Jasper

Intelligent Wardrobe Assistant

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Problem Space

- Outfits are a key component of interpersonal assessments
- Outfit selection can be time-consuming and difficult
- Large wardrobes can result in individuals not taking advantage of their attire
- Individuals do not harness the full potential of their clothing
- A disorganized wardrobe can result in items not being worn—how can individuals properly manage their wardrobe?

Initial Paper Prototype
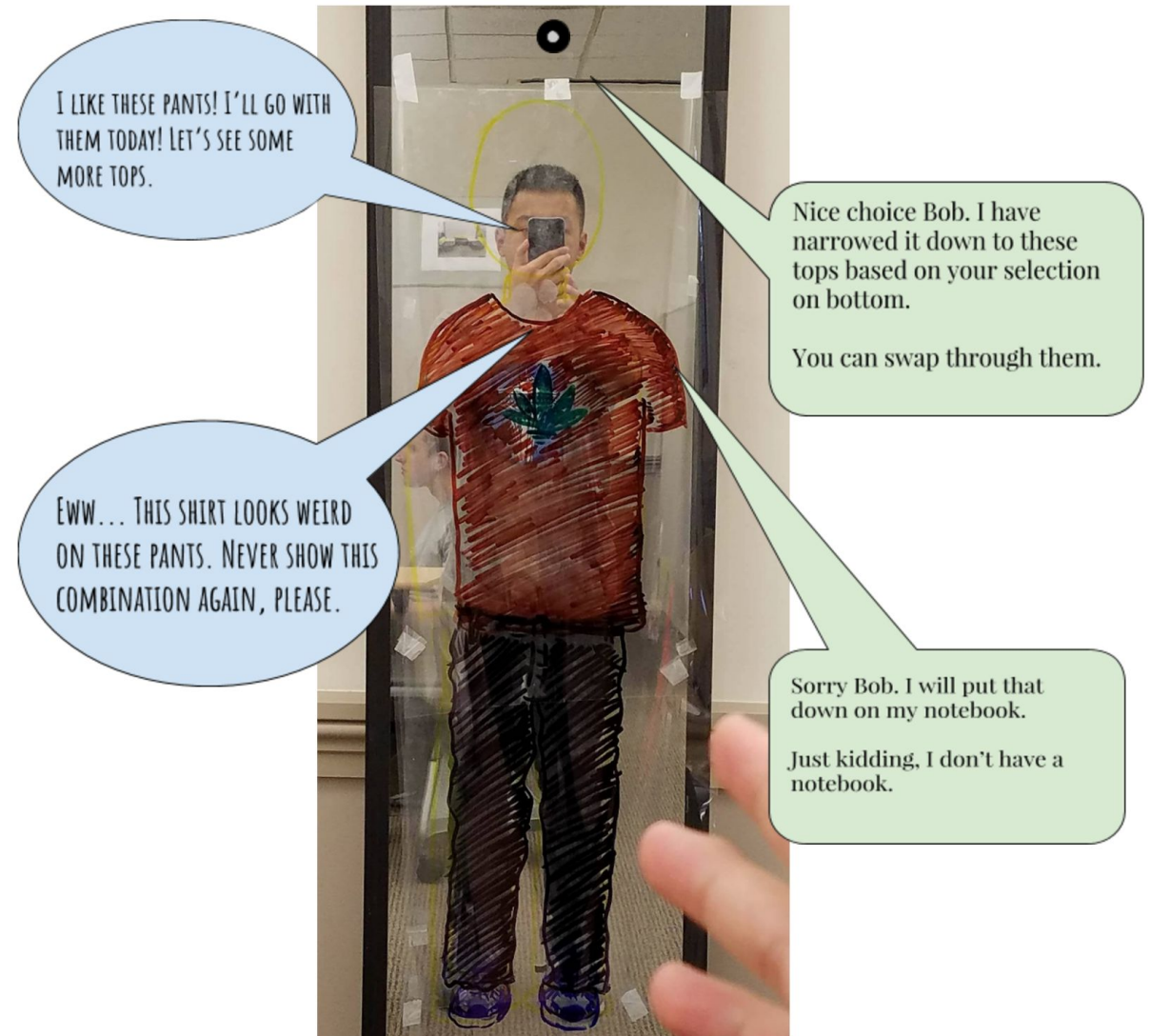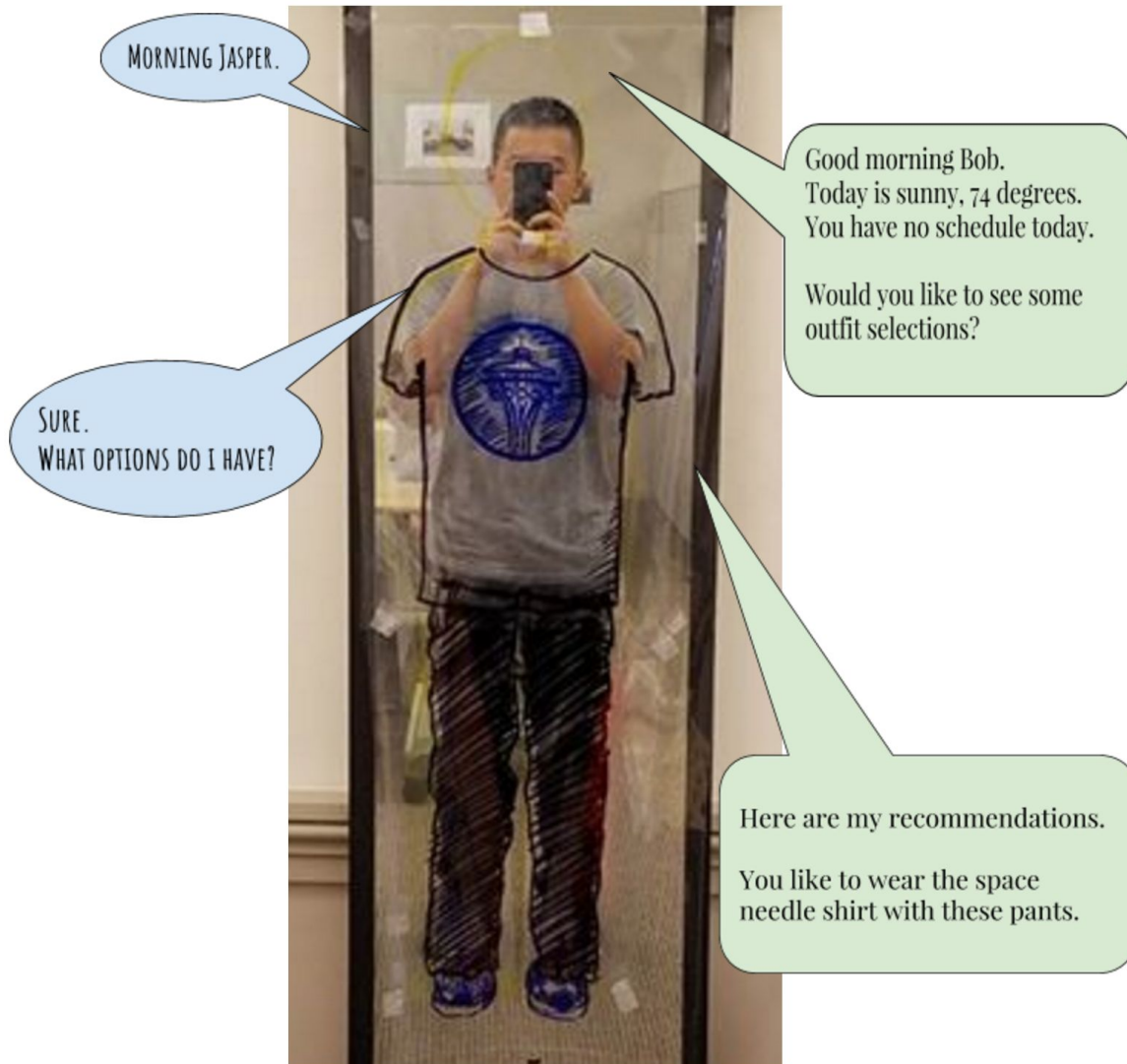
Initial Paper Prototype
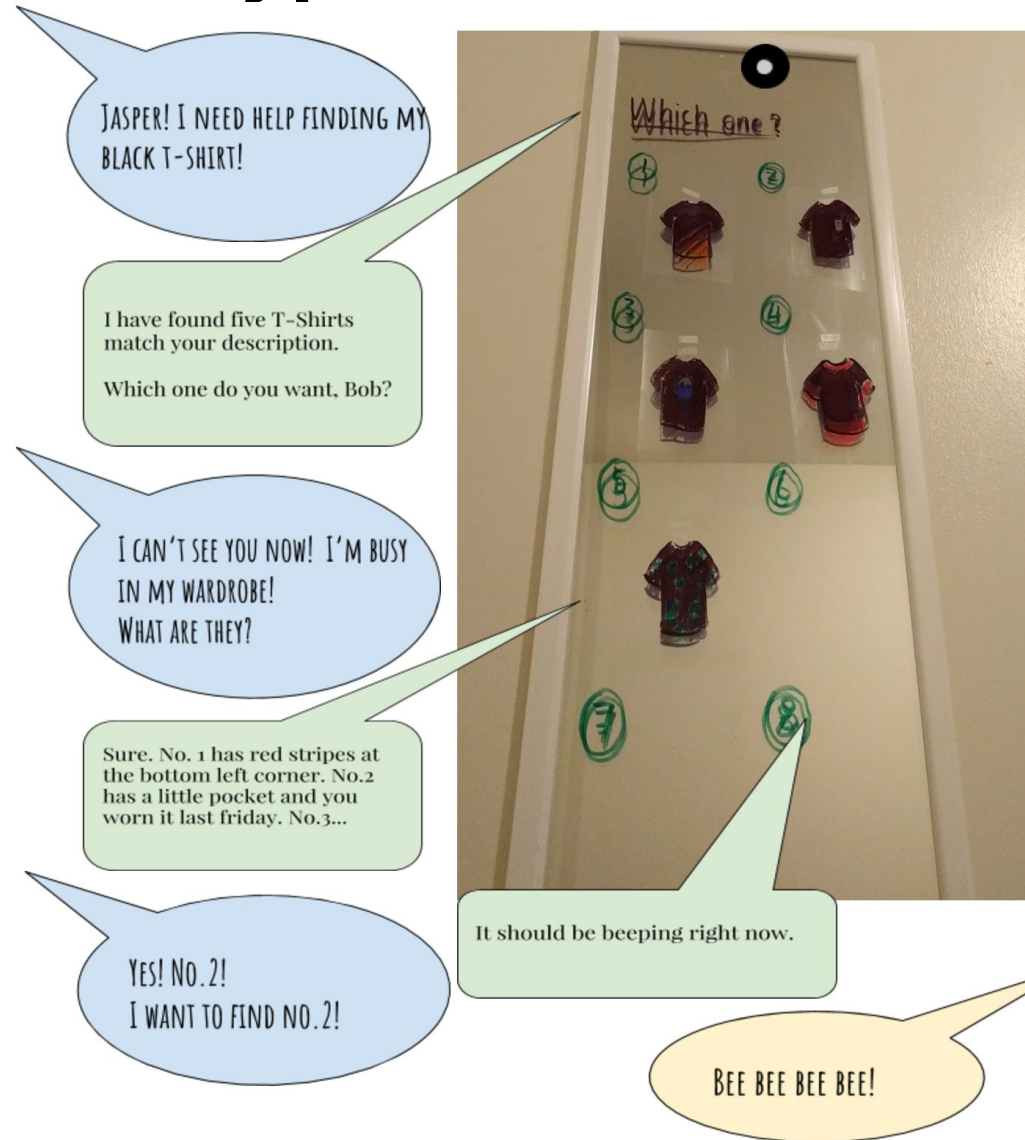
Testing Process: Heuristic Evaluation

- **User Control and Freedom:** Need more intuition on how to use a mirror interface
  - Is it a touch screen?
  - What are the voice commands?
  - How should I switch between items?

- **Visibility of System Status:** Need an icon or progress bar to indicate which item is being picked for now.

- **User control and Freedom**: Need to enable user customized filter on outfit selections

Testing Process: Heuristic Evaluation
– **Step 1:** Refinements after Heuristic Evaluation

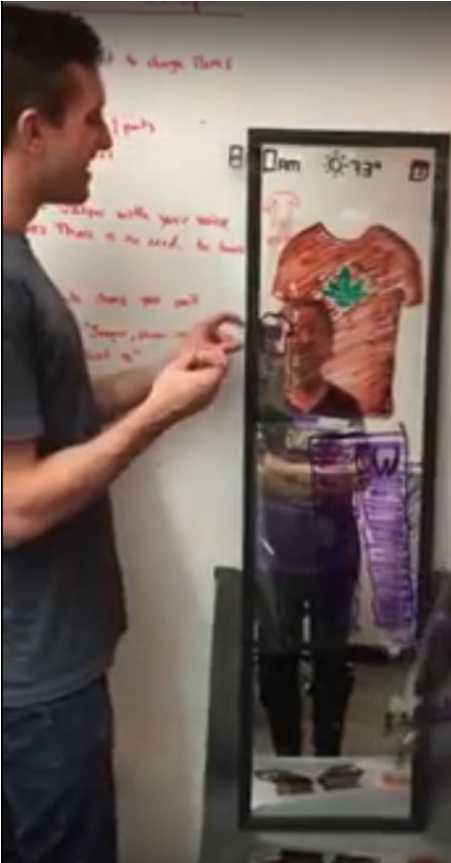- Jasper will give a brief tutorial for first time users.

Testing Process: Heuristic Evaluation
– **Step 1:** Refinements after Heuristic Evaluation
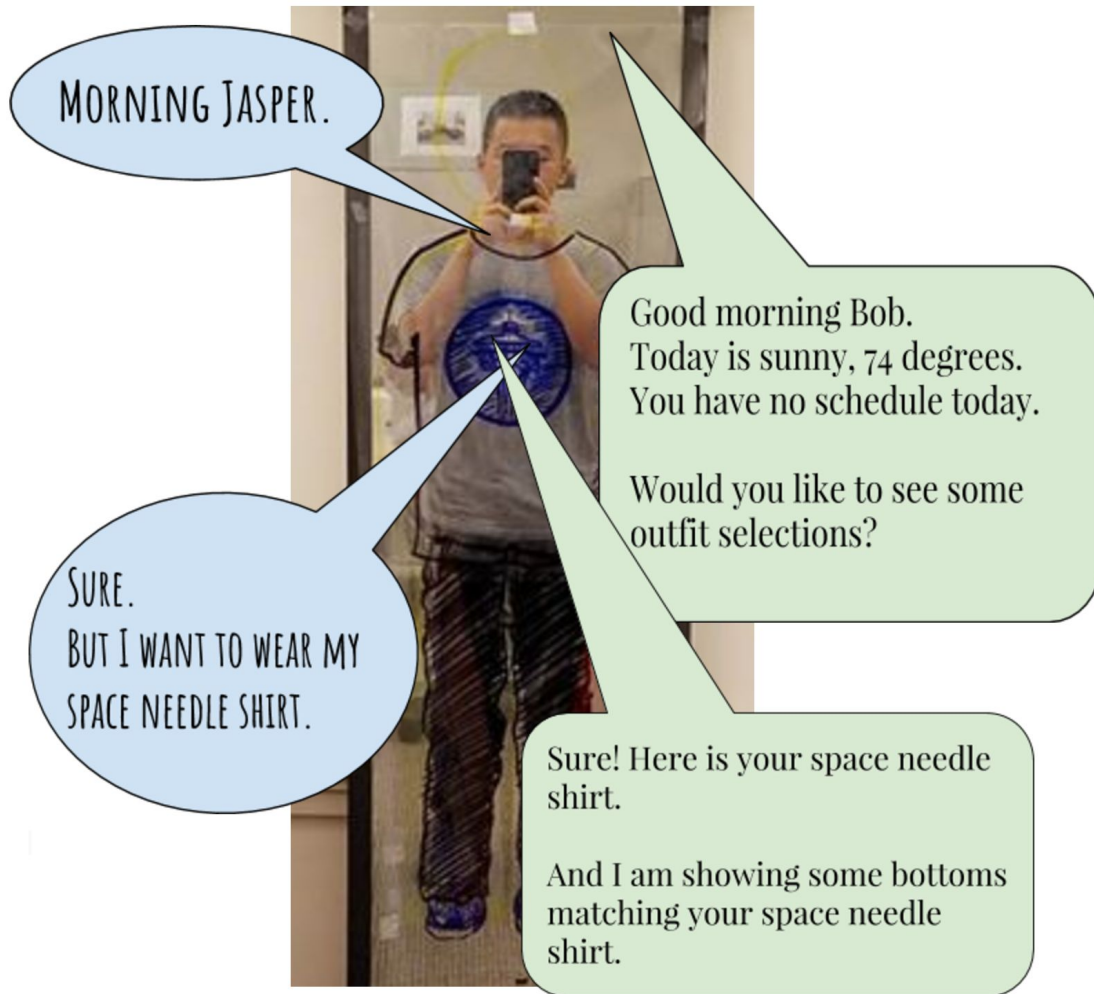
- Allow users to input voice command on following features:
  - Access additional information
  - Filter search results and outfit recommandations

Testing Process: Usability Test 1

- **Aesthetic and minimalist design:** The information bar on top of the mirror is confusing and not necessary when dressing.

- **Consistency and standards:** Using real human improvised voice interaction is confusing and gives out too many hints.

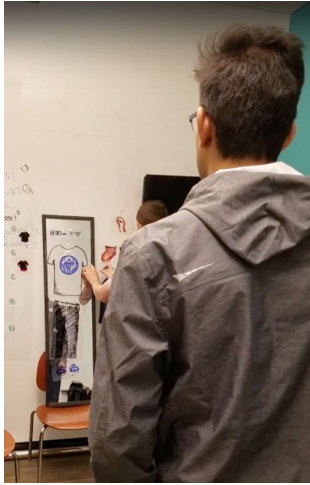# Testing Process: Usability Test 1

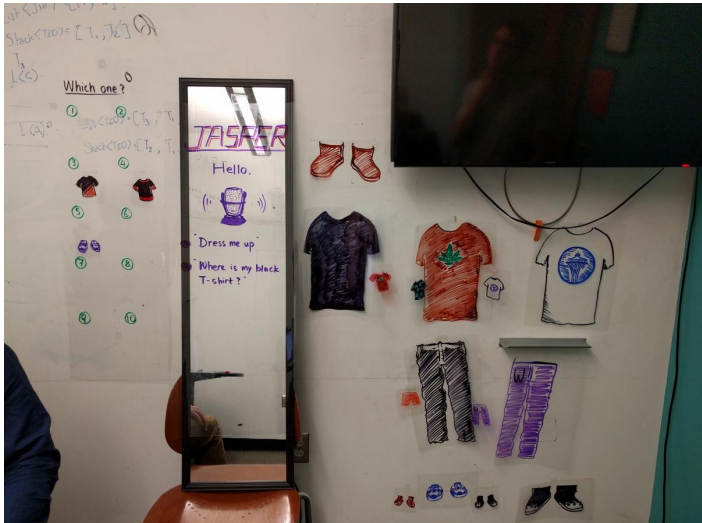**– Step 2:** Refinements after Usability Test 1

Speech

- Ability to remove Time/Calendar/Weather display with gestures.

- Have the scripts predefined and makeup responses according to the flow chart as well as some special guidelines.

Testing Process: Usability Test 2 & 3

- **Help and Documentation:** He did not fully understand the coverage of Jasper's functionalities.

- **Recognition rather than recall:** He could not remember the commands and gestures through out the process.

- **Consistency and standards:** User did not realize that the default section was already based on selection made already.
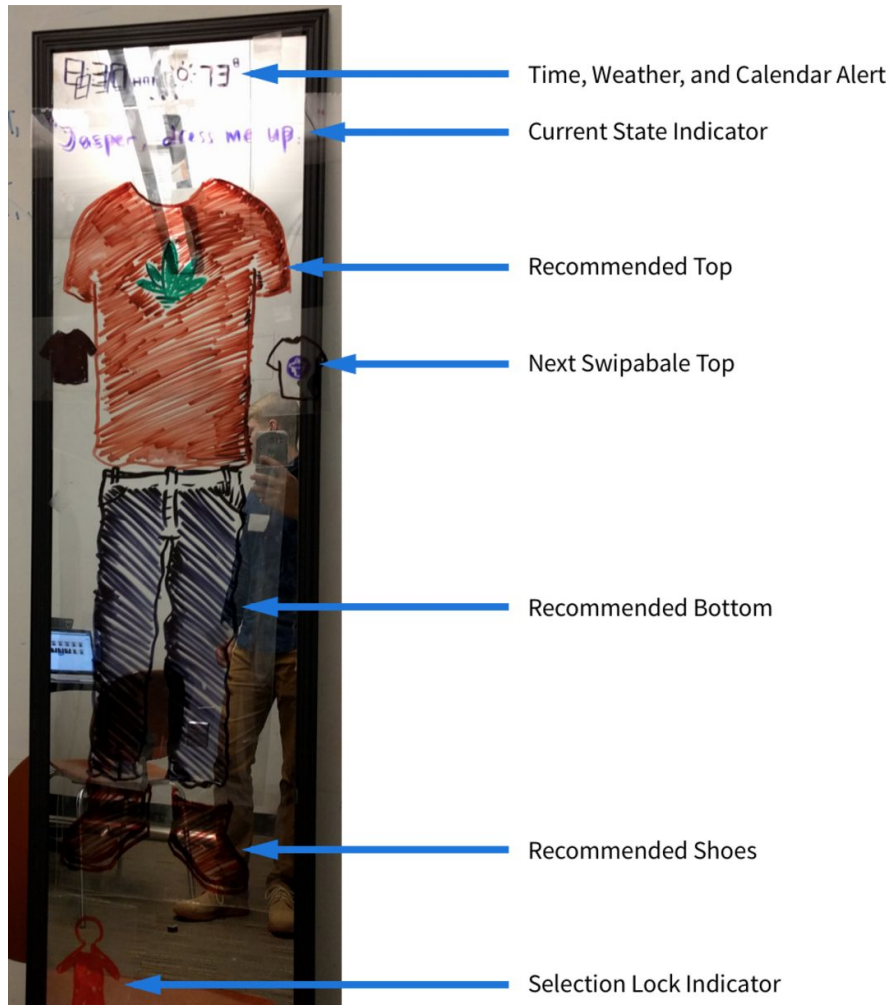
Testing Process: Usability Test 2 & 3

– Step 3: Refinements after Usability Test 2 & 3
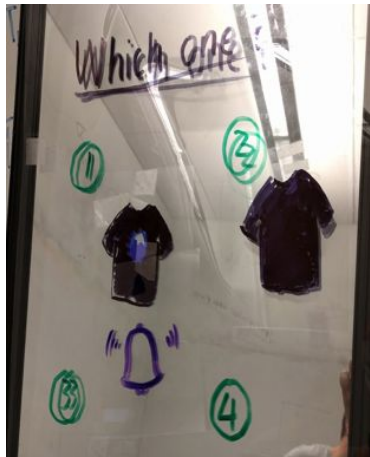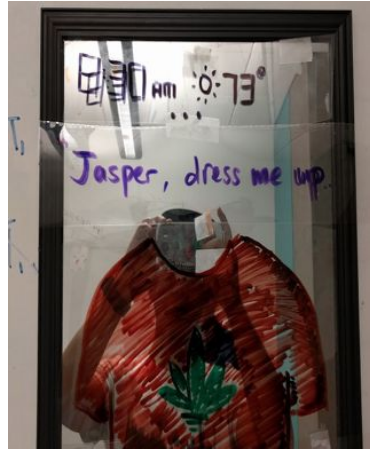
- Jasper will display and visualize user's voice input.

- Jasper will offer to help if there is no user input for a period of time.

- Jasper will specifically tell the user that the following recommendations are based on selections already made.
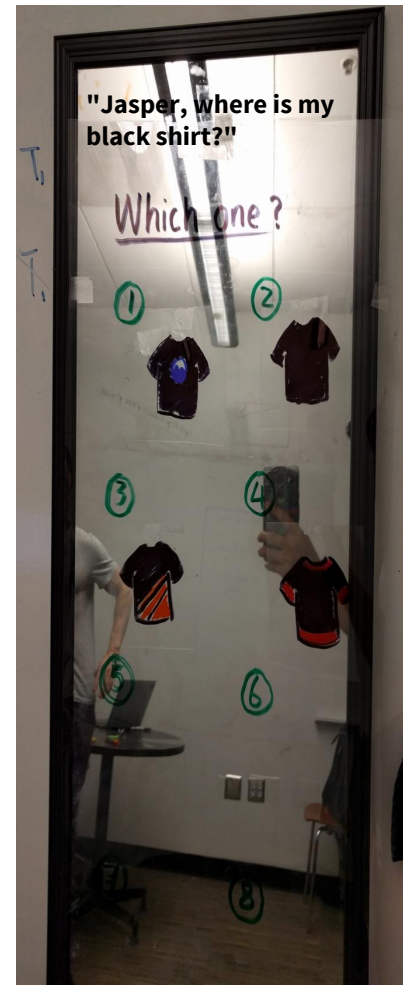
Final Paper Prototype

Task 1 Outfit Selection and Visualization

Time, Weather, and Calendar Alert

Current State Indicator

Recommended Top

Next Swipabale Top

Recommended Bottom

Recommended Shoes

Selection Lock Indicator

Task 2 Item Location

"Jasper, where is my black shirt?"

Which one?

"Jasper, where is my Seattle T-shirt?"

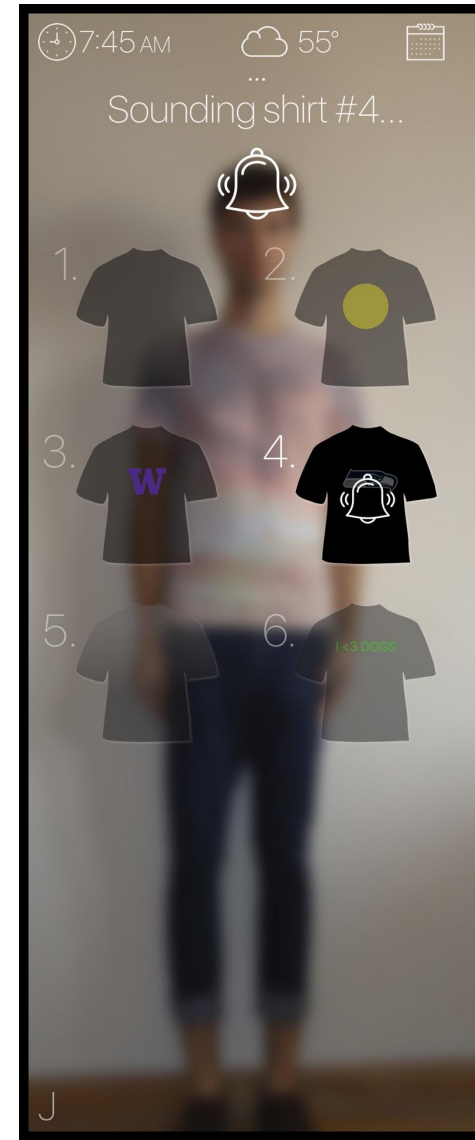This item should be ringing now.
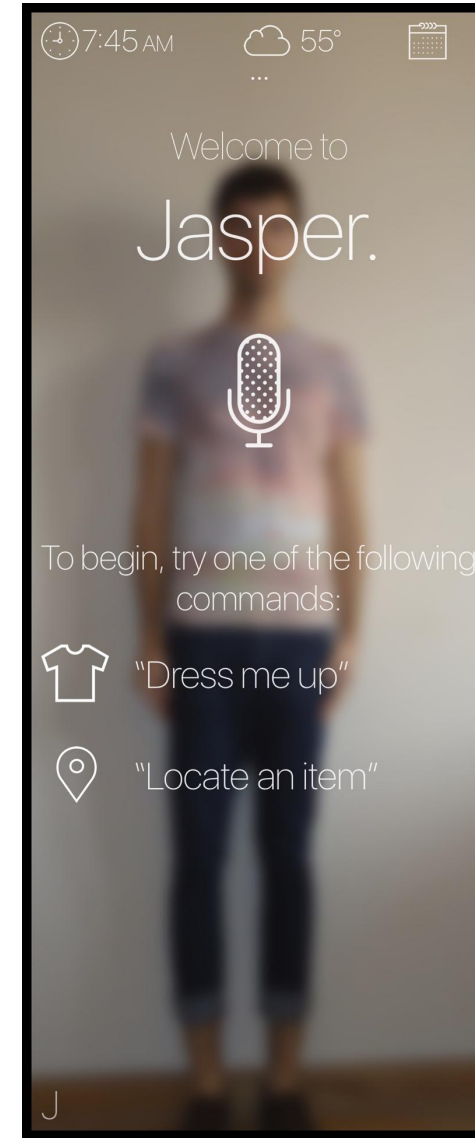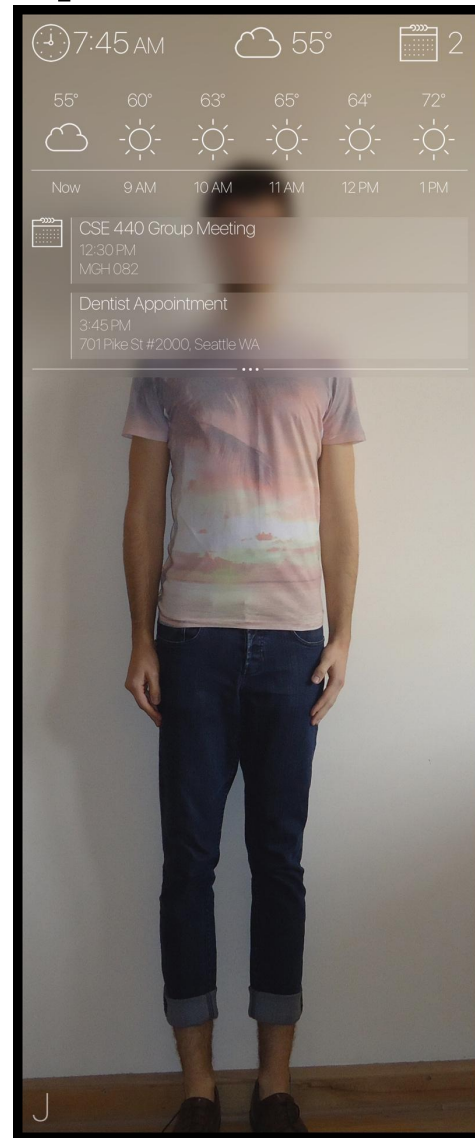
Digital Mockup

Digital Mockup

Digital Mockup

Digital Mockup

In Summary...

- Iterative design helped us make subtle improvements after each round of feedback

- Testing with consistency takes practice

- User confusion during testing leads to major design improvements

- Consider **all** feedback