

ENGR-325 Lab 5 Report

Your “lab book” is expected to contain a good record of your lab 5 work. Your lab book should include data and comments about what is done in lab and observations that support what you place in your report as detailed below.. The “report” for lab 5, to be handed in, will be responses to the questions below.

- 1) Calculate & report the thermal resistance of your heat sink using the best temperature data you collected.
- 2) Of the various methods used for measuring the temperature of the “heat sink”, which do you believe to be the most accurate and why? State the temperature of the plate.
- 3) Likely the temperature measured with the bead thermistor differed substantially from that measured with the washer thermocouple. Why? (The thermistor data sheet states that it is accurate to +/- 0.1 degree C)
- 4) Did the IR thermometer report a temperature comparable to the other methods? Why?
- 5) What method did you use to determine the time constant of the thermistor and what value did you arrive at? Please include a plot of the data you used.

NOTE: Your in-lab notes need to be neatly written on engineering paper when done by hand (which is just fine). Recall that these notes, lab reports, homework, inclass notes, etc. will be placed in a binder to create a portfolio of your work this quarter and will be graded as a whole in addition to the grading that is done on individual homework and lab assignments.