int val = 0; //value for storing moisture value
int soilPin = A0;//Declare a variable for the soil moisture sensor
int soilPower = 7;//Variable for Soil moisture Power
int drySoil = 9;
int wetSoil = 13;
//Rather than powering the sensor through the 3.3V or 5V pins,
//we'll use a digital pin to power the sensor. This will
//prevent corrosion of the sensor as it sits in the soil.

void setup()
{
    Serial.begin(9600); // open serial over USB
    pinMode(soilPower, OUTPUT);//Set D7 as an OUTPUT
digitalWrite(soilPower, LOW);//Set to LOW so no power is flowing through the sensor
pinMode(drySoil, OUTPUT);
pinMode(wetSoil, OUTPUT);
}

void loop()
{
    if(readSoil() > 600){
        Serial.println("wetSoil");
digitalWrite(wetSoil, HIGH);
digitalWrite (drySoil, LOW);
        delay(1000);
    }
    else{
        Serial.println("drySoil");
digitalWrite(drySoil, HIGH);
digitalWrite (wetSoil, LOW);
    }
    delay(1000);

Serial.print("Soil Moisture = "); //get soil moisture value from the function below and print it
Serial.println(readSoil());

//This 1 second time frame is used so you can test the sensor and see it change in real-time.
//For in-plant applications, you will want to take readings much less frequently.
delay(1000); //take a reading every second
}

//This is a function used to get the soil moisture content
int readSoil()
{
    digitalWrite(soilPower, HIGH);//turn D7 "On"
delay(10);//wait 10 milliseconds
    val = analogRead(soilPin);//Read the SIG value form sensor
digitalWrite(soilPower, LOW);//turn D7 "Off"
    return val; //send current moisture value
}