

AME 20216 – Score Sheet

A7 – Microcontrollers

Names: _____

The following items will be demonstrated to the lab instructor during the allotted lab time. Credit will not be given for portions completed outside of lab.

Item and Description	Points Awarded	Possible Points
Part I: Potentiometer Turning the potentiometer correctly adjusts the brightness of the LED. The PWM signal is visible on the oscilloscope.		4
Part II: Temperature Measurement The thermistor is correctly wired up in a voltage circuit. The correct temperature is displayed in the Arduino serial monitor.		3
Part III: Temperature Alarm The alarm lets out a short chirp every second if the measured temperature is above 302 K.		3
Part IV: Design Challenge 1 <ul style="list-style-type: none">• The threshold temperature is adjustable with the potentiometer.• The threshold and measured temperatures are printed to the serial monitor.		4
Part V: LCD Screen - Hello World! The Hello World! message is printed to the LCD screen.		3
Part VI: Design Challenge 2 <ul style="list-style-type: none">• The LCD screen displays the measured temperature and the threshold temperature.• The buzzer chirps if the measured temperature is above the threshold.		3
Clean-up The students returned the lab bench to its initial state.		2
TOTAL		22