Alpha Presentation
Virtual Reality Simulation for Railcar Loading

The Capstone Experience

Team Dow

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Project Overview

• Dow has to train employees to load railcars with hazardous chemicals
• Training new employees can be very dangerous
• Creating a VR game to make training safer
• Train users to
  ▪ Load railcars
  ▪ Properly respond to a spill while loading
System Architecture

- **Models**
  - AUTODESK 3DS MAX
  - Supports User Input

- **Graphics Card**
  - Provides Smooth Framerate

- **Libraries**
  - THE LAB
  - STEAM VR
  - VRTK

- **Game**
  - Imports Models
  - HDMI Output

- **HTC Vive**
  - User Input
Loading Area
Load Arm and Spreader
Equipment Locker
Derail
What’s left to do?

• Add more detailed steps to the loading process
• Implement scoring system
• Create spill scenario
• Add in-game menu with procedure in it
• Add sound effects
Questions?