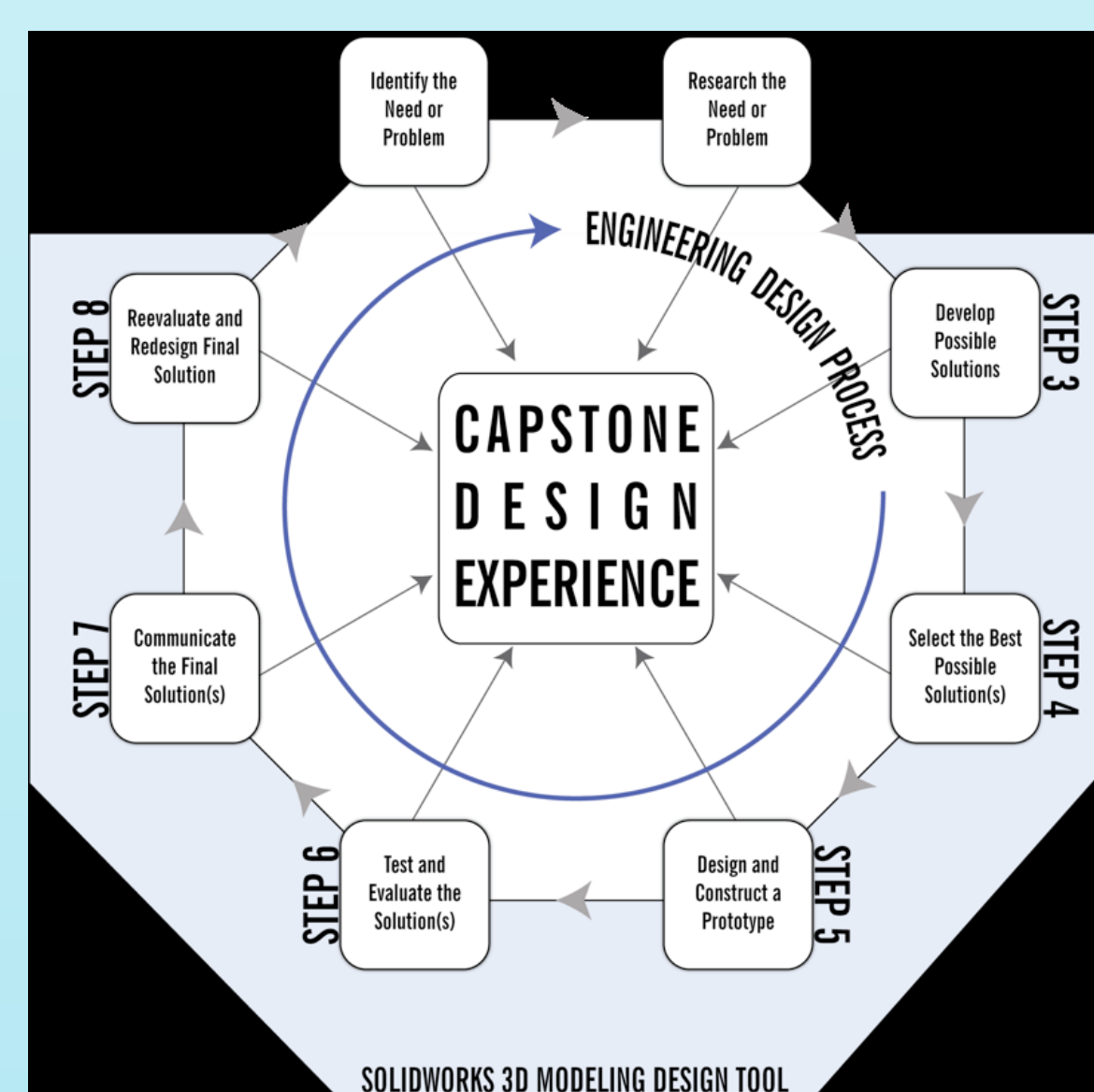
PROJECT GOALS

- Design a durable and sturdy multi-purpose closet to store clothes, jewelry, and personal goods.
- Create a product that is both customer and environmentally-friendly.
- Keep the cost down and the quality up.
- Provide aesthetically pleasing and unique design options.



PROJECT PLAN

Our plan was to use the EDP to create a well-designed, cost-effective, and unique mobile closet. After researching possible solutions, team members brainstormed new ideas. Work was then broken into individual tasks which were carried out overnight. On the following day we came together, reviewed the work, and proceeded to CAD to design the closet.



POSSIBLE SOLUTIONS

Idea #1: Suitcase Closet

- Suitcase on Wheels
- Closes up into a regular suitcase
- Good for business travel
- Wheels for easy mobility
- Separate designs / models for separate sizes
- Holds only clothes that can fit in suitcase
- Expensive materials
- Models on the market are bulky and expensive

Luggage Move Mobile Closet by Max Mirani



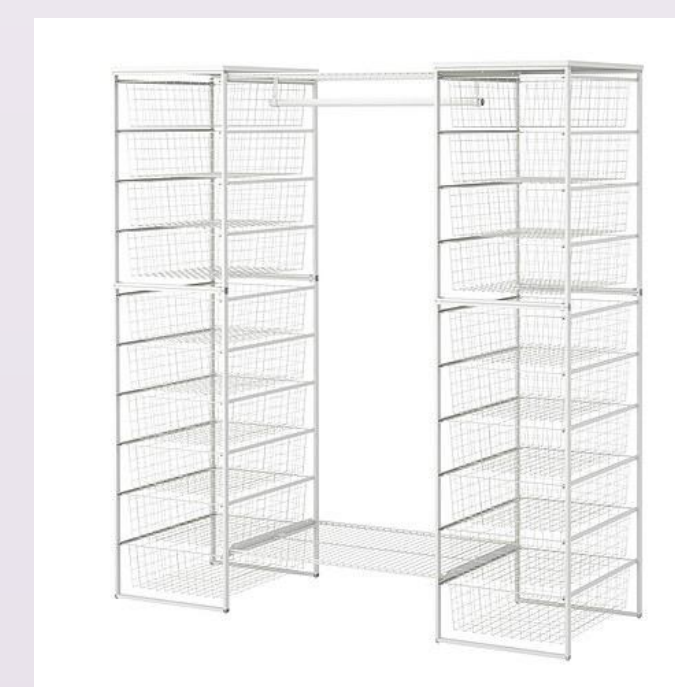
Traveler's Closet by Psychic Factory



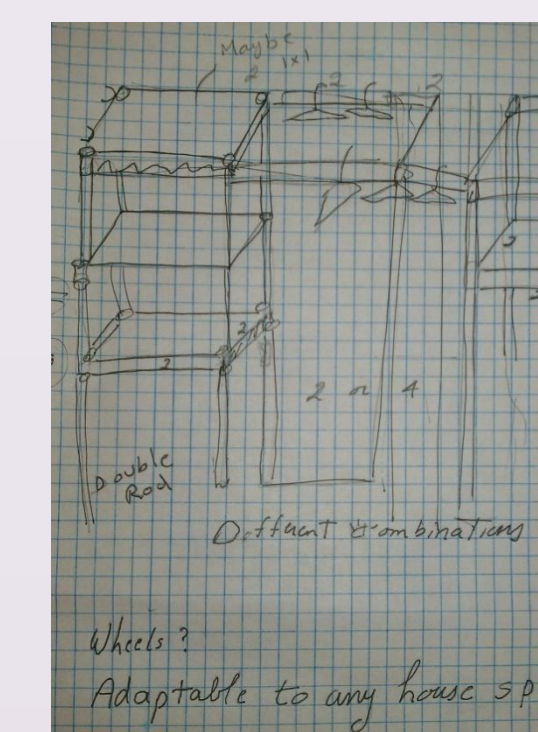
Idea #2: Modular Closet

- Can be broken down into smaller pieces
- Option for wheels
- Can construct (variable shape and size) based on preference
- Assembly required
- Inexpensive
- Few raw materials necessary
- Many variations exist on the market already

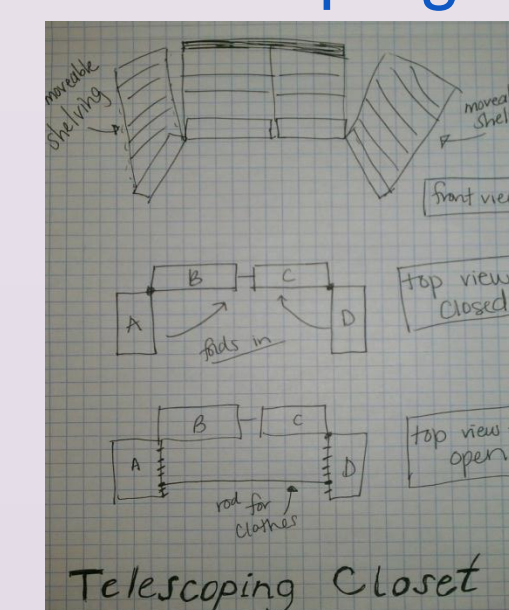
Antonius, 3 sections by Ikea



Our Modular Design



Our Telescoping Design



BEST SOLUTION

Idea #3: Telescoping Closet – 2 Models

Polyethelene Low-Density Plastic (LDPE)

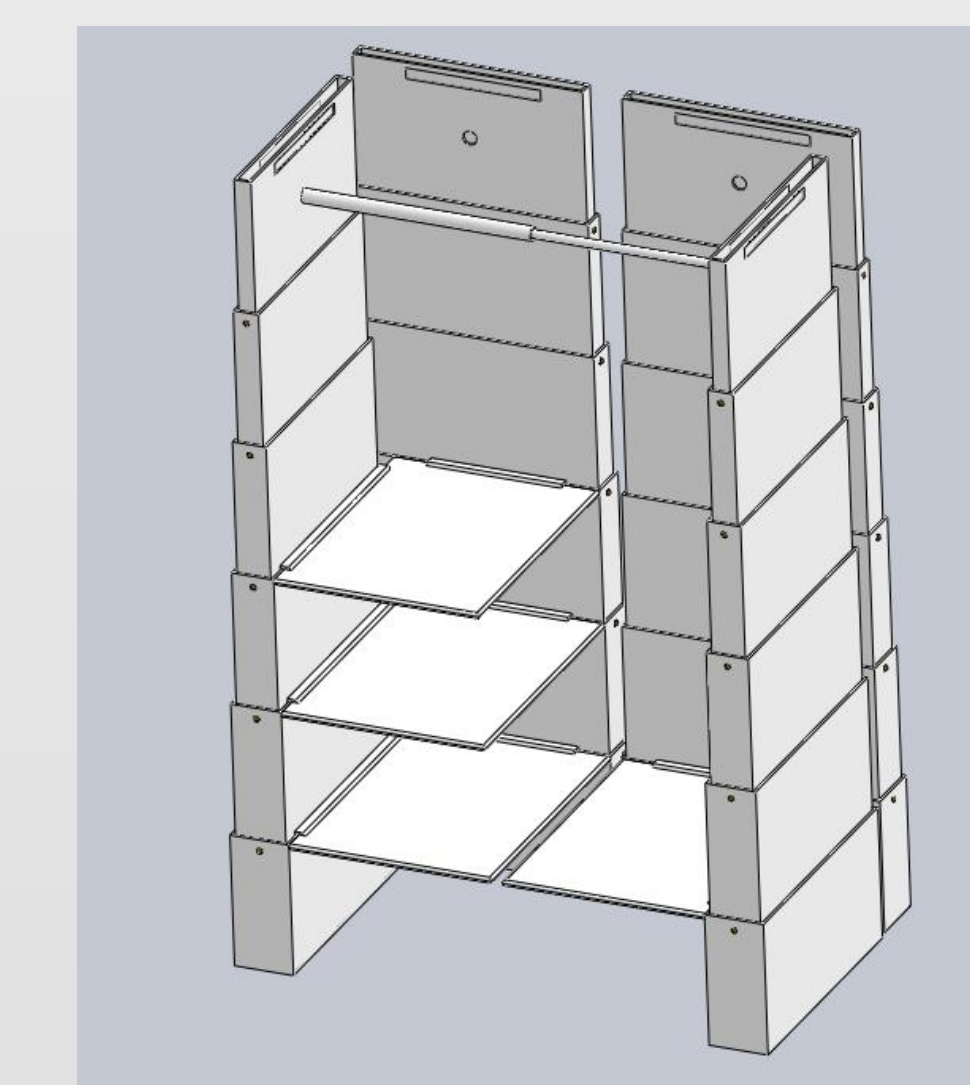
- Weight: 190 lbs
- Fully assembled: 4' x 6'
- Compacted: 24" x 26.5" x 17.25"
- Shelves (4) and retractable handle
- Room for variable lengths of clothing, shoes, and personal items

Pine

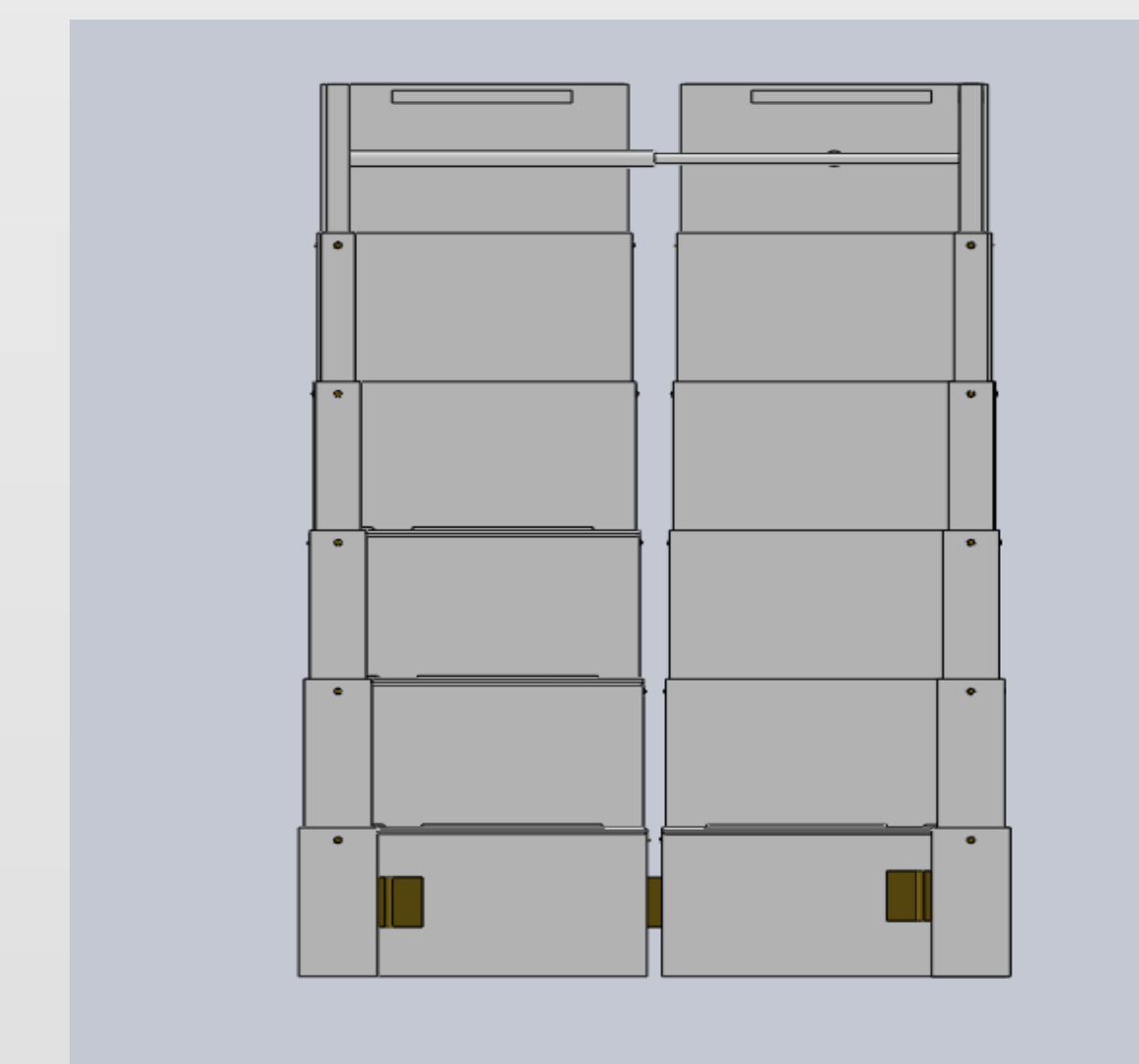
- Weight: 72 lbs
- Fully assembled: 4' x 6'
- Compacted: 24" x 26.5" x 17.25"
- Shelves (4) and retractable handle
- Room for variable lengths of clothing, shoes, and personal items

FINAL DESIGN

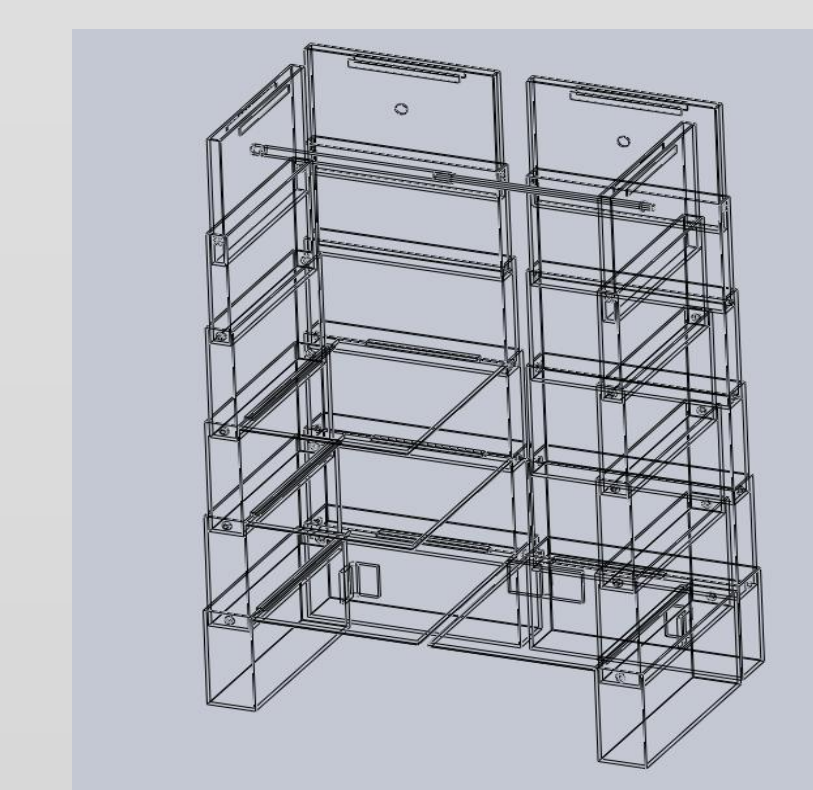
Front View



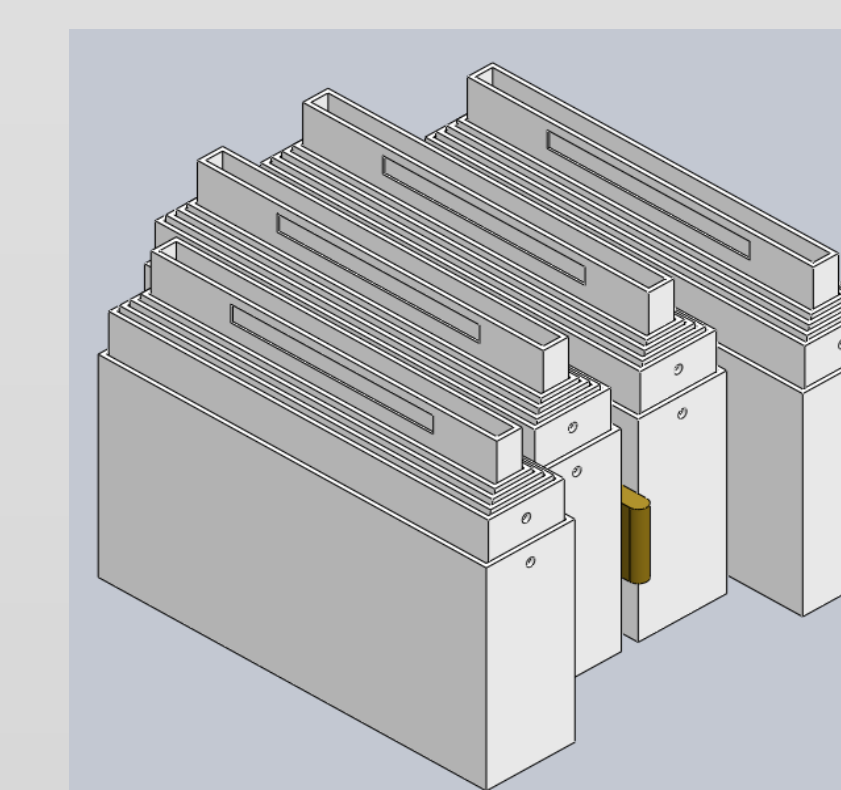
Back View



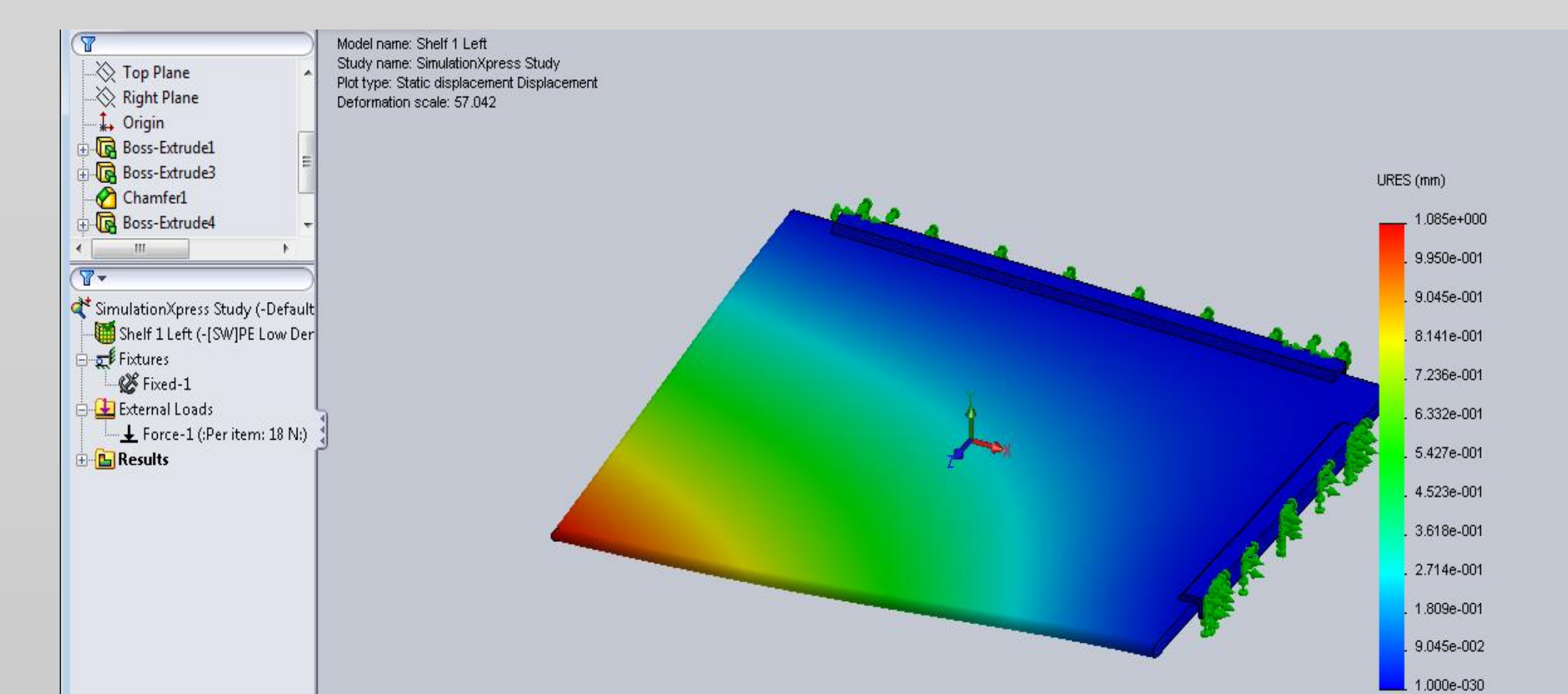
Schematics



Compact View



PROJECT EVALUATION



Displacement, 18N, 4lbs, LDPE (plastic)

LESSONS LEARNED

- Communication is essential
- Cooperation and collaboration are key
- Brainstorming with people of different expertise leads to creativity
- Process is important – the EDP is useful for structuring a group project
- Informed trial and error leads to better production
- End products should be cost-effective, easy to manufacture, and marketable