

Program no : 16

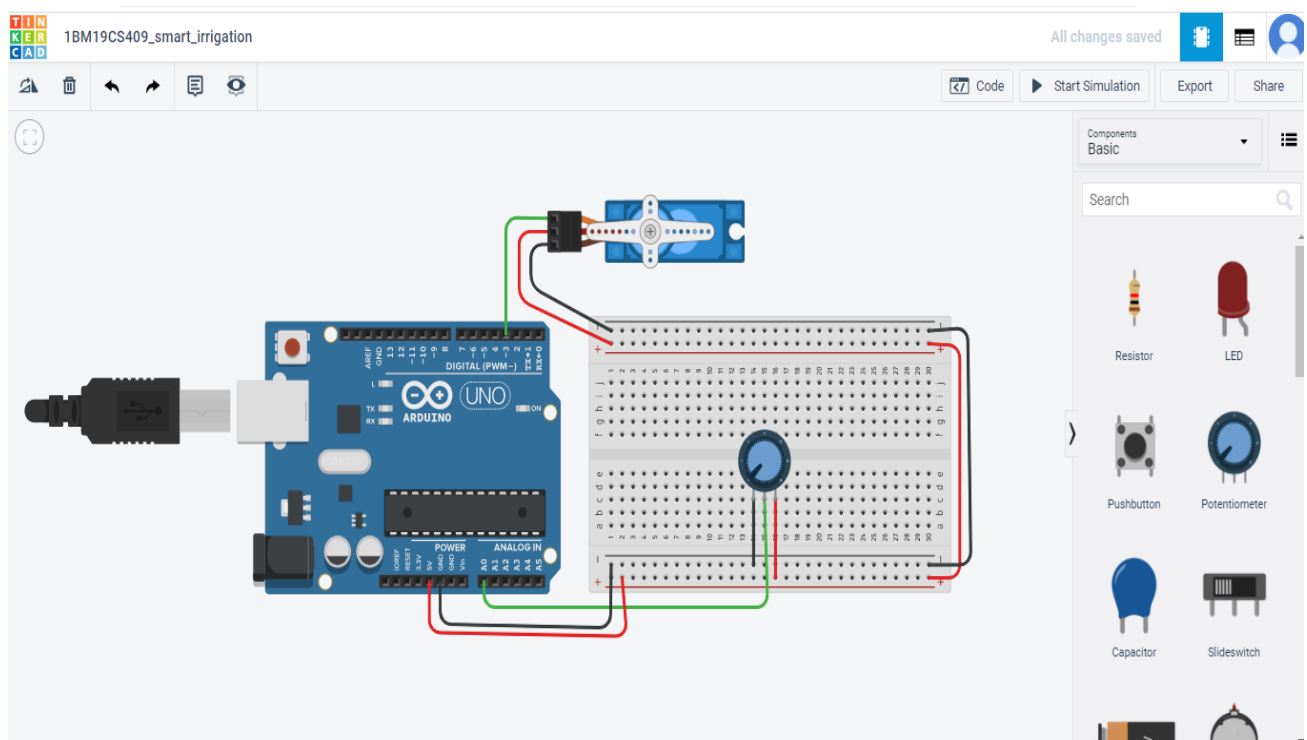
Program Title : Smart irrigation system

Aim : To design smart irrigation system using potentiometer and servo motor.

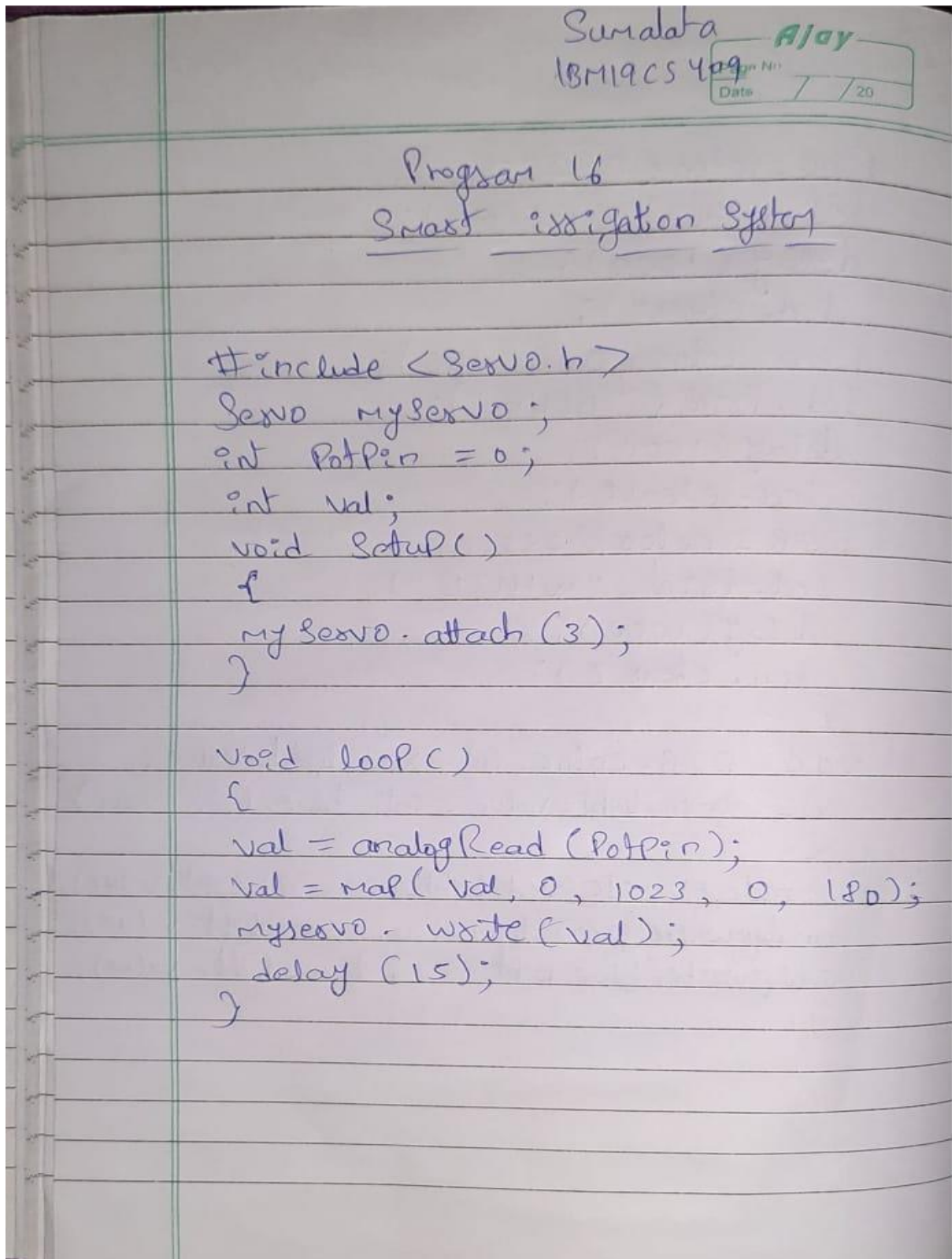
Hardware Required

- Arduino Board
- Wires
- Breadboard
- Potentiometer
- Micro servo

Circuit Diagram :



Code:



```
#include <Servo.h>
```

```
Servo myservo; // create servo object to control a servo
```

```
int potpin = 0; // analog pin used to connect the potentiometer
```

```
int val; // variable to read the value from the analog pin
```

```
void setup() {
```

```
    myservo.attach(3); // attaches the servo on pin 9 to the servo object
```

```
}
```

```
void loop() {
```

```
    val = analogRead(potpin);           // reads the value of the potentiometer (value between  
0 and 1023)
```

```
    val = map(val, 0, 1023, 0, 180);    // scale it to use it with the servo (value between 0 and  
180)
```

```
    myservo.write(val);                // sets the servo position according to the scaled value
```

```
    delay(15);                          // waits for the servo to get there
```

```
}}
```

Observation /Output :

TIN
KER
CAD

1BM19CS409_smart_irrigation

All changes saved

Simulator time: 00:01:01

Code Stop Simulation Export Share

1 (Arduino Uno R3)

```
1 #include <Servo.h>
2
3 Servo myservo; // create servo object to control a servo
4
5 int potpin = 0; // analog pin used to connect the potentiometer
6 int val; // variable to read the value from the analog pin
7
8 void setup() {
9   myservo.attach(9); // attaches the servo on pin 9 to the servo
10 }
11
12 void loop() {
13   val = analogRead(potpin); // reads the value of the
14   val = map(val, 0, 1023, 0, 180); // scale it to use it with
15   myservo.write(val); // sets the servo position
16   delay(15); // waits for the servo to
17 }
```

Serial Monitor

Send Clear