

# A Better Medicine Cabinet: Conta **inner**

## Team 8:

Eun-Joung Lee  
Christopher Leitz  
Billy Lo  
Caroline Park  
Becky Roberts  
Matthew Ward



# Project Mission

---

To create an aesthetically pleasing medicine cabinet with enhanced functionality.

- Stray from the conventional look
- Increase the ability to store items efficiently
- Become a centerpiece for the bathroom



## The medicine cabinet should be

- Enclosed and secure
- Functional
- Spacious and flexible on the inside
- Sturdy
- Easily accessible



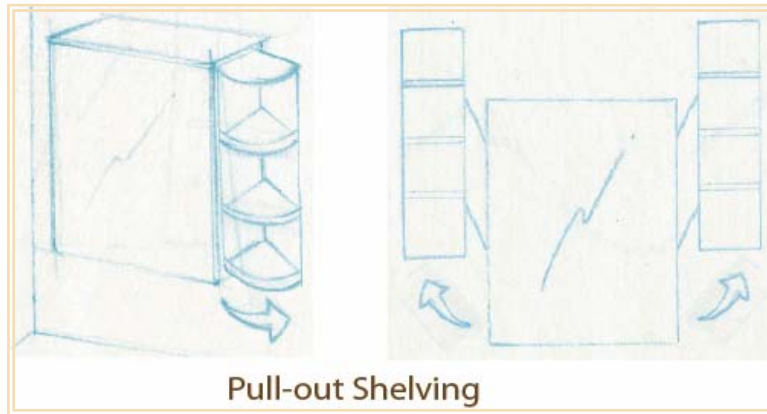
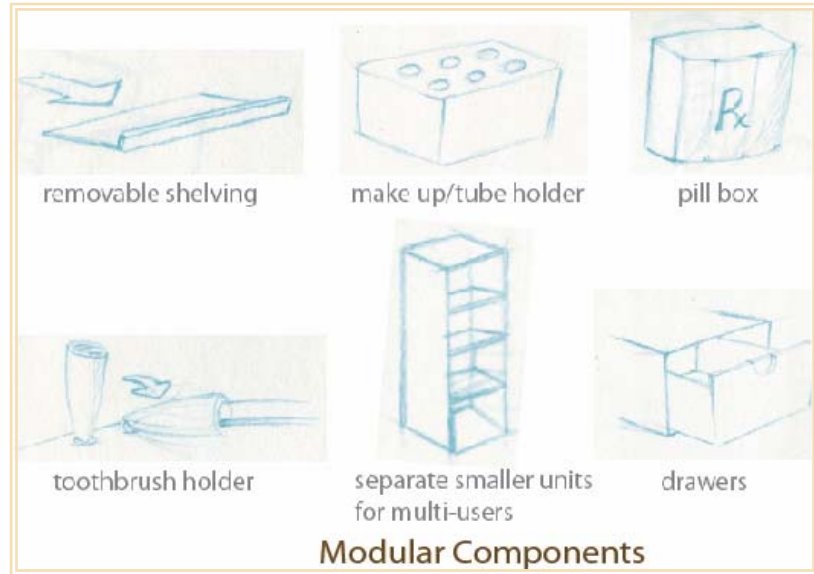
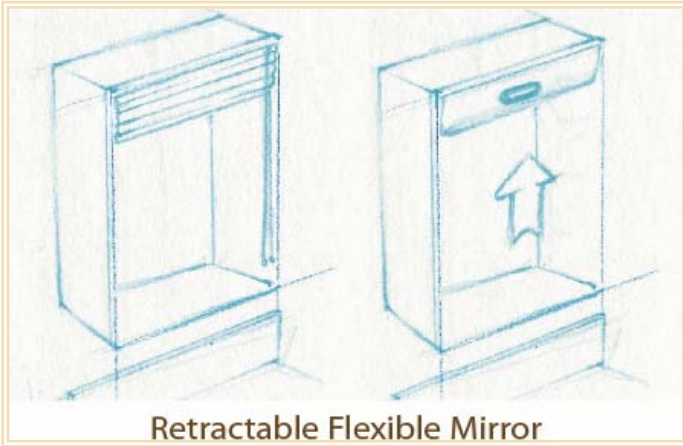
# Target Market

---

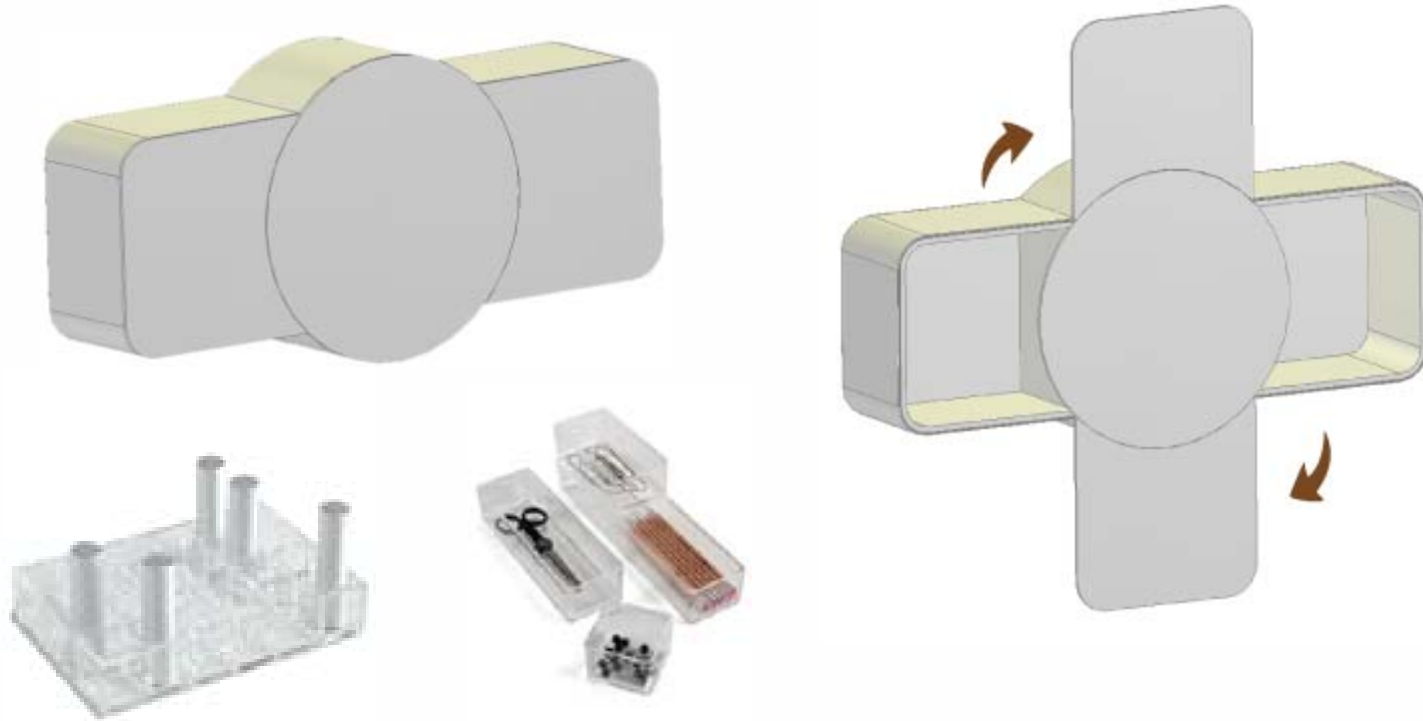
- Young, upwardly mobile
- Growing families
- Want custom look at IKEA price
- Design conscious



# Concept Evolution



# Initial Prototype



**Rotating mirror – mirror and cabinet  
can be used simultaneously**



- Based on two-compartment design with pegboard interior backing
  - Modular components plug into pegboard
  - Shelves, drawers, toothbrushes, make-up holders
- Open center area for lighting or decorative storage



# Limitations of Concepts

- Trade-offs between form and functionality
  - Initial directions functional but boring
  - Later designs focused on exterior aesthetics but sacrificed interior functionality
  - Our  $\alpha$ -prototype veered too heavily toward interior solutions
  
- Final design integrates interior storage capabilities within an aesthetically pleasing package





# Putting It All Together



Dimensions: 24" × 24" × 6.5" Main Cabinet  
24" × 7" × 6.5" Lighting Module

- Variable shelving heights to store most objects
- Aesthetically striking
  - Soft lighting, frosted glass
- Modularity (between and within cabinets)
- ...at a reasonable price



# β-Prototype versus Mass Production

## ➤ Existing Materials

- Walnut exterior
- Acrylic mirror
- Plastic shelving
- Metal hinges
- Fluorescent lighting

## ➤ Mass-Produced Version

- Lightweight and inexpensive metal
- Glass shelving
- Selective use of accents (wood, metal trim)



# Financial Model

- Based on previously described mass-produced version
  - Utilized conservative estimates of material cost
  - Assumptions: \$100,000 ramp-up cost, \$10,000/year marketing cost, 16,000 units/year, 10% discount rate
  - Determined cost of **\$196/unit**
- Selling price of \$300 yields \$3.9M NPV over four years





MIT OpenCourseWare

<https://ocw.mit.edu>

15.783J / 2.739J Product Design and Development

Spring 2006

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.