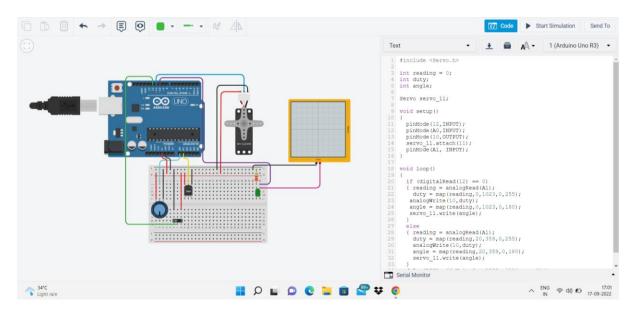# SENSORS AND ACTUATORS ARDUINO

DIAGRAM:

CODE:

```
#include <Servo.h>

int reading = 0;

int duty;

int angle;

Servo servo_11;

void setup()

{

  pinMode(12,INPUT);
```

```arduino
  pinMode(A0,INPUT);
  pinMode(10,OUTPUT);
  servo_11.attach(11);
  pinMode(A1, INPUT);
}

void loop()
{
  if (digitalRead(12) == 0)
  { reading = analogRead(A1);
    duty = map(reading,0,1023,0,255);
   analogWrite(10,duty);
   angle = map(reading,0,1023,0,180);
   servo_11.write(angle);
  }
  else
  { reading = analogRead(A1);
    duty = map(reading,20,359,0,255);
    analogWrite(10,duty);
    angle = map(reading,20,359,0,180);
    servo_11.write(angle);
  }
  delay(100); // Wait for 1000 millisecond(s)
}
```