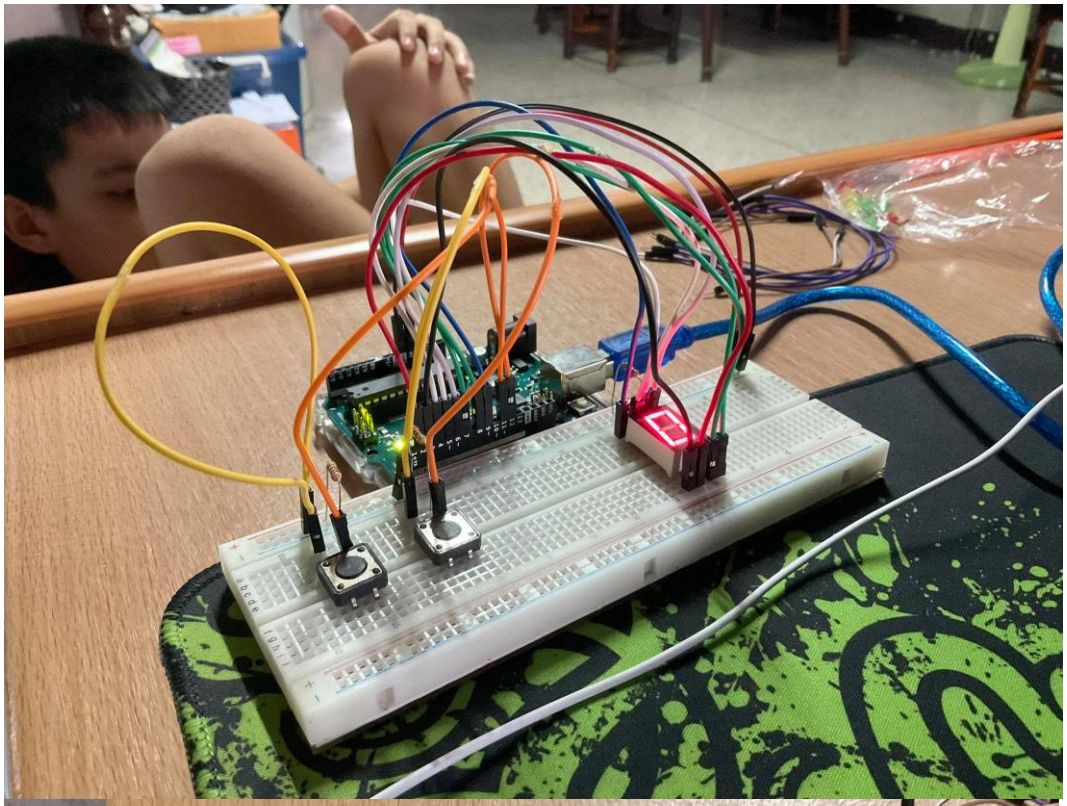
Assignment 3

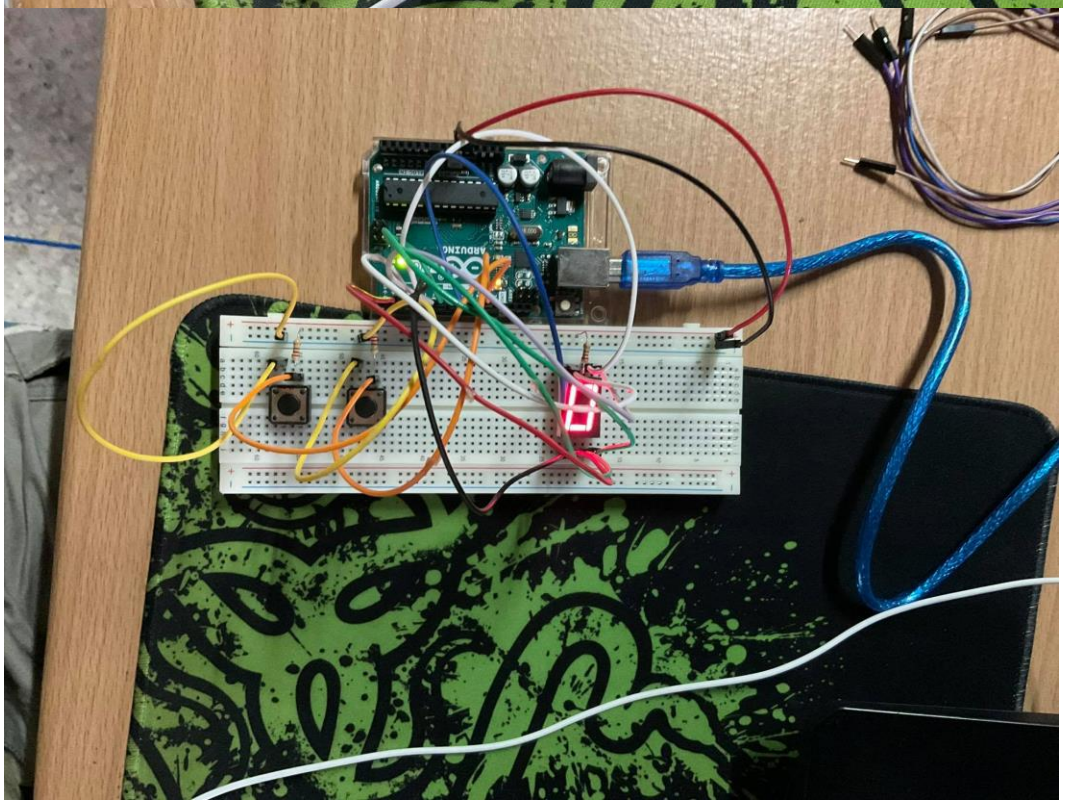
ชื่อกลุ่ม : 9 A.M.

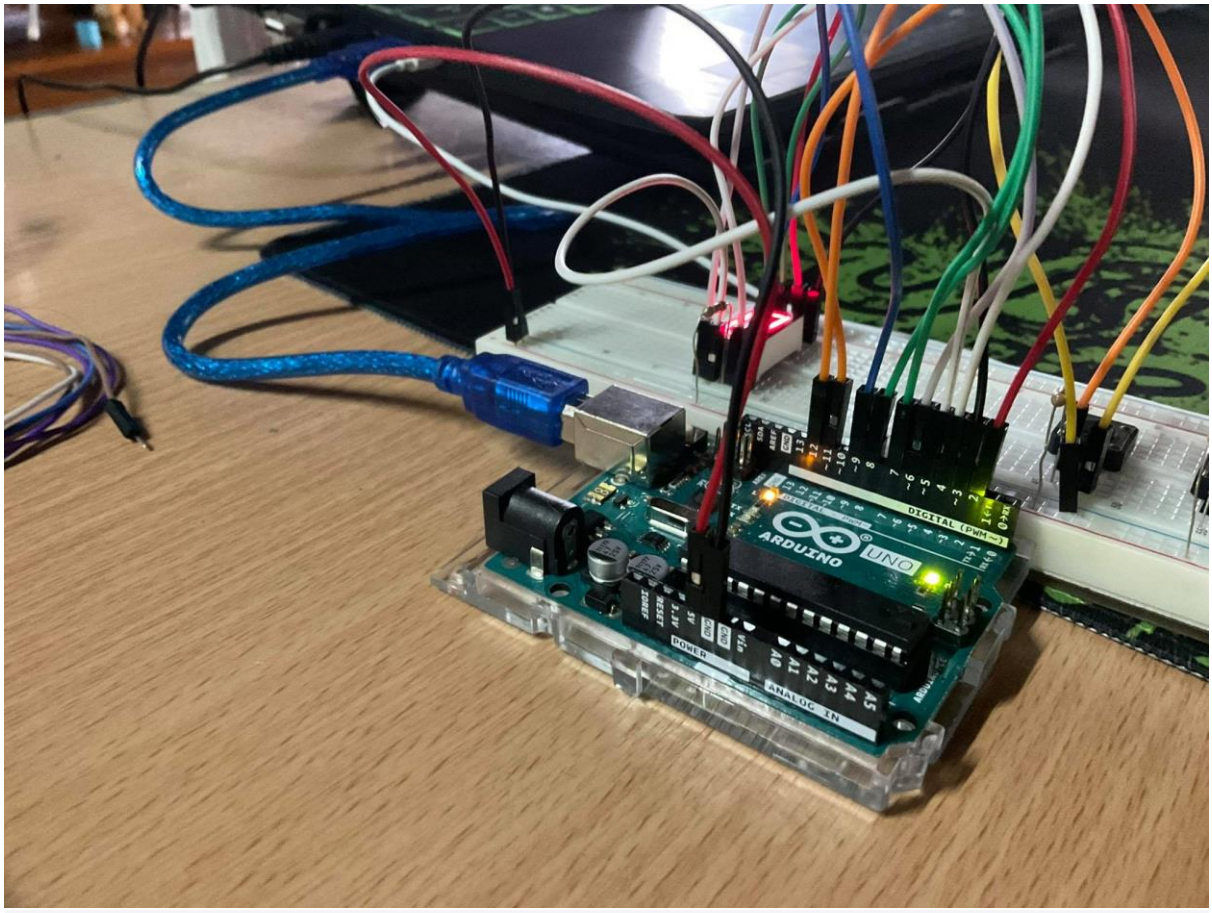
สมาชิกกลุ่ม : 64010761 นายวรพล รังษี

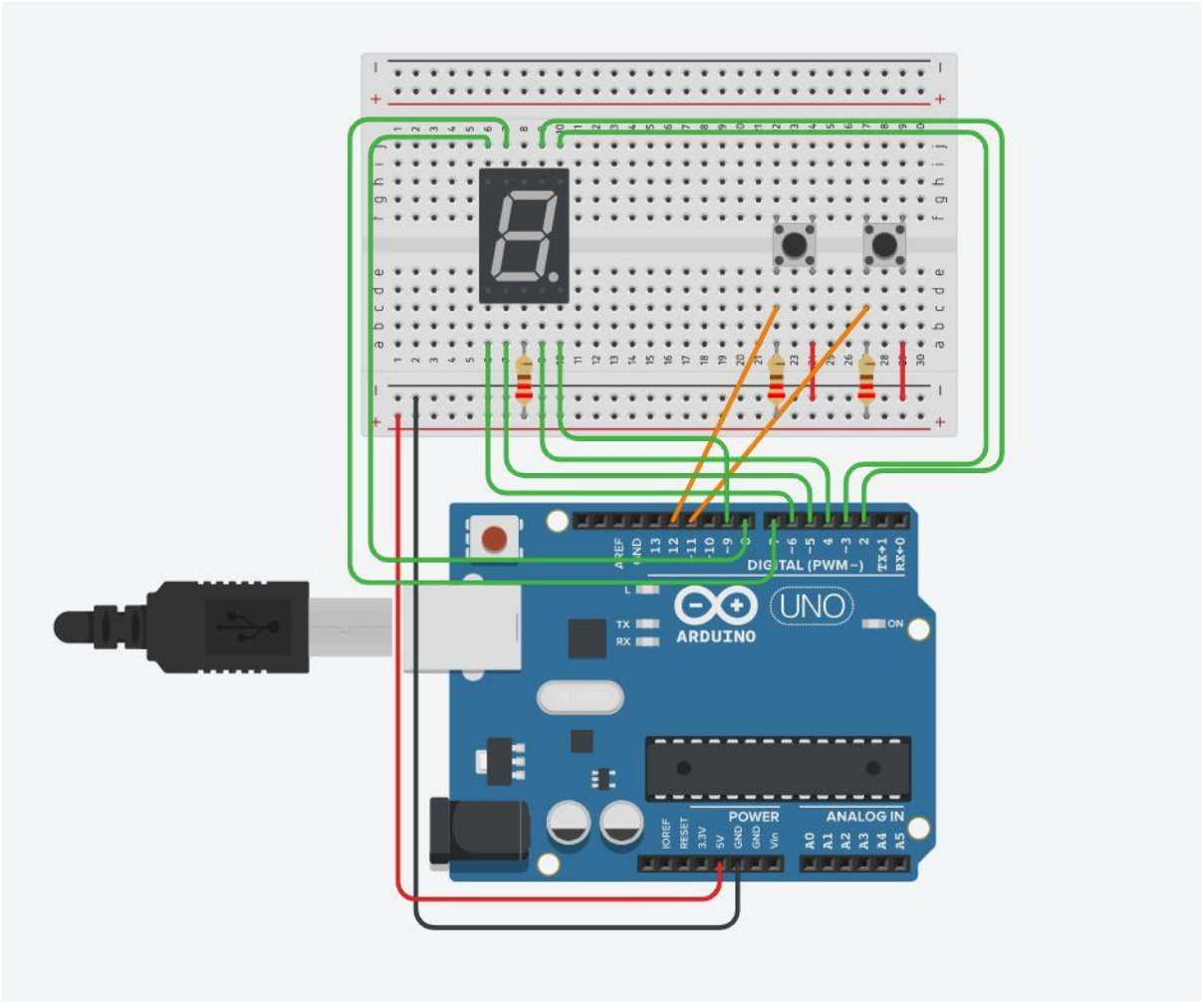
64010757 นายวรโชติ ใจเร็ว

รูปถ่ายชิ้นงาน :








DIGITAL (PWM~)
UNO
ARDUINO
POWER
ANALOG IN

บรรทัด	Code
1	//[9] for handle display of number 1,2,...,9
2	//[7] for 1,0 of each segment
3	boolean handle_led [9][7] = {
4	1, 0, 0, 1, 1, 1, 1
5	, 0, 0, 1, 0, 0, 1, 0
6	, 0, 0, 0, 0, 1, 1, 0
7	, 1, 0, 0, 1, 1, 0, 0
8	, 0, 1, 0, 0, 1, 0, 0
9	, 0, 1, 0, 0, 0, 0, 0
10	, 0, 0, 0, 1, 1, 0, 1
11	, 0, 0, 0, 0, 0, 0, 0
12	, 0, 0, 0, 0, 1, 0, 0
13	};
14	//define button
15	int btn_a, btn_b;
16	
17	//row : [0] = equal,[1] = greater , [2] = less
18	boolean compare_led [3][7] = {
19	0, 0, 0, 0, 0, 0, 1
20	, 1, 1, 1, 0, 0, 0, 1
21	, 0, 1, 0, 0, 0, 0, 1
22	};
23	
24	int random_value;
25	
26	void setup() {
27	Serial.begin(9600);
28	//for 7 segment

```
  pinMode(2, OUTPUT);
  pinMode(3, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(5, OUTPUT);
  pinMode(6, OUTPUT);
  pinMode(7, OUTPUT);
  pinMode(8, OUTPUT);
  pinMode(9, OUTPUT);

  //for button
  pinMode(12, INPUT); //button-A(pull down is 0 if not pressed)
  pinMode(11, INPUT); //button-B(pull down is 0 if not pressed)

  //for randomseed
  randomSeed(analogRead(A0));
  random_value = random(1, 10);

  //segment start
  for (int i = 2 ; i <= 9 ; i++ ) {
    digitalWrite(i , 1);
  }
}

//for count number in segment
int count = 0;

void loop() {
  //show led number 0 to 9 when press button-A
  btn_a = digitalRead(12);
```

```
58  btn_b = digitalRead(11);
59
60  if (btn_a == 0)
61  {
62    /* for(int i=0 ; i<=8 ; i++)
63          {
64            display_led(i);
65          }
66    */
67    if (count == 9) {
68      count = 0;
69    }
70    display_led(count);
71    count += 1;
72  }
73
74  if (btn_b == 0)
75  {
76    //will get random value later....
77
78    Serial.print("Random = ");
79    Serial.print(random_value);
80    Serial.print(" Count = ");
81    Serial.println(count);
82    delay(100);
83
84    //ทายถูกเฉย!!
85    if (random_value == (count)) {
86
```

```
87        Serial.print("random_value equal segment of number = ");
88        Serial.println(random_value);
89        display_compare(0);
90        count = 0;
91        random_value = random(1, 10);
92        delay(100);
93      }
94      //ทายแล้ว ได้มากกว่า เลขของsegment
95      else if (random_value > (count)) {
96        display_compare(1);
97        delay(100);
98      }
99      //ทายแล้ว ได้น้อยกว่า เลขของsegment
100     else if (random_value < (count)) {
101       display_compare(2);
102       delay(100);
103     }
104   }
105 }
106
107 void display_led(int n)
108 {
109   for (int i = 2 ; i <= 8 ; i++ ) {
110
111     digitalWrite(i , handle_led [n][i - 2]);
112   }
113   delay(100);
114 }
115
```

```
116  void display_compare(int m)
117  {
118    for (int i = 2 ; i <= 8 ; i++ )
119    {
120      digitalWrite(i , compare_led [m][i - 2]);
121    }
122    delay(100);
123  }
124
```