

PROJECT 2: Building a Traffic Light

Exercise 1



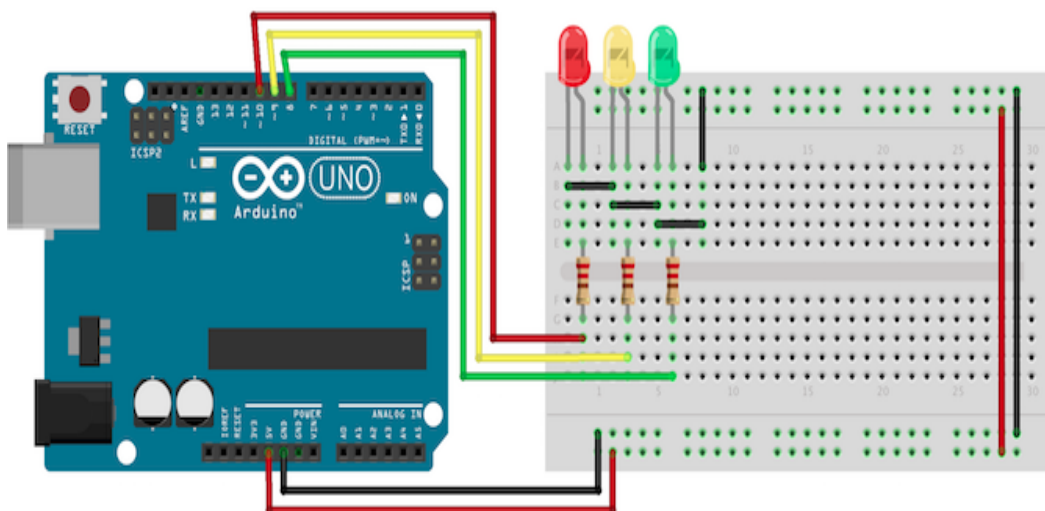
Create a traffic light with a red LED on Pin 10, yellow LED on Pin 9, and green LED on Pin 8.

```

sketch_feb14a §
1 int red = 10;
2 int yellow = 9;
3 int green = 8;
4
5 void setup(){
6   pinMode(red, OUTPUT);
7   pinMode(yellow, OUTPUT);
8   pinMode(green, OUTPUT);
9 }
10 void loop(){
11
12   digitalWrite(green, LOW);
13   digitalWrite(yellow, HIGH);
14   delay(3000);
15
16   digitalWrite(yellow, LOW);
17   digitalWrite(red, HIGH);
18   delay(5000);
19
20   digitalWrite(red, LOW);
21   digitalWrite(yellow, HIGH);
22   delay(3000);
23
24   digitalWrite(yellow, LOW);
25   digitalWrite(green, HIGH);
26   delay(5000);
27
28 }

```

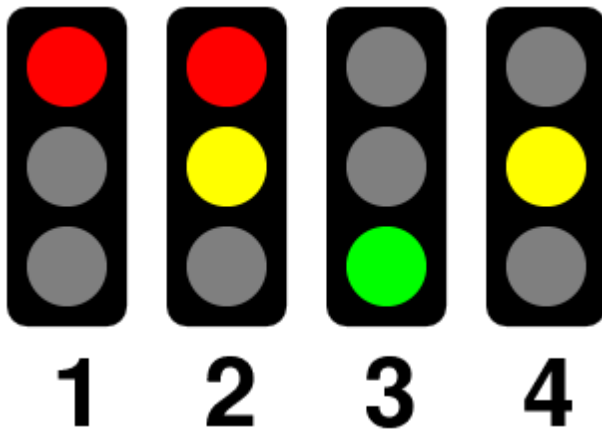
| Materials | |
|-------------------|------|
| Arduino Uno Board | - 1 |
| Breadboard | - 1 |
| Jumper wires | - 11 |
| Red LED | - 1 |
| Yellow LED | - 1 |
| Green LED | - 1 |
| 220Ω resistors | - 3 |



Exercise 2



Modify the time delays to light the LEDs in the following sequence:



Exercise 3



Modify the time delays between the changing traffic lights.

