

Lab 4 Prelab Assignment

My Application for this Circuit:

This circuit will be used to indicate at what temperature a cup of coffee is at. The lowest temperature will indicate that the temperature of the coffee is about room temperature. The second lowest temperature will indicate that the coffee is hotter than room temperature but still too cold. The next temperature will be the desired coffee temperature, and the last temperature will represent a coffee that is too hot.

Temperature (C)	Significance of Temperature
22	Coffee at room temperature
38	Coffee slightly too cold
54	Coffee at desired temperature
70	Coffee is too hot

Temp (C)	Sensor Voltage (V)	ideal R upper (kOhm)	ideal R lower (kOhm)	Standard R upper (kOhm)	Standard R lower (kOhm)	T error
22	2.223	55	45	51	43	+2/-3
38	3.26	35	65	36	62	+2/-4
54	3.85	25	75	24	75	+3/-3
70	4.25	15	85	16	91	+3/-3