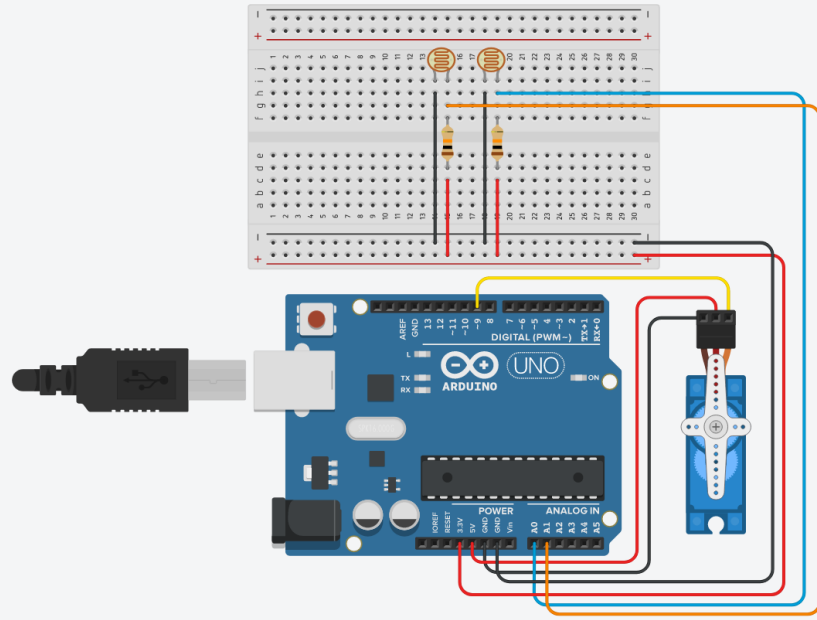# Μικροϋπολογιστές: Εργαστηριακή άσκηση 1

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```
#include <Servo.h>

/* photo resistor values tested and found on tinkercad */
#define LIGHT_NONE      640
#define LIGHT_FULL      33
#define SEVENTY_PERC    (180 * (70 / (float)100))

Servo servo;

void
setup()
{
        servo.attach(9);
        Serial.begin(9600);
}

void
loop()
{
        int pr_out, pr_in, pos = 0;

        pr_out = analogRead(A0);        /* exterior photoresistor */
        pr_in = analogRead(A1);         /* interior photoresistor */

        if (pr_out == LIGHT_NONE) {
                pos = 0;
                servo_write_and_delay(pos);
                Serial.println("night");
        } else if (pr_out < pr_in) {
                pos = map(pr_out, LIGHT_NONE, LIGHT_FULL, 0, 180);
                servo_write_and_delay(pos);
                Serial.println("day");
        } else {
                pos = SEVENTY_PERC;
                servo_write_and_delay(pos);
                Serial.println("peak");
        }
        Serial.println(pos);
}

void
servo_write_and_delay(int pos)
{
        servo.write(pos);
        delay(15);
}
```