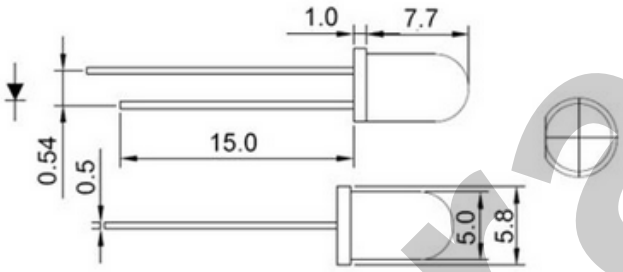
Traffic light

Overview

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

Specification



Pin definition

Is the definition of LED pin
Long pin -> + (VCC)
Short pin -> - (GND)

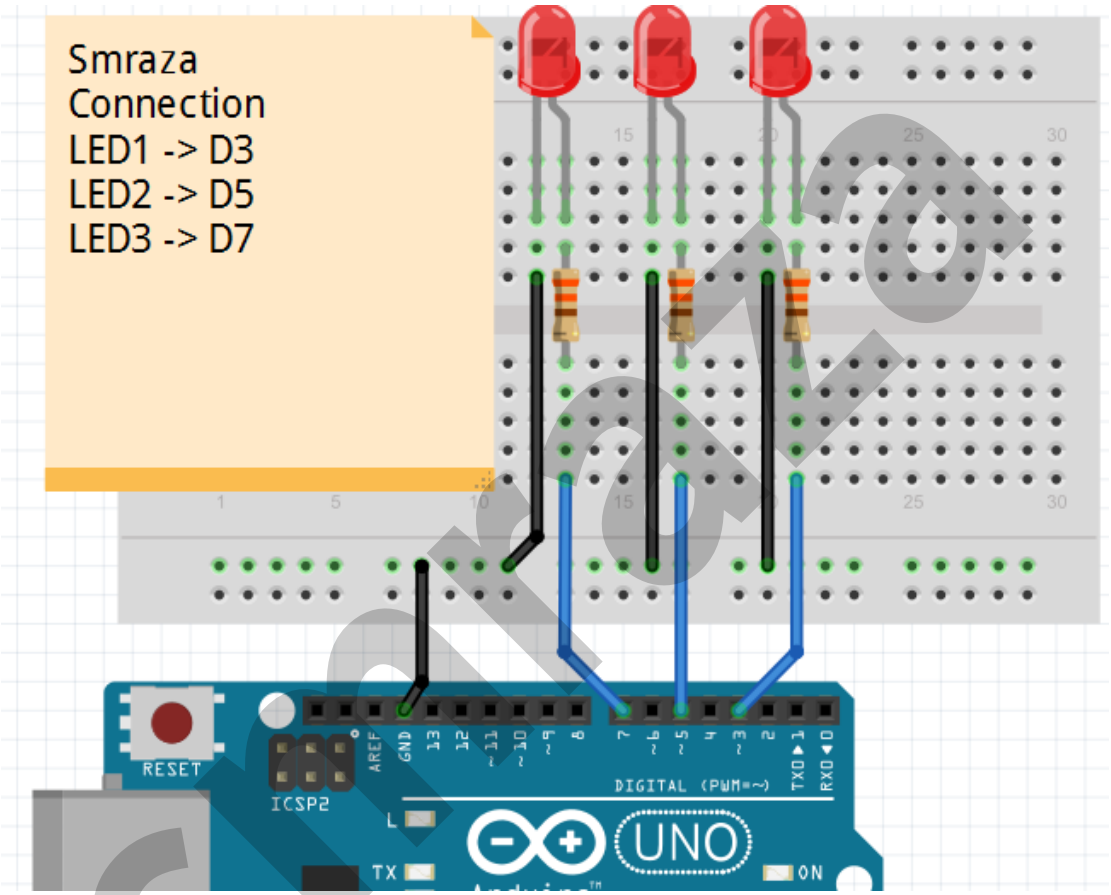
Hardware required

Material diagram	Material name	Number
	220/330Ω resistor	3
	Yellow LED	1
	Green LED	1
	Red LED	1
	USB Cable	1
	UNO R3	1

---Designed by Smraza Keen

	Breadboard	1
	Jumper wires	Several

Connection diagram



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

Sample code

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

```
int redled =3;       // initialize digital pin.
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);                  // wait 5 seconds
digitalWrite(greenled, LOW); // turn off green LED
for(int i=0;i<3;i++)          // blinks for 3 times
{
delay(500);// wait 0.5 second
digitalWrite(yellowled, HIGH); // turn on yellow LED
delay(500);                   // wait 0.5 second
digitalWrite(yellowled, LOW); // turn off yellow LED
}
delay(500);                   // wait 0.5 second
digitalWrite(redled, HIGH);// turn on red LED
delay(5000);                // wait 5 second
digitalWrite(redled, LOW);// turn off red LED
}
```

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.