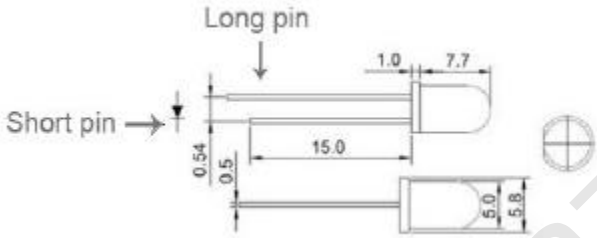
Traffic light

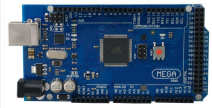
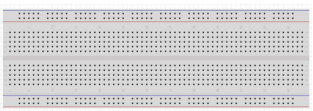
Overview

The experiment shows the effect of the simulation of traffic lights.

Specification



Hardware required

Material diagram	Material name	Number
	220/330Ω resistor	1
	Yellow LED	1
	Green LED	1
	Red LED	1
	USB Cable	1
	MEGA 2560	1
	Breadboard	1
	Jumper wires	Several

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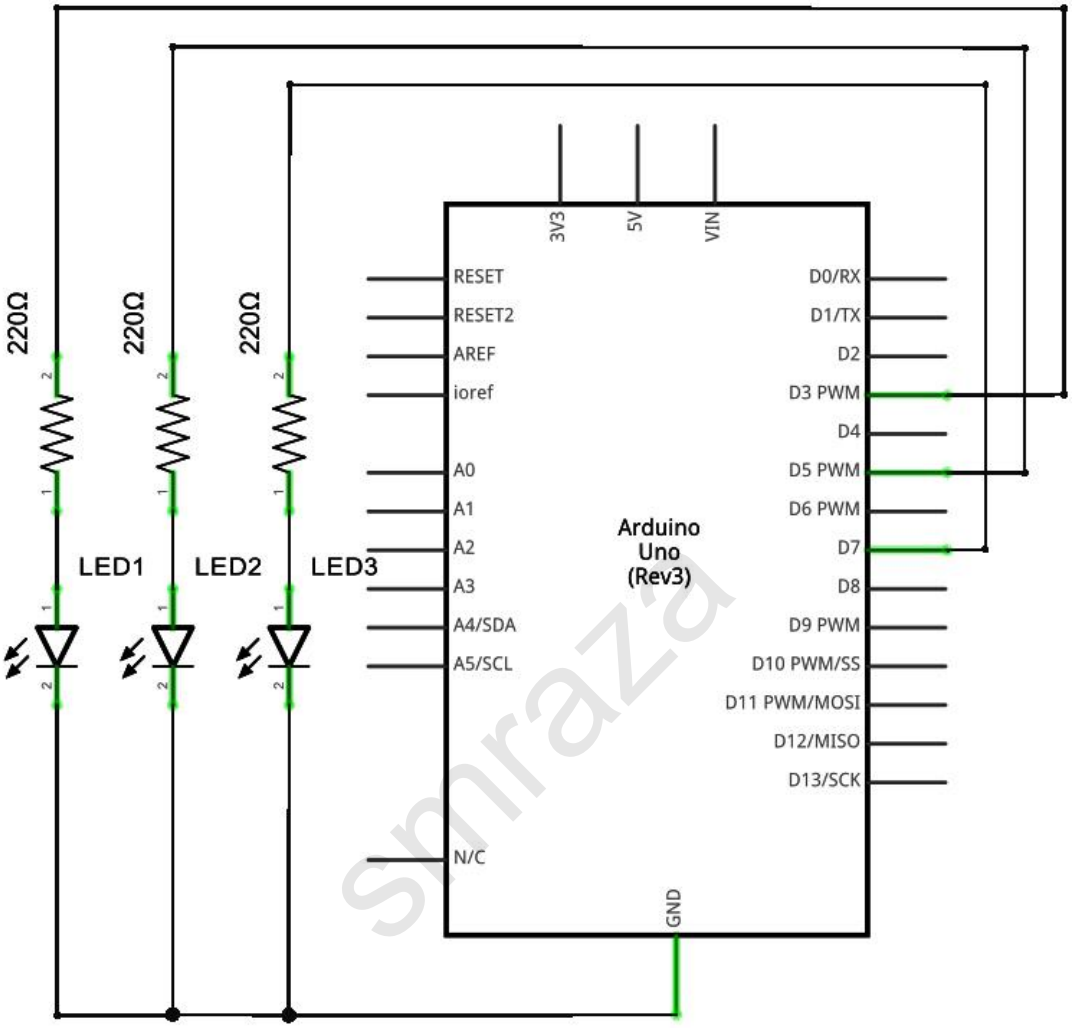
Connection

Schematic



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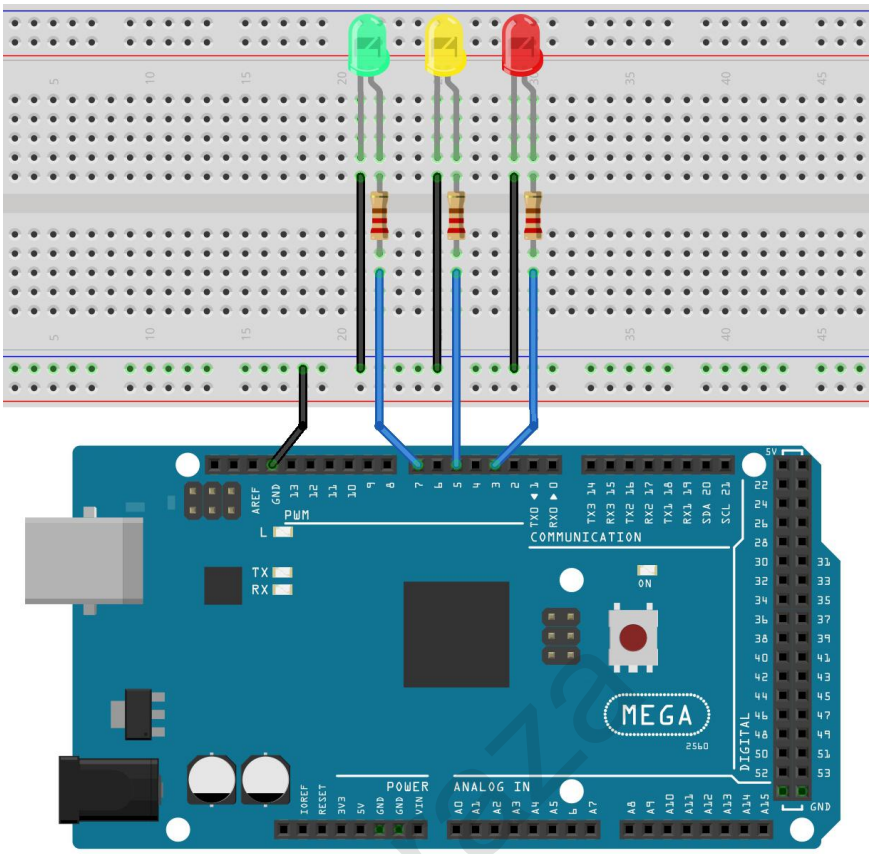
Connection diagram



Note：The longest LED of the pin is connected to the digital signal port *(D*).

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Sample code

Note : sample code under the **Sample code** folder

```
int redled =3;
int yellowled =5;
int greenled =7;
void setup()
{
    pinMode(redled, OUTPUT);
    pinMode(yellowled, OUTPUT);
    pinMode(greenled, OUTPUT);
}
void loop()
{
    digitalWrite(greenled, HIGH); // turn on green LED
    delay(5000);
    digitalWrite(greenled, LOW); // turn off green LED
    for(int i=0;i<3;i++)
    {
        delay(500);// wait 0.5 second
        digitalWrite(yellowled, HIGH); // turn on yellow LED
        delay(500);
        digitalWrite(yellowled, LOW); // turn off yellow LED
    }
    delay(500);
    digitalWrite(redled, HIGH);// turn on red LED
    delay(5000);
    digitalWrite(redled, LOW);// turn off red LED
}
```

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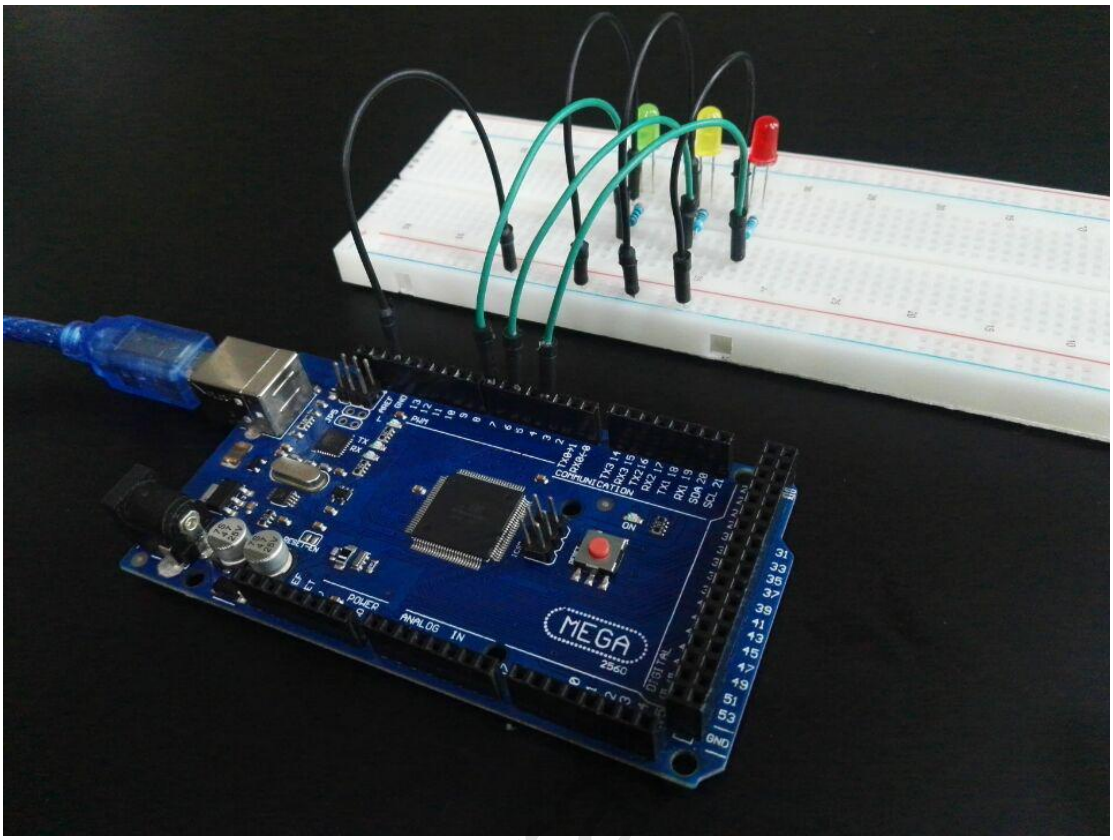
Example picture



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Language reference

Tips：click on the following name to jump to the web page.
If you fail to open, use the Adobe reader to open this document.

pinMode()
OUTPUT
INPUT
for()
HIGH
LOW
digitalWrite()
delay()
< (less than)
++ (increment)

Application effect

The green light flashes for 5 seconds, then the yellow light flashes 3 times, and then the red light 5 seconds, the formation of a cycle. And then repeat the cycle. This experiment shows the effect of the simulation of traffic lights.

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* About Smraza:
* We are a leading manufacturer of electronic components for Arduino and Raspberry Pi.
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