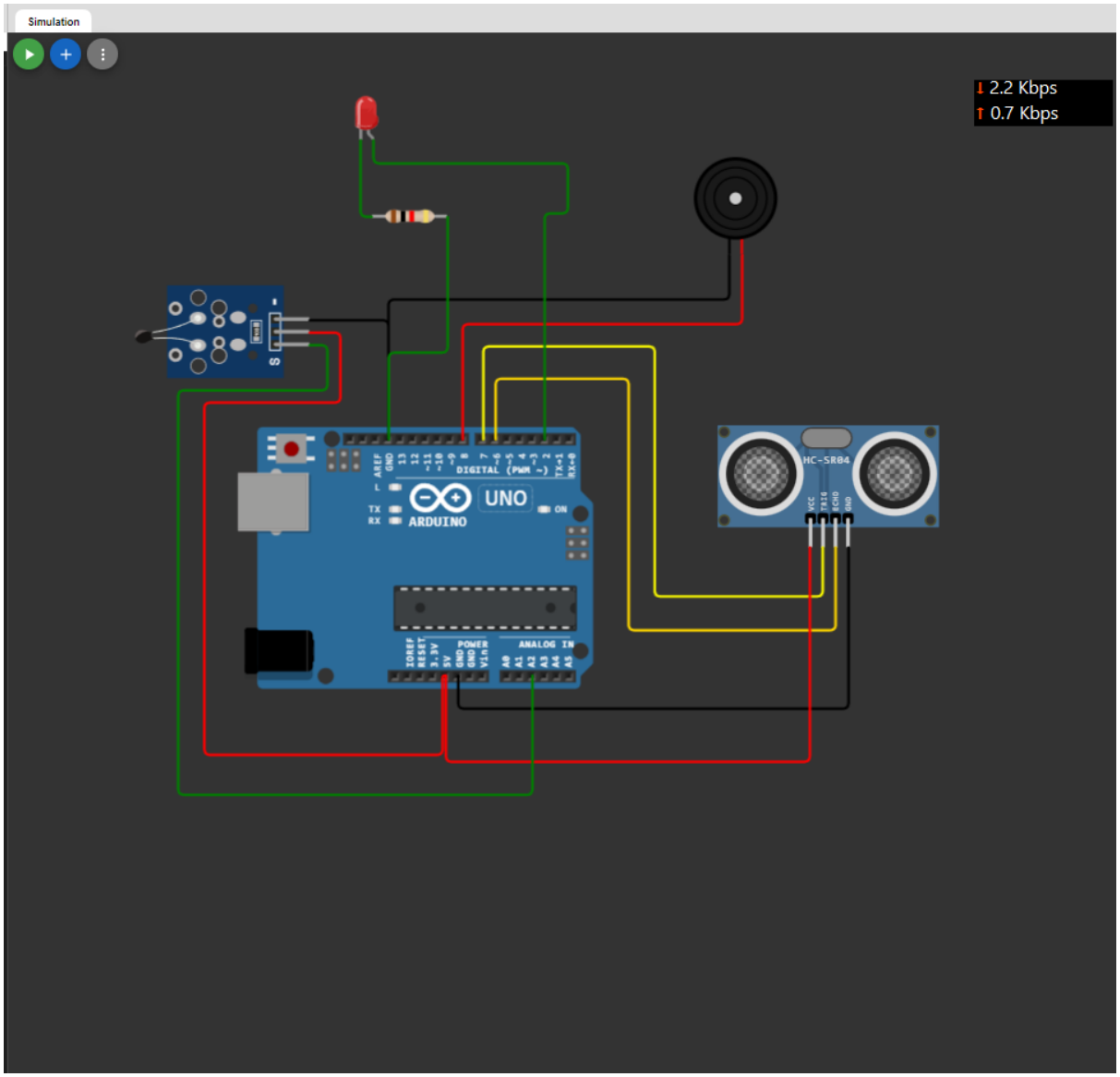
TEAM-5

TEAM ID

NM2023TMID15160

NAME

M.MONISHA


Simulation
2.2 Kbps
0.7 Kbps
UNO
ARDUINO
HC-SR04

```
const int high = 38; //Hig temperature in Celsies
#define NTC_R0 10000 // Resistance at reference temperature (25C)
#define NTC_B 3950
#define pitch 262

const int buzzer = 8;
int echopin = 6;
int trigpin = 7;
int distance_object;
int getDistance;

void setup() {
  pinMode(A2, INPUT);
  pinMode(2, OUTPUT);
  Serial.begin(9600);
  pinMode(buzzer, OUTPUT);
  pinMode(trigpin, OUTPUT);
  pinMode(echopin, INPUT);
}
void loop() {
  int sensor = analogRead(A2);
  float resistance = 10000.0 / (1023.0 / sensor - 1.0);
  float steinhart = resistance / NTC_R0; // (R/Ro)
  steinhart = log(steinhart);             // ln(R/Ro)
  steinhart /= NTC_B;                     // 1/B * ln(R/Ro)
  steinhart += 1.0 / (25 + 273.15);       // + (1/To)
  float tempC = 1.0 / steinhart - 273.15;
  Serial.println("temp: ");
  Serial.print(tempC);
  if (tempC < high )
  {
    digitalWrite(2, HIGH);
    Serial.println("Bulb ON");
  }
  else{
    digitalWrite(2, LOW);
    Serial.println("Bulb OFF");
  }
  delay((3000));
 digitalWrite(trigpin,LOW);
 delayMicroseconds(2);
 digitalWrite(trigpin,HIGH);
 delayMicroseconds(10);
 digitalWrite(trigpin,LOW);
 getDistance = pulseIn(echopin,HIGH);
 distance_object = (getDistance/2)/29.0;

 if(distance_object <= 15)
```

```
 {
  digitalWrite(buzzer,HIGH);
  tone(buzzer,pitch);
  delay(250);
  digitalWrite(buzzer,LOW);
  noTone(buzzer);
  delay(125);
 }
 else
 {
  digitalWrite(buzzer,LOW);
 }
 Serial.println(distance_object);

}
```