

- Charge a Plate

- See how Charge dissipates (time, waveform)
- Measure E-field difference from geometry (maybe negligible)

Questions:

- What does Validation look like for an experiment?

- How do I introduce Charge onto Plate?

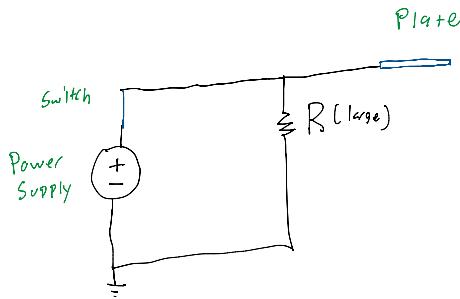
- Charged Capacitor

- Power Supply

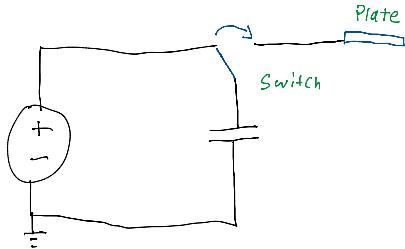
- Should Plate be Pos/neg Charged?

$$6.29 \times 10^{-6} \text{ Coulombs}, 3.14 \times 10^{-6} \text{ for } 50\text{V}$$

Schem 1)



Schem 2)



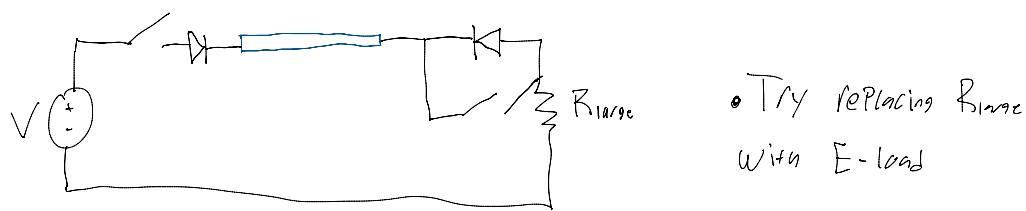
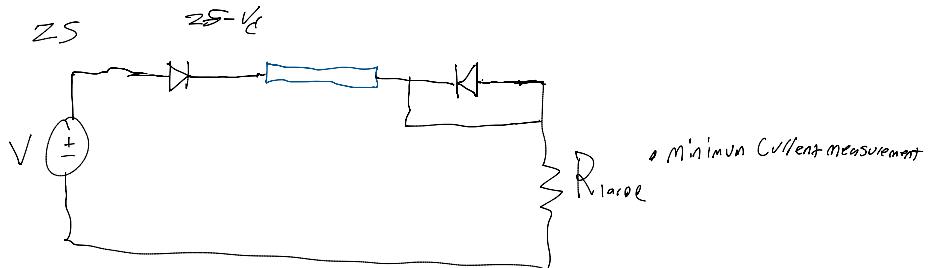
- Propelled by repulsion

- Charge Plate, leave

- Non Contact measurement required

- Pulse through diode?

- Trap the Voltage?



- Try replacing R_{load} with E-load

- Find if we have Fluke for EMF

- If no, try diode tests designed earlier

- Joseph Kujawski

Cubesat Specs:

Total Space Available - 80 mm

Total Circular Plate Diameter - 89.56 mm

Insulator Thickness - 2.9 mm

Metal Plate Diameter - 81.61 mm

Cone Diameter - 75.43 mm

Circular Plate 25V test

Initial Plate Voltage: 25.2 V

$(25.2 \times 0.05) / V$ Time For 5% discharge: 4.32 ms

$(25.2 \times 0.1) / V$ Time For 10% discharge: 9.84 ms

Time For 15% discharge: 16.56 ms

Time For 20% discharge: 21.2 ms

Time For 25% discharge: 27.60 ms

Time For 35% discharge: 39.12 ms

Time For 50% discharge: 61.2 ms

Time For 75% discharge: 97.2 ms

hemitropic — 77.75 mm