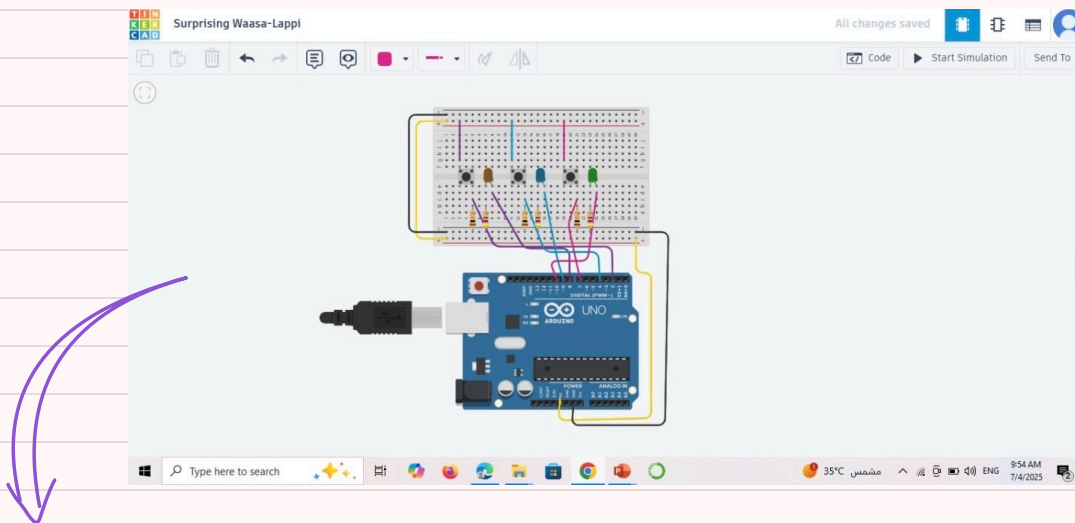


# Task 1 : Button Led control system..

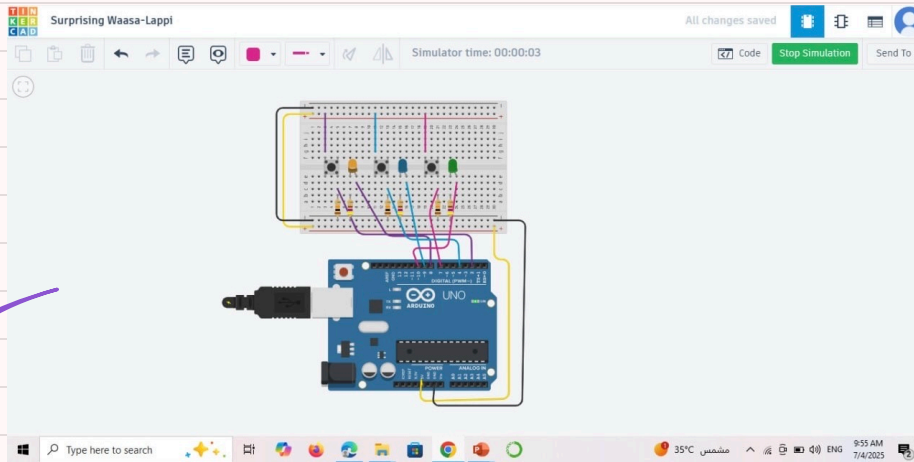
◆ project overview : this project uses an Arduino uno board to control three leds using three push buttons , each button is linked to a specific led . when the button is pressed the corresponding led turns ON

◆ components used : 1) Arduino uno board 2) 3 push buttons  
3) 3 Leds (orange , blue , green ) 4) Breadboard  
5) 6 Resistors ( 3 for the push buttons , 3 for leds )  
6) Jumper wires.

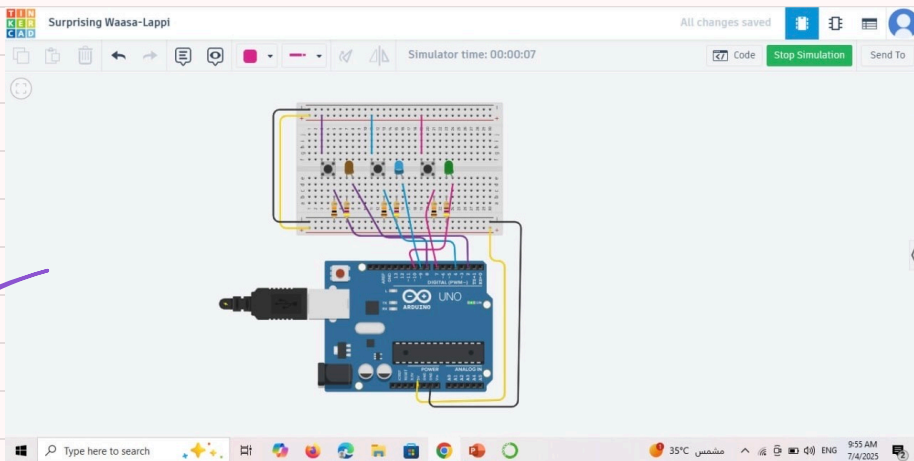
◆ visuals and labeling:



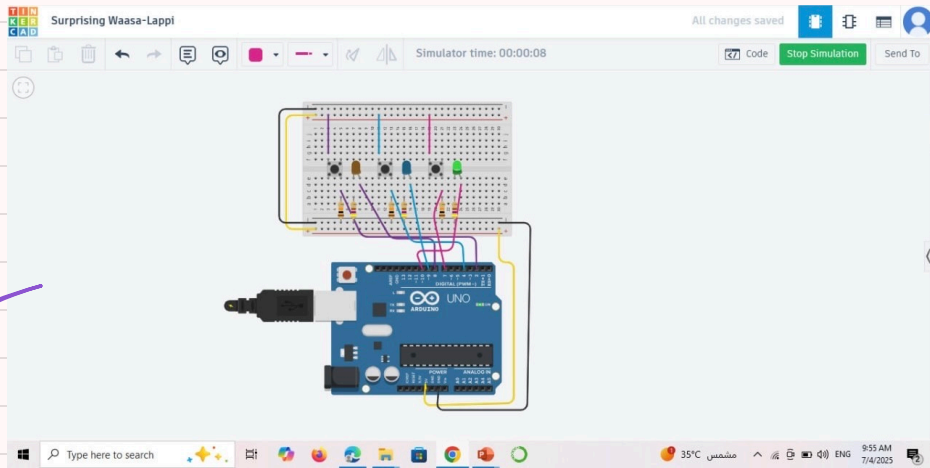
This image shows the overall circuit. It includes all three push buttons connected to their corresponding LEDs using appropriate resistors.



This close-up view shows Push Button 1 connected to digital pin 2, and its corresponding LED (Orange) connected to pin 8.



This close-up view shows Push Button 2 connected to pin 4, and its LED (Blue ) connected to pin 9.



This close-up view shows Push Button 3 connected to pin 7, and its LED (Green) connected to pin 10.

## ◆ Arduino code:

```

BUTTON_LED_control_system | Arduino IDE 2.3.6
File Edit Sketch Tools Help
Select Board

1 //ryouf almalki
2
3 const int firstButton = 2;
4 const int secondButton = 4;
5 const int thirdButton = 7;
6
7 const int firstLED = 9;
8 const int secondLED = 9;
9 const int thirdLED = 10;
10
11 void setup() {
12   pinMode(firstButton, INPUT);
13   pinMode(secondButton, INPUT);
14   pinMode(thirdButton, INPUT);
15
16   pinMode(firstLED, OUTPUT);
17   pinMode(secondLED, OUTPUT);
18   pinMode(thirdLED, OUTPUT);
19 }
20
21 void loop() {
22   if (digitalRead(firstButton) == HIGH) {
23     digitalWrite(firstLED, HIGH);
24   } else {
25     digitalWrite(firstLED, LOW);
26   }
27
28   if (digitalRead(secondButton) == HIGH) {
29     digitalWrite(secondLED, HIGH);
30   } else {
31     digitalWrite(secondLED, LOW);
32   }
33
34   if (digitalRead(thirdButton) == HIGH) {
35     digitalWrite(thirdLED, HIGH);
36   } else {
37     digitalWrite(thirdLED, LOW);
38   }
39 }

```

```

BUTTON_LED_control_system | Arduino IDE 2.3.6
File Edit Sketch Tools Help
Select Board

9 const int thirdLED = 10;
10
11 void setup() {
12   pinMode(firstButton, INPUT);
13   pinMode(secondButton, INPUT);
14   pinMode(thirdButton, INPUT);
15
16   pinMode(firstLED, OUTPUT);
17   pinMode(secondLED, OUTPUT);
18   pinMode(thirdLED, OUTPUT);
19 }
20
21 void loop() {
22   if (digitalRead(firstButton) == HIGH) {
23     digitalWrite(firstLED, HIGH);
24   } else {
25     digitalWrite(firstLED, LOW);
26   }
27
28   if (digitalRead(secondButton) == HIGH) {
29     digitalWrite(secondLED, HIGH);
30   } else {
31     digitalWrite(secondLED, LOW);
32   }
33
34   if (digitalRead(thirdButton) == HIGH) {
35     digitalWrite(thirdLED, HIGH);
36   } else {
37     digitalWrite(thirdLED, LOW);
38   }
39 }

```