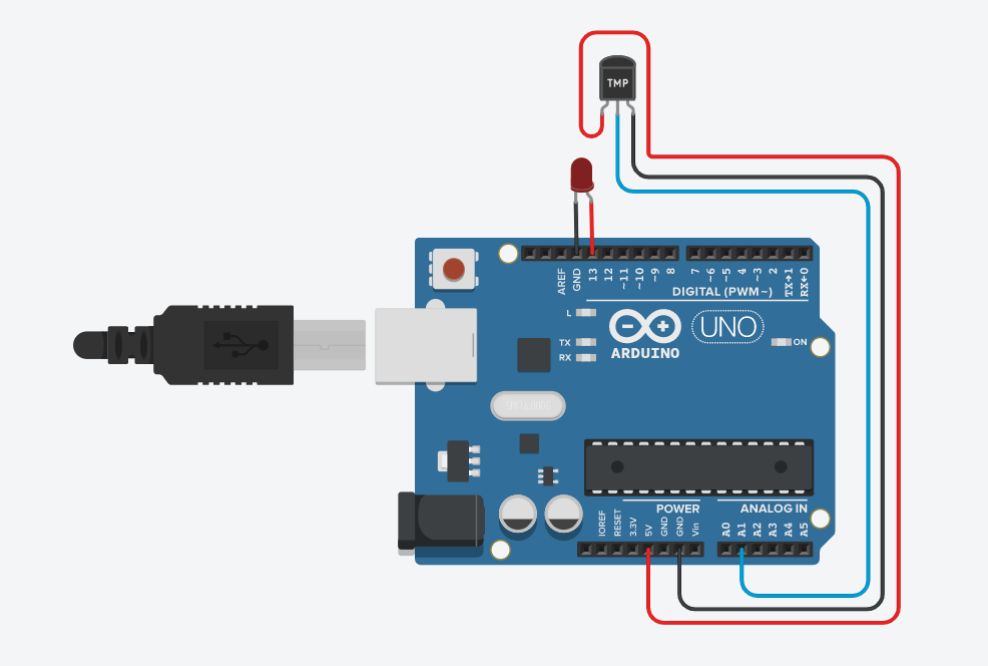
Task M1.T1P

Build a simple Sense-Think-Act Board

A SCHEMATIC DIAGRAM OF MY BOARD



A SCREENSHOT OF MY SYSTEM MONITORING LOG

Serial Monitor

```
Temperature lowered to 40 degrees!
Temperature exceeded 40 degrees!
Temperature lowered to 40 degrees!
Temperature exceeded 40 degrees!
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Temperature lowered to 40 degrees!
Temperature exceeded 40 degrees!
```

THE SOURCE CODE OF MY PROGRAM

```
void setup()
{
  pinMode(13, OUTPUT);
  Serial.begin(9600);

}

void loop()
{
  int sensorReading = analogRead(A1);

  float voltage = sensorReading * (5000 / 1024.0);
  int temperature = (voltage - 500) / 10;

  if (temperature > 40 && digitalRead(13) == LOW) {
    digitalWrite(13, HIGH);
    Serial.println("Temperature exceeded 40 degrees!");
  }

  else if (temperature <= 40 && digitalRead(13) == HIGH) {
    digitalWrite(13, LOW);
    Serial.println("Temperature lowered to 40 degrees!");
  }
}
```