

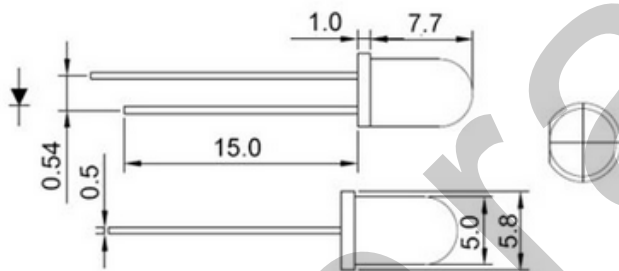
# Traffic light

## Overview



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






## Specification






## Pin definition

LED		UNO R3
Long pin	->	+5V
Short pin	->	GND

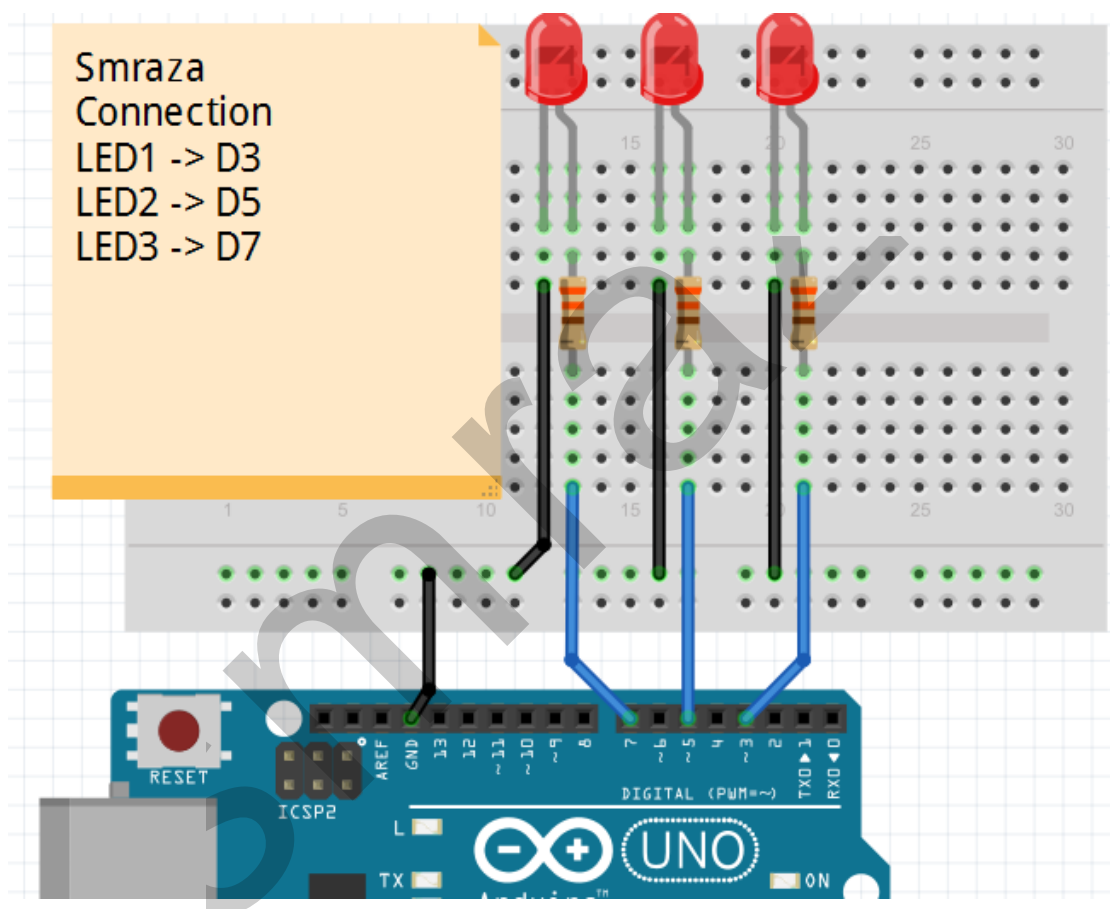
## Hardware required

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

V1.0

	UNO R3	1
	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);
```

---Designed by Smraza Keen

V1.0

```

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.