MARKET

- Target Customer: College Students
- ~15.9 million college students nationwide\(^1\)
- ~4.5% annual growth rate\(^2\)

- Competitive Products
  - Regular drying rack
  - Hamilton Beach Quick Dry

\(^1\)US Census Bureau
\(^2\)Global Market Information Database
OUR SOLUTION: ZEPHYR DRY-ER
BENCHMARKING

- Power: 60 W

- Cost: $25 for consumer

- Manufacturing Costs ~ $13
  - Fan ~$3
  - Mesh ~$0.25
  - Plastic ~$4.50
  - Power Cord ~ $5

- Hamilton Beach Quick Dry: $49.99
SKETCH MODEL QUESTIONS

- What are the ergonomic factors we need to take into consideration?

- What effect does air temperature and velocity have on drying of clothes?
MECHANISMS

1) Scissor

2) Telescope

3) Fan
THERMAL / AIR FLOW EXPERIMENT

- Drying Rate (sq. in. / min.)
- Exit Temperature (°F)
- $v = 14 \text{ m/s}$
- $v = 8 \text{ m/s}$
LESSONS

- Smaller footprint (collapsible, stacking)
- Telescoping is the most user-friendly mechanism
- Heating mechanism is recommended
QUESTIONS?