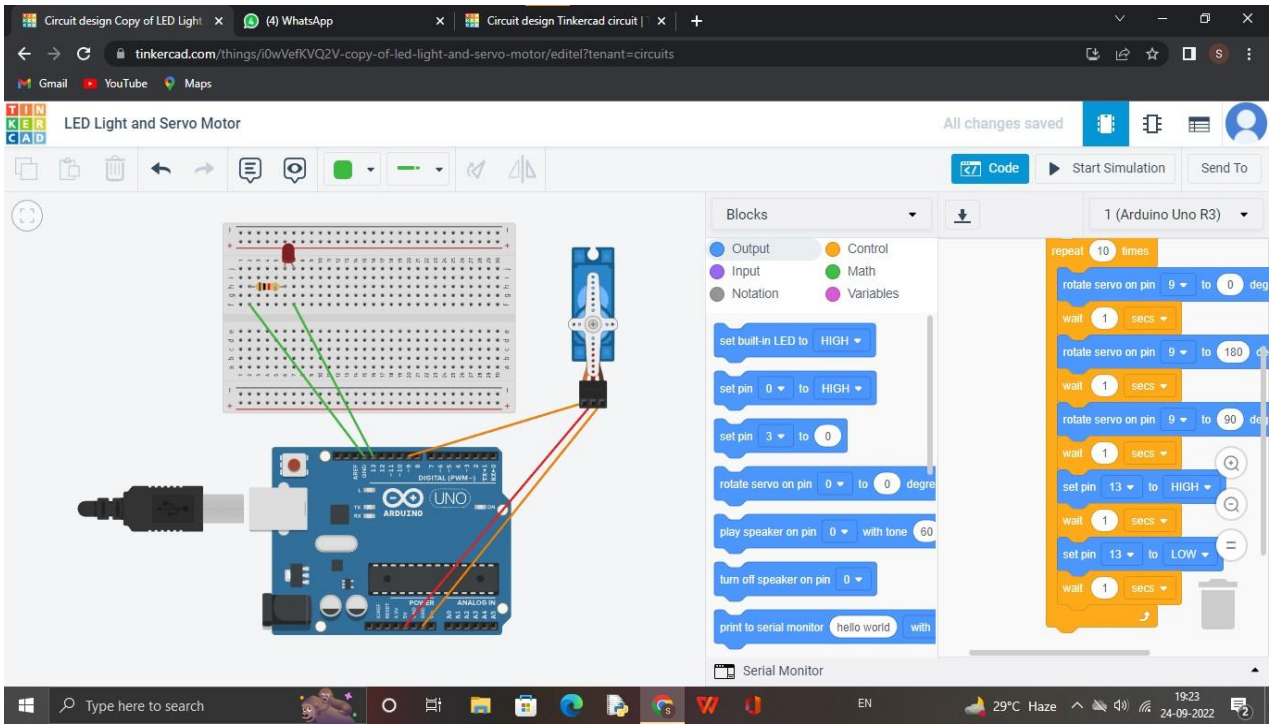
ASSIGNMENT-1

HOME APPLIANCE FOR LIGHT

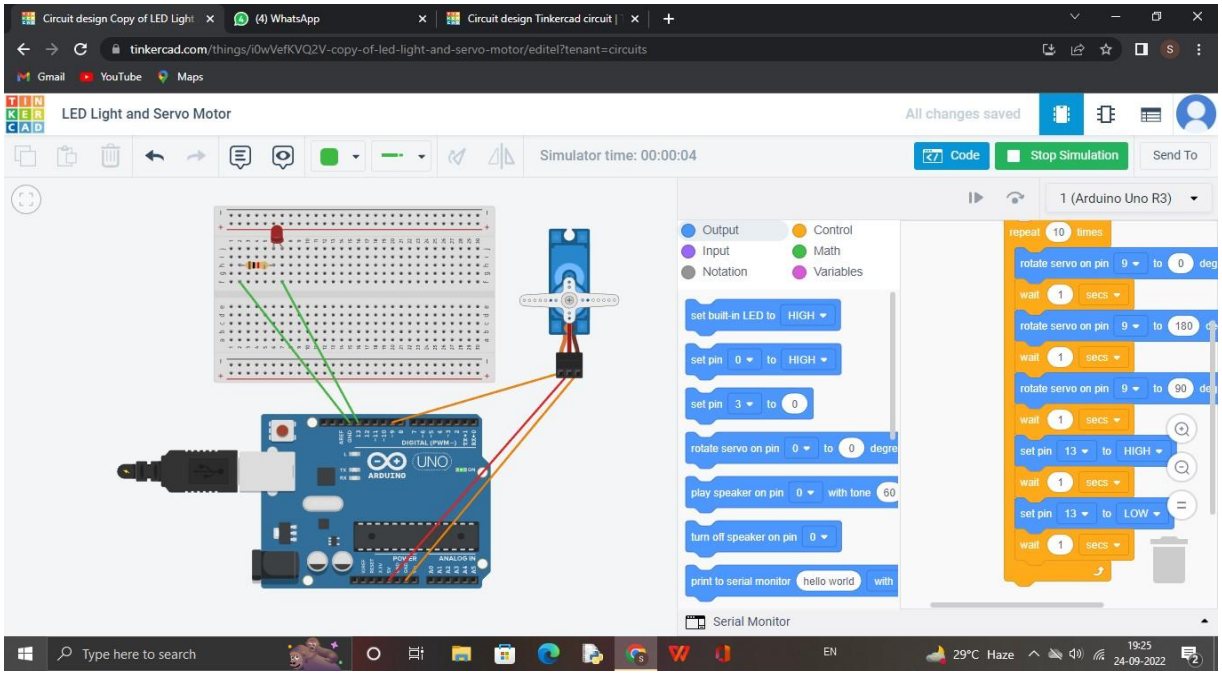
COMPONENTS:

Name	Quantity	Components
U1	1	Arduino Un R3
SERVO1	1	Micro servo
R2	1	1 kΩ Resistor
D1	1	Red LED

CIRCUIT DIAGRAM:



OUTPUT:



When the servo motor is 0 degrees and 180 degrees , the LED turns OFF and when the servo motor turns 90 degrees, the LED turns red.

PROGRAM:

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

Servo servo_9;

int counter;

void setup()
{
  servo_9.attach(9, 500, 2500);
  pinMode(13, OUTPUT);
}

void loop()
{
  for (counter = 0; counter < 10; ++counter) {
```

```
    servo_9.write(0);
    delay(1000); // Wait for 1000 millisecond(s)
    servo_9.write(180);
    delay(1000); // Wait for 1000 millisecond(s)
    servo_9.write(90);
    delay(1000); // Wait for 1000 millisecond(s)
    digitalWrite(13, HIGH);
    delay(1000); // Wait for 1000 millisecond(s)
    digitalWrite(13, LOW);
    delay(1000); // Wait for 1000 millisecond(s)
  }
}
```