Shaan Subbaiah B C - 1BM18CS096

Program no – 16

Program Title – Irrigation system using a servo and moisture sensor

---

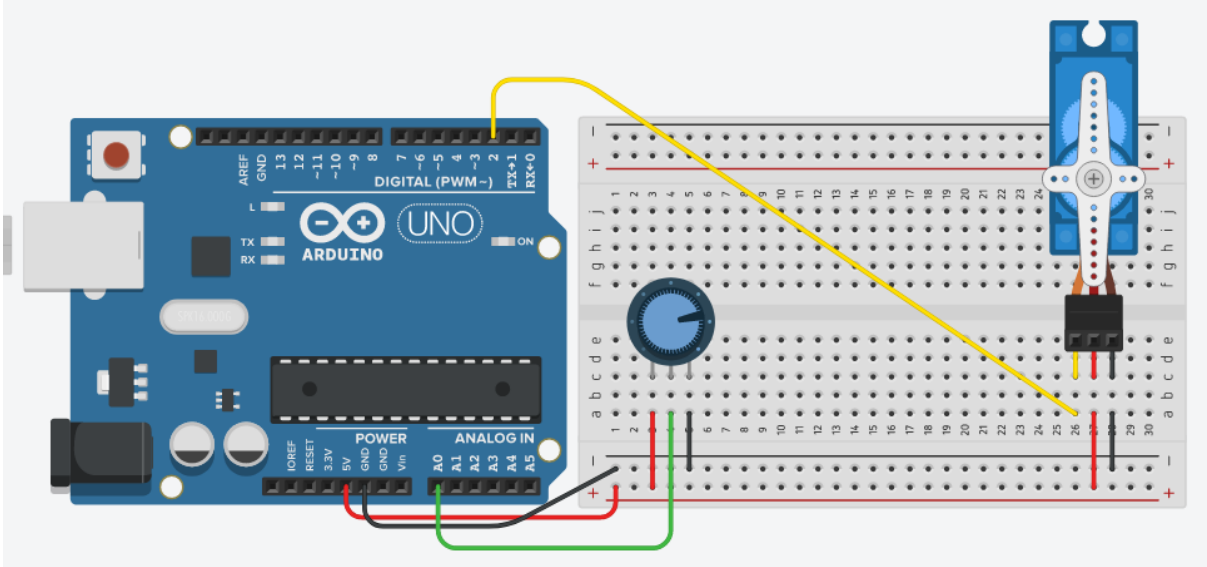
Aim

To open and close the valve for water automatically using a moisture sensor (here a potentiometer is used).

Hardware Required

- Arduino Board
- Potentiometer
- Servo

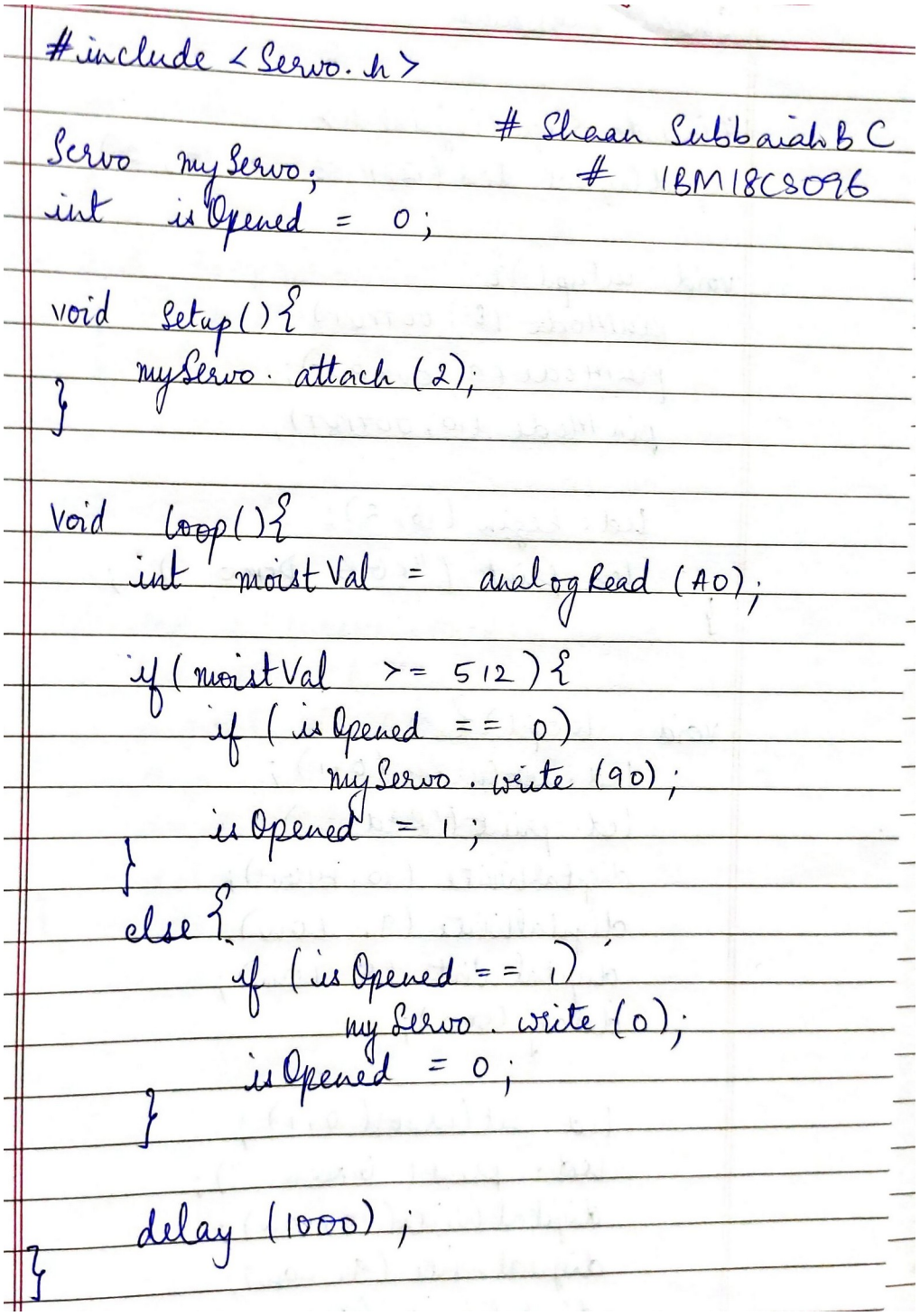
Circuit Diagram



Code:

```
#include <Servo.h>

Servo myServo;
int isOpened = 0;
```

```
void setup()
{
 myServo.attach(2);
 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);
}
```



Observation /Output

Automatically opens and closes the valve for water.