For our Engineering Design Class, we were divided into groups and given two design projects. The first project was to design a Coffee Mug for people with disabilities; specifically people with one or no fingers. The first thing we had to do was the Customer Needs Ranking and our Missions Statement; deciding as a group what was most important for our customers and who our target customers were. Using an AHP table.

Coffee Mug Design Project

Hierarchy Homework

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1. User Friendly
   1.1 Safe
   1.2 Reliable
   1.3 Durable, doesn’t break easily
   1.4 Different sizes
   1.5 Customisable, different colors

2. Care
   2.1 Easy to clean
   2.2 Microwave-safe
   2.3 Stain resistant

3. Cost Efficient
   3.1 Minimal parts
   3.2 Retail under $5
   3.3 Retail friendly, sold in stores
   3.4 Sold in bulk, coffee shops to sell individually

4. Small Footprint
   4.1 Non-toxic, eco-friendly material
   4.2 Recycled material

5. Portable
   5.1 Lightweight
   5.2 Flexible
   5.3 Cup-holder friendly
   5.4 Spill-proof

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Next, we needed to come up with a few concepts for the different parts required.
And then select which concept was the best and create a Solid Works Prototype.