

# ECET 260 - Lab 4

## ADC Interrupts

### **Make a project called adcInt**

Connect a 10K pot to PA0, the thermistor as before to PA1, and the internal die temperature.

ADC1 needs to read the values using an interrupt.

You should also blink the on board LED at a ½ second rate.

To turn on the interrupt you need to use the following:

### **Interrupt mode IO operation**

- Start the ADC peripheral using HAL\_ADC\_Start\_IT()
- Use HAL\_ADC\_IRQHandler() called under ADC\_IRQHandler() Interrupt subroutine
- At ADC end of conversion HAL\_ADC\_ConvCpltCallback() function is executed and user can add his own code by customization of function pointer HAL\_ADC\_ConvCpltCallback
- In case of ADC Error, HAL\_ADC\_ErrorCallback() function is executed and user can add his own code by customization of function pointer HAL\_ADC\_ErrorCallback
- Stop the ADC peripheral using HAL\_ADC\_Stop\_IT()

**Print your thermistor value, your die temperature, and pot voltage to 1 decimal place on the SWV ITM Data Console.**

**Make sure your main.c is documented appropriately.**

**Upload main.c as main.txt to D2L Assignments Lab4 folder by the start of Lab5.**