

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.



The screenshot shows the Mu 1.2.0 code editor interface. The toolbar at the top includes icons for Mode, New, Load, Save, Serial, Plotter, Zoom-in, Zoom-out, Theme, Check, Tidy, Help, and Quit. The code editor window shows a file named 'code.py' with the following content:

```
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)
```

```
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: 799
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.