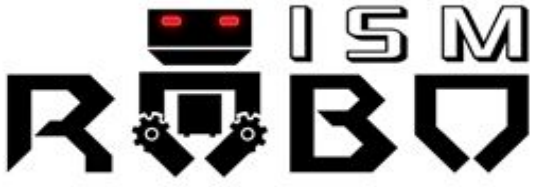


SMART IRRIGATION SYSTEM

PROBLEM STATEMENT

The task is to design a system that automatically supplies the water to plants/crops and maintains the moisture level of the soil.

SOLUTION

I used Arduino UNO and soil moisture sensor to detect the moisture level of the soil and supply water according to the requirements.

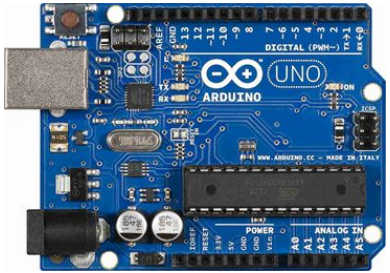
WORKING OF MOISTURE SENSOR

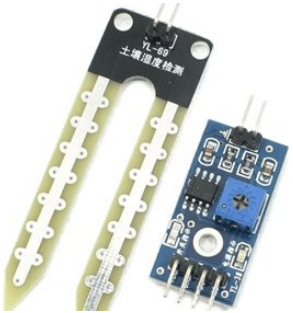
The soil moisture sensor consists of two probes which are used to measure the volumetric content of water. The two probes allow the current to pass through the soil and then it gets the resistance value to measure the moisture value.

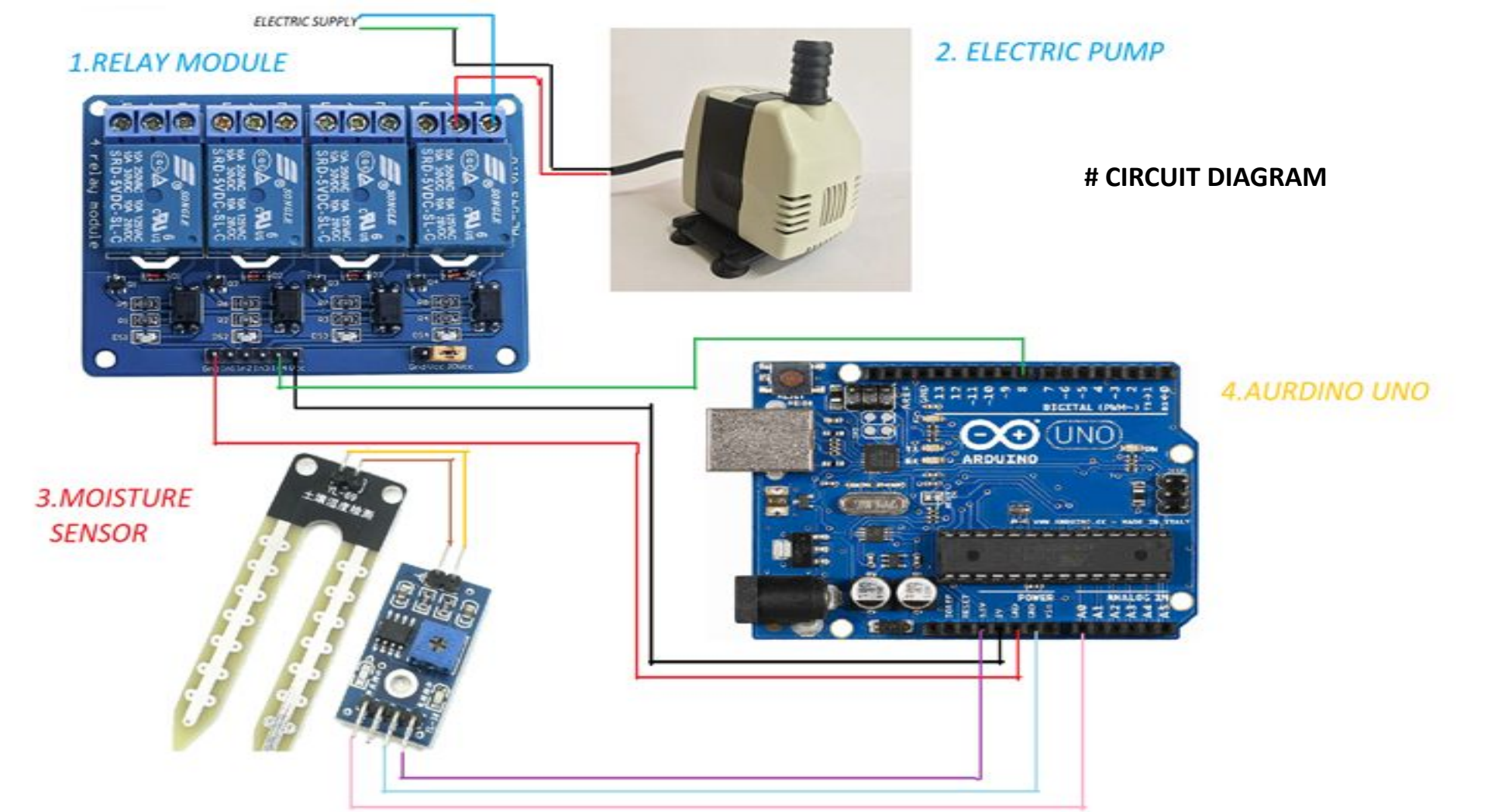
(i.e. Moisture $\propto$ 1/Resistance value)

COMPONENTS REQUIRED

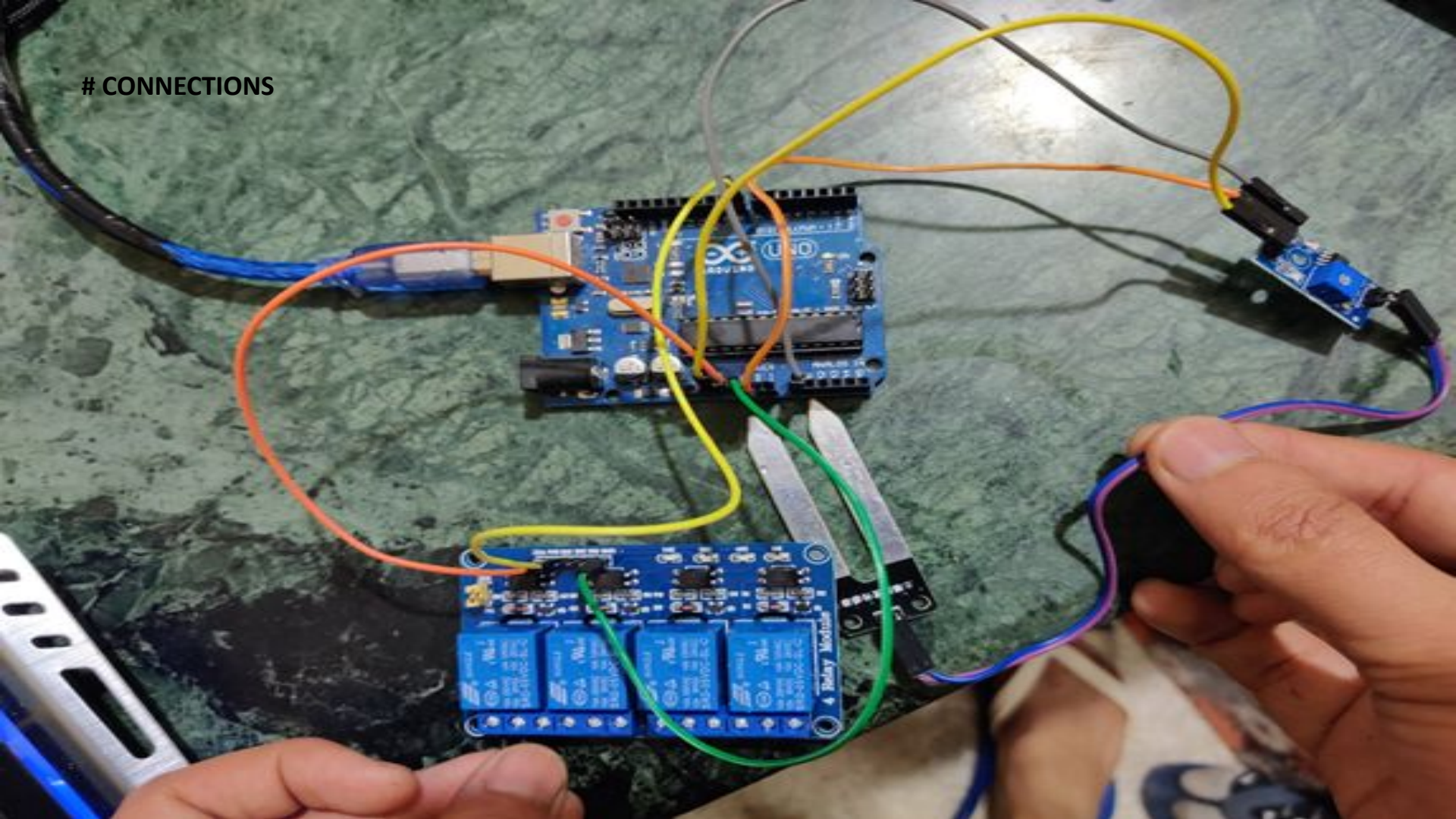
- ARDUINO UNO
- JUMPER WIRES
- RELAY MODULE
- ELECTRIC PUMP
- 9V BATTERY
- BREAD BOARD
- MOISTURE SENSOR






ELECTRIC SUPPLY
1.RELAY MODULE
2. ELECTRIC PUMP
CIRCUIT DIAGRAM
4.AURDINO UNO
3.MOISTURE
SENSOR

CONNECTIONS



 # CODE

```
int moisture_level;
void setup() {
  pinMode(A0,INPUT);
  pinMode(8,OUTPUT);
  Serial.begin(9600);
}

void loop() {
  int moisture_level = analogRead(A0);
   Serial.println(G);
   delay(100);
  if (moisture_level >=660){
    digitalWrite(8, LOW);
    delay(100);
    }

  else{
    digitalWrite(8, HIGH);
    delay(100);
    }
 }
```