

Sketch Model Review

Blue Team – Section A
October 3, 2013



Problems and Needs



117,000 child care centers in the US

– Over 10.9 million children under 5

115,000 elementary schools in the US

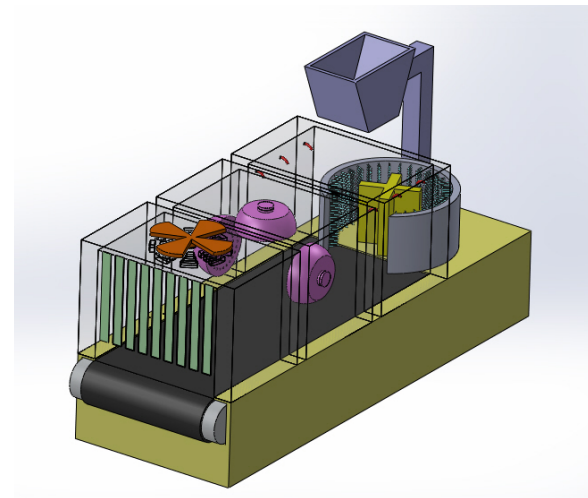
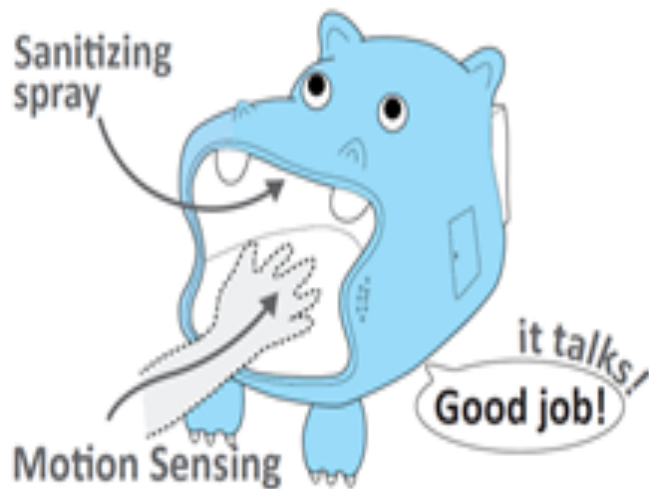
2011 Census



Two Approaches

“Hand hygiene is one of the most important steps we can take to avoid getting sick and spreading germs to others”

- Centers for Disease Control and Prevention



Current Situation

“Honestly, we get lazy and throw toys in the soap bin and forget about them, but we’re really supposed to soak them in soap and water for at least a minute, and use bleach”

– Day Care Professional



Handy Hippo



Situation



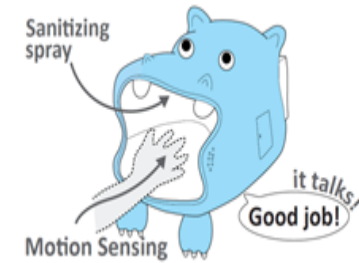
- Lack of hand hygiene leads to gastrointestinal and respiratory infections
- Proper hand washing behavior is difficult for children to learn and do consistently



Features

- Spray hand sanitizer over the entire hands
- Triggered when hands are in
- Modifiable attractive and interactive features
- Safe and alcohol-free (Benzalkonium Chloride)





Product	DEBS Childrens Hand Sanitizer	Mybaby Touch Free Dispenser	Automatic Dolphin Design	Hand Sanitizer Free Touch	Handy Hippo
Mechanism	Dispense	Dispense	Dispense	Dispense	Mist Spray
Attractiveness to kids (initial swag)	60%	65%	65%	20%	80%
Free touch	No	Yes	Yes	Yes	Yes
Power Source	Mechanical	Battery	Battery	Battery	Battery/AC plugin
Visual Attractiveness	Drawing	Giraffe shape	Dolphin Shape	Abstract	Modifiable
Size	One hand size / Portable	One hand size / Tabletop	One hand size / Tabletop	One hand size / Tabletop	Two hands size / Portable
Cost	\$13	\$25	\$23	\$25	\$80 - \$100



Feasibility Questions

- 1. What's the best spraying mechanism to cover the entire hands?*
- 2. Optimal locations and numbers of the spray nozzles*
- 3. What is the most attractive design for kids?*



1. What is the best spraying mechanism to cover the entire hands?

Pump for all nozzles



Advantages:

- Less moving parts
- Cheaper

Disadvantages:

- Difficult dispensing control

Actuator on each nozzle



Advantages:

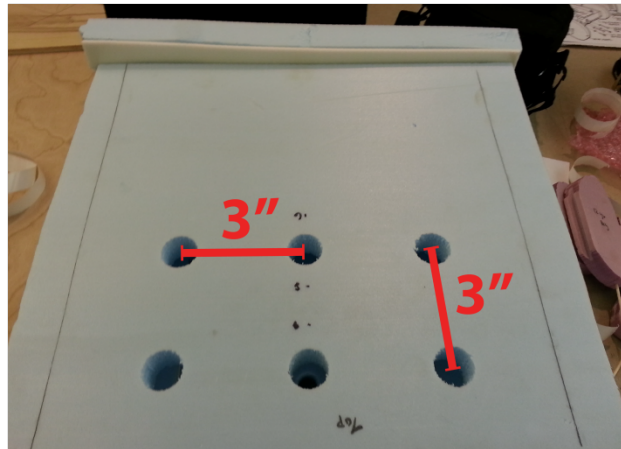
- Easy control of dispensing

Disadvantages:

- Multiple controls
- More expensive



2. Optimal locations and numbers of the spray nozzles

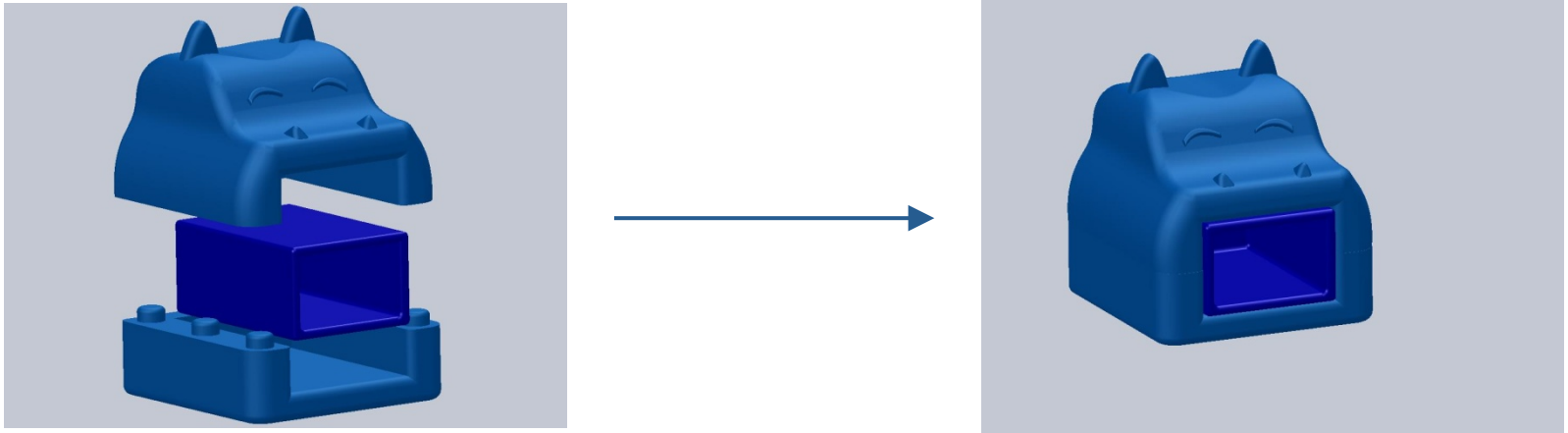


Ideal: 2 rows of 3 nozzles on top and bottom

3. What is the most attractive design for kids?

- Diverse options of outer layer
- Games
 - Explorative play (new knowledge)
 - Problem-solving play (quizzes, puzzles)

Iterative testing with kids will be done.



Questions?

