ME331 Project 5

In this project, you will build a cooling fan that cools down an object that experiences excessive heat.

1. Wire a DC motor (with the little propeller) as in week8b

2. Wire a temperature sensor to your circuit (see Project 3)

3. Wire RGB LED or three LEDs (red, yellow, and blue)

4. Write a code so that the motor and LED behave as follows:

    1) Room temperature: LED turns blue and motor **off**
    2) Slightly higher than room temperature: LED turns yellow, and motor spins at **50% speed**
    3) Significantly higher than room temperature: LED turns red, and motor spins at **maximum** speed

You may pick your own temperature threshold to clearly demonstrate the three cases. Holding a mug containing a hot liquid near the sensor is an example that can work. Recall that the sensor is slow. It may take a few minutes.

*If your temperature sensor is broken, you can replace it with a photocell and use brightness instead of temperature. Report the resistance threshold in this case.

Submit:

1. In text, describe the two temperature thresholds you used
2. Video demonstrating the three motor settings
3. Code