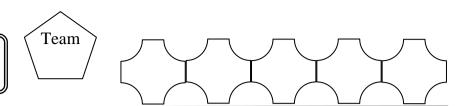


EE 251Basic Electrical Engineering

Simulation # 04



Programming Checklist:

Q: Temperature Sensor

- a) Build a quarter Wheatstone bring with a thermal resistor being the variable part as shown. Supply the bridge with a 9V battery.
- b) Read the bridge voltage when the thermal resistor is at room temperature (assume it is 25°C).
- c) Hold the resistor with your fingers and observe the change in the voltage until it becomes steady. This should correspond to 37°C.
- d) Make a linear fitting curve and adjust the voltage reading in the simulator to produce direct temperature values in °C.

DAQ USB Connection to PC
Building the Circuit
DAQ correct Input Channel
DAQ Assist Configuration
Meter Indicator
Linear Fitting Equations
LabVIEW Math VIs
Meter Indicator
Running Code Readout