MI 450 Final Presentation

MI 450 Spring Semester 2017

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What's the Problem….?

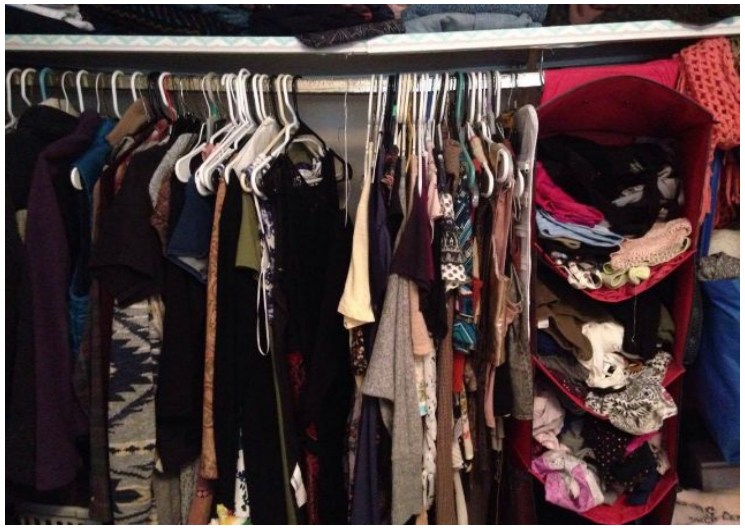
- Getting dressed in the morning is hard. In the ever changing world of fashion, weather condition, events to attend… sometimes we just get overwhelmed by the world of clothes. Often, people forget the many combinations available to them just waiting behind their closet doors. Wouldn't it be nice if something helped us make those pesky fashion decisions, organized our clothes and made for a more efficient way to get dressed? There must be something…

Interviews

- What do people want?
- Who would use this..? (Not just women!)
- What issues do people have in this area?

Findings

- People often forget about items in closet
- Aren’t sure what is appropriate to wear
- People felt unorganized, unmotivated, unprepared



Scenario 1

Person wakes up late to work and needs to get dressed immediately
- -speed is the focus
- -allows people to make decisions before they are in a rush

design choices
- -the function has to be immediate
- -make it more like planning than exploration

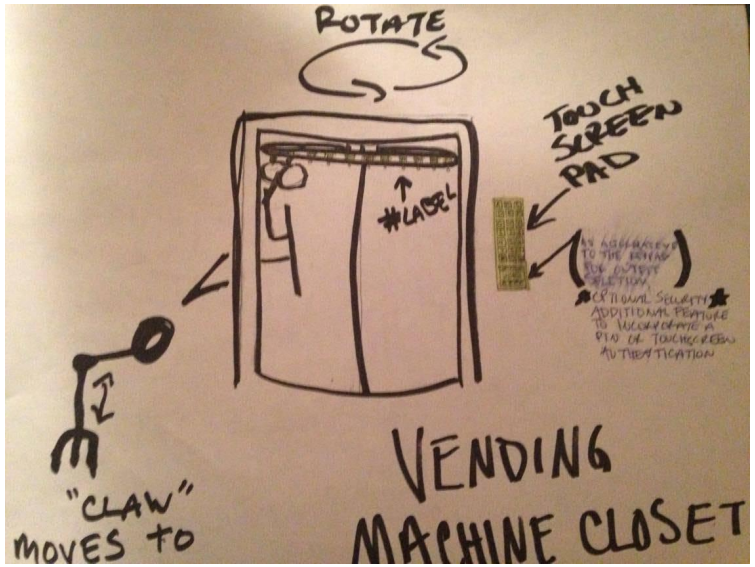
Scenario 2

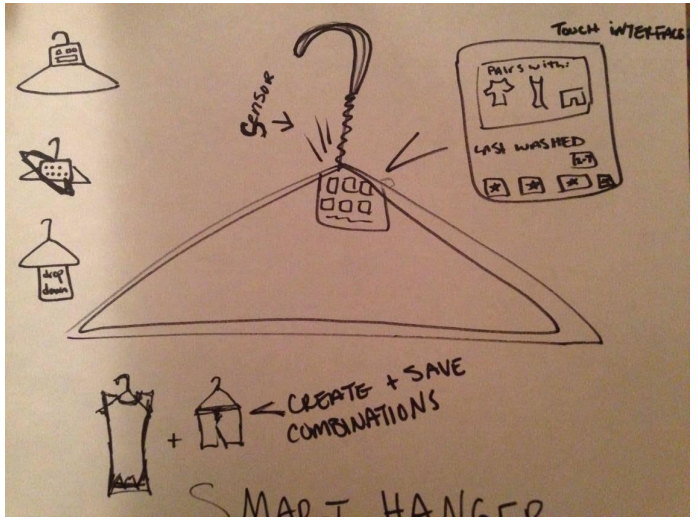
Person wants to explore their closet
-highlight things that normally aren’t visible
-give information on the clothing

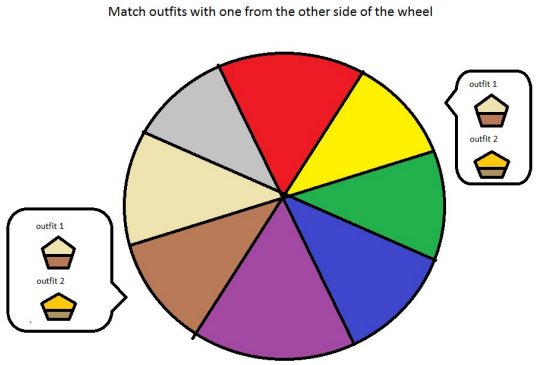
design choices
-give as much information to the user as possible
-recognition rather than recall

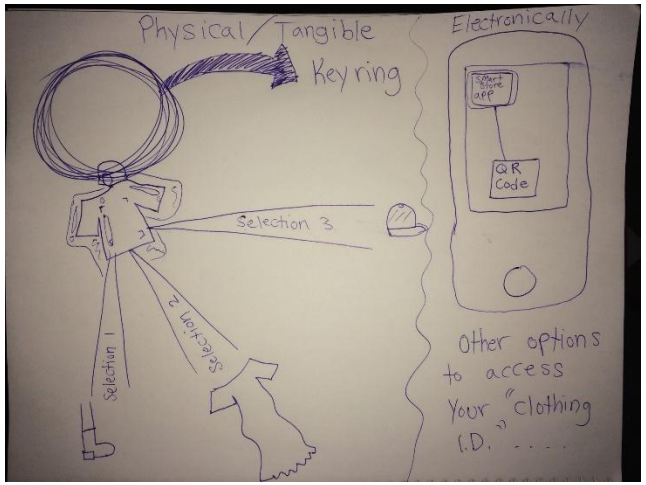
Initial ideas

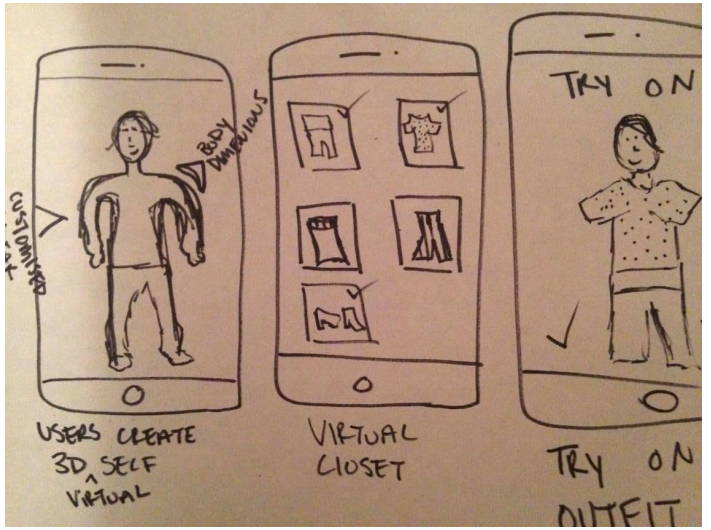
- Smart hanger
- Vending Machine closet
- Fashion app
- Retail vs in the home





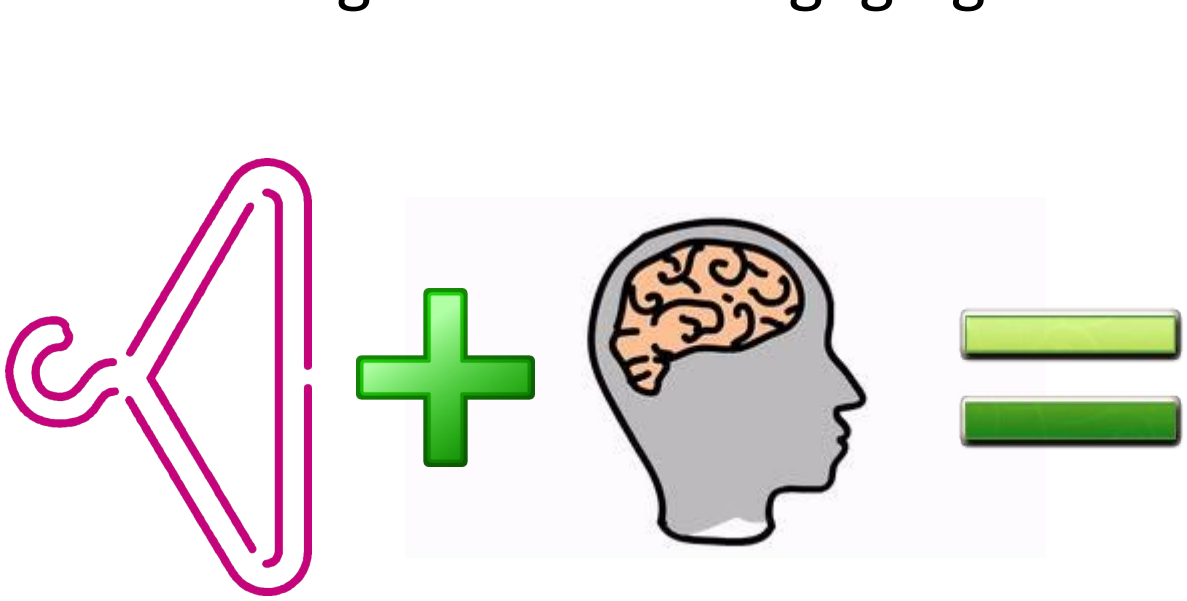






Solution

Not just “another app” + physical interaction between user and clothing in closet + engaging & informative = SMART HANGER!

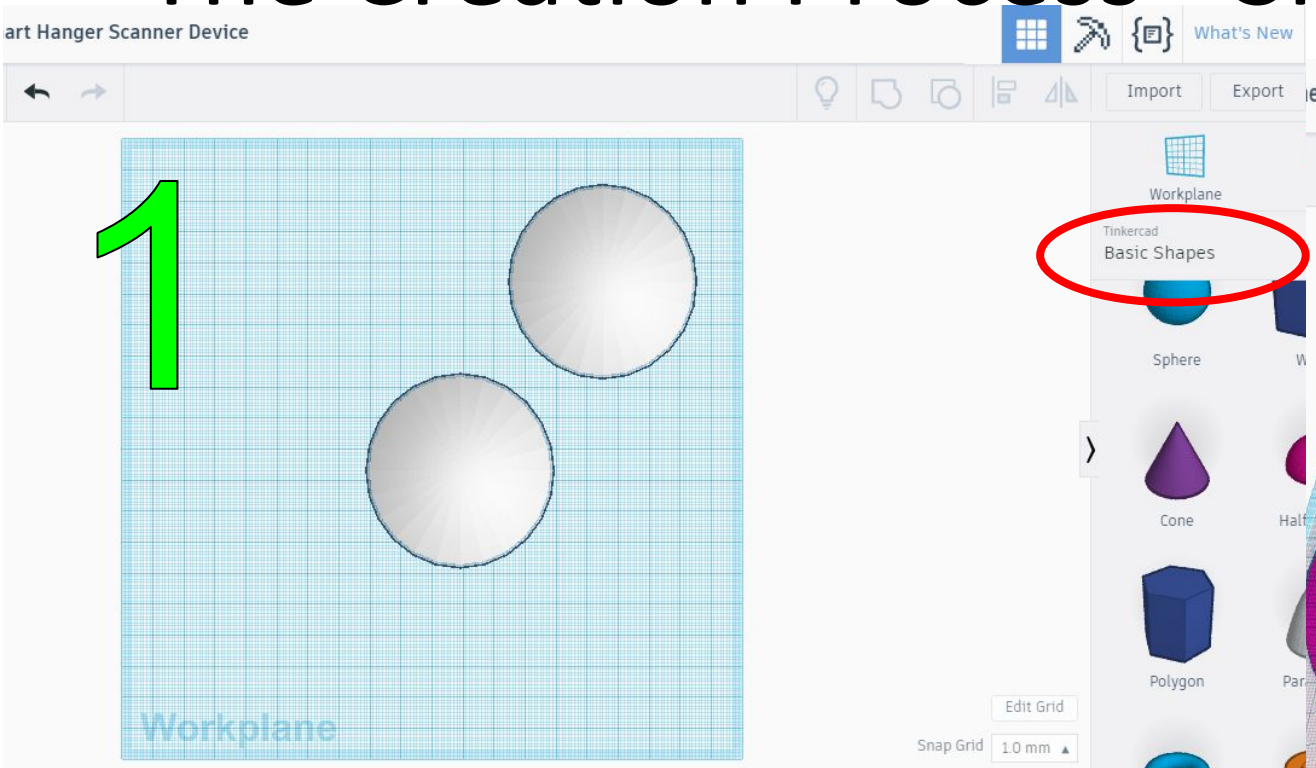


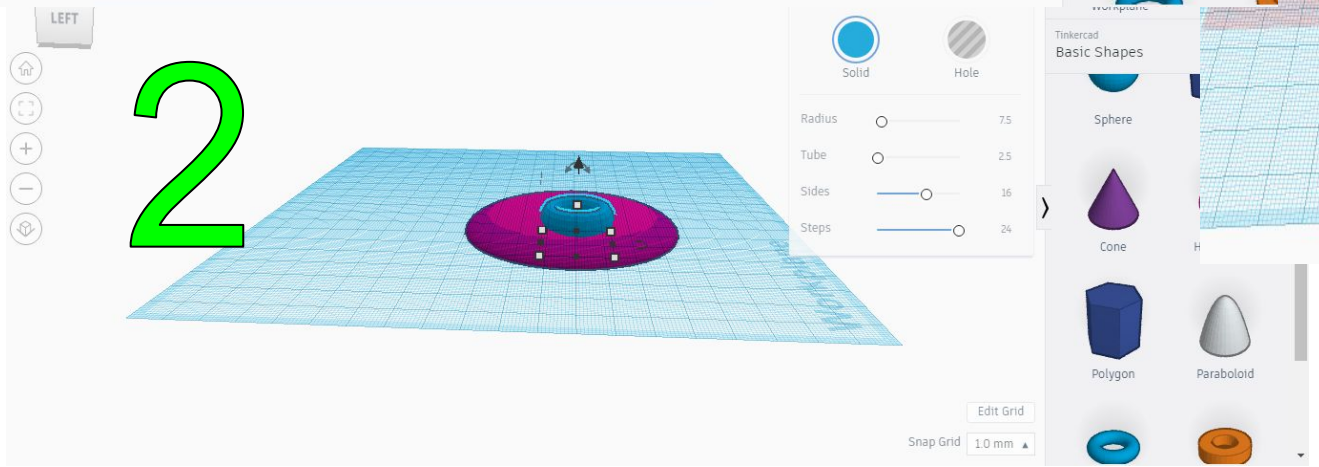
What is the SMART HANGER?

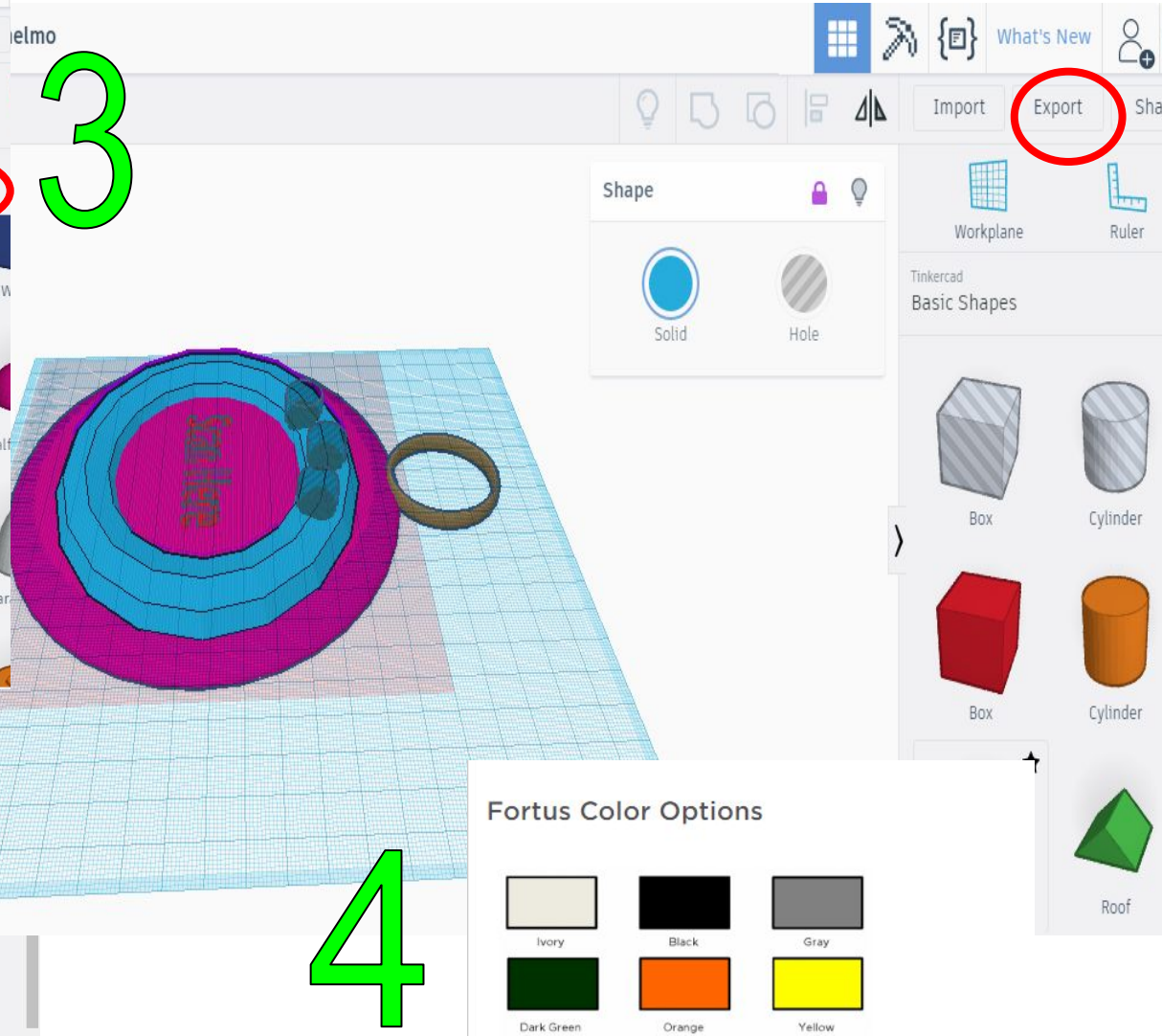
Internet of things: Interconnectivity

- Fuses physical with virtual
  - “Tag”-looking device can be looped on hanger
- More unique, fun, simple
- Better environment for user, beneficial

The Creation Process - Smart Hanger Device







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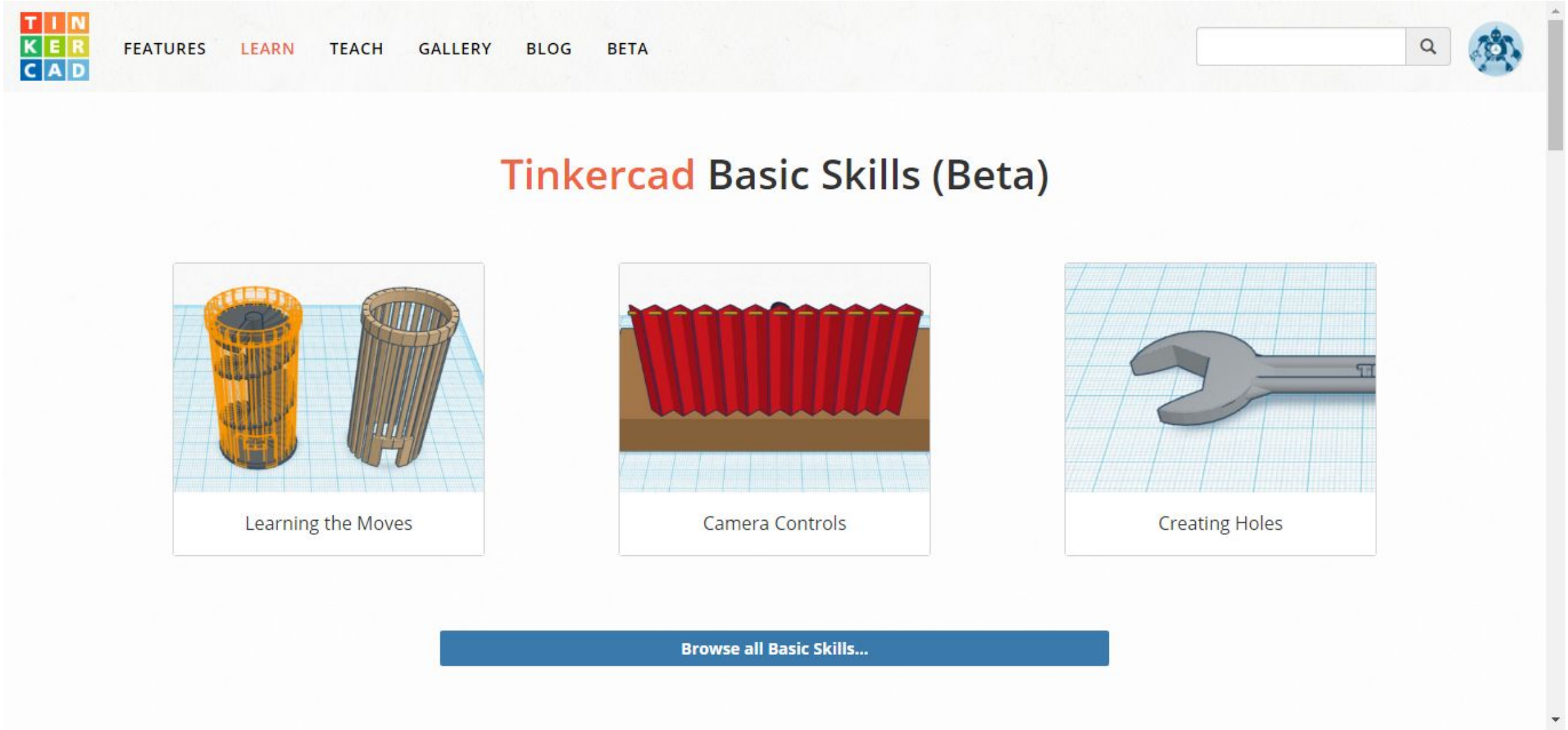
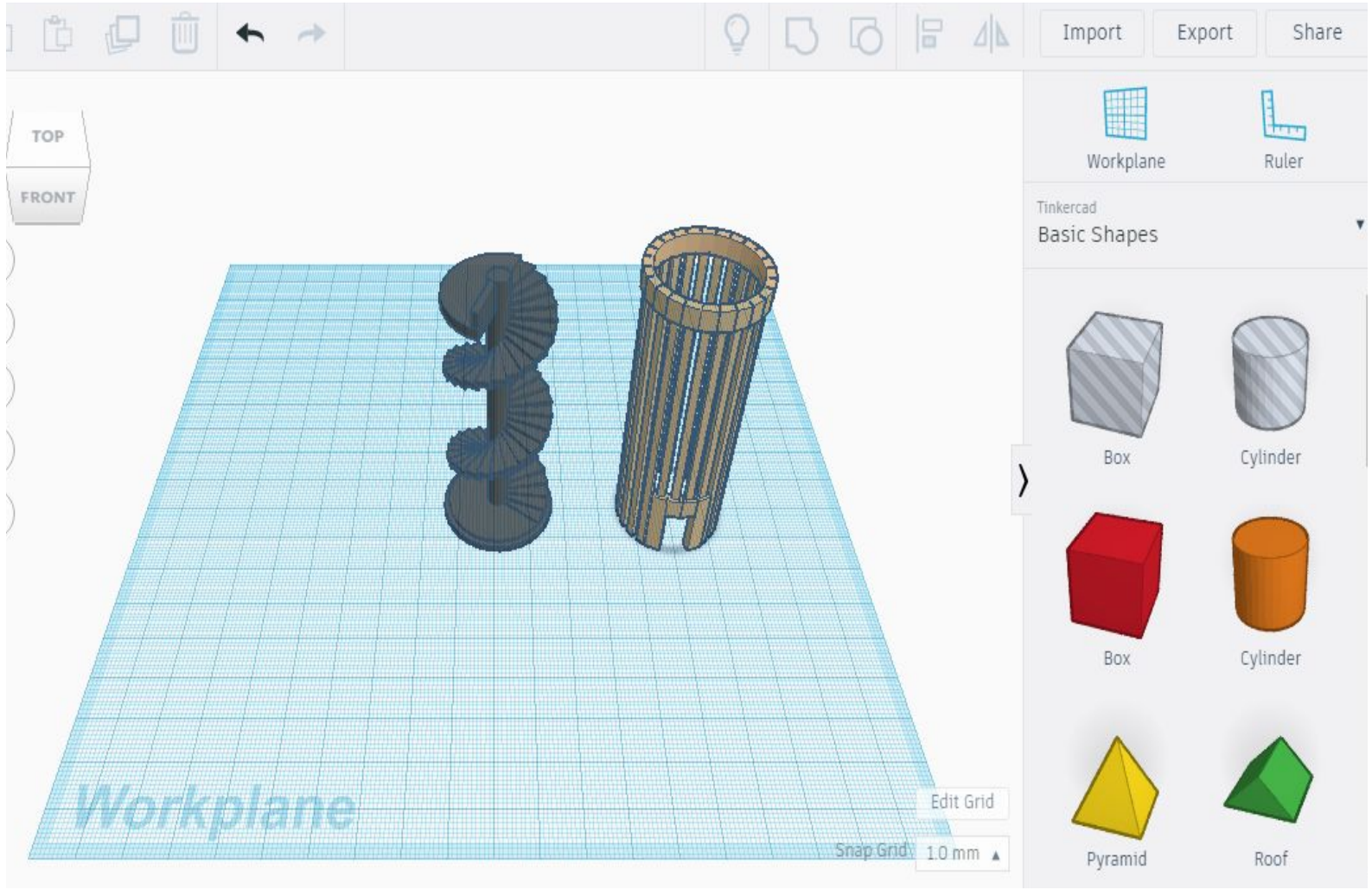
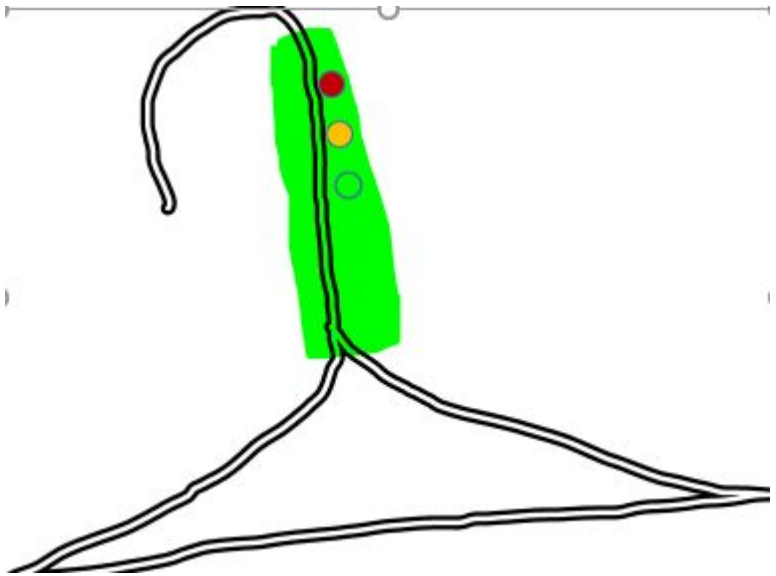
The Creation Process - Smart Hanger Device



Smart Hanger Prototype Revision 2…….



- A more natural fit



Our Virtual Prototype -App mock up

Smart hanger prototype lighting

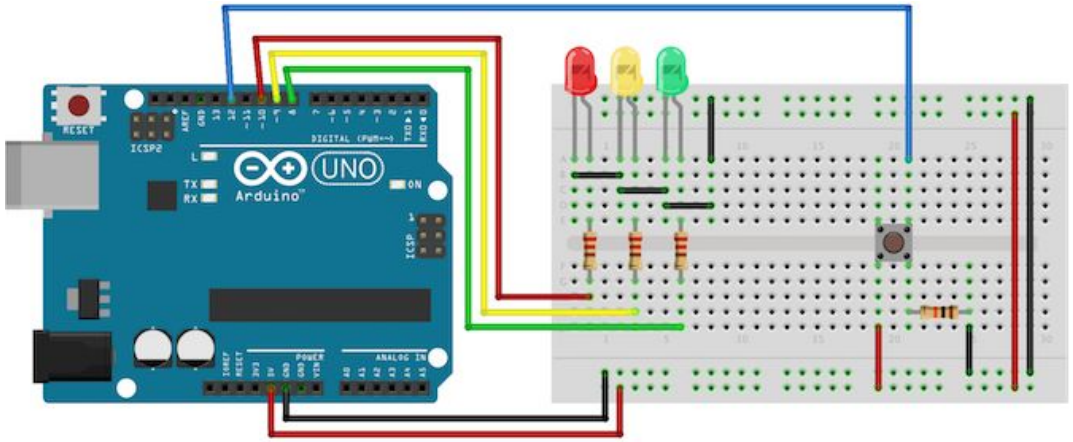


Image from : http://www.makeuseof.com/tag/arduino-traffic-light-controller/

MI_450_Project_Test | Arduino 1.8.2

File Edit Sketch Tools Help

MI_450_Project_Test

```
{
  // cycle through the 3 channels
  for(int i = 0; i < NUM_COLORS; i++)
  {
    pinMode(PIN_COLORS[i], OUTPUT);
    pinMode(PIN_BUTTNS[i], INPUT);

    analogWrite(PIN_COLORS[i], 255);
  }
}

void loop()
{
  // cycle through the 3 buttons/channels
  for(int i = 0; i < NUM_COLORS; i++)
  {
    byte button = digitalRead(PIN_BUTTNS[i]);

    if(HIGH == button)
    {
      if(VAL_COLORS[i] > 0)
      {
        TIMER_COLORS[i] += DELAY_TIME;

        if(TIMER_COLORS[i] > COL_INTERVAL)
        {
          VAL_COLORS[i] -= COL_VAR;

          TIMER_COLORS[i] = 0;
        }
```

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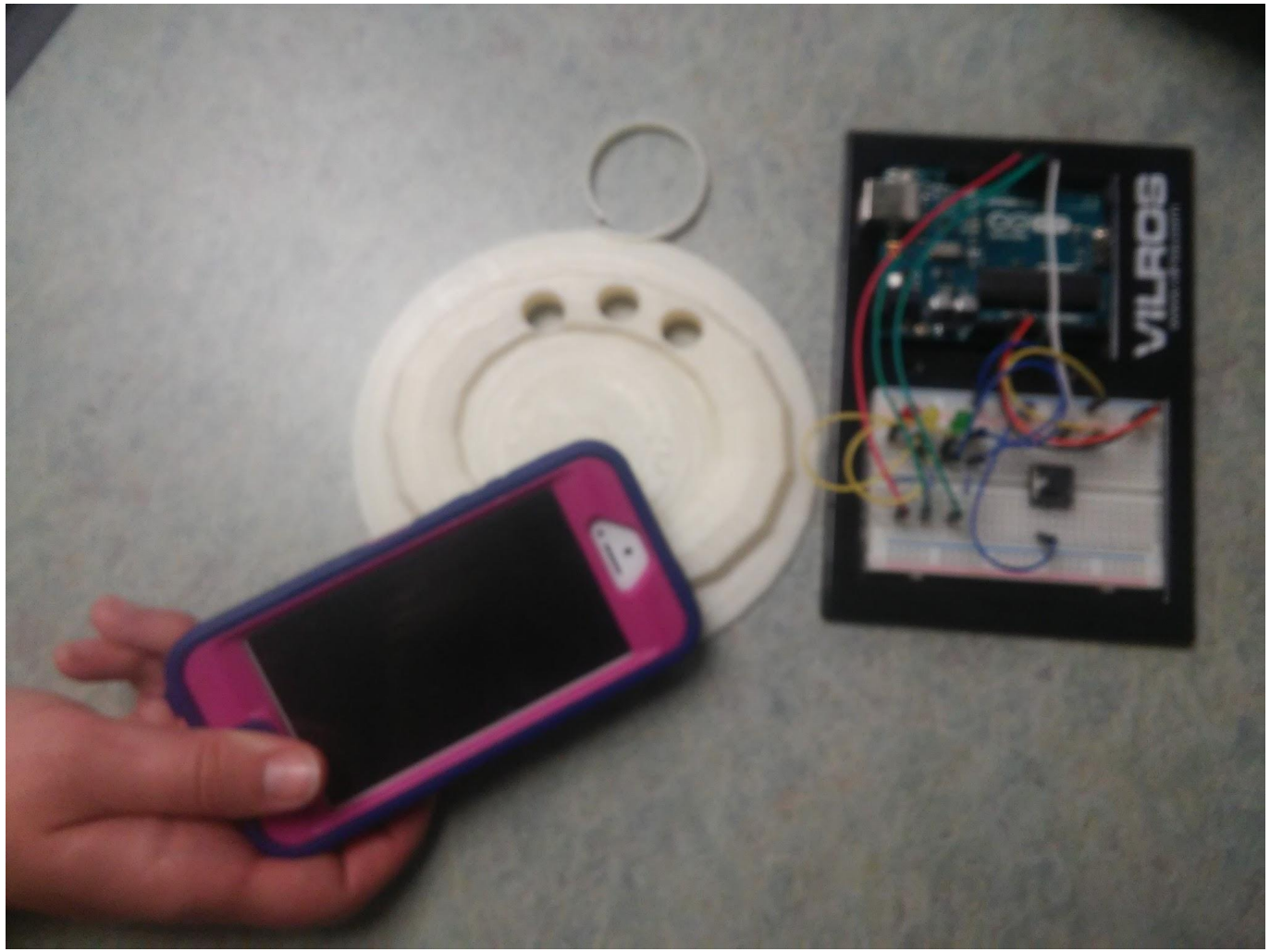
Our prototype synthesized



Evaluation

We found the individual components worked well, however all put together, users had a hard time connecting them all.

Present relevant information quickly and efficiently

The functionalities were evaluated as unobtrusive and could fit into schedules without much modification

Improvements

- What was missing?
- Where could we go with this?
- What did we achieve

Improvement Ideas

- Smart hanger device improvements
  - Better design, fit more naturally on hanger

- Mobile application/ device improvements
  - bigger advancement, maybe an entire “Smart Closet”
  - Make the device itself be the app with Siri