Lab 7 : Program 16

Date : 04/11/20
Experiment :Smart Irrigation
Aim: To design a smart irrigation system

Hardware:

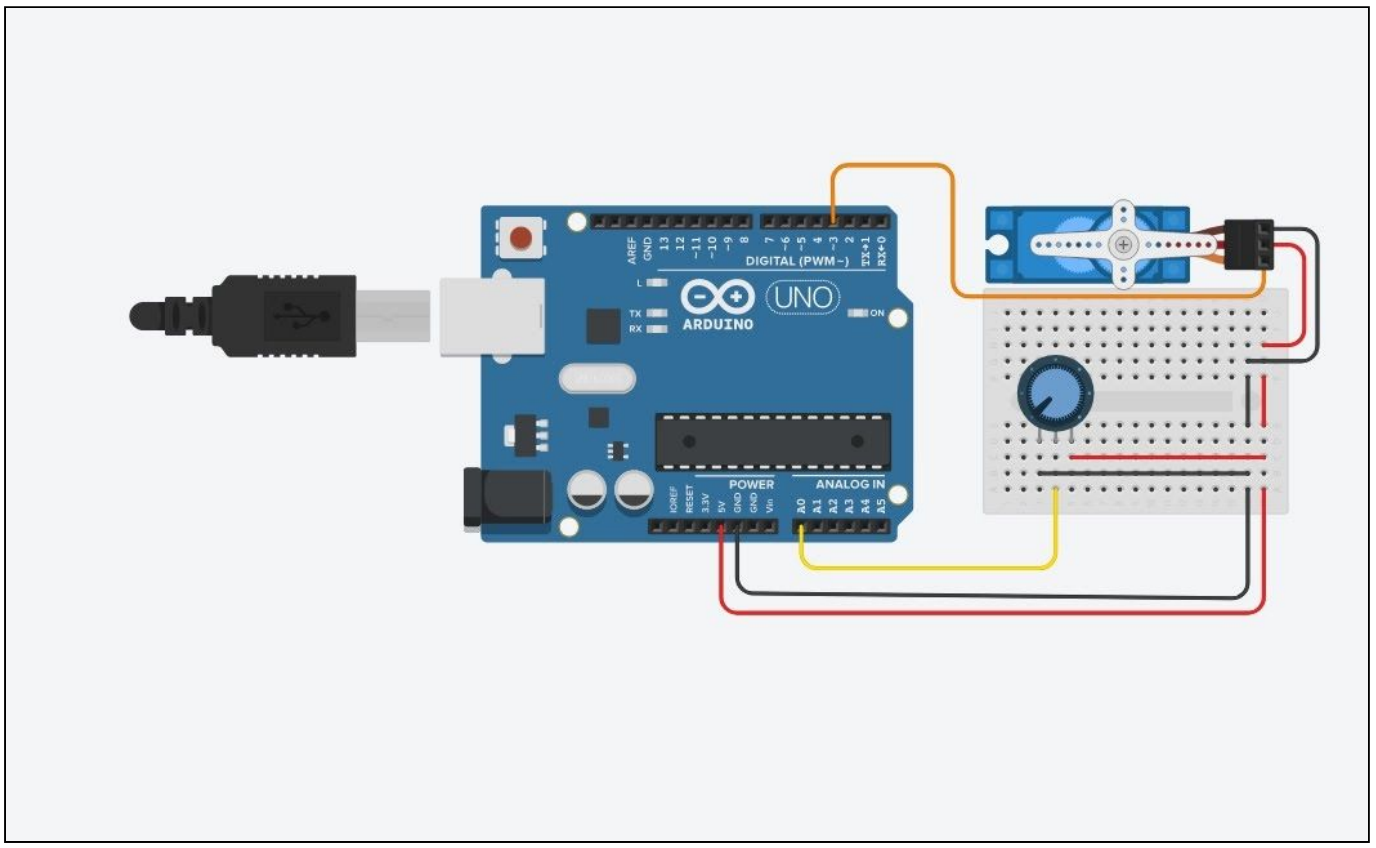
- Servo Motor
- Soil moisture sensor(Potentiometer)
- Arduino Uno

Source Code:

```
#include <Servo.h>

int servom = 3 ;
Servo motor;
int sensor = A0 ;

void setup()
{
  Serial.begin(9600);
  pinMode(servom, OUTPUT);
  motor.attach(servom);
}

void loop()
{
    int analog = analogRead(sensor);
    int pos = map(analog,0,1023,0,255);
   motor.write(pos);
    delay(50);
    Serial.println((String)"Sensor: "+analog+ "Moisture : "
+pos);
    delay(500);
}
```

Observation: The motor rotates on change in moisture level (analog voltage).

Circuit :



Write Up:

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Source Code

```
#include <Servo.h>

int servom = 3;
Servo smotor;
int sensor = A0;

void setup()
{
  Serial.begin(9600);
  pinMode(smotor, OUTPUT);
  motor.attach(smotor);
}
Void loop()
{
   int analog = analogRead(sensor);
   int pos = map(analog, 0, 1023, 0, 180);
   motor.write(pos);
   delay(50);
   Serial.println((String)"Sensor:" + analog +
                          "Position:" + pos);
   delay(500);
}
```