Prelab 4

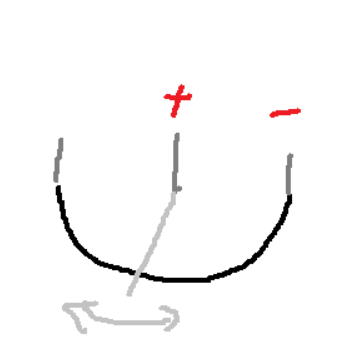
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1. I have an Arduino board.
2. 7/10
3. SparkFun Redboard Turbo
4. Tested and works!
5. Initially, the USB cord I was using didn’t allow communication. Switching cables allowed mine to start working

Graphical user interface, text, application

Description automatically generated

1. I would measure the analog current running through the potentiometer by connecting the knob and one of the ends to a voltage source. By measuring the current in series with the circuit, the current running through the potentiometer (and therefore resistance) can be found.



1. Power Calculation through Potentiometer with 5V input and 10k Resistor in parallel with voltage source.

P = V^2 / R so P = 5^2/(10\*10^3) = 0.0025 Joules

The potentiometer range is 180 degrees, so it can reach from 10k Ohms to 0 Ohms. Picture below doesn’t show it at maximum range.

Diagram

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