#include<Servo.h>

Servo myservo;

int echopin=4;

int trigpin=5;

void setup() {

// put your setup code here, to run once:

pinMode(echopin,INPUT);

pinMode(trigpin,OUTPUT);

myservo.attach(13);

Serial.begin(9600);

}

void loop() {

// put your main code here, to run repeatedly:

digitalWrite(trigpin,HIGH);

delay(1000);

digitalWrite(trigpin,LOW);

int duration = pulseIn(echopin,HIGH);

int distance=duration\*0.0343/2;

Serial.print("the distance is");

Serial.println(distance);

If(distance<=500){

for(int pos=0;pos<=180;pos=pos+1){

delay(5000)

myservo.write(pos);//open

Serial.println(pos);

}

}

else(

for(int pos=180;pos>=0;pos=pos-1){

myservo.write(pos);

Serial.println(pos);

}

}

}