

MICHIGAN STATE

UNIVERSITY

Alpha Presentation

Augmented Reality Utilizing IoT Technology

The Capstone Experience

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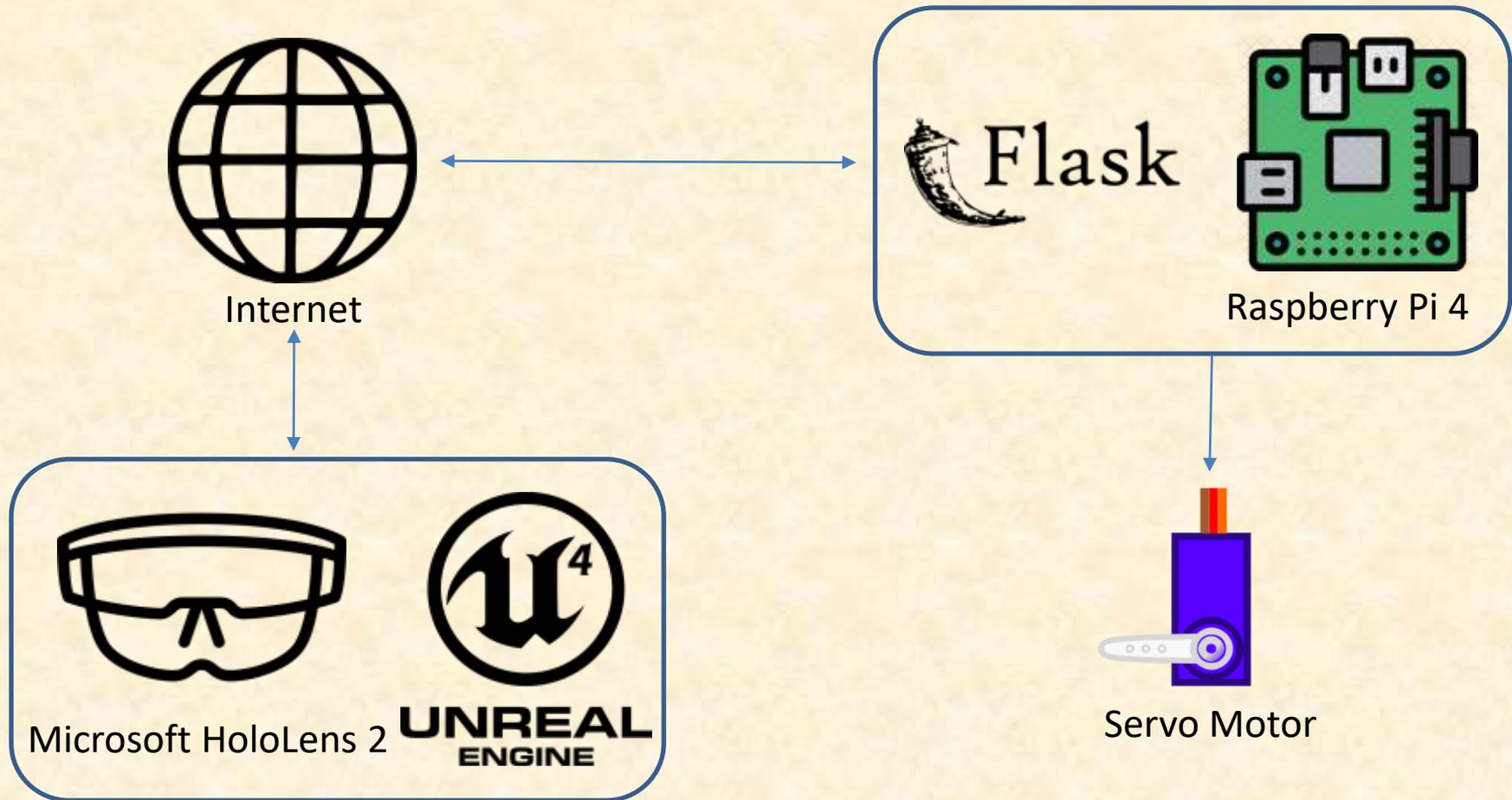
*From Students...
...to Professionals*

Project Overview

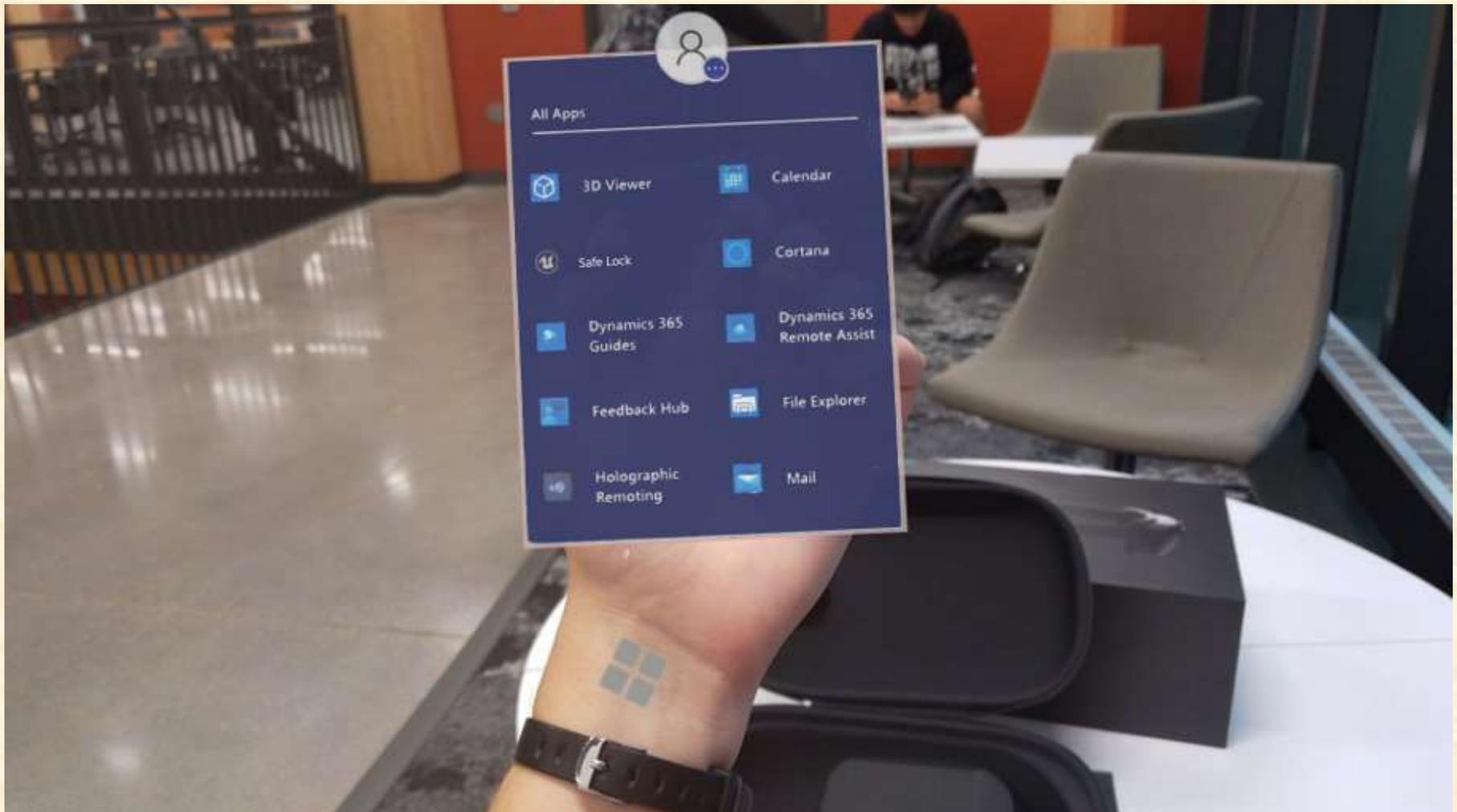
- Augmented reality
- Knowledge gap: AR interacting with hardware
- Replacement of physical key
- Multiple resources accessible hands free
- Increase productivity and safety



System Architecture



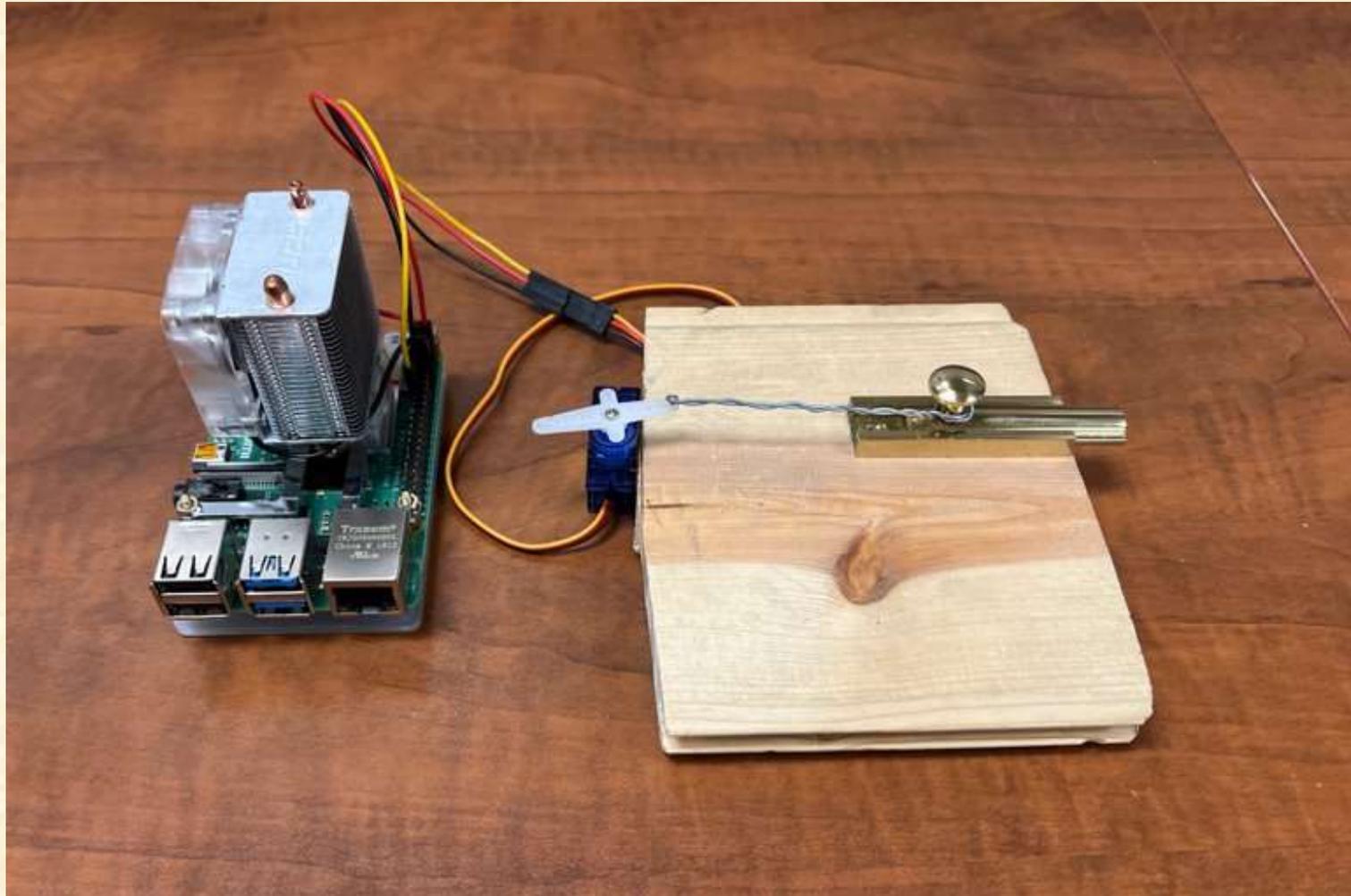
HoloLens 2 Menu



User Accessing Button



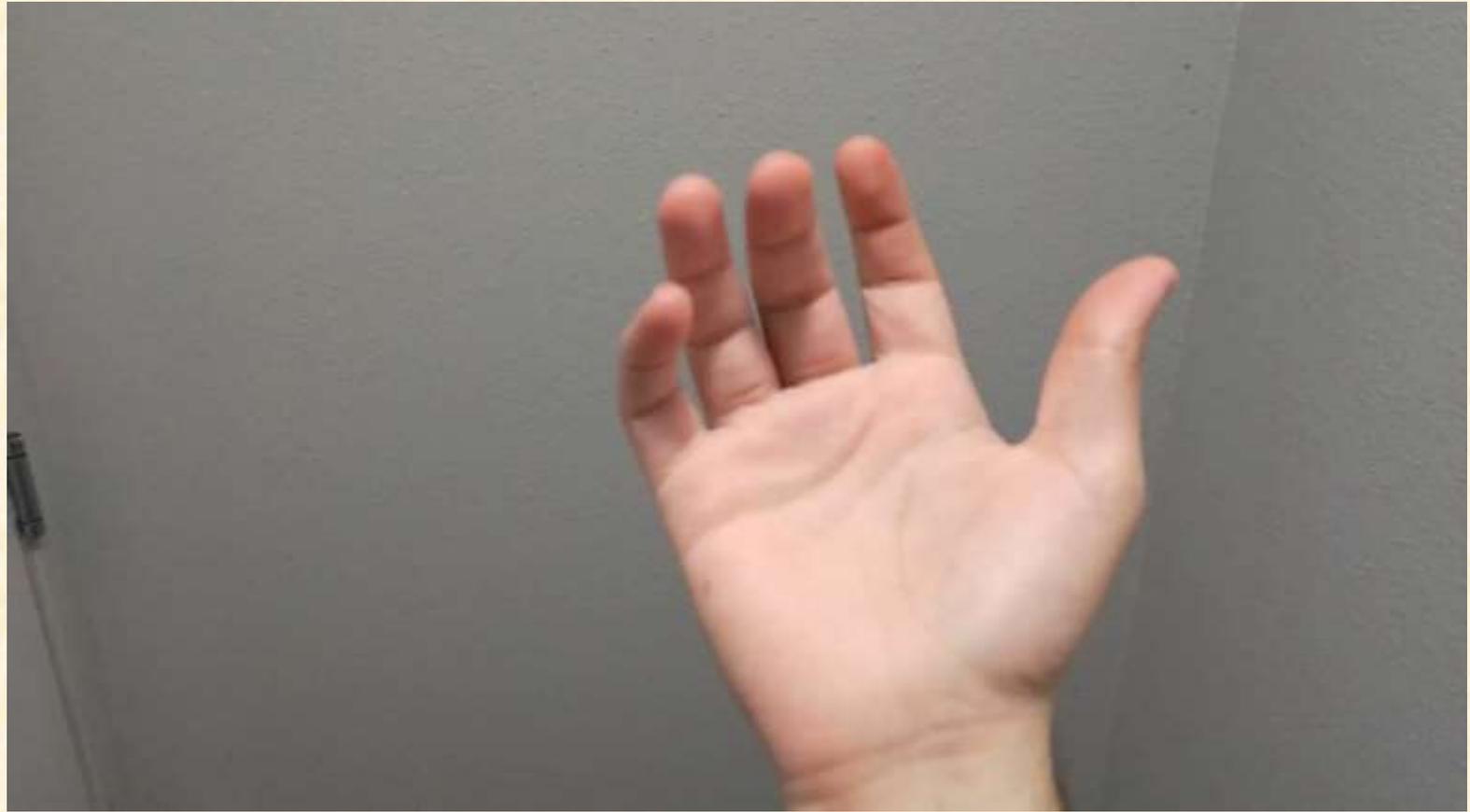
Lock and Raspberry Pi Server



User Opening PDF Via QR Code



Video



Demo



What's left to do?

- Development
 - QR scanning
 - Spatial anchoring
 - GM hologram
 - Enhance UI button
 - Design day universal tutorial
- Stretch goals
 - Multiple help documents on one QR code
 - PDF live changes
 - Two locks
 - Accessible access methods



Questions?

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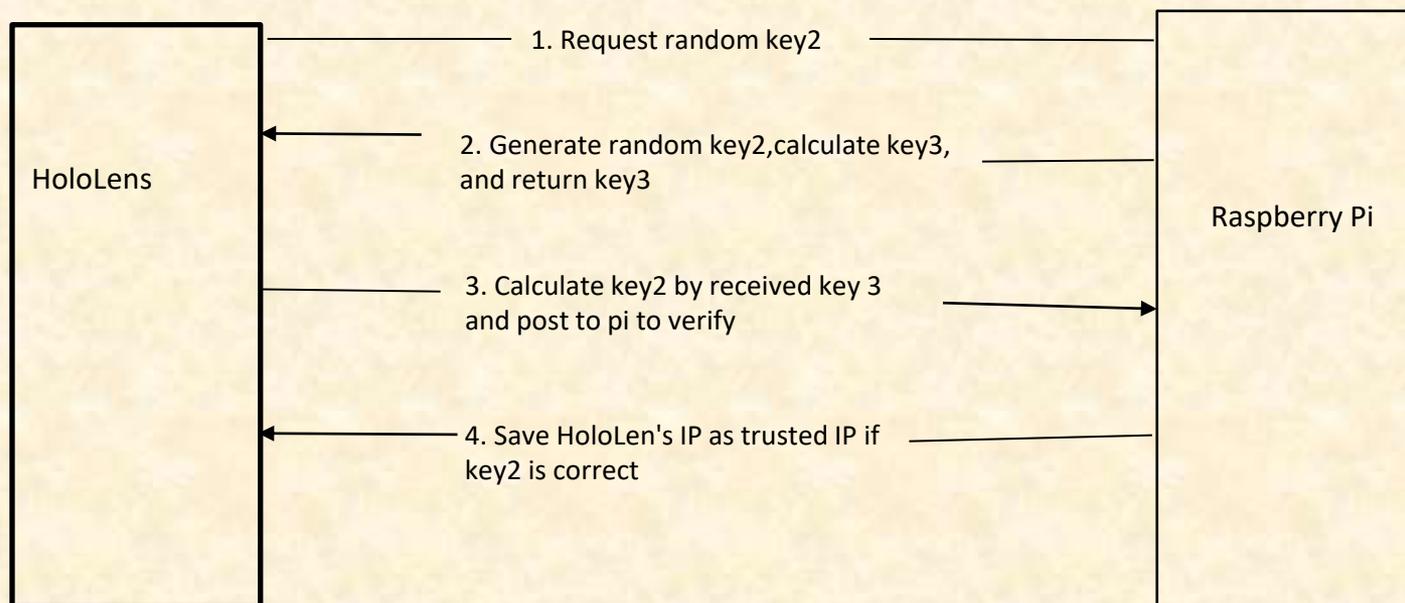
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End of slide show, click to exit

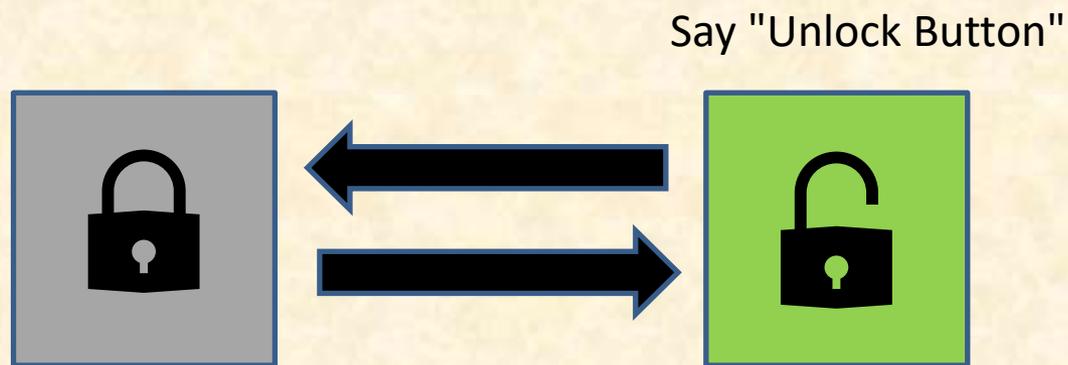
Network Security



Video Demo



UI Button



Stare at button until
button fills to unlock

