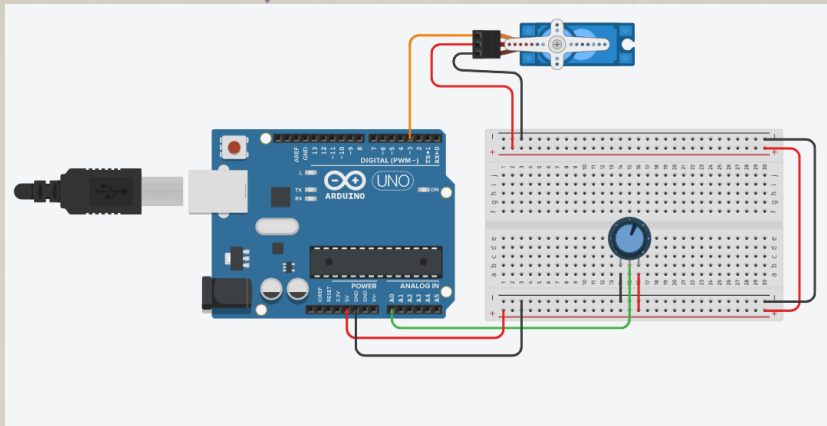# PROGRAM-16

Title: Smart Irrigation System:

Aim: To check the water content in the soil and open the valve.

Hardware Required: Arduino Board, Breadboard, Micro servo, Potentiometer, Wires

Circuit Diagram:

Code:
```
#include <servo.h>
Servo myServo;
int isOpened = 0;
void setup()
{
    myServo.attach(3);
    Serial.begin(9600);
}
void loop()
{
    int moistureVal = analogRead(A0);
    Serial.println(moistureVal);
```

```
if (moistureVal >= 512)
{
    if (isOpened == 0)
        myServo.write(90);
    isOpened = 1;
}
else
{
    if (isOpened == 1)
        myServo.write(0);
    isOpened = 0;
}
delay(1000);
}
```

Observations / Conclusion:

If the water level in soil is less than 512, then the valve gets open or else will be closed.