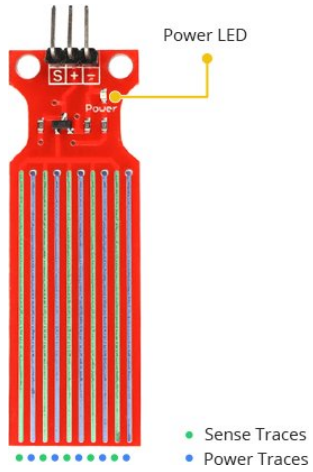
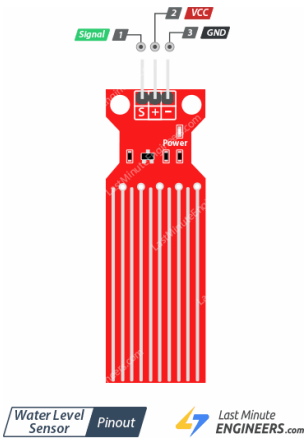
Principle

- The power and sense traces form a variable resistor (much like a potentiometer) whose resistance varies based on how much they are exposed to water.
  - The more water the sensor is immersed in, the better the conductivity and the lower the resistance.
  - The less water the sensor is immersed in, the poorer the conductivity and the higher the resistance.

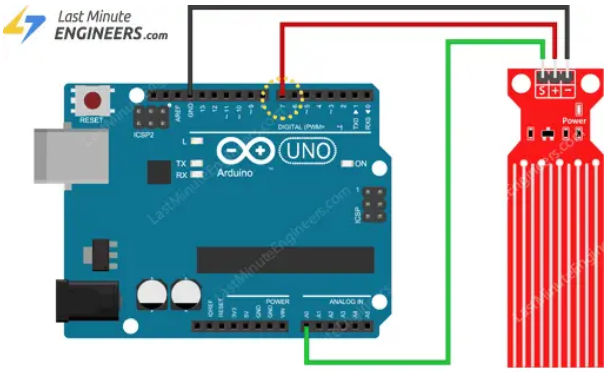


Hardware

Module



Schematic



Use a digital pin to power the sensor only when taking a reading to reduce corrosion.

Software

```
int readSensor() {
        digitalWrite(sensorPower, HIGH); // Turn the sensor ON
        delay(10); // wait 10 milliseconds
        val = analogRead(sensorPin); // Read the analog value form sensor
        digitalWrite(sensorPower, LOW); // Turn the sensor OFF
        return val; // send current reading
}

void loop() {
        //get the reading from the function below and print it
        int level = readSensor();
        Serial.print("Water level: ");
        Serial.println(level);
        delay(1000);
}
```

Links

In-Depth: How Water Level Sensor Works and Interface it with Arduino - Last Minute Engineers