Members in Attendance

- Josh Mendez (Sponsor/Advisor)
- Nathan Truong
- Felix Moss
- Annika Boyd
- Eisa Alsharifi

Agenda

- Design portion of Report
- PCB Testing
- Ethics assignment

Notes

- Design and ethical considerations assignment was completed and turned in.
- PCB debugging was done
    - Without the ucontroller, testing to see what the voltage are from the ucontroller at 3.3V and 9V, since 3.3V is currently reading 5V
        - ADC, Ucontroller, and AVDD needs 5V (0 to 5V), rn it is at 0-4.5V which is the problem
- Josh PCB box has arrived
    - All holes are properly drilled
    - Entrance hole for dust particles has been shrunken for the admission of ~single dust particles for observation
    - Our faraday tube now is only the distance between the PCB and the lid, so it must be cut down (cannot touch the lid)
        - Teflon insulation will be used to surround this tube
        - PCB Box H = 2.5cm, screw risings H=0.5cm, PCB H=0.1cm, 2.5cm-0.5cm-0.1=1.9cm=Maximum faraday tube length.
            - Should shoot for 1.5cm for the copper so it isn't touching the lid
    - Need small standoffs for the PCB to keep it from sitting on top of the raw aluminum casing
        - We bought plastic standoffs today, had to cut down the bodies of the screws in half (10 cents each per screw and standoff)
    - Also need 3D printed battery holder
    - We had understood and been planning for a 5V virtual gnd, not 5V range from Vdd to virtual gnd
    - Fix virtual gnd to be 4 V
    - Buffer is increasing virtual gnd by ~0.7V
    - Need to decrease planned virtual gnd to ~3.3V to make up for it
        - Did it yayyyyyyyy — wifi works yayyyyyyy