const int trigPin = 17; // Ultrasonic sensor trigger pin

const int echoPin = 16; // Ultrasonic sensor echo pin

const int redLedPin = 12; // Red LED pin

const int greenLedPin = 13; // Green LED pin

long duration;

int 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);

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

Serial.print("Distance: ");

Serial.print(distance);

Serial.println(" cm");

// Check if distance is not detected or is 0

if (distance == 2) {

// Turn on both LEDs

digitalWrite(redLedPin, HIGH);

digitalWrite(greenLedPin, HIGH);

} else {

// Control LEDs based on distance

if (distance <= 4) {

digitalWrite(redLedPin, HIGH);

digitalWrite(greenLedPin, LOW);

} else {

digitalWrite(redLedPin, LOW);

digitalWrite(greenLedPin, HIGH);

}

}

delay(1000); // Delay 1 second before next reading

}