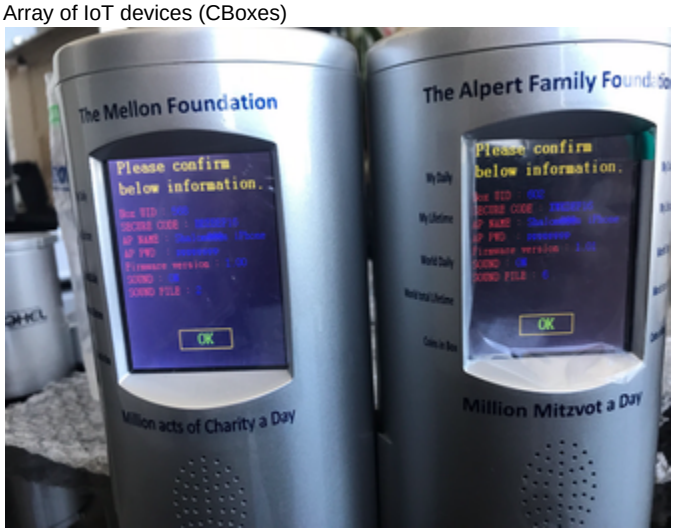
IoT Integration

Background:

- Array of IoT devices (CBoxes)
- 

- Each CBox communicates with web service
- Each CBox is driven by 2 PIC MCU processors:
  - Main board MCU datasheet PIC32MX170F512L: http://ww1.microchip.com/downloads/en/DeviceDoc/60001290E.pdf
  - Acceptor board MCU: PIC16F1827 https://ww1.microchip.com/downloads/en/DeviceDoc/41391D.pdf
  - Firmware c-code available at: https://github.com/xybio/mm-cbox-firmware
- 2 Versions of web service:
  - Version R: Hosted at http://millionmitzvot.com
    - SSH via public key RSA
  - Version S: Hosted at http://dev.mvot.xyz
    - See: https://github.com/xybio/mm-cbox-web-laravel
- See the CBoxWeb Service API at: https://documenter.getpostman.com/view/233366/RzfgmoBk

Required knowledge:

- Networks: TCP/IP & HTTP / AWS Security Groups/Firewalls / nginx
- Must be expert at network debugging issues
- C Firmware programming
  - Need the ICD3 hardware: https://www.microchip.com/Developmenttools/ProductDetails/DV164035
- Knowledge of web service API programming (Laravel)

Problem:

- The CBox successfully communicates with Version R of the web service
  - Verify this via a button on the CBox.
- The CBox **fails** to communicate with Version S of the web service.
  - CBox freezes/unresponsive

Deliverables:

- Working demonstration of Version S interfacing successfully with a CBox.
- Code + Documentation demonstrating the solution.
- Confirmation of solution via QA.