#include<Servo.h>

#define trigPin D4 //sensor B

#define echoPin D5

Servo myservo;

int pos = 180; // 180 degree

int sensorPin = A0;

int sensorValue;

int d = 0;

long duration;

long distance;

void setup() {

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

Serial.begin (9600);

pinMode(trigPin,OUTPUT);

pinMode(echoPin,INPUT);

myservo.attach(13);

}

void loop() {

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

digitalWrite(trigPin,HIGH);

delayMicroseconds(10);

digitalWrite(trigPin,LOW);

duration=pulseIn(echoPin,HIGH);

distance=duration\*0.034/2;

Serial.print("Distance: ");

Serial.println(distance);

delay(1000);

sensorValue = analogRead(sensorPin);

Serial.println("Moisture Value : ");

Serial.println(sensorValue);

if((distance < 50) || (distance > 2000)){

// object is detected

d = 1;

Serial.println("Detected");

}

else{

d = 0;

}

if(sensorValue < 400 && d == 1){

// moisture is detected

myservo.write(180);

}

if(sensorValue > 400 && d == 1){

// moisture not detected

myservo.write(-180);

}

if (d == 0){

// object not detected

myservo.write(90);

}

delay(2000);

}