const int trigPin = 23; // Ultrasonic sensor trigger pin

const int echoPin = 22; // Ultrasonic sensor echo pin

const int redLedPin = 5;  // Red LED pin

const int greenLedPin = 15; // Green LED pin

unsigned long duration;

float distance;

void setup() {

  pinMode(trigPin, OUTPUT);

  pinMode(echoPin, INPUT);

  pinMode(redLedPin, OUTPUT);

  pinMode(greenLedPin, OUTPUT);

  digitalWrite(redLedPin, LOW);

  digitalWrite(greenLedPin, LOW);

**Serial**.begin(9600);

}

void loop() {

  digitalWrite(trigPin, LOW);

  delayMicroseconds(2);

  digitalWrite(trigPin, HIGH);

  delayMicroseconds(10);

  digitalWrite(trigPin, LOW);

  duration = pulseIn(echoPin, HIGH);

  if (duration > 0) {

    distance = duration \* 0.034 / 2; // Calculate distance in cm

**Serial**.print("Distance: ");

**Serial**.print(distance);

**Serial**.println(" cm");

    if (distance <= 200) {

      digitalWrite(redLedPin, HIGH);

      digitalWrite(greenLedPin, LOW);

    } else {

      digitalWrite(redLedPin, LOW);

      digitalWrite(greenLedPin, HIGH);

    }

  } else {

**Serial**.println("Error: No pulse received.");

  }

  delay(10000); // Delay 10 seconds before next measurement

}

