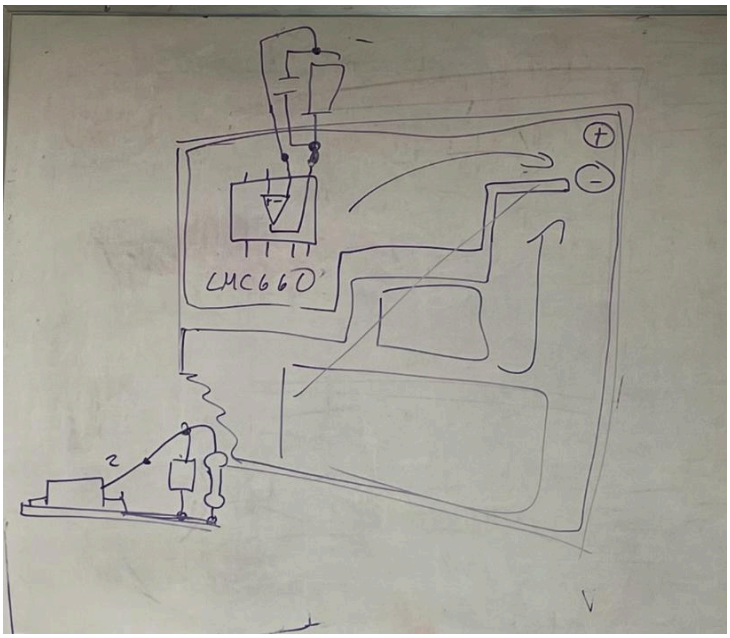
Members in Attendance

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

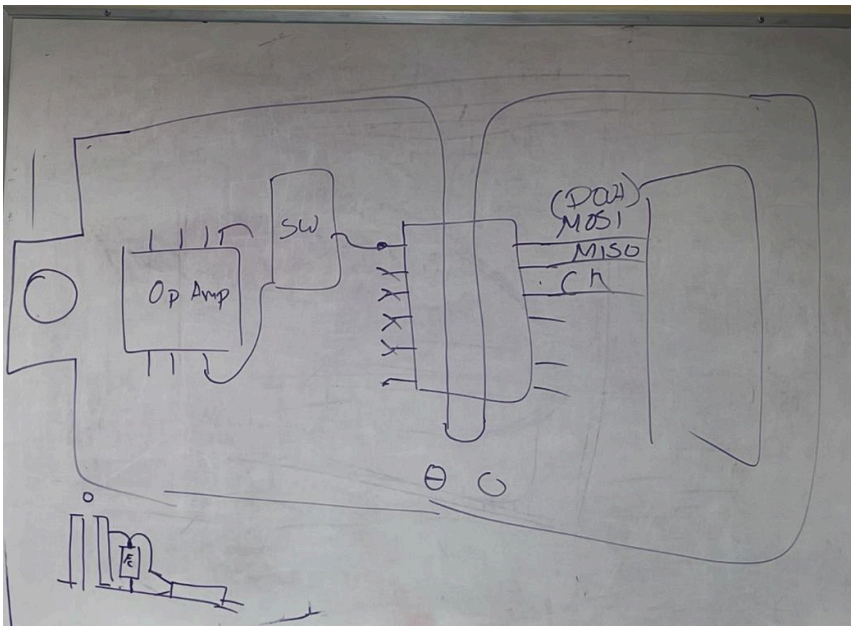
Agenda

- Breadboard testing
- PCB prep

Notes

- Josh looked at our pcb on kicad
    - Wires going from faraday cup too exposed to leakage currents
    - Make ground pour that keeps signals that use it away from sensitive elements of the circuit
        - Make a split in the plane between the sensitive parts and the non-sensitive parts
    - For the op-amp, bend (-) pin up and solder the components that need to connect to it off the board (these components are the cap and resistor in the op amps feedback loop)
    - 

Bottom left is air-connected components, middle is the split ground plane, arrows are the path that ground connected signals will take. There will be minimal signal noise and leakage current using these techniques
    - Digital on one side analog on the other

- 

This technique would be better, with components that are digital on one side and analog on the other.
    - If using surface mount, use 0805 or 1206, or just use thru-hole
    - Would prefer to use thru-hole opamp
- Tube
    - Start out with quarter inch
    - Make footprint a few mm larger
        - D = 8mm
        - Internal hole is 4mm, open thru the board
        - 4in tall

Deliverables

- Update the PCB (V1.1) and prepare for print
- Prepare CAD for tube