

Industrial Design & Human Factors

Team Victory Lap

Text Size and Font - Text on assembly guide, parts and controller

Display 4	Black 54%
Display 3	Black 54%
Display 2	Black 54%
Display 1	Black 54%
Headline	Black 87%
Title	Black 87%
Subheading	Black 87%
Body 2	Black 87%
Body 1	Black 87%
Caption	Black 54%
Menu	Black 87%
Button	BLACK 87%

- Must be legible from viewing distance
 - $(\text{Height}/\text{Distance}) = \tan(\text{Visual Angle})$ equation to get proper text size
 - $VA = 57.3 \times 60 \times \text{Height of Object} / \text{Viewing Distance}$
- Must be proper color to distinguish from parts and easily read
- Must be in language(s) of users (or visual images like Ikea)

Material Colors

- Tanks are a grey steel color, with paint that is a beige color
- Parts should be of different color to distinguish from the tank
- Smaller parts should be colored so the user can easily see them in large tank



Weight Considerations

Injury risks

- Repetitive lifting, extended reach

Material Selection

- lightweight, structural materials
- 80/20 aluminum extrusion

Subassemblies

- <50 lbs per OSHA recommendation
- Suez company policies
- Ergonomic lifting solutions for heavy objects



Assembly

Requirements

- Parts must fit through a 24" diameter hole
- Assembled by 3 man team (2 inside tank, 1 outside tank)

Considerations

- Purpose of project is to decrease man hours spent in tank, assembly time included
- Instructions should be extremely clear

Next Steps

- Regulation and Standards Research
 - May adjust our human factor considerations
- Preliminary CAD and Material Selection
- Conference Call with Suez