

LED Music Frequency Spectrum Display Soldering Kit

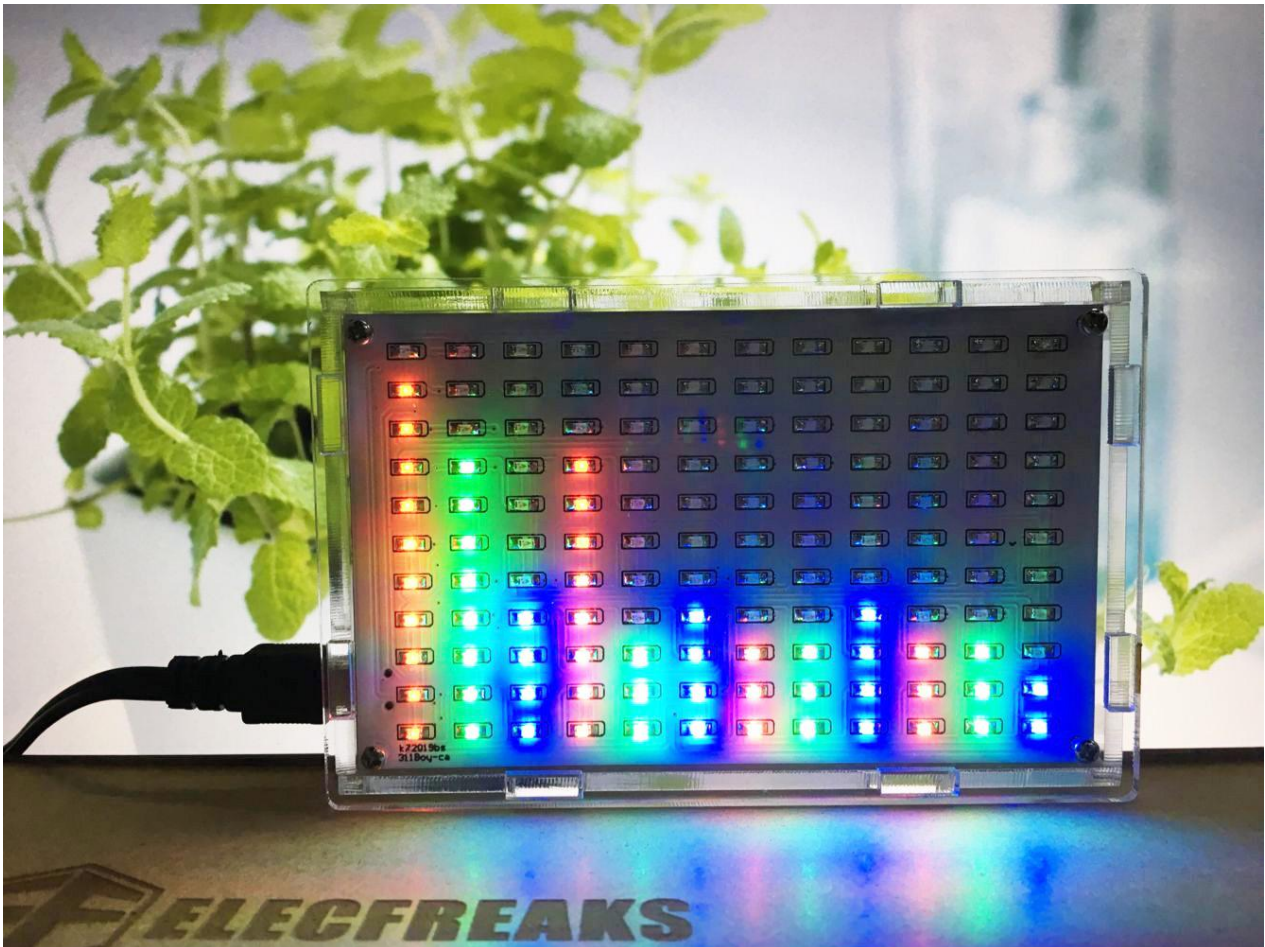
User Guide



www.electfreaks.com

1. Introduction

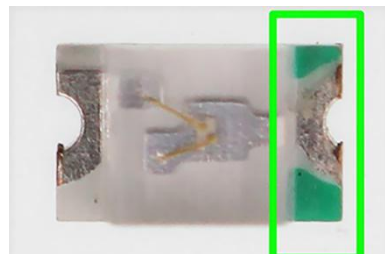
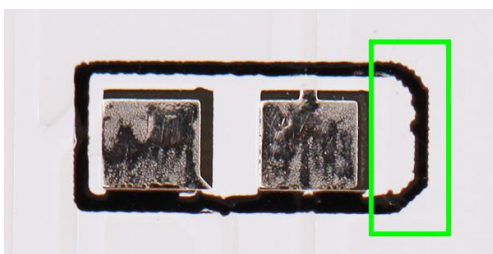
LED Music Frequency Spectrum Display Soldering Kit is a set of accessories to make an LED Music Frequency Spectrum Display. This small Display can not only present audio signal on its panel directly, but also bring us a beautiful view aesthetically. It can be called at a certain level LED Music Frequency Spectrum Display endows music a dynamic beauty.



2. Assembly Instruction

Step1 : Solder LED Light

Pay attention to the polar. The picture below showed negative point.
LED bead of each color can be welded in any place.

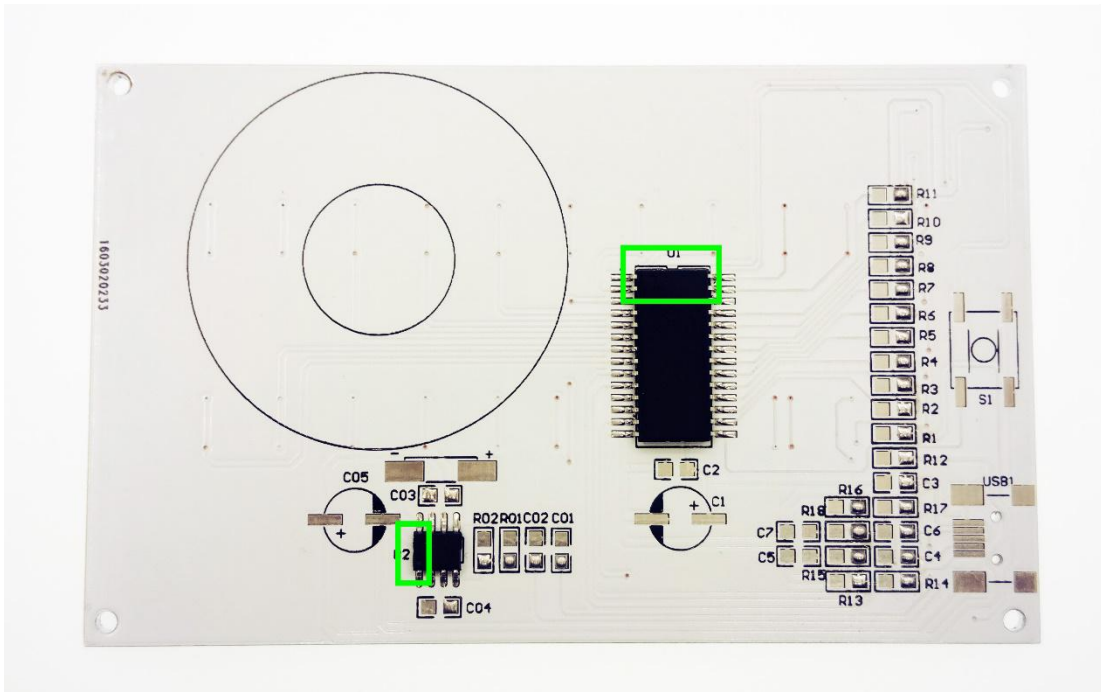
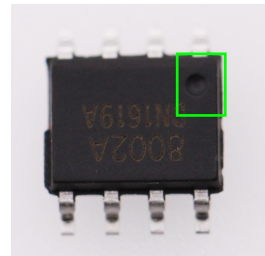
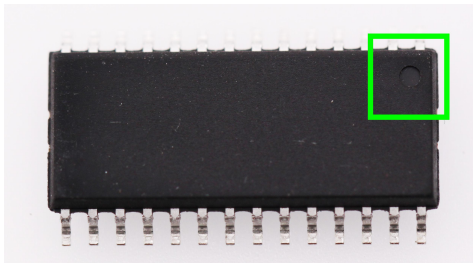


Welding Completed:

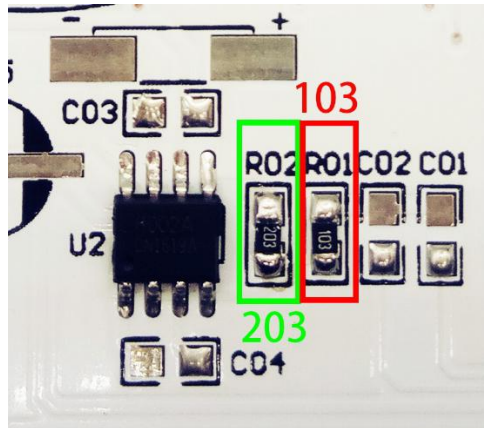
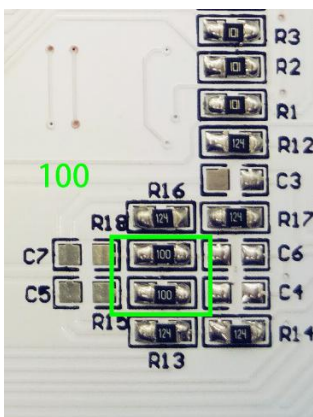
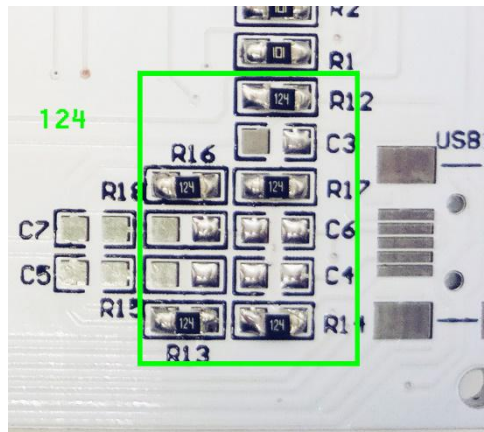
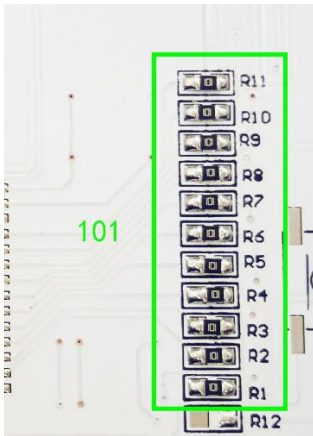


Step 2 : Solder IC

(The small round spot corresponds to the concave part on PCB IC welding plate.)

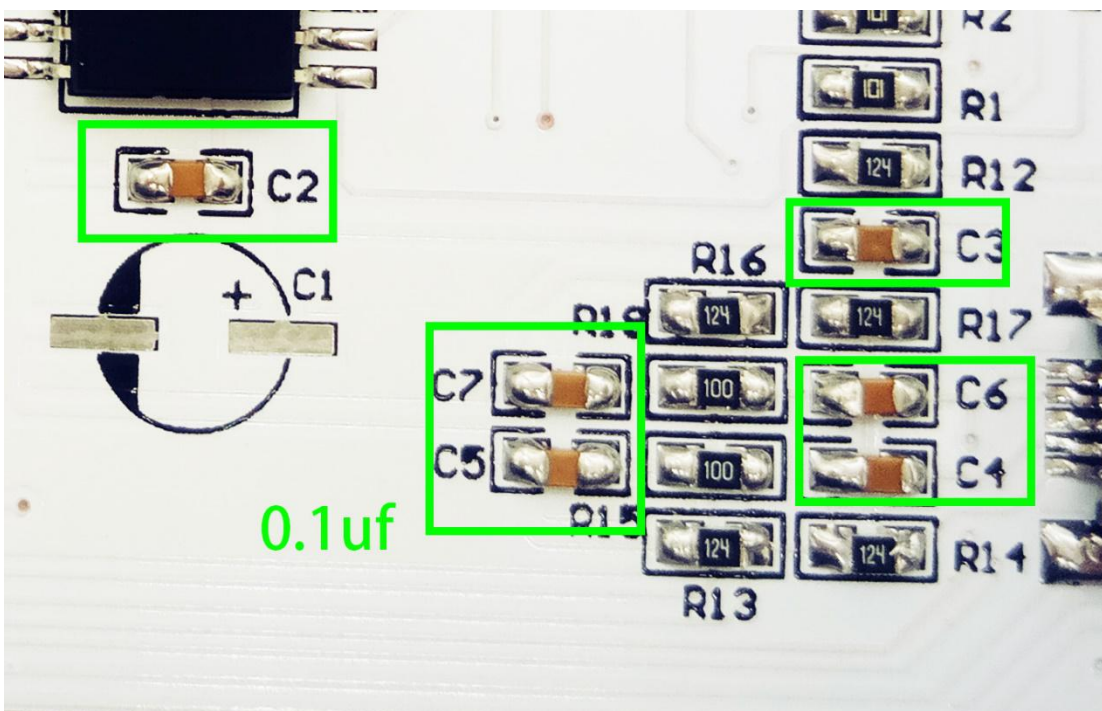


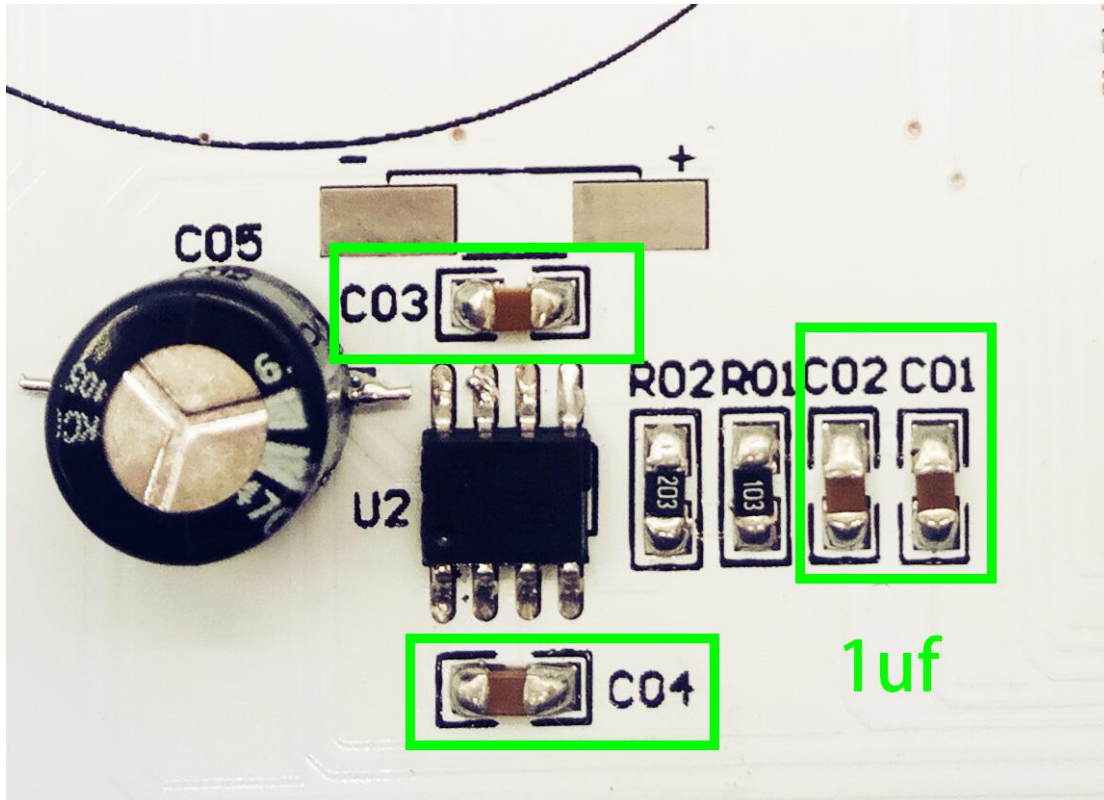
Step 3 : Solder Resistance



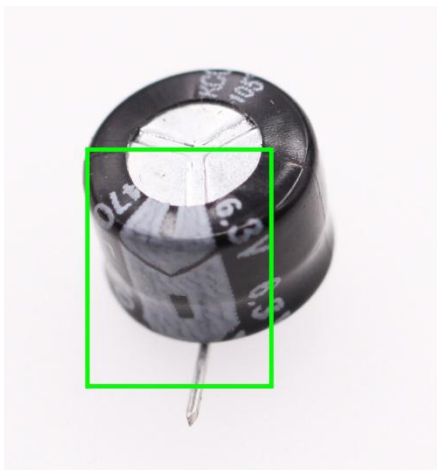
Step 4 : Solder Mount Capacitor

(1uf has bigger volume than 0.1uf)

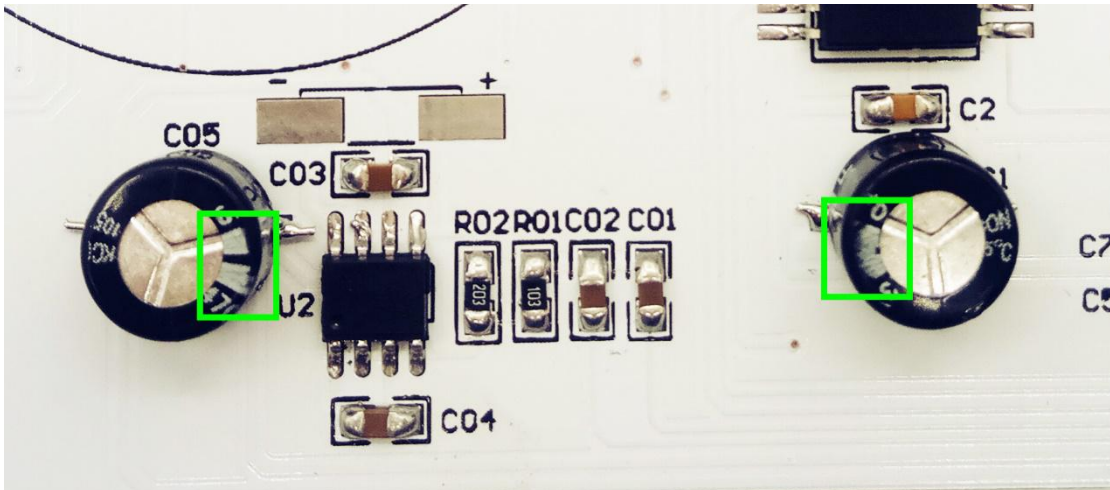




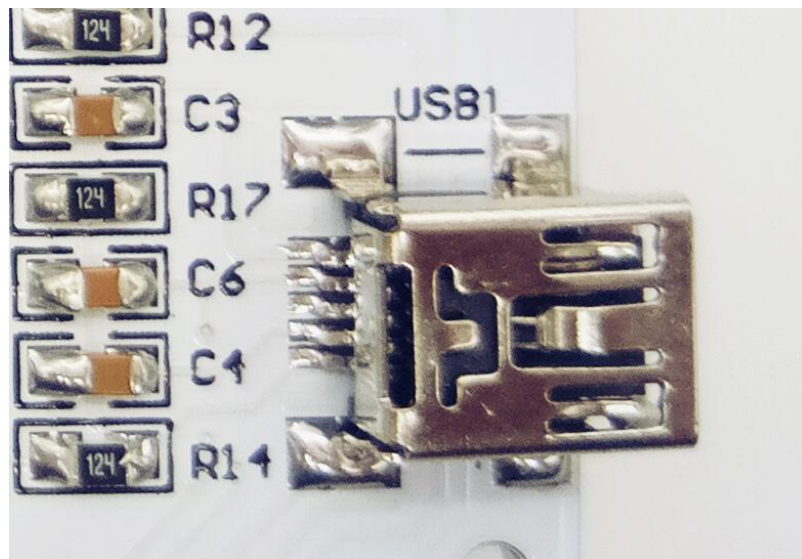
Step 5: Solder Electrolytic Capacitor



Note: Capacitor has positive and negative point. The mark in the above picture is negative point. Electrolytic capacitor has a white line. The footer is comparatively shorter.

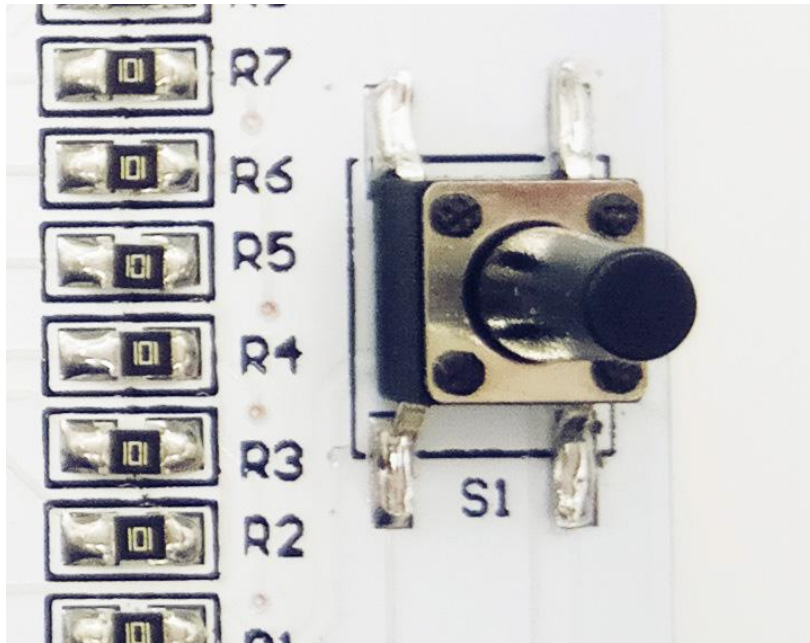


Step 6: Solder USB socket



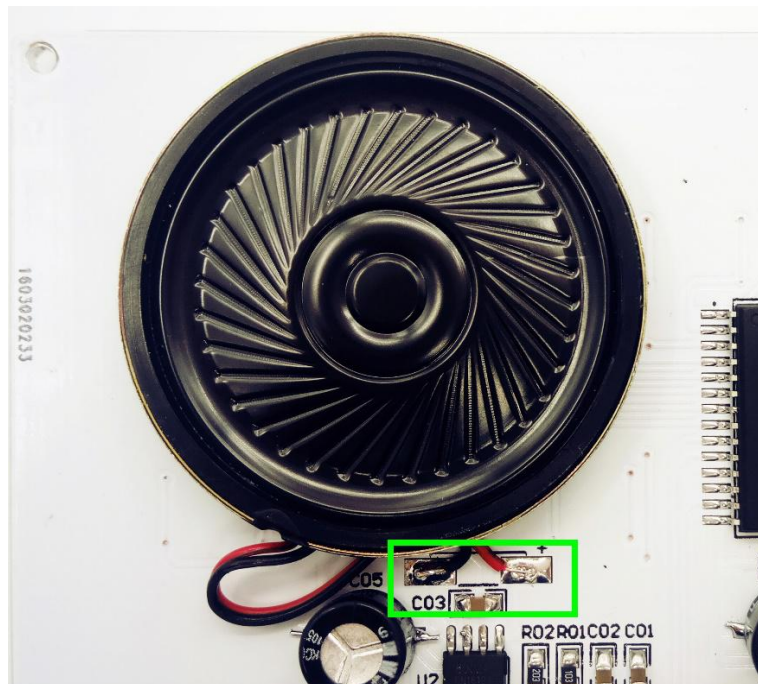
Step 7: Solder Switch

Switch has no positive or negative point.

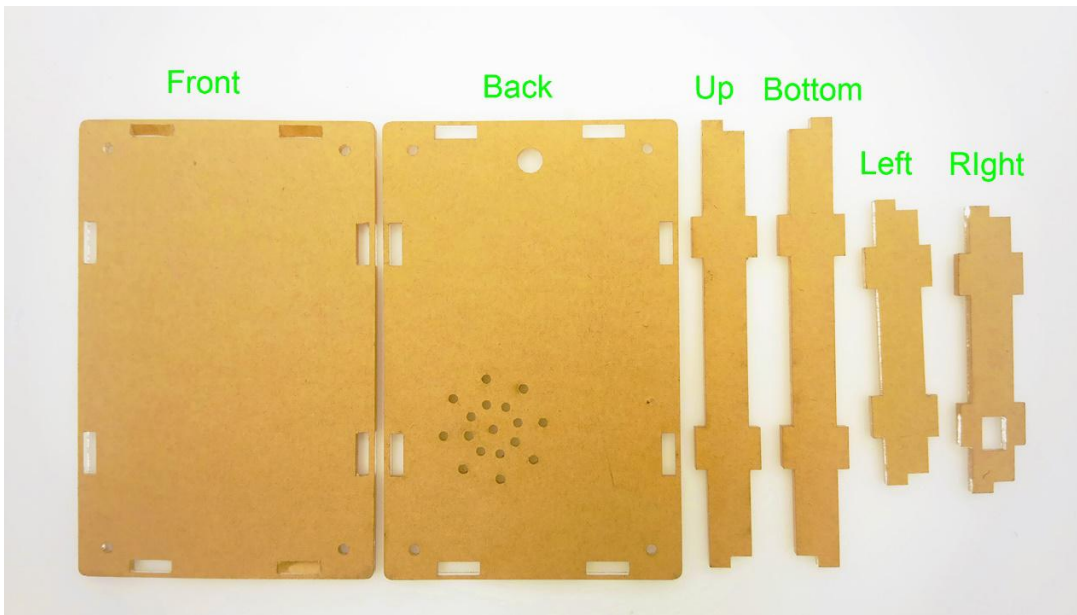


Step 8: Solder Speaker

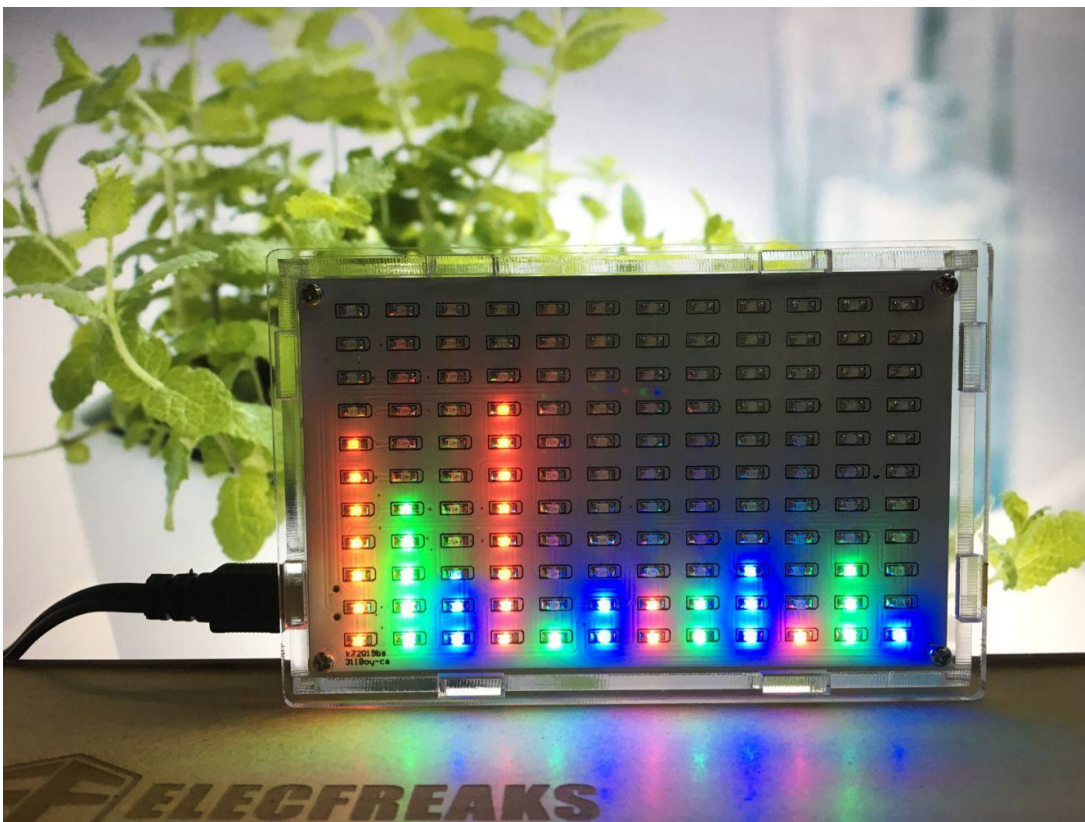
Pay attention to positive and negative point.



Step 9: Install shell



Completed Installation



3. Working Instructions

Enter working mode: Shortly press “Options” to change working mode.

Users can set working mode according to their requirements.

Exit working mode: After setting working mode, without any operation, 5 minutes later, the chip will exit working mode selection status and enter normal working status

Working Mode	Display	Options	Functions	Factory Default
Voice Channel	V	1	Single Voice Channel	
		2	Dual Voice Channel	2 Dual Voice Channel
Left & Right Channel	L	1	Dual voice channel for left or right selection. Left for left voice channel, right for right voice channel. And under single voice channel, audio signals input from left voice channel.	1 left or right position
		2	Dual voice channel for left or right selection. Left display right voice channel, right display left voice channel. In single voice channel, audio signal input from right voice channel.	
Special Note: In single voice channel, chip test an input signal only. This function added for testing audio input and see whether its input from external circle part or internal circle part. If under single voice channel no frequency spectrum displayed, then it has to be updated so that it can test signal.				

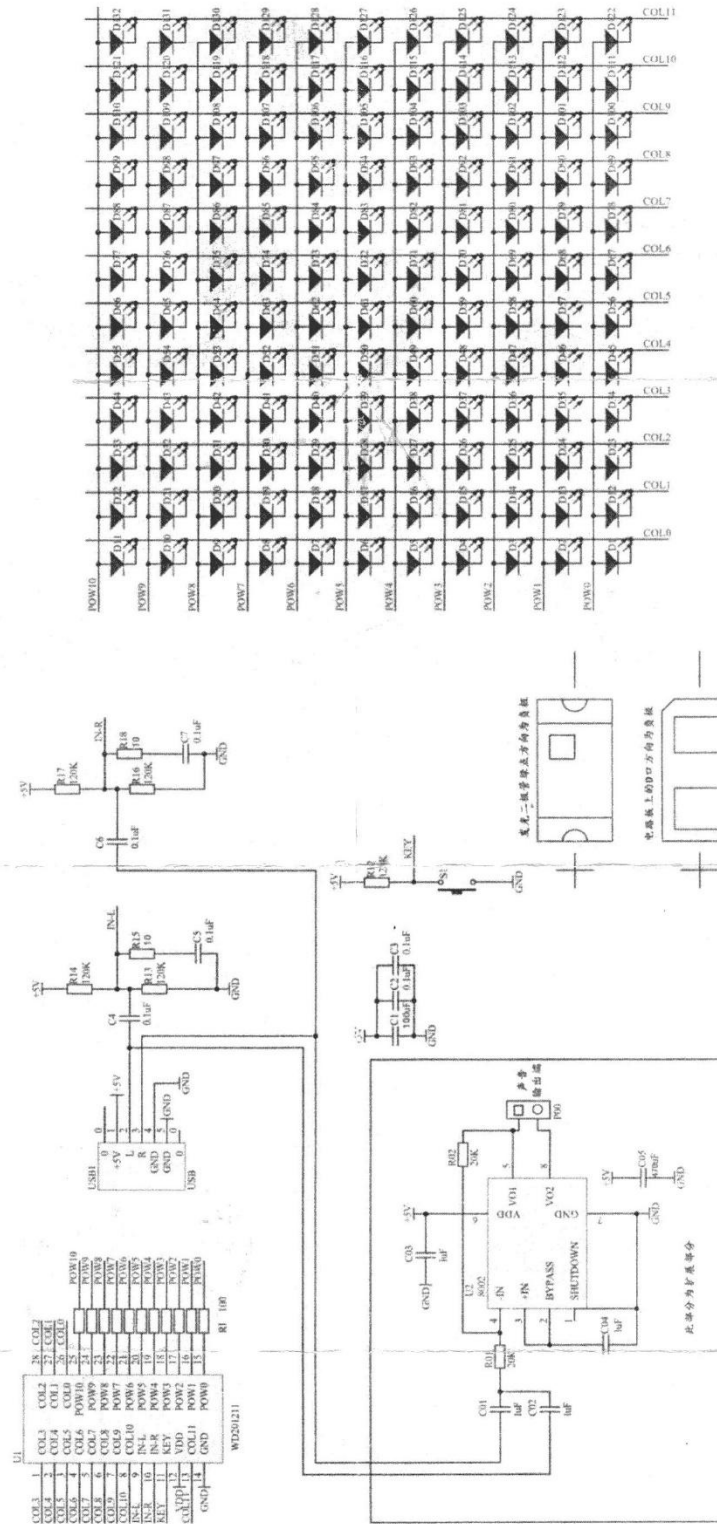
Display Refresh Rate	D	1	Fastest refresh speed	
		2	Fast refresh speed	2 Fast refresh speed
		3	Low refresh speed	
		4	Lowest refresh speed	
Sensitivity Setting	S	1	Low sensitivity	
		2	Normal Sensitivity	2 Normal Sensitivity
			High Sensitivity	
Sampling Frequency Setting	SF	1	Low sampling Frequency	1 Low sampling Frequency
		2	High sampling Frequency	

Tip: If it is connected with a loudspeaker and set to single voice channel working mode, then the display effect will be much better.

LED Music Frequency Spectrum Display Soldering KitBOM List:

Components	QTY(PCS)
0805 LED R	46
0805 LED B	46
0805 LED G	46
0805 Resistance 100Ω	12
0805 Resistance 100K	7
0805 Resistance 10Ω	3
0805 Resistance 20K	2
0805 Capacitor 0.1UF	7
0805 Capacitor 1UF	5
AL Electrolytic Capacitor 16V 100UF	2
Patch Power Chip 8002	1
Mount Chip WD201211	1
Mount 6*6 Press Button	1
Mount USB Female Socket mini-5Pin	1
4MM Loudspeaker 8Ω 0.5W	1
Wire 5CM	2
Power Supply + Audio Cable	1
3.5MM earphone 2-in-1connector	1
PCB Board	1

Layout:

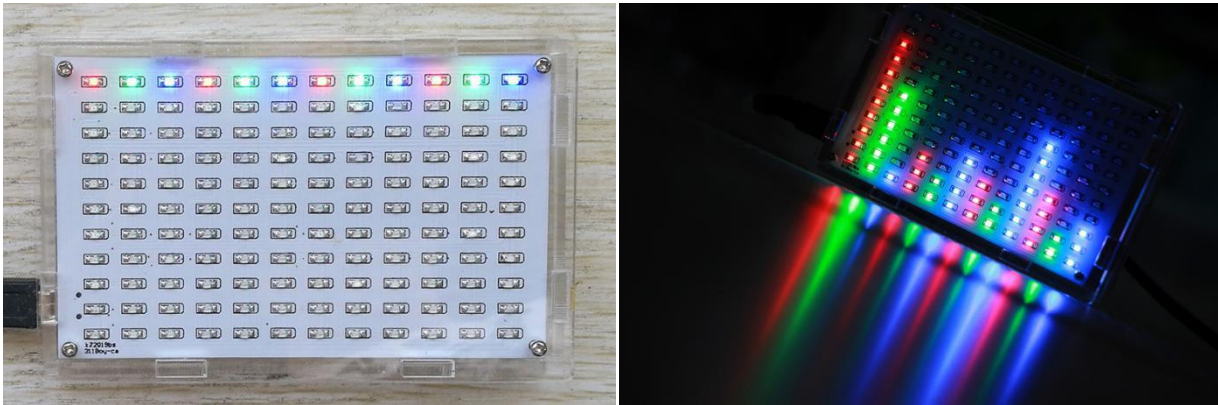


4. Materials for Test

A mobile or computer
LED Frequency Spectrum
Audio Cable X 1
USB cable X 1

5. Test

Connect LED MFS Display to power source, the bottom row of LED lighted, then the light move upward and finally light disappear.



Connected to audio device, then LED light beam on the panel will constantly change its height. Bigger voice brings higher beam light. Besides, the loudspeaker on the back of LED MFS Display will sounds.