**Testing Procedures**

Voltage Inverter

* Connected according to datasheet
* Use multimeter to check if -Vout is correct value (approx. -5.0V)
* Tested various capacitors to find closest -Vout

Figuring out the Op-Amp Circuit

* We need to use the Op-Amp to amplify the voltage from the thermocouple wire
* Voltage gain per °C is
* Starting Temperature is Room Temperature, which is estimated to be 22 °C
* Peak temperature for Reflow is 235 °C
* Op-Amp saturates at around 4.5 V
* R1 = 1M Ω
* R2 = 2.2k Ω

Op-Amp (Including Nulling Offset)

* Determined gain needed for difference amplifier, chose resistors accordingly
  + Insert Calculations Here
* Weird difference amplifier setup according to schematics/datasheet
* Tested for null-offset by connecting inverting and non-inverting nodes to get Vn = Vp (Vout should then be 0)
* Measured Vout vs Ground
* Connected potentiometer to VosTrim and adjusted such that Vout was reasonably close to 0 (approx. <10mV), this value represented a temperature increasing of less than 0.25 degrees
  + Insert Calculations Here
* Approximate potentiometer resistance to null offset was 5kilo ohms

LED (In Progress)

* Attached LED
* Temperature commits sudoku????

Testing Assembly Code vs Python Script

* Wrote Assembly code to calculate and display the difference in temperature between the thermocouple and the cold junction
* Ran code at same time as python script (with cold junction set to 0 degrees)
* Compared values, checked resting/ambient temperature and tested with soldering iron (accuracy was within +/- 3, accounting for differences in sampling rates)