

# Coding part moisture and Photoresistor sensor

## Sensor Explanation

### Photoresistor Sensor (LDR - Light Dependent Resistor)

A photoresistor, also known as an LDR (Light Dependent Resistor), is a sensor that changes its resistance based on the amount of light falling on it.

In bright light gives value is low

In darkness gives value is high

### Moisture Sensor

A soil moisture sensor is used to measure how wet or dry the soil is.

Wet soil gives LOW value,

Dry soil gives HIGH value

## Coding part

Here is the code you can see if you face any doubt while doing this task.



```
Mu 1.2.0 - code.py
Mode New Load Save Serial Plotter Zoom-in Zoom-out Theme Check Tidy Help Quit
untitled code.py
1 import time
2 from adafruit_crickit import crickit
3
4 ss = crickit.seesaw
5
6 # Moisture sensor on SIGNAL8 (analog)
7 moisture_pin = crickit.SIGNAL8
8 ss.pin_mode(moisture_pin, ss.INPUT)
9
10 # Photo sensor (HW-486) on SIGNAL2 (digital)
11 photo_sensor1 = crickit.SIGNAL2
12 ss.pin_mode(photo_sensor1, ss.INPUT)
13
14 # Photo sensor (HW-486) on SIGNAL3 (digital)
15 photo_sensor2 = crickit.SIGNAL6
16 ss.pin_mode(photo_sensor2, ss.INPUT)
17
18 while True:
19     # Read moisture sensor (analog)
20     moisture_val = ss.analog_read(moisture_pin)
21
```

```

22     # Read photo sensor
23     photo_val1 = ss.analog_read(photo_sensor1)
24
25     # Read photo sensor
26     photo_val2 = ss.analog_read(photo_sensor2)
27
28     # Print results
29     print("Moisture Sensor Value:", moisture_val)
30
31     if photo_val1 < 400:
32         print("left side-light on", photo_val1)
33     else:
34         print("left side is Dark", photo_val1)
35     if photo_val2 < 400:
36         print("Right side-light on", photo_val2)
37     else:
38         print("Right side is Dark", photo_val2)
39     time.sleep(1)
40

```

CircuitPython REPL

```

Moisture Sensor Value: 797
left side-light on 16
Right side-light on 19
Moisture Sensor Value: 799
left side-light on 16
Right side-light on 18
Moisture Sensor Value: 798
left side-light on 17
Right side-light on 19

```

You can adjust the value of checking condition and modify and see the output.