**Code:**

#include <LiquidCrystal.h>

#include <Servo.h>

Servo myservo;

const int trigPin = 8;

const int echoPin = 9;

int red=7,green=13,buz=10;

long duration;

int distance;

// initialize the library with the numbers of the interface pins

LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

void setup() {

// set up the LCD's number of columns and rows:

lcd.begin(0, 0);

// Print a message to the LCD.

lcd.print("Sanitizer");

Serial.begin(9600);

pinMode(red,OUTPUT);

pinMode(green, OUTPUT);

pinMode(buz, OUTPUT);

pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output

pinMode(echoPin, INPUT); // Sets the echoPin as an Input

myservo.attach(6);

}

void u\_distance()

{

// Clears the trigPin

digitalWrite(trigPin, LOW);

delayMicroseconds(2);

// Sets the trigPin on HIGH state for 10 micro seconds

digitalWrite(trigPin, HIGH);

delayMicroseconds(10);

digitalWrite(trigPin, LOW);

// Reads the echoPin, returns the sound wave travel time in microseconds

duration = pulseIn(echoPin, HIGH);

// Calculating the distance

distance= duration\*0.034/2;

// Prints the distance on the Serial Monitor

Serial.print("Distance: ");

Serial.println(distance);

}

void loop() {

// set the cursor to column 0, line 1

// (note: line 1 is the second row, since counting begins with 0):

lcd.setCursor(0, 1);

u\_distance();

delay(500);

if(distance<=15)

{

lcd.clear();

myservo.write(45);

digitalWrite(red,LOW);

digitalWrite(green,HIGH);

digitalWrite(buz,HIGH);

lcd.print("It's open");

Serial.println("It's open");

delay(500);

}

else{

lcd.clear();

myservo.write(0);

digitalWrite(green,LOW);

digitalWrite(red,HIGH);

digitalWrite(buz,LOW);

pinMode(trigPin, OUTPUT);

lcd.print("It's close");

Serial.println("It's close");

delay(500);

}

}

**Circuit:**

