

```
#define trigPin 2

#define echoPin 3

long duration;

int distance;

const int redPin = 9;

void setup(){

    pinMode(trigPin, OUTPUT);

    pinMode(echoPin, INPUT);

    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;

    delay(2000);

    Serial.print("Distance: ");

    Serial.print(distance);

    Serial.println(" cm");

    if(distance <= 10){

        analogWrite(redPin,255);

        Serial.println("ON");

    }

    else{

        analogWrite(redPin,64);

        Serial.println("partially ON");

    }

}
```

