int trigPin = 11; // Trigger

int echoPin = 12; // Echo

int redled = 13;

int greenled =5;

long duration, cm, inches;

void setup() {

//Serial Port begin

Serial.begin (9600);

//Define inputs and outputs

pinMode(trigPin, OUTPUT);

pinMode(echoPin, INPUT);

pinMode(redled, OUTPUT);

pinMode(greenled, OUTPUT);

}

void loop() {

// The sensor is triggered by a HIGH pulse of 10 or more microseconds.

// Give a short LOW pulse beforehand to ensure a clean HIGH pulse:

digitalWrite(trigPin, LOW);

delayMicroseconds(5);

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

// Read the signal from the sensor: a HIGH pulse whose

// duration is the time (in microseconds) from the sending

// of the ping to the reception of its echo off of an object.

pinMode(echoPin, INPUT);

duration = pulseIn(echoPin, HIGH);

cm = (duration/2) / 29.1; // Divide by 29.1 or multiply by 0.0343

inches = (duration/2) / 74; // Divide by 74 or multiply by 0.0135

if (cm < 20)

{

digitalWrite(redled,HIGH);

delay(250);

digitalWrite(redled,LOW);

delay(250);

}

else {

digitalWrite(greenled,HIGH);

delay(250);

digitalWrite(greenled,LOW);

delay(250);

}

Serial.print(inches);

Serial.print("in, ");

Serial.print(cm);

Serial.print("cm");

Serial.println();

delay(250);

}