

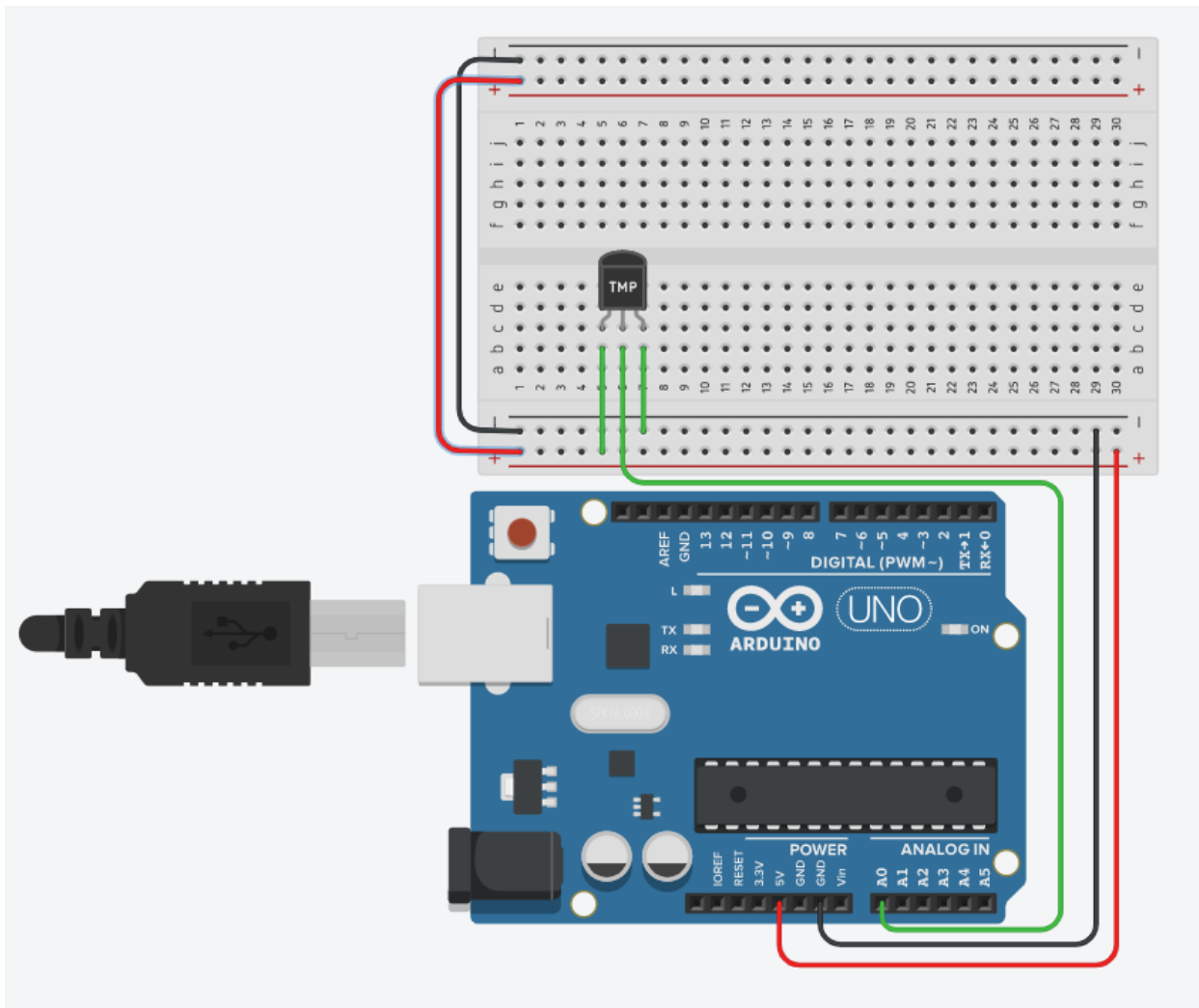
Tutorial and Assignment: Temperature Sensor

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Wire the following Circuit



Assignment: Human Temperature

LCD Screen

- a. Row 1: Will output the temperature from the sensor in Fahrenheit
- b. Row 2: Will output one of the following based on Sensor (NOTE: Use Fahrenheit)
 - i. Range: Sensor ≤ 60 : Output "ERROR OUT OF RANGE"
 - ii. Range: Sensor ≤ 95 : Output "Danger: Hypothermia"
 - iii. Range: $95 \leq$ Sensor ≤ 99.5 : Output "Normal"
 - iv. Range: $99.5 \leq$ Sensor ≤ 103 : Output "Caution Feverish"
 - v. Range: Sensor > 103 : Output "DANGER!!"
 - vi. Range: Sensor > 110 Output "ERROR OUT OF RANGE"

NOTE: Writing an if statement DO NOT Write the range as shown above; Write as the following if (sensor ≥ 95 && sensor ≤ 99.5)
Variables can only be compared to one thing at a time

2. Wire RGB LED: Change Color Based on the following Temperature
 - a. Range: Sensor ≤ 60 : Color: PURPLE
 - b. Range: Sensor ≤ 95 : Color: BLUE
 - c. Range: $95 \leq$ Sensor ≤ 99.5 : Color: GREEN
 - d. Range: $99.5 \leq$ Sensor ≤ 103 : Color: YELLOW
 - e. Range: Sensor > 103 : Color: RED
 - f. Range: Sensor > 110 : Color: PURPLE

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