

## **4DS4: Lab Assignment # 3**

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### **Step 1**

#### **Input Needed**

- Analog input of the thermistor sensor needs to be processed from analog to digital signal in the PA0 port

#### **Processing**

- Convert analog data from thermistor to voltage values
- Convert voltage values to temperature

#### **Output**

- Display the temperature being read through the thermistor on the LCD display
- Port PA2 used to output to serial communication
- RGB LED to light up using PA8, PA9, PA10 ports

### **Step 2**

#### **Identify what you don't know or how to do**

- We need to know how to wire the thermistor to the nucleo32 board
- We need to know how to get the analog data from the thermistor
- We need to know how to wire the LCD display
- We need to know how to convert the analog data from the thermistor to voltage to temperature

### **Step 3**

#### **Find out/figure out what you don't know or know how to do**

- The thermistor was wired with help from the datasheet
- Analog data was obtained from the thermistor with the help of lecture slides for code and pinout configurations
- The LCD wiring was done using the lecture slides
- The analog values were converted to voltage values and temperature values with the help of lecture notes and live demos