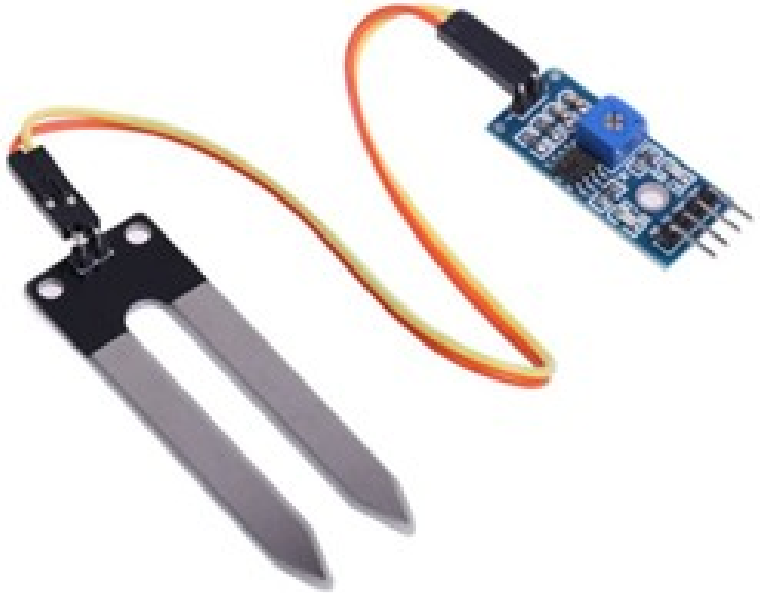
SOIL MOISTURE SENSOR INTERFACING WITH ARDUINO

Soil Moisture Sensor Module



Sensor Module Description

The soil moisture sensor module consists of two units, one unit will come in direct contact with the soil that consists of a conducting strip.

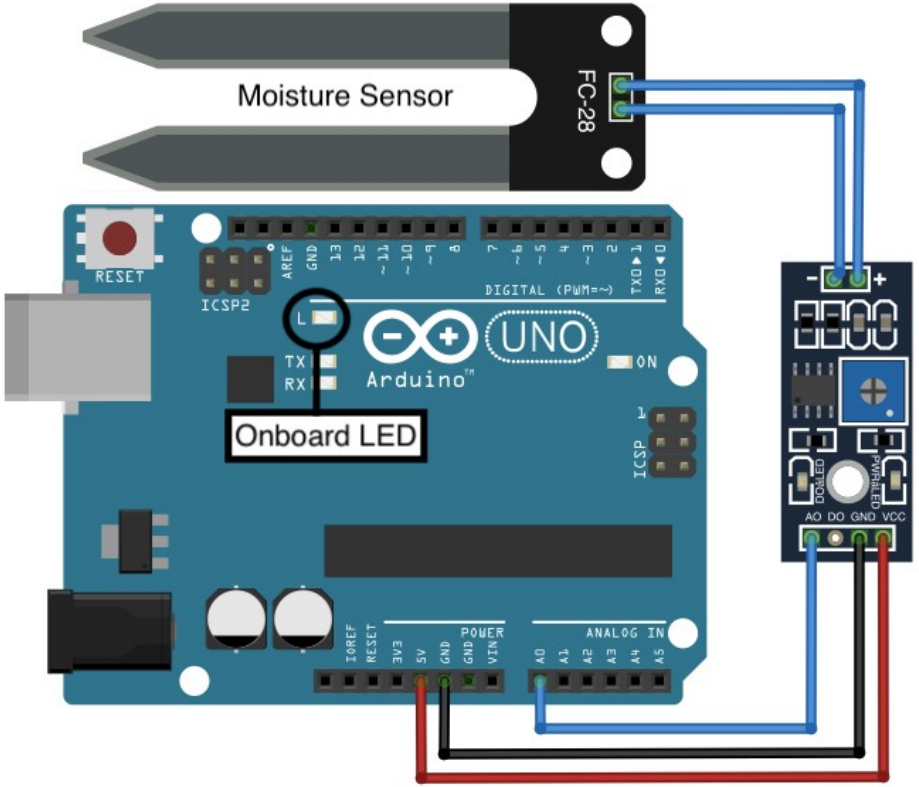
This unit is connected to the other unit that is a PCB board having comparator IC LM358.

LM358 IC compares the output voltage signal generated from the conducting strips with the preset voltage value set using onboard potentiometer.

The PCB module has both types of outputs, one is a direct analog output that is obtained from the conducting strips and the other is output of comparator module which is a digital signal.

In this case, the analog signal output of the sensor module is read by Arduino Uno.

Circuit Diagram



Code

```
int delta;
void setup() {
// put your setup code here, to run once:
Serial.begin(9600);
//serial communication at 9600 bps baud rate
pinMode(13, OUTPUT);
// Configuring built in LED on pin 13 as Output
digitalWrite(13, LOW);
// LED is OFF in the beginning
}
```

```
void loop() {
delta = analogRead(A0);
Serial.println(delta);
if (delta<400)
{
digitalWrite(13, LOW);
// the LED turns to OFF state
}
else
// surrounding is not wet
{
digitalWrite(13, HIGH);
}
delay(1000);
}
```

Test Circuit