EXP: 4

Date: **Measure the moisture level of soil using a soil moisture sensor**

AIM:

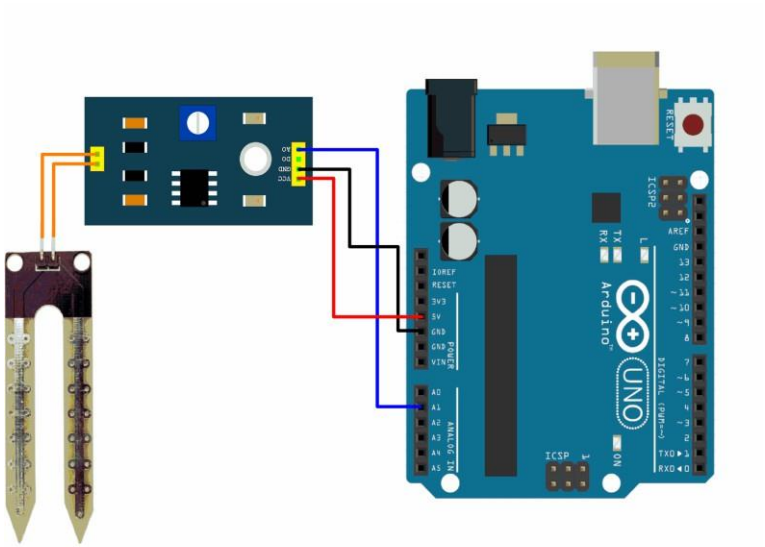
The aim of this experiment is to develop a system that can measure the moisture level of soil using a soil moisture sensor and Arduino Uno. The system control the sensor and to display the moisture level.

Algorithm:

The algorithm for the system is as follows:

1. The soil moisture sensor will be used to measure the moisture level of the soil.
2. The program will read the data from the sensor and display it on the screen.
3. The user will be able to see the moisture level of the soil and take action accordingly.
4. Connect the soil moisture sensor to the Arduino.
5. Write the program.
6. Run the program.

Circuit Diagram:

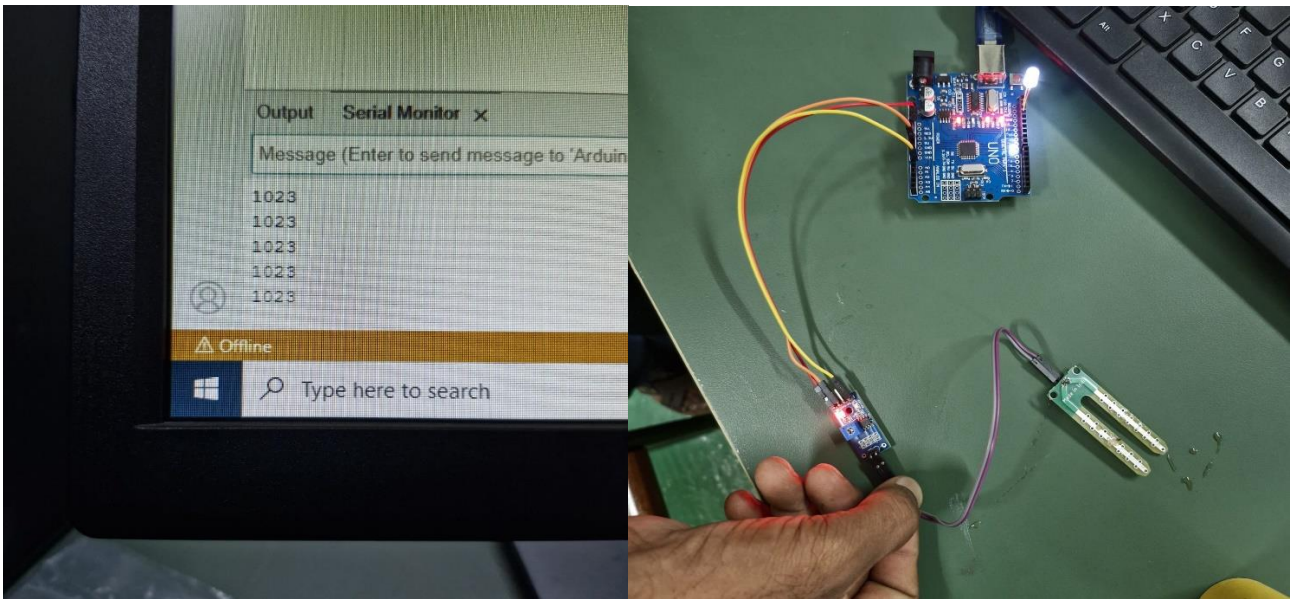


Program:

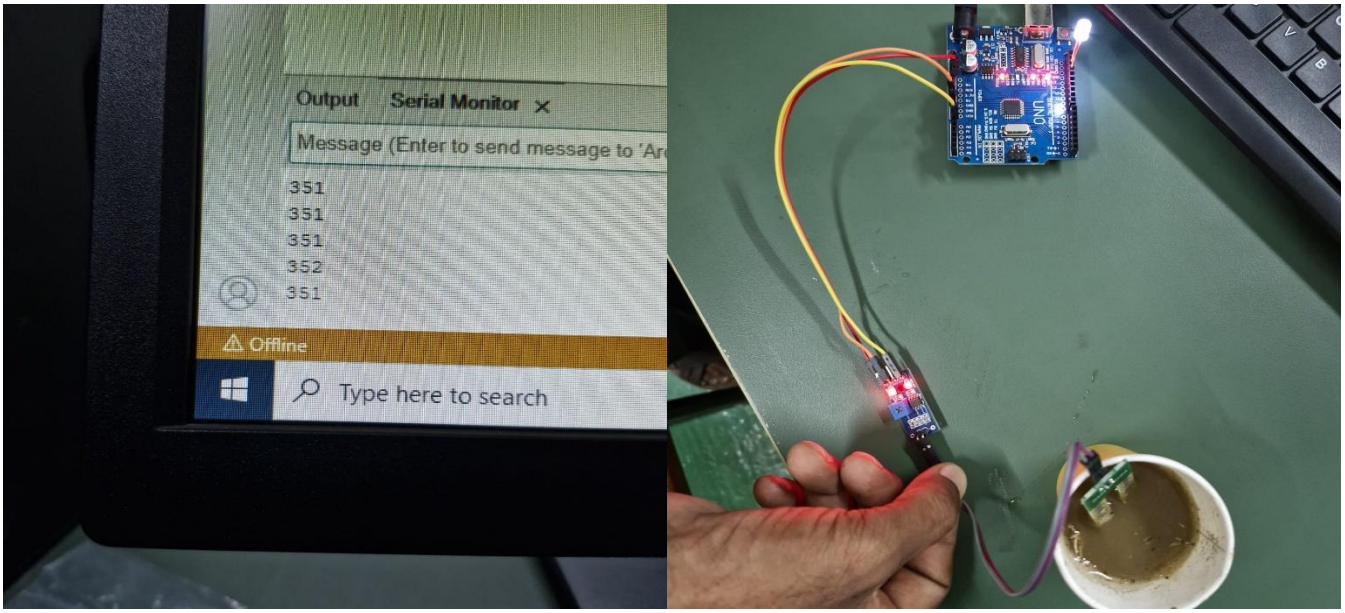
```
int sensor = A0;
void setup() {
  // put your setup code here, to run once:
pinMode(sensor,INPUT);
Serial.begin(9400);
}

void loop() {
  // put your main code here , to run repeatedly:
int x = analogRead(sensor);
Serial.println(x);
}
```

Output:

Input connection:



Output connection:



Result:

Thus, the moisture level of soil has been successfully measured using soil moisture sensor.