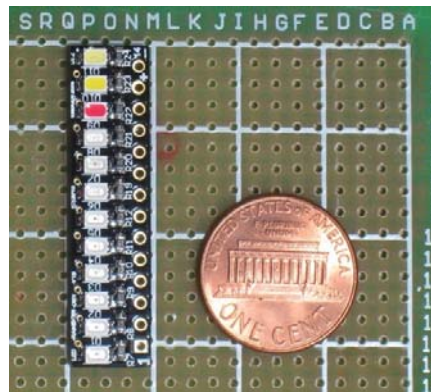# LED-RAINBOW-V1B

1. Description:

LED-RAINBOW-V1B is a SMT (surface mount) LED bar graph. It has 12 LEDs (size:3020) with different colors (red, orange, yellow, green, yellow green, blue, violet, pink, warm white, white) and 12 NPN transistors drive each single LED separately. The NPN transistors act as an on/off switch where a "high" signal applied to the control lines will turn on the LED and "low" will turn it off. Since the LEDs are driven by transistors switch, it reduces the power output needed from the driving microcontroller. The LED-RAINBOW-DEV is great for all electronics developers, students and hobbyists. It reduces set up time for connecting transistors, resistors and LEDs in a breadboard. It has a standard 14 pins 0.1"(2.54mm) header which can directly insert into a standard breadboard. You just need to connect a 5V power, Ground and LED control signals and no external component is needed.
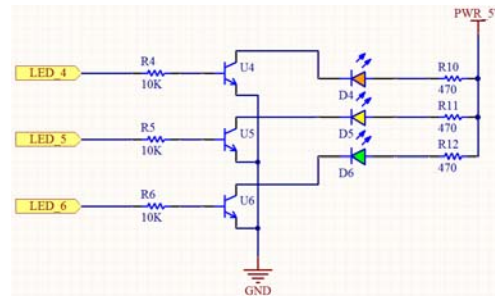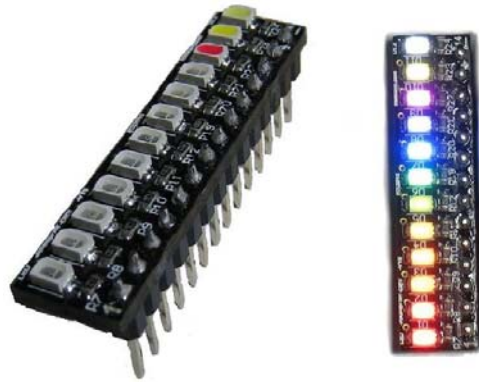
All LEDs are switched by transistors

2. Features:

- 12 SMT 3020 LED
  - 2pcs - red
  - 2pcs - orange
  - 1pc - yellow
  - 1pc - green
  - 1pc - yellow Green
  - 1pc - blue
  - 1pc - violet
  - 1pc - pink
  - 1pc - warm white
  - 1pc - white
- 12 NPN switching transistors
- 12 LEDs current limiting resistors
- 12 signal input current limiting resistors
- Standard 14 pins 1"(2.54mm) headers
- Size: 9.4mmH X 38.1mmW X 1.6mm thickness

3. Applications:

- Audio Equalizer Display
- I/O testing
- Temperature Indicators
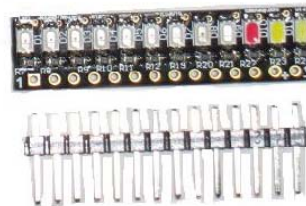- Speedometer
- Robotic signal Indicators

Table 1-1: LED-RAINBOW-V1B PINOUT
DESCRIPTIONS

Pin Number	Description
1	LED Red 1 On/Off
2	LED Red 2 On/Off
3	LED Orange 1 On/Off
4	LED Orange 2 On/Off
5	LED Yellow On/Off
6	LED Yellow-Green On/Off
7	LED Green On/Off
8	LED Blue On/Off
9	LED Violet On/Off
10	LED Pink On/Off
11	LED Warm White On/Off
12	LED White On/Off
13	+5V Input
14	Ground

PIN 1