Yellow Team Sketch Models
Living and Working in Constrained Space
Mobile Furniture: concept

- Small, lightweight modules
- Easy to carry upstairs, through narrow hallways
- Interchangeable parts allows for creativity in design
Mobile Furniture: market

- Target customer
  - College students, upper floor apartment dwellers

- Market size estimations
  - 15.9 million college students in U.S.
  - 14.9 million housing units located upstairs
  - 1.45 million housing units are located 3 floors from their building entrance with no elevator
Mobile Furniture: prior art
Mobile Furniture: technical challenges

- Connection mechanism must:
  - be easy to assemble
  - not require extra parts or tools
  - withstand stresses and strains experienced by furniture during normal use
Mobile Furniture: implementation

close-up of assembly
Mobile Furniture: analysis

What we learned:

• final product is stable

• poor precision makes assembly difficult

• circles and squares are equally stable, but circles easier to manufacture and assemble

• male/female connectors limit flexibility