Questions? Suggestions? Comments? Concerns?



Team 14

The Hologramzer Team



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Concept/Motivation

- The goal of this project is to create an interactive holographic display of a phone or laptop.
- You should be able to control your phone and it applications simply through the hologram.





Competitive Analysis

- Dispair
- FogScreen
- HelioDisplay
- Coachella 2013
- Microsoft's Vermeer











Requirements

- Functional Requirements
 - Phone's screen should be projected onto the reflective material
 - Kinect should detect location of the user's fingers
 - The Kinect should forward any touch motions
- Timing Requirements
 - The phone should receive touch/tap information with little delay and react to the gesture

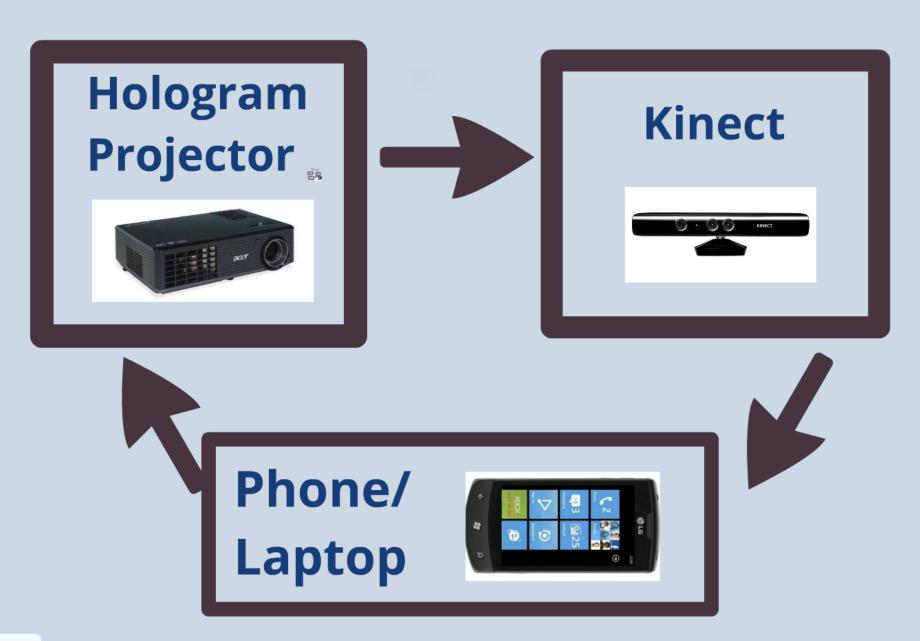


Technical Specifications

- 1080p HD Projector (ideally)
- Highly Reflective Surface (suggestions?)
- X-Box Kinect
- Windows phone/laptop

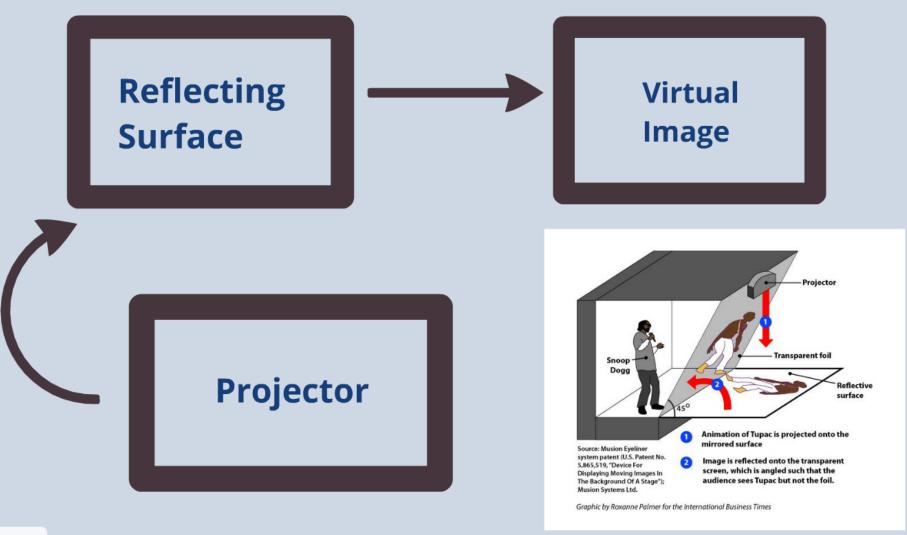


Architecture





Hologram Projector Architecture





Anticipated Risks

- The projector may not be able to project a high resolution image onto the reflecting surface to get the virtual image
- We may have to work a lot with getting the angles right for the reflection
- It will be difficult to map the computer/phone into mid air
- Different perspectives may map positions differently
- The Kinect's reaction time of determining the user's hands and fingers' positions may be slow



Final Demo

- A live holographic feed of everyone entering the gym
 - Allow zooming in onto one person
- Play a first person shooter game



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