Virtual Reality Escape Room

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Goals

- Create an educational Virtual Reality (VR) escape room
  - Teach Science, Technology, Engineering, Mathematics (STEM) concepts in creative ways
- Build a mobile app for audience participation.
Equipment

- VR Headset (HTC Vive)
- Backpack PC (ZOTAC/MSI)
- Hand tracker (Leap Motion)
- Wireless HDMI
- 2 googly eyes
The player is stranded on a space station. Collect items to fix a broken escape pod. Each room contains a different STEM based puzzle. Each puzzle teaches a STEM concept. “Hands On” learning
The Rooms

Foodstock
Teaches adding fractions with different denominators

Communication Room
Teaches simple encryption (caesar ciphers).

Water Room
Teaches logic and planning: “Connect pipes from start to end”
The Rooms

**Server Room**
Teaches binary numbers

**The Aquarium**
Teaches basic programming and algorithms

**The Spaceship**
Final room adds immersion and evaluation
Mobile App (Android)

- Increase student/classroom involvement
- Connects player to peers through mobile devices
- Work together to solve puzzles
  - Voting system
Future Goals

- Extend to multiplayer
  - Rework the room to be designed for 2 players
  - Create player’s avatar
- Improve mobile app interactivity
- iOS integration
- More rooms
THANK YOU!

Questions or Comments?