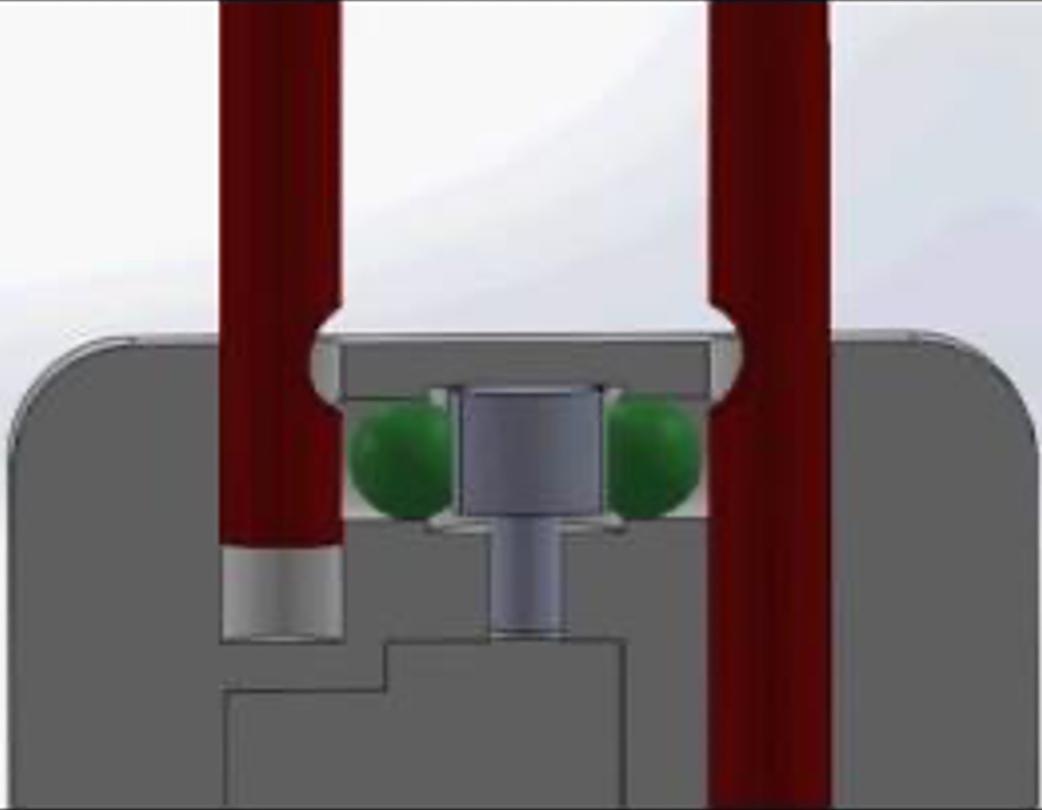




pop 'n lock

O

*Demo*





1



*Why?*

- 
- ◆ Traditional Locks
    - ◆ Inconvenient
    - ◆ Easy to lose keys, forget codes
  - ◆ Other Smart Locks
    - ◆ Structurally insecure
    - ◆ Easily tampered with - loss of power

2

# *The Design*



## Mechanics

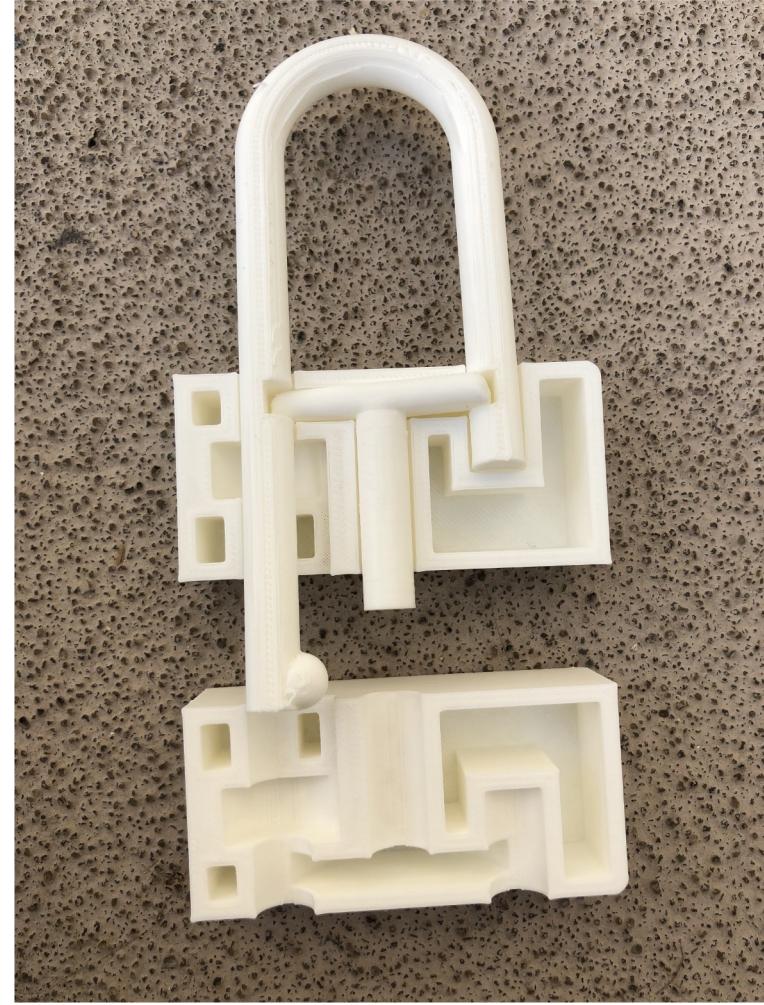
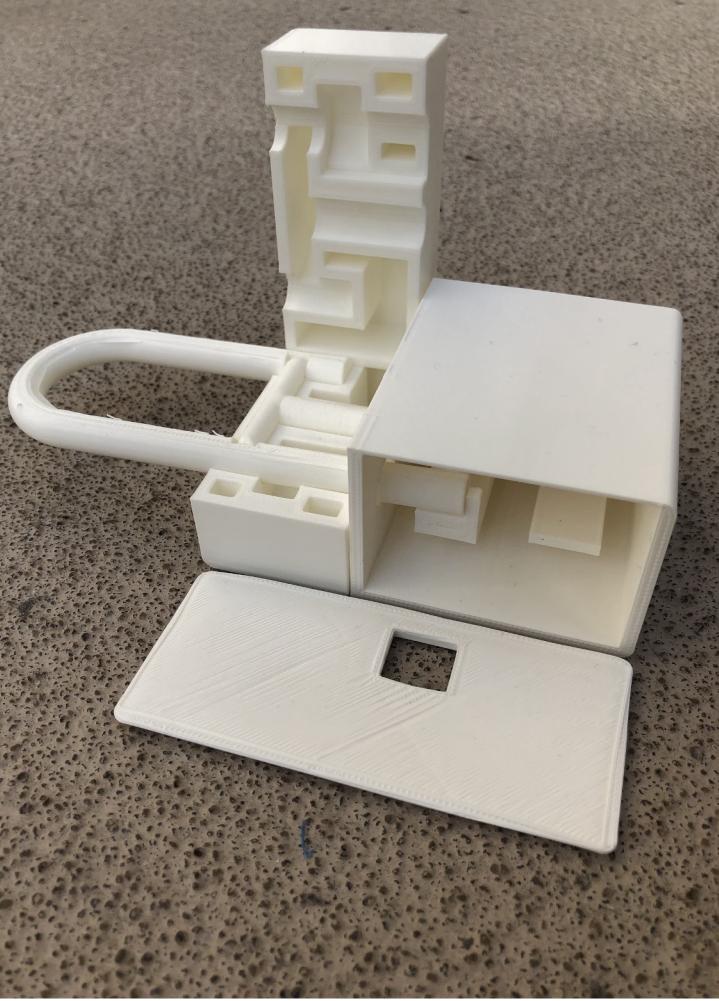
- ◆ Servo
- ◆ Ball bearing lock
- ◆ Shackle

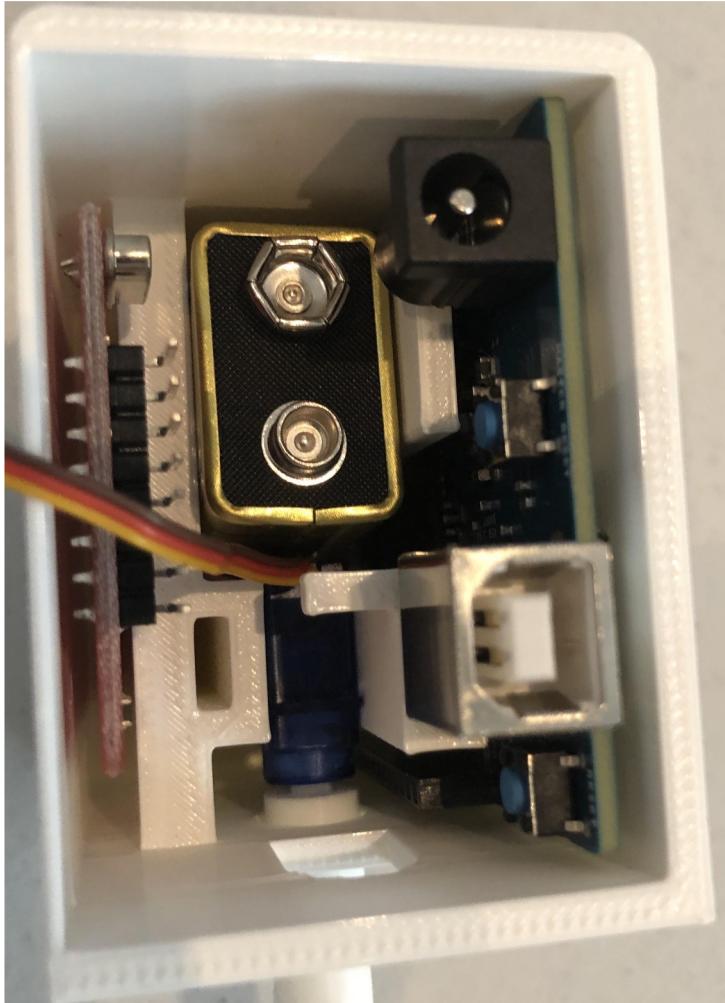
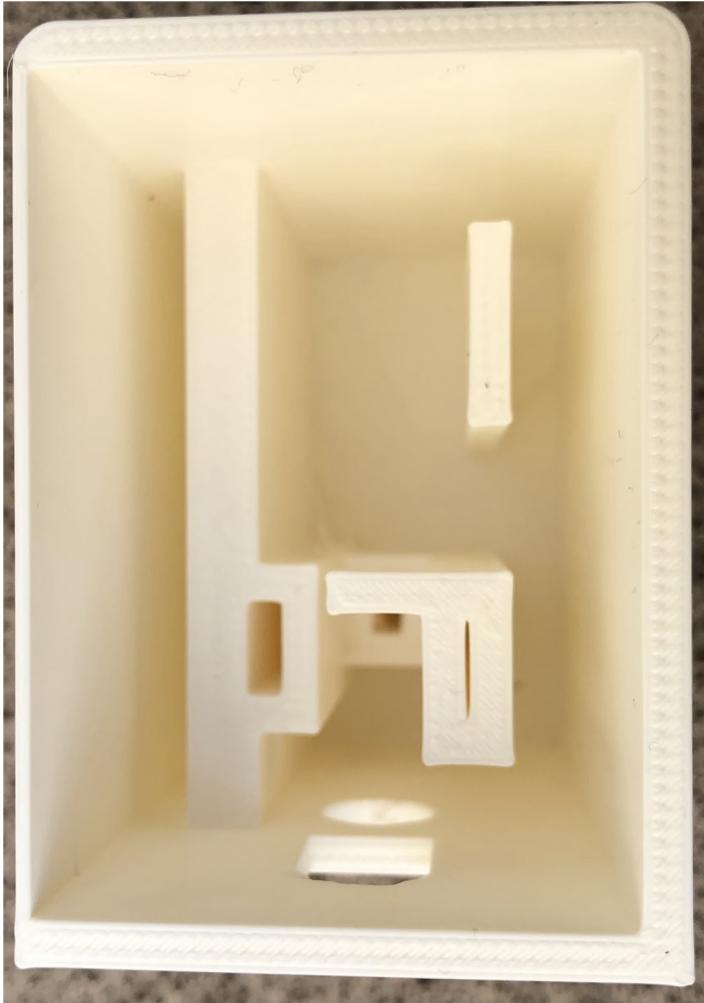
## Hardware/Software

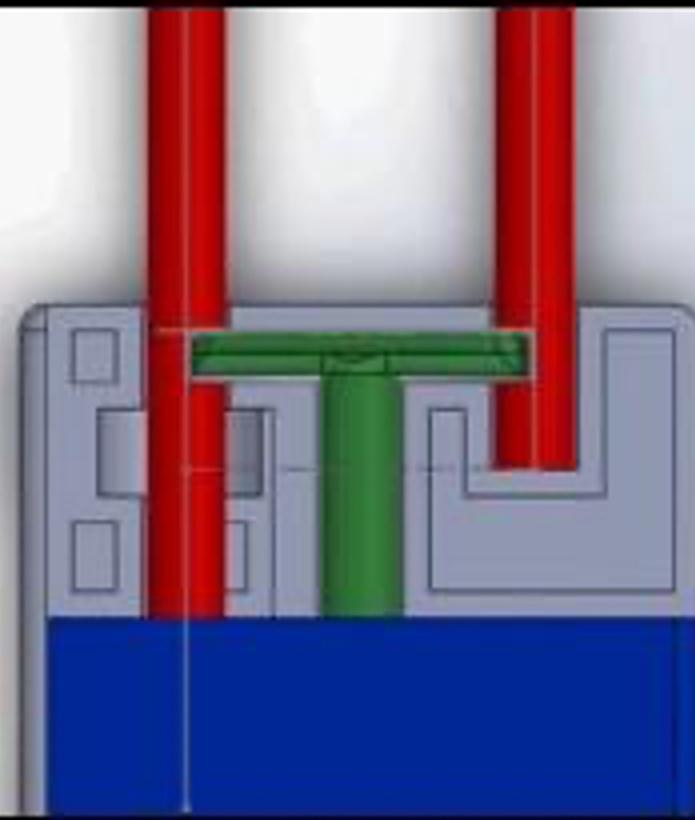
- ◆ RFID Sensor
- ◆ Indicator LEDs
- ◆ Arduino











# *The Electronics*



and



- 
- ◆ Register any RFID device
  - ◆ Cards toggle lock state
  - ◆ Information saved to onboard memory
  - ◆ LED feedback
  - ◆ Optional Bluetooth access



4

# *The Future*

- 
- ◆ Different Designs
    - ◆ Compactness
    - ◆ Materials
  - ◆ Extended Bluetooth Access
  - ◆ Card Writer / Phone RFID
  - ◆ Two-Factor Authentication (because UCLA <3 Duo)



*Any Questions?*