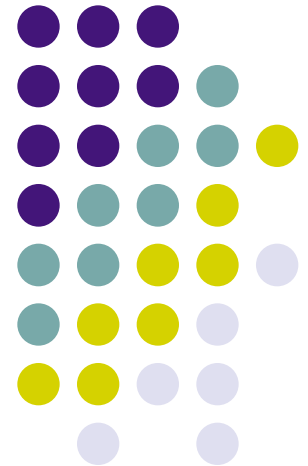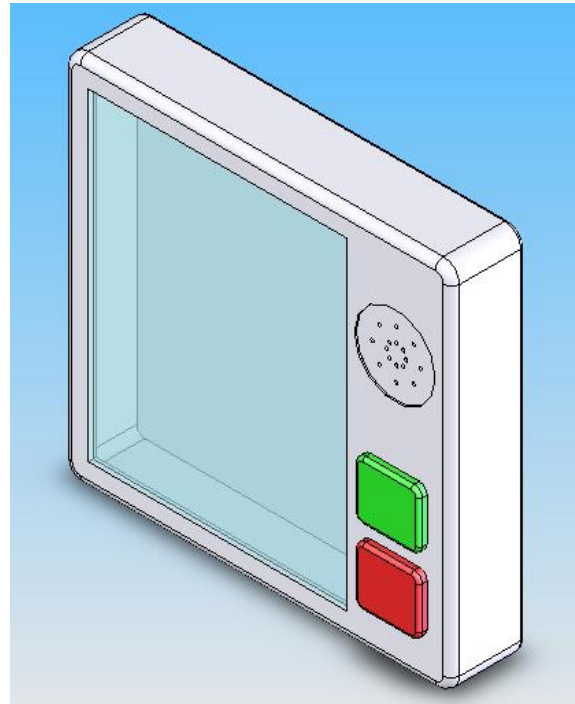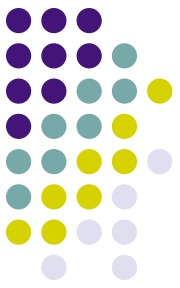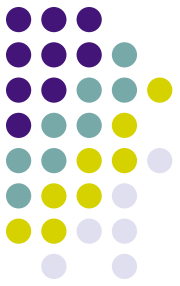# SoloShower

October 19th, 2006
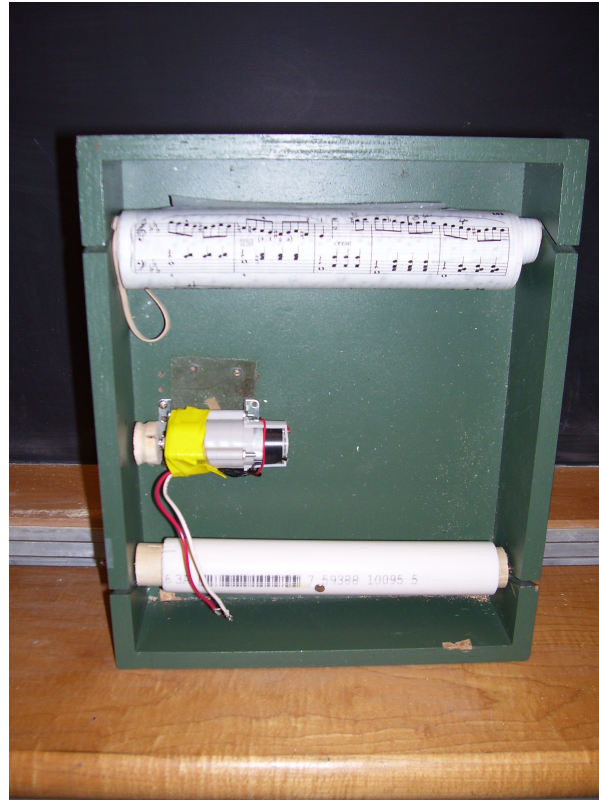
Market Research

- Presented customer two different concepts:
  - Matrix of pictures lit up individually
  - Single pictures scrolling one by one

- What we learned:
  - Customer preferred scrolling concept better
  - Asked for rewind functionality

Concept Iterations
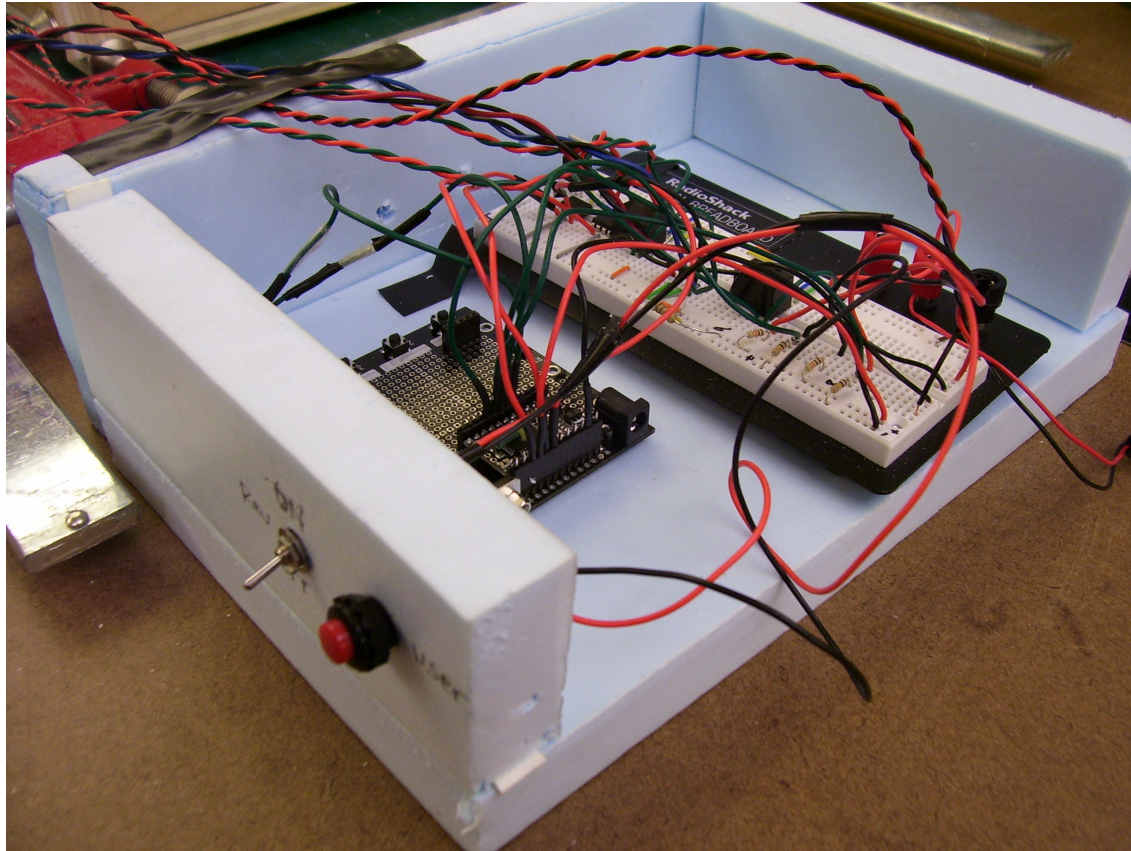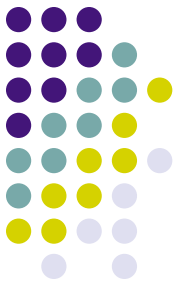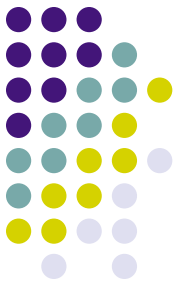

Revision A

Revision B

Revision C

Electronics (Revision C)

What We Learned

- Scrolling Mechanics:
  - Maintaining tension with twin rollers is difficult
  - Spring-loaded winder mechanism permits forward & backward scrolling while maintaining tension
  - Scroll alignment is difficult

What We Learned

- Programming & Motors:
  - Programmability, motor control and optical interruption are all feasible

- Revised Power Calculations:
  - Peak power of < 5 Watts
  - Average power of ~1.5 Watts
  - ~100 fifteen-minute showers possible with two D-cell batteries

What's Next

- Electronics:
  - Implement instructor interface to allow specific steps to be skipped

- Mechanical:
  - Work on rewind function
  - Design waterproof housing
  - Look into form factors that allow for changing of scrolls

Thank You

Please come see us in Pappalardo for questions!