

How to install DIY Big Size Touch Control 225 Segment LED Digital Equalizer Music Spectrum Sound Waves Kit

Please carefully read the whole procedure before you start doing!

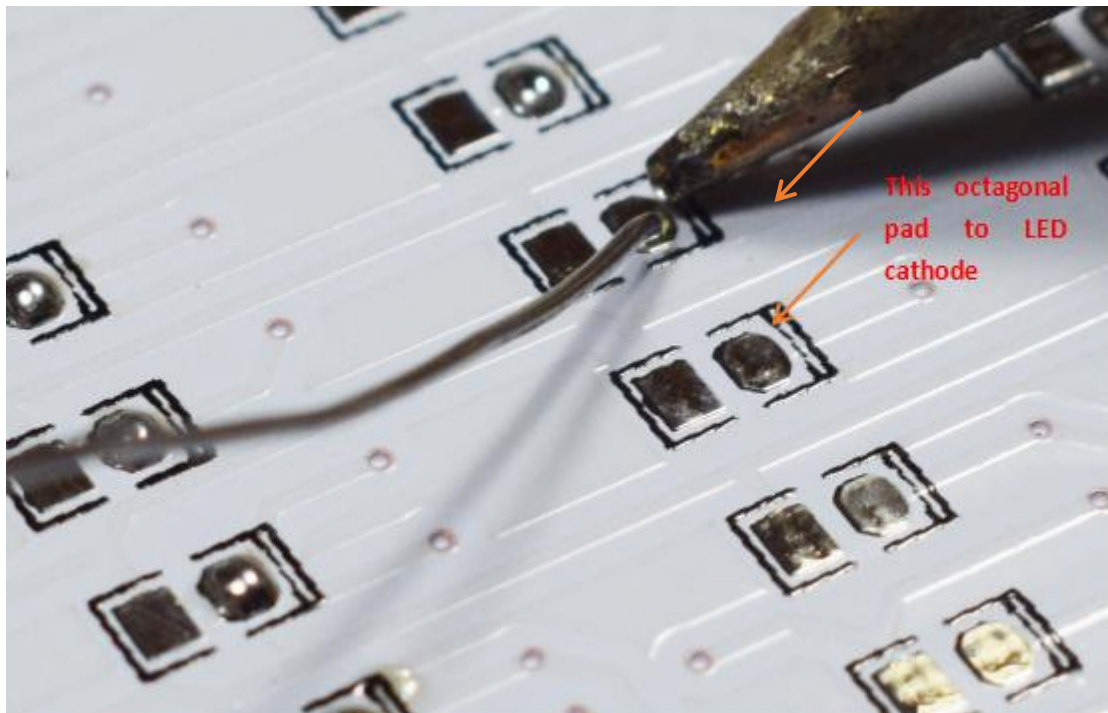
First before soldering:

1. Soldering temperature is below 320 c, soldering iron temperature must not too high, or it may damage the LED.

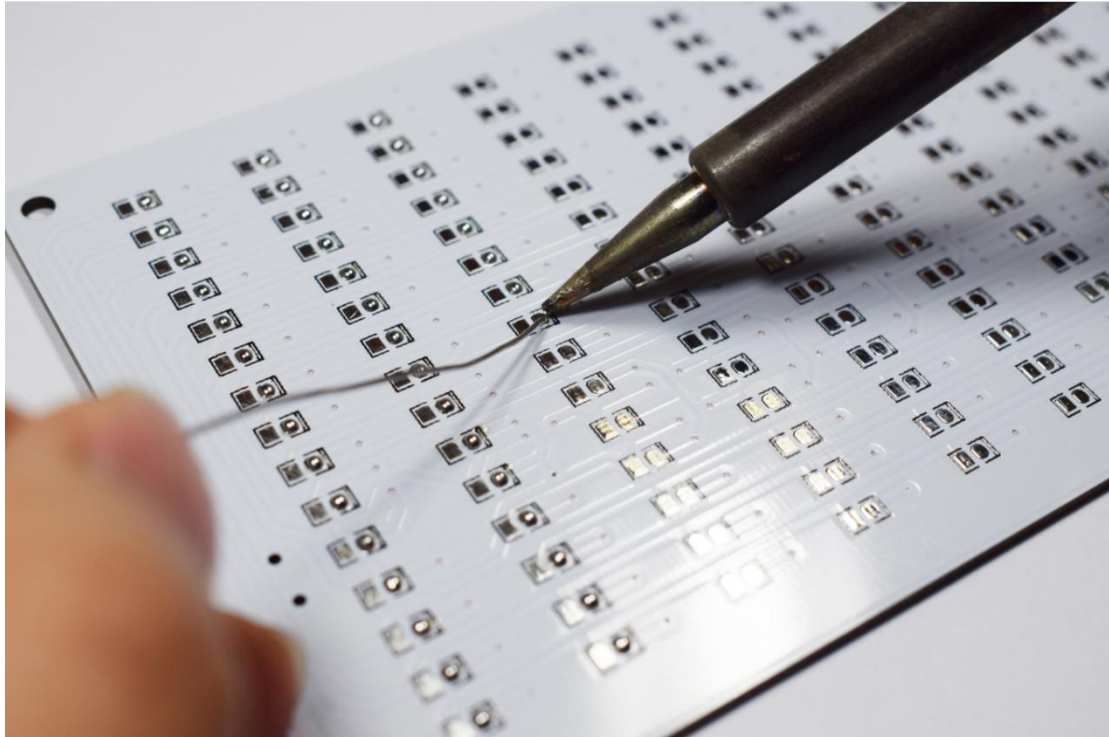
2. When soldering LED, Soldering iron must be grounded or it is best to wear anti-static bracelet grounding to solder, soldering should be faster.

OK, we start doing it, this is a simple suite of SMD soldering, have to soldering many LEDs, just need patience to solder, it is basic and not difficult.

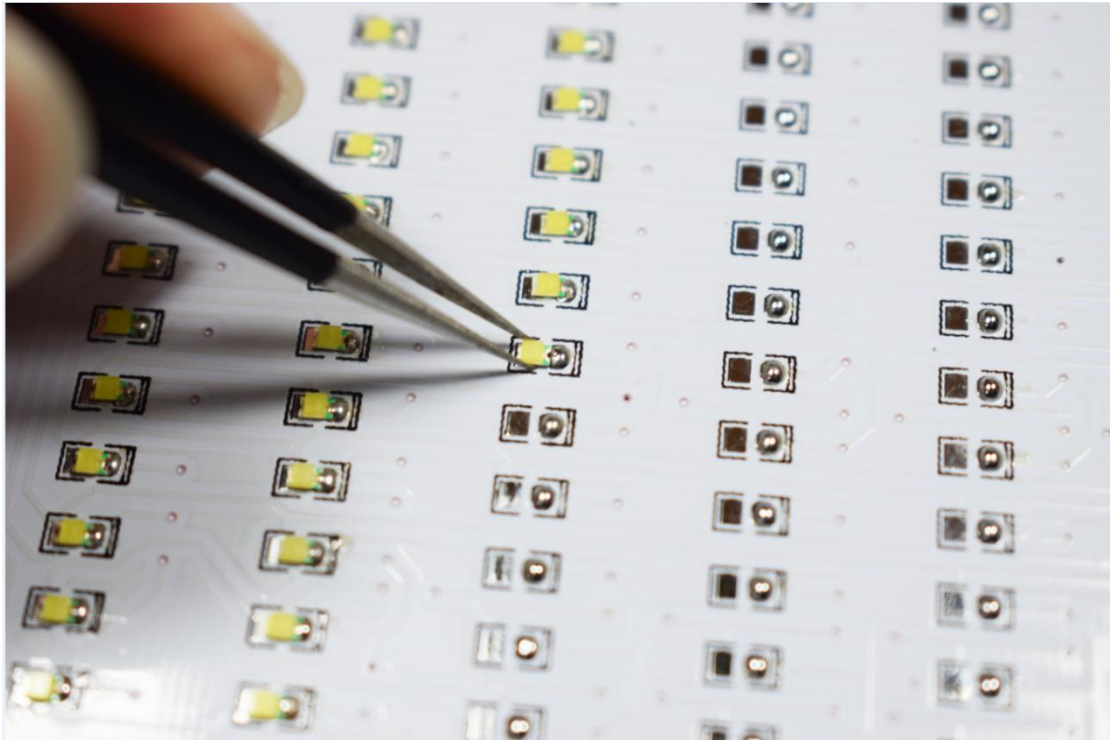
The first step, we have to distinguish LED positive and negative on which pad position, LED pads have two positions, are not the same, there is an octagonal pads, octagonal pad LED cathode (The LED with green point side is negative), as shown below:



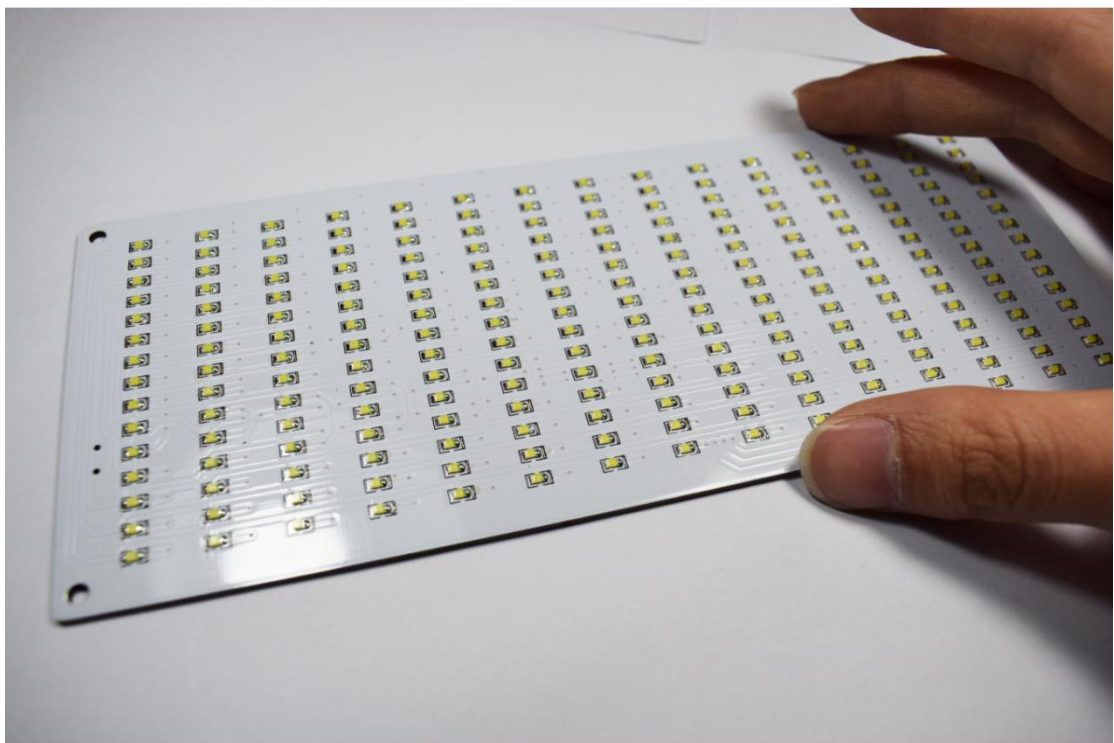
Knowing the LED soldering direction, then add soldering on one of the pad, as shown below:



And then using tweezers nip the LED and heat solder fixed to one of the LED side, all the LED are soldering like this, as shown below:

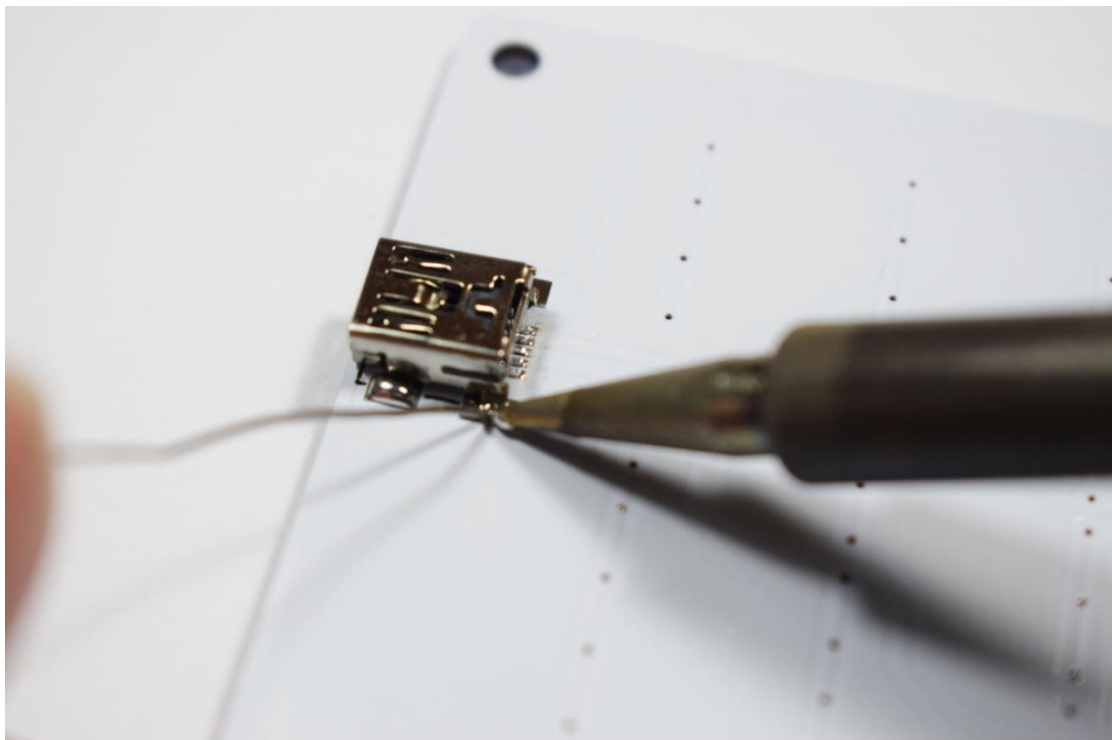
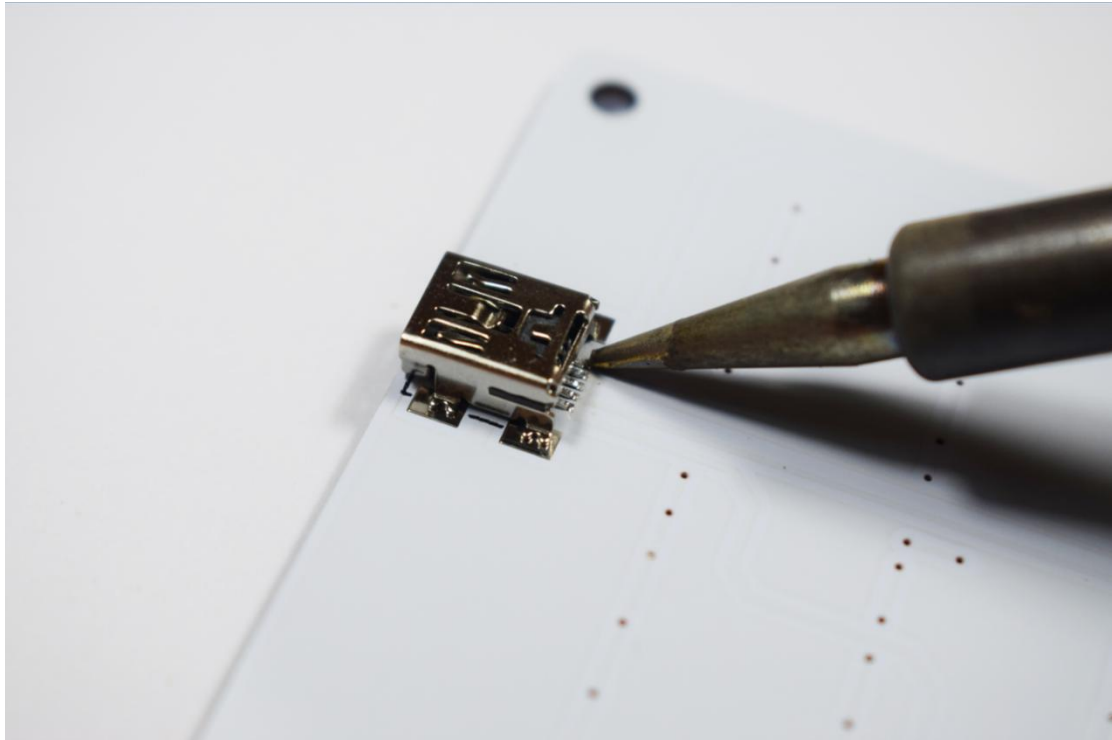


After soldering one side of all LEDs, and then solder the other side of the LED, LED all soldering like the following figure:

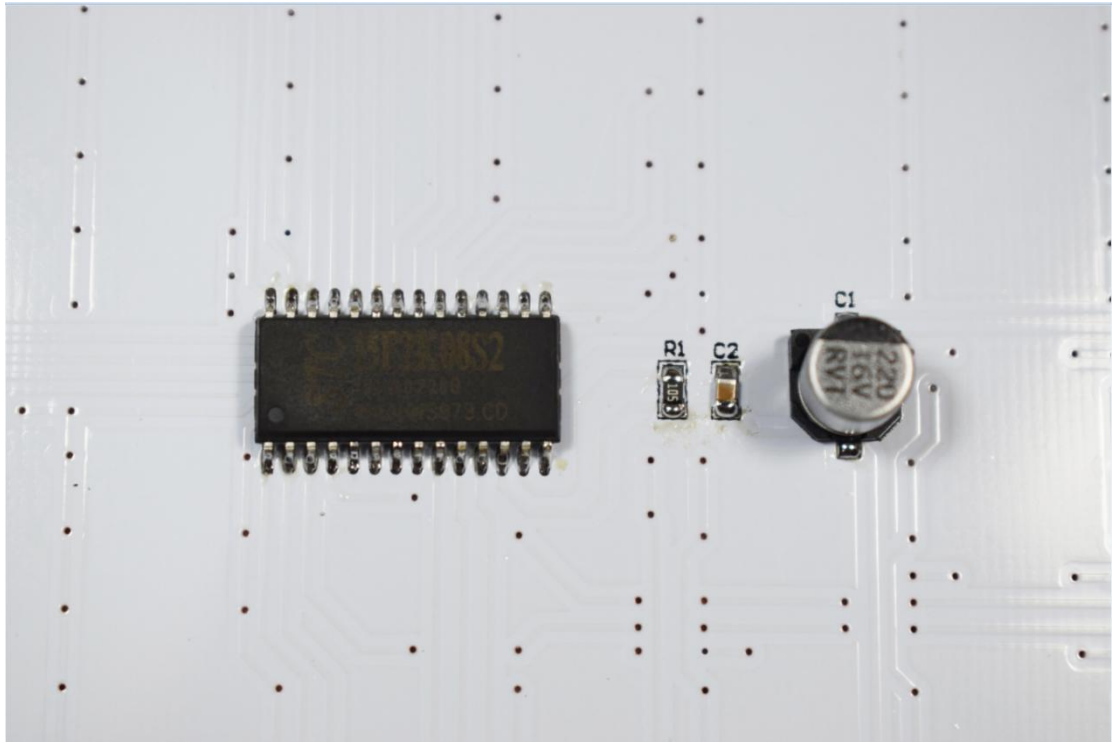


Then turned to back, soldering mini USB socket, when soldering mini USB socket, first add

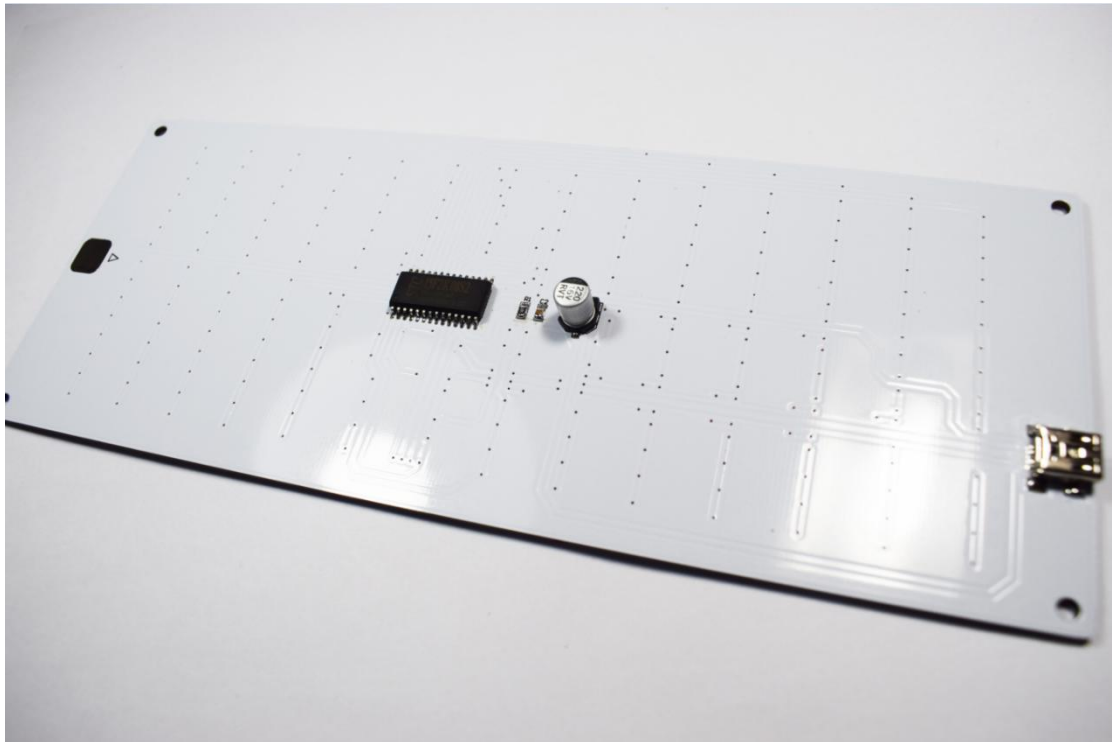
soldering to the Middle 5 pads, then put the mini USB socket alignment to the pads, clean soldering on the iron head, Using iron tip heating solder to make solder and mini USB feet of the socket fixed on the pad, don't forget to solder the around 4 a feet, following two figures:



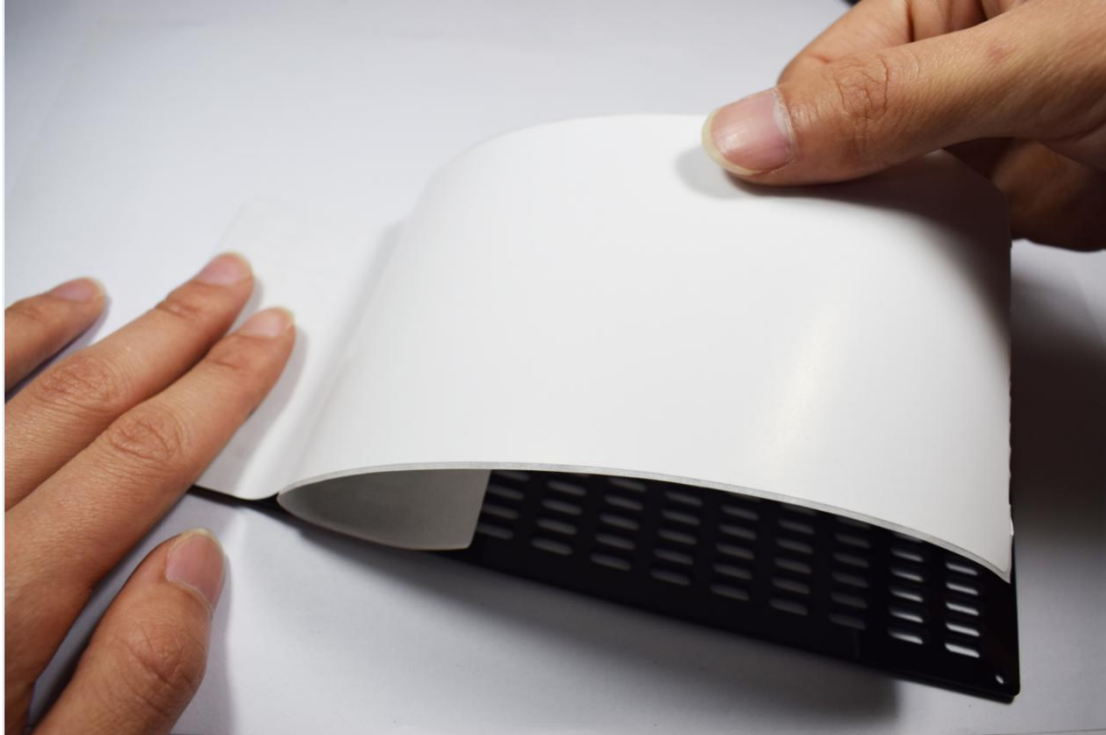
Soldering MCU, capacitance and resistance, pay attention to the direction of the MCU,do not solder it reverse.



All done like this:



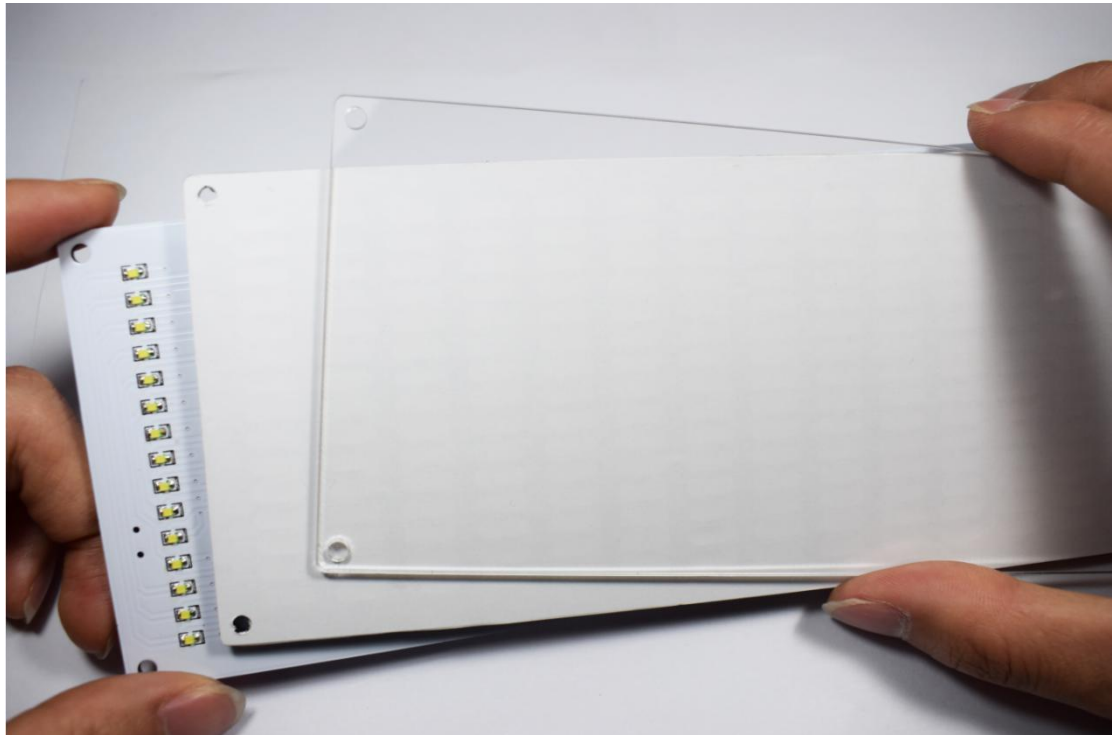
Then you can plug in the USB cable to test LEDs, the LEDs will all light when power it; If there are individual LED is not lit, check whether the LED have a cold solder joint or soldering damage, If the column is off, you have to check the MCU for virtual soldering or short circuit, If there is a column of light brightness is different from others, then check this column which LED was damaged by soldering, replace it! All LED is working, we can proceed to the next step, Ripped Black mesh panels of acrylic protective film, using the white sticker stick on the grid Board, as shown below:



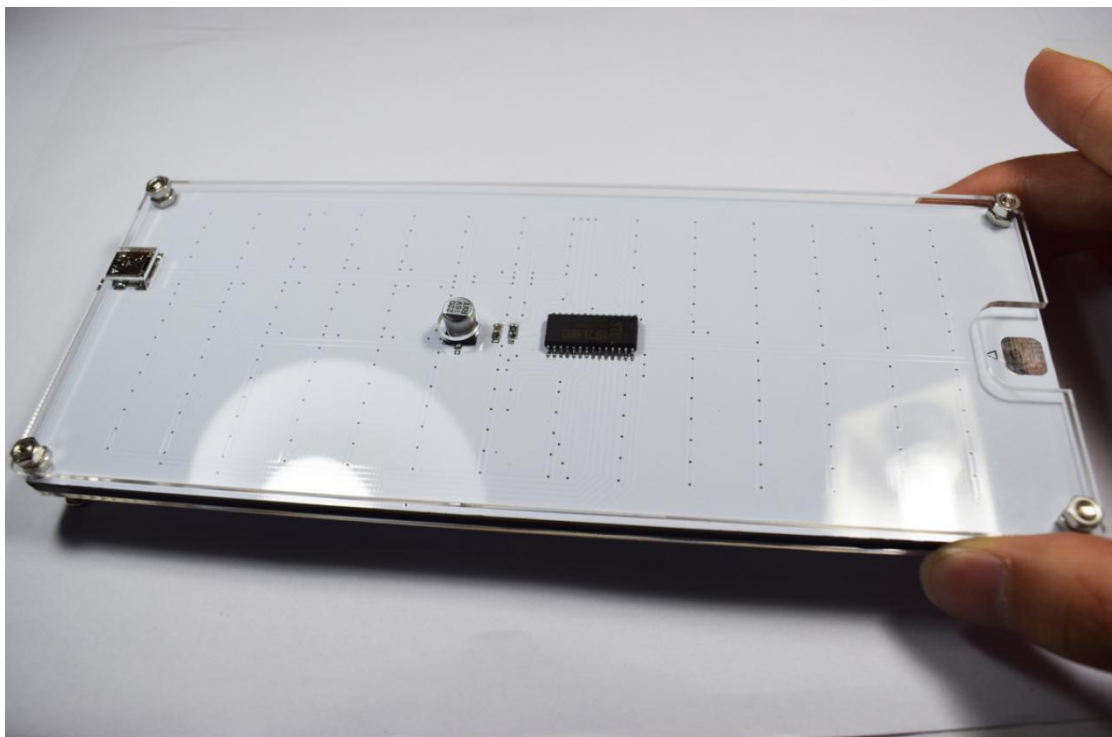
After stuck that,using tweezers to poke 4 small holes for screws.



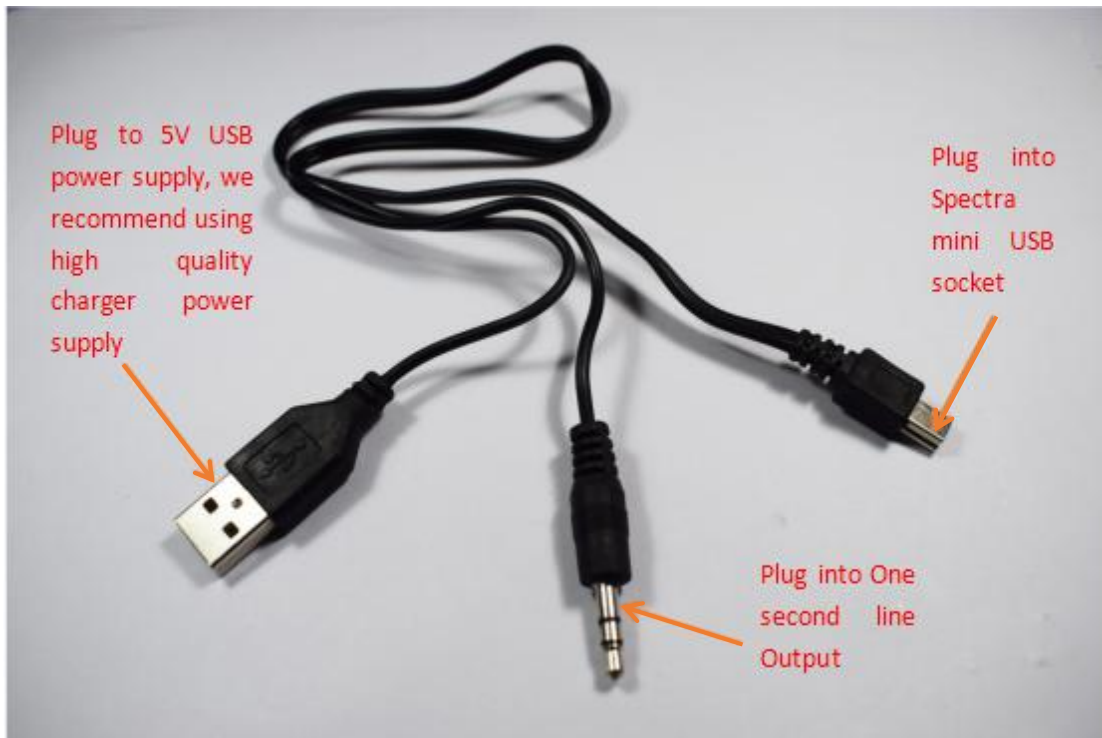
Ripped two other acrylic protective film, according to the next order install on acrylic



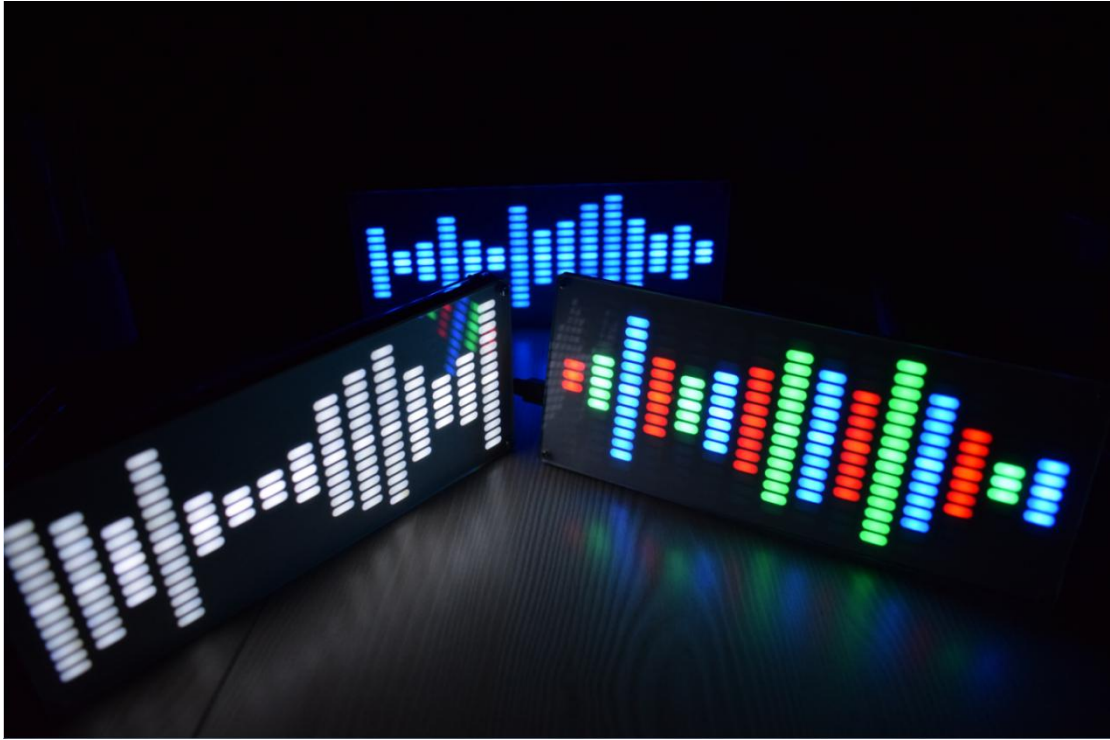
Then turn to the back, the back acrylic requires 4 nuts to raise it up, then using 4 screws fixing on the acrylic:



Then you can insert lines, white one second plug to 3.5mm audio output, separate the two signals, one to the receiving the speakers or headphones, one to the USB audio cable:



After power up, the effect is as follows:



Function description: this spectrum have 5 display effects

1. short touch the touch keys to toggle one effect
2. Long touch the touch keys can enter the sensitivity adjustment, have 4 levels of sensitivity can be adjusted, sensitivity adjustment is applied when you use speakers or headphones.