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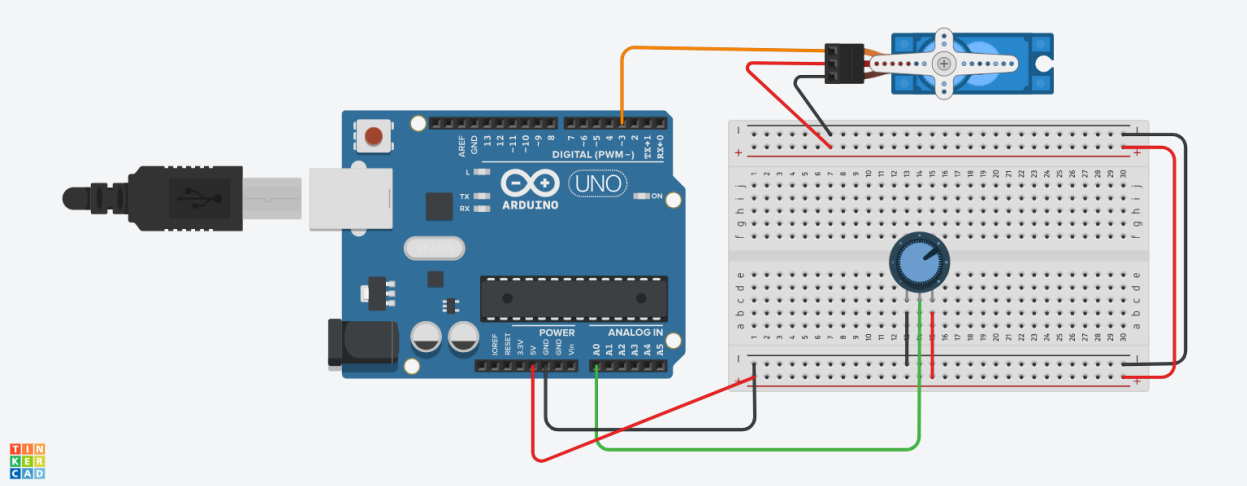
PROGRAM TITLE: SMART IRRIGATION

Aim: DESIGN A SMART IRRIGATION SYSTEM (Potentiometer, Servo Motor shaft)

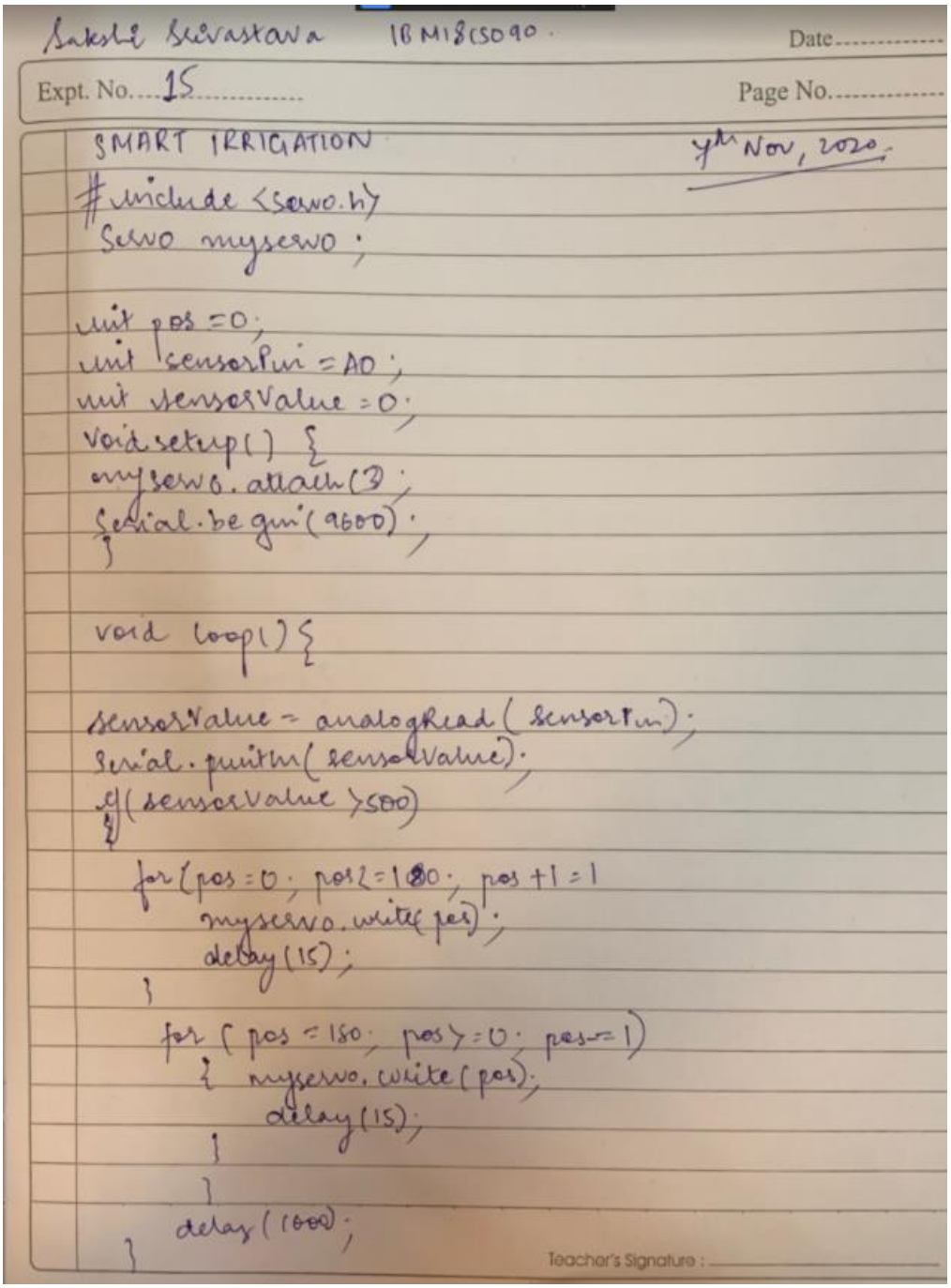
Hardware Required:

- Wires
- Potentiometer
- Micro Servo
- Breadboard
- Arduino UNO

Circuit Diagram:



Write-Up:


Saksht Srivastava 18MIS0090 Date

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SMART IRRIGATION 4th Nov, 2020

```
#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=1
    myservo.write(pos);
    delay(15);
  }
  for (pos = 180; pos>=0; pos-=1)
    { myservo.write(pos);
      delay(15);
    }
  }
  delay(1000);
}
```

Teacher's Signature :

CODE:

```
#include
<Servo.h>
            Servo myservo;  // create servo object to control a servo
```

```
// twelve servo objects can be created on most boards

int pos = 0;    // variable to store the servo position


int sensorPin = A0;    // select the input pin for the potentiometer
int sensorValue = 0;  // variable to store the value coming from the sensor
void setup() {
myservo.attach(3);  // attaches the servo on pin 3 to the servo object
Serial.begin(9600);
}
void loop() {
 // read the value from the sensor:
sensorValue = analogRead(sensorPin);
Serial.println (sensorValue);
if(sensorValue>500)
{
 for (pos = 0; pos <= 180; pos += 1) { // goes from 0 degrees to 180 degrees
   // in steps of 1 degree
   myservo.write(pos);              // tell servo to go to position in variable 'pos'
   delay(15);                       // waits 15ms for the servo to reach the position
 }
 for (pos = 180; pos >= 0; pos -= 1) { // goes from 180 degrees to 0 degrees
   myservo.write(pos);              // tell servo to go to position in variable 'pos'
   delay(15);                       // waits 15ms for the servo to reach the position
 }
}
delay (1000);
}
```

Output/Observation:

```
716
634
450
```