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Program No. – 16

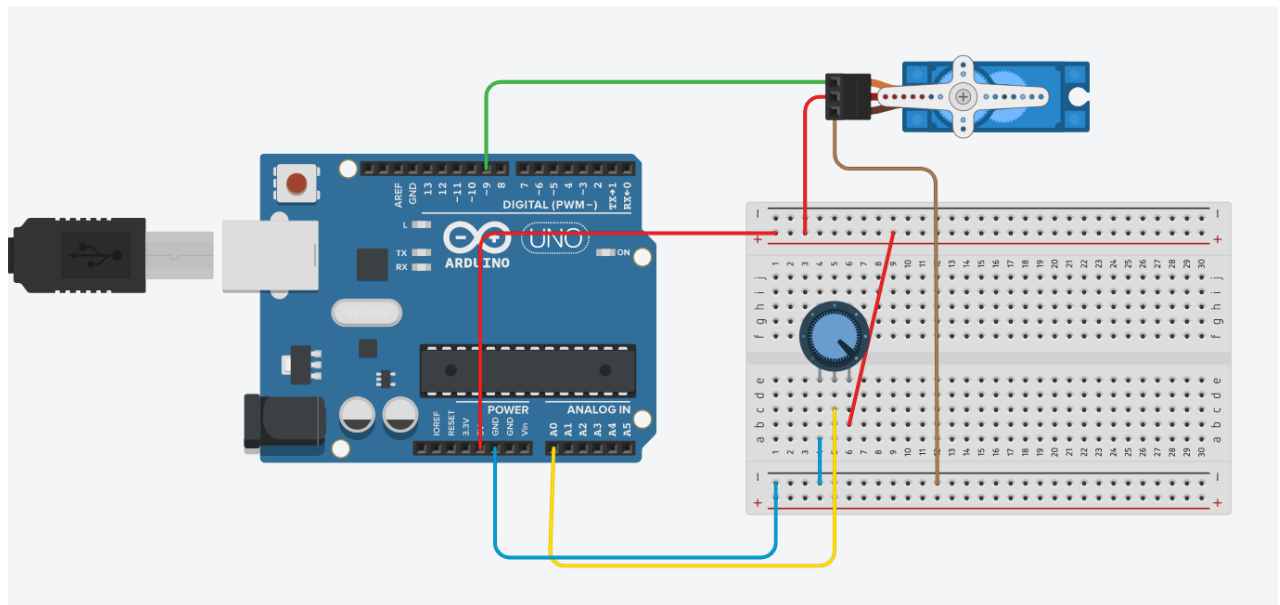Program Title – **Smart irrigation system**

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## AIM

Design a smart irrigation system (Potentiometer, Servo motor shaft).

## HARDWARES REQUIRED

- Arduino Board
- Breadboard Small
- Potentiometer
- Servo motor shaft

## CIRCUIT DIAGRAM

## CODE

```cpp
#include <Servo.h>
Servo myservo;

int pos = 0;
int sensorPin = A0;
int sensorValue = 0;

void setup()

{
myservo.attach(3);
Serial.begin(9600);
}
void loop()
{
sensorValue = analogRead(sensorPin);
Serial.println (sensorValue);
if(sensorValue>500)
{
 for (pos = 0; pos <= 180; pos += 1)
 {
```

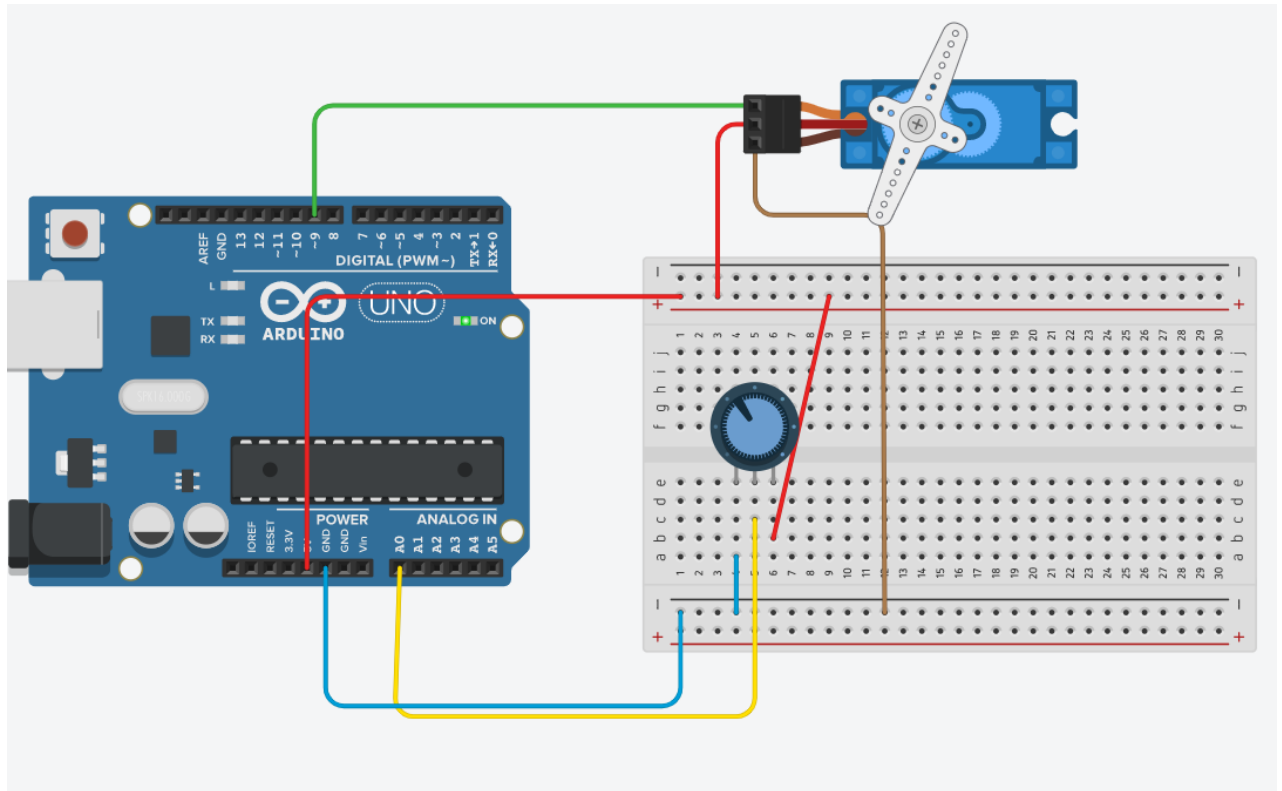```
    myservo.write(pos);

    'pos' delay(15);

    position

  }
  for (pos = 180; pos >= 0; pos -= 1) {

  degrees myservo.write(pos);        variable 'pos' delay(15);        // waits
    15ms for the servo to reach the position

  }
}
delay (1000);

}
```
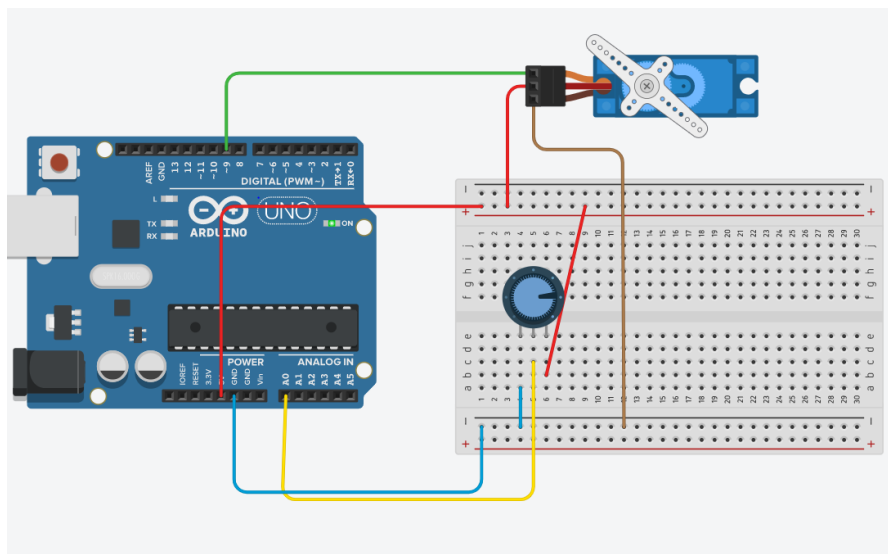
**OUTPUT**

Designed a smart irrigation system (Potentiometer, Servo motor shaft).

```
1   #include <Servo.h>
2
3   Servo myservo;
4
5   int potpin = 0;
6   int val;
7
8   void setup() {
9     myservo.attach(9);
10  }
11
12  void loop() {
13    val = analogRead(potpin);
14    val = map(val, 0, 1023, 0, 180);
15    myservo.write(val);
16    delay(15);
17  }
18
```