

Introduction



DIY Bluetooth Speaker Radio Soldering Kit

- Support 5.0 Bluetooth
- FM radio function
- Beautiful appearance
- Excellent sound quality
- Supports audio cable

Product parameters

parameter	value
Name	DIY Bluetooth Speaker Radio Soldering Kit
PCB Size	100mm*30mm
Sound Channel	2
Work power supply	Charger
Work Voltage	5V
Work Temperature	-30°C~80°C

Function Demo



Application



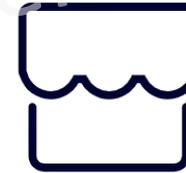
Family Education



School Courses



Gift Giving



Kit Sales



Electronic Competition



DIY Production



Welding Skills

Component Listing

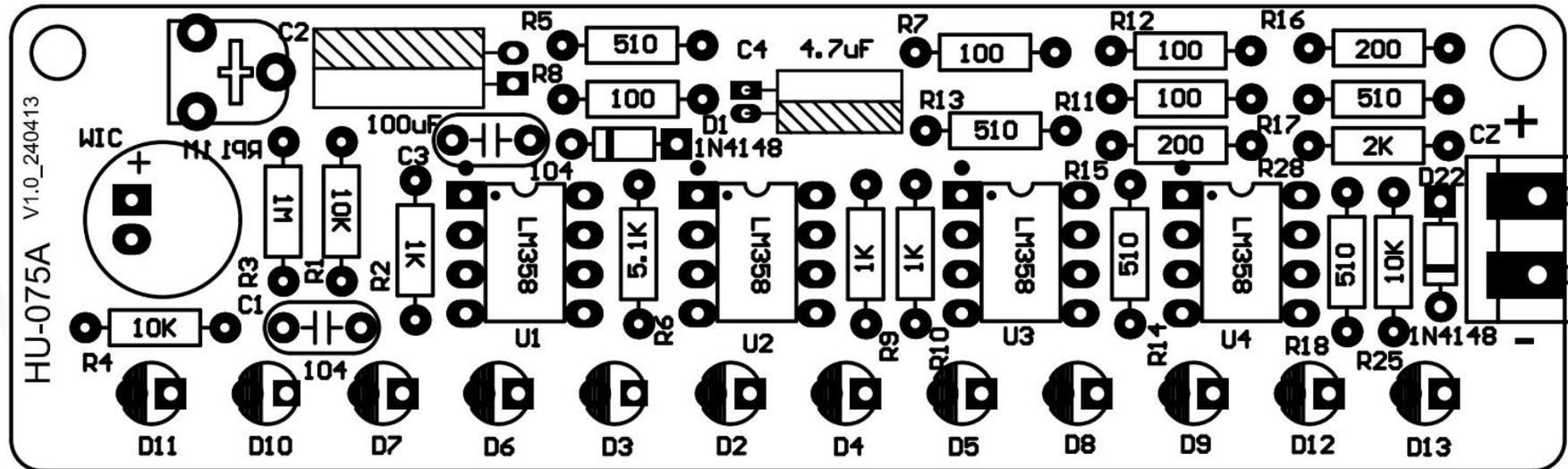
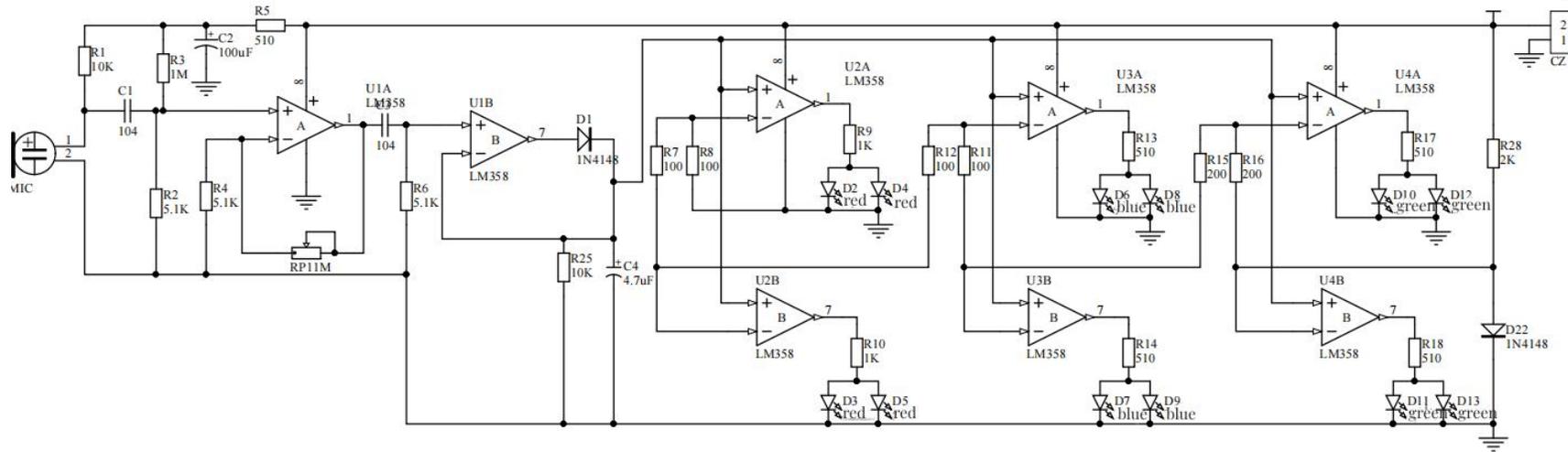


Component Listing

NO.	Name	PCB Marker	Quantity
1	LM358	U1、 U2、 U3、 U4	4
2	IC socket 8P	U1、 U2、 U3、 U4	4
3	Pink LED	D2、 D3、 D4、 D5	4
4	Blue LED	D6、 D7、 D8、 D9	4
5	Green LED	D10、 D11、 D12、 D13	4
6	Diode 1N4148	D1、 D22	2
7	104 single stone capacitor	C1、 C3	2
8	DIP E-capacitor 4.7uF	C4	1
9	DIP E-capacitor 100uF	C2	1
10	DIP resistor 100Ω	R7、 R8、 R11、 R12	4
11	DIP resistor 200Ω	R15、 R16	2
12	DIP resistor 510Ω	R5、 R13、 R14、 R17、 R18	5
13	DIP resistor 1K	R2、 R9、 R10	3
14	DIP resistor 2K	R28	1
15	DIP resistor 5.1K	R6	1
16	DIP resistor 10K	R1、 R4、 R25	3
17	DIP resistor 1M	R3	1
18	Blue and white adjustable resistor 1M (105)	RP1	1

19	microphone	MIC	1
20	PH2.0 wiring terminals	CZ	1
21	Red and black connecting wires	/	1
22	PCB	/	1
23	Instructions	/	1
24	Bluetooth decoding board	/	1
25	Infrared remote control (with battery)	/	1
26	Red connecting wire	/	1
27	Red and black single ended terminal wire		3
28	Screw cap	/	2
29	4 Ω 3W speaker	/	2
30	Rocker switch	/	1
31	DC power socket	/	1
32	Audio cable	/	1
33	Acrylic shell	/	1
34	Screw bag	/	1
35	Audio socket	/	1
36	Telescopic radio antenna	/	1
37	USB to DC cable	/	1

Schematic Diagram

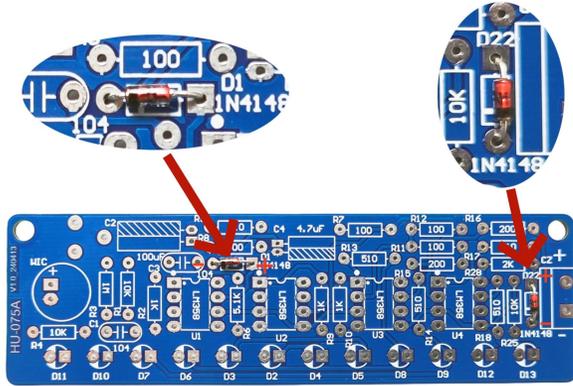


Installation Tips

- Before installation, users need to prepare the welding tools in advance.
- The installation process requires enough care and patience.
- Be sure to read through the installation instructions before starting the installation.
- Welding sequence: components from high to low
- In order not to damage the components, the soldering iron should not touch the components for too long.
- Pay attention to the positive and negative markings on the pcb, long pin of the component is positive.
- Ensure that similar components with different parameters are placed in the correct position on the pcb.
- Wearing anti-static gloves or anti-static wristbands is better.
- Ensure that components are not accessible to children.

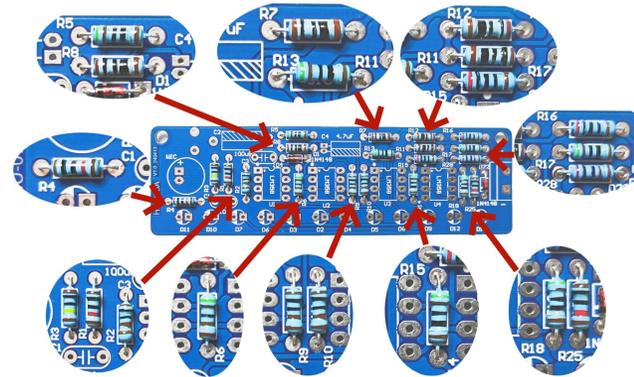
Installation Steps

Step1: Install 1N4148 diode



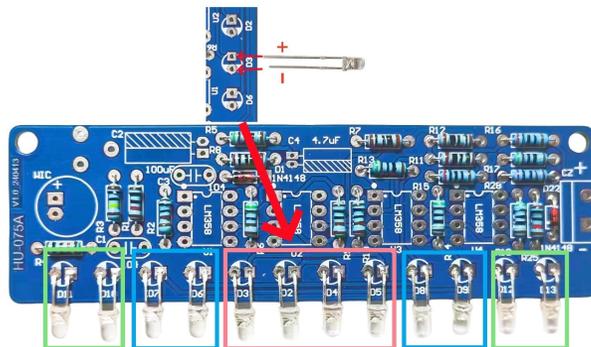
PCB Marker:
D1, D22

Step2: Install the resistors



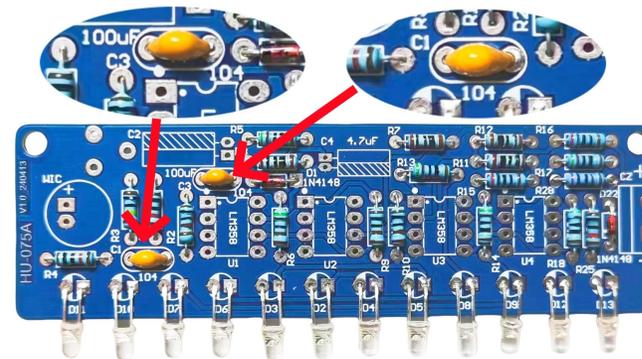
PCB Marker:
4pcs 100Ω at R7、 R8、 R11、 R12
2pcs 200Ω at R15, R16
5pcs 510R at R5、 R13、 R14
R17、 R18
3pcs 1KΩ at R2、 R9、 R10
1pcs 2KΩ at R28
1pcs 5.1KΩ at R6
3pcs 10KΩ at R1、 R4、 R25
1pcs 5.1MΩ at R3

Step3: Install LED lights



PCB Marker:
4pcs Pink LED at D2、 D3、 D4、 D5
4pcs Blue LED at D6、 D7、 D8、 D9
4pcs Green LED at D10、 D11、 D12、 D13

Step4: Install 2pcs 104 single stone capacitors

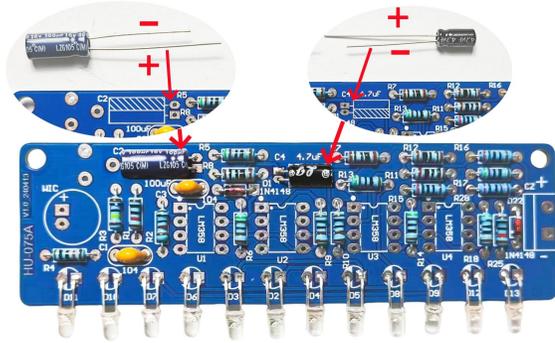


PCB Marker:
C1, C3

Green Blue Pink Blue Green

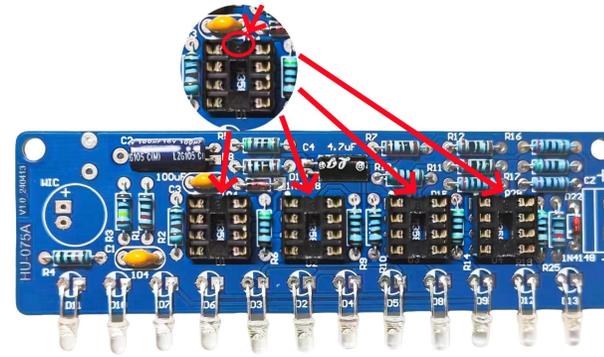
Installation Steps

Step5: Install electrolytic capacitors



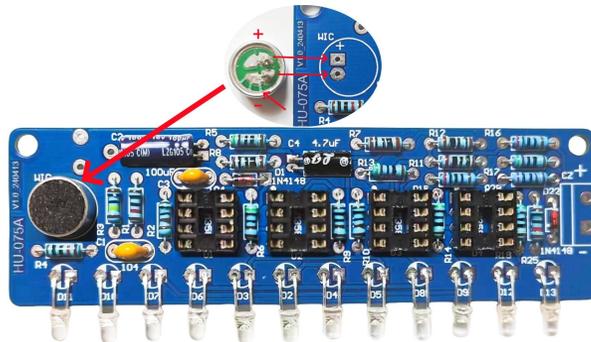
PCB Marker:
 4.7uF at C4
 100uF at C2
 Tips:
 bend them (long
 positive short negative)

Step6: Install 4pcs 8P IC sockets



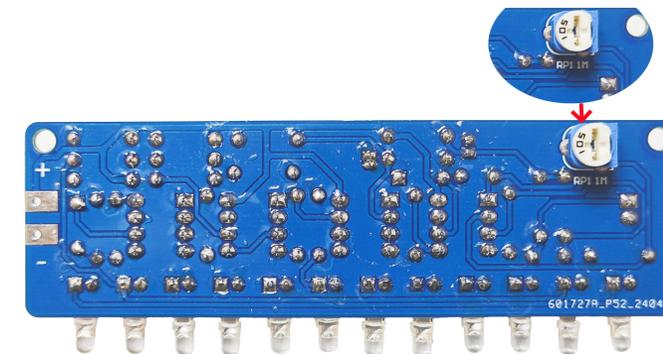
PCB Marker:
 U1、U2、U3、U4
 Tips:
 The side with a notch faces the side
 with a notch on the PCB

Step7: Install the microphone



PCB Marker:
 MIC
 Tips:
 One side of the three horizontal
 lines is the negative pole

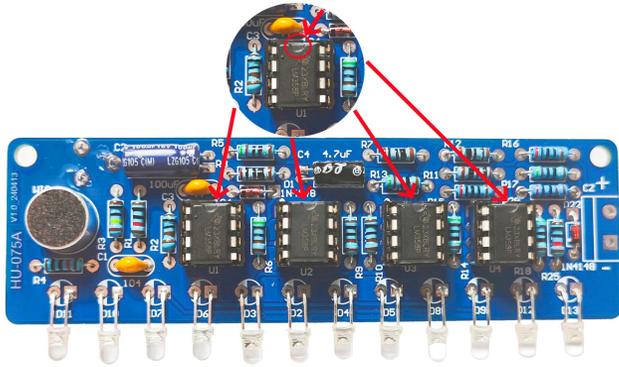
Step8: Install 1M blue and white adjustable resistors



Tips:
 Install them on the back
 of the PCB

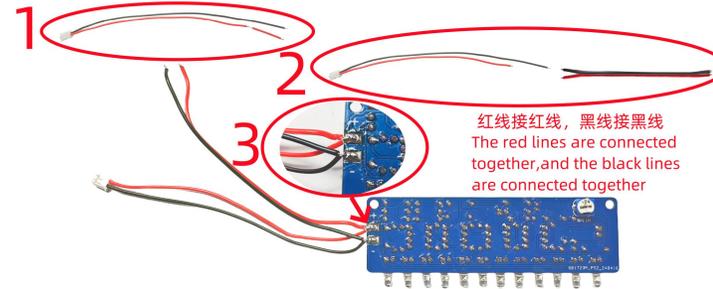
Installation Steps

Step9: Insert 4pcs LM358 chips into the IC sockets



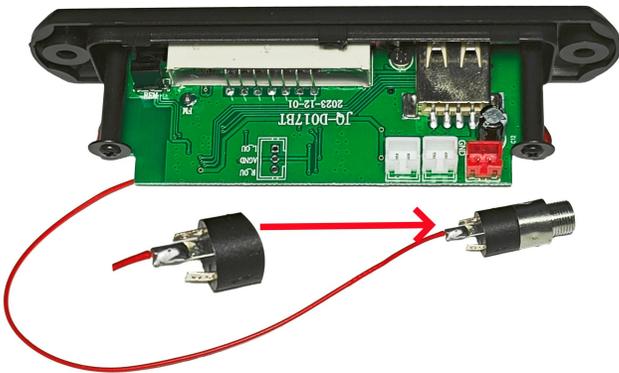
Tips:
The side with a notch
faces the side with a
notch on the IC socket

Step10: Connect wires to the PCB



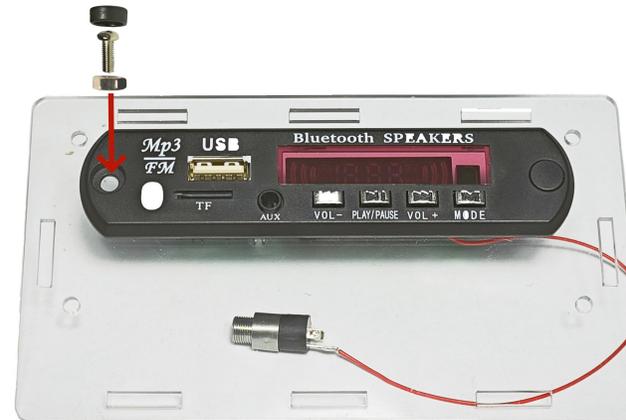
Tips:
Cut a small section of a single
terminal wire, connect it with the
red and black connecting wires,
and connect the black and red
wires together, and solder them
onto the PCB

Step11: Connect the Bluetooth board and the audio socket



Tips:
Solder the red connecting wire
to the longest foot of the audio
socket

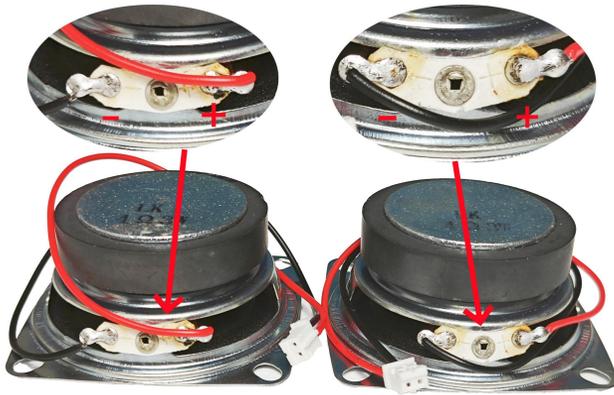
Step12: Fix the decoder onto the housing using



Tips:
Fix the decoder onto the housing
using M3 * 8 and M3 nuts, and
install the screw cap.

Installation Steps

Step13: Connect the speaker



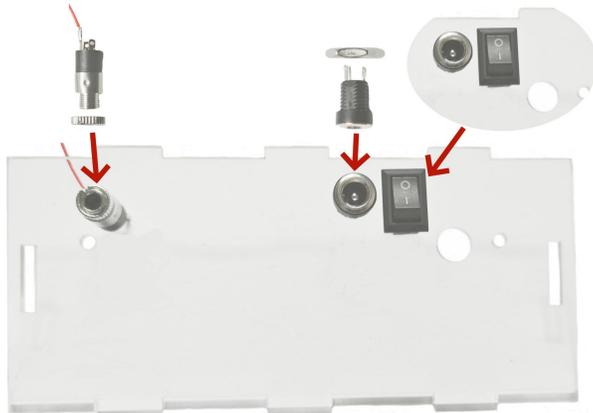
Tips:
Solder the single terminal wire to the speaker. (Red positive, black negative).

Step14: Fix the speaker

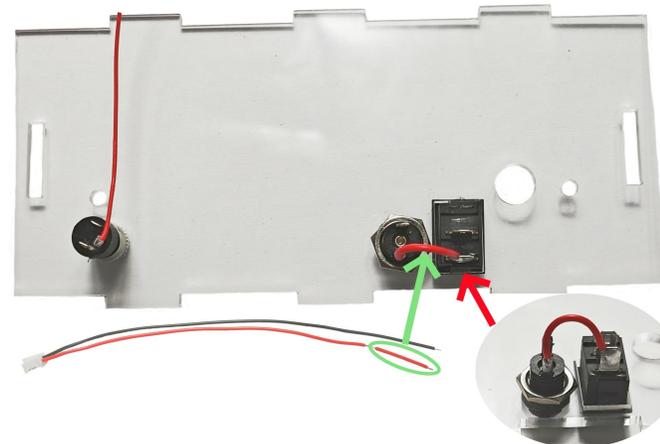


Tips:
Secure the speaker to the housing using M3 * 8 screws and M3 nuts.

Step15: Install the audio socket, power interface, and rocker switch onto the housing



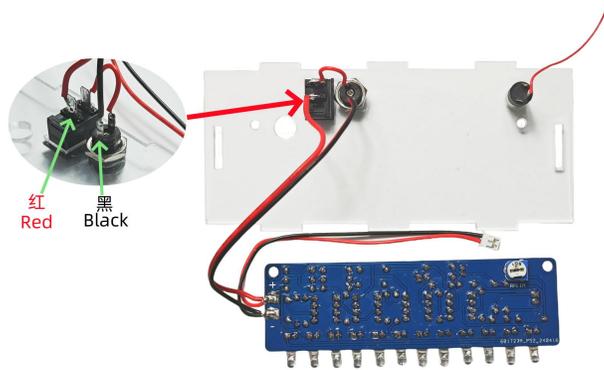
Step16: Connect the the power interface and the boat type switch



Tips:
Connect the short pin of the power interface and the boat type switch together using the remaining section of the cable.

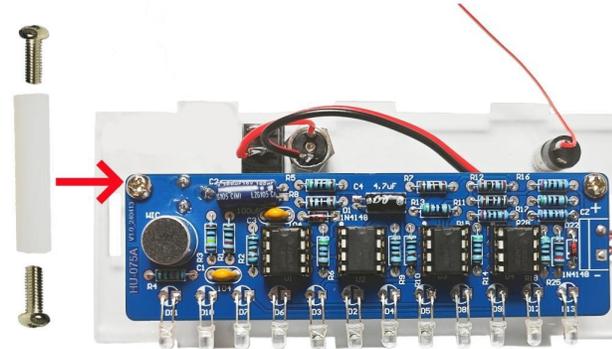
Installation Steps

Step17: Connect the the ship type switch and PCB board



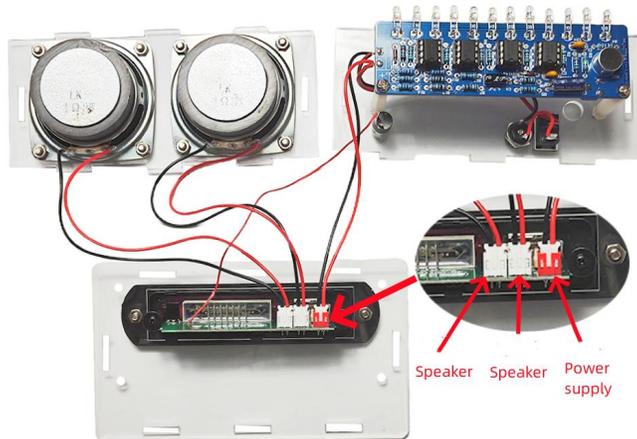
Tips:
Weld the red wire to the ship type switch and the black wire to the long leg of the power interface.

Step18: Secure the circuit board to the rear housing



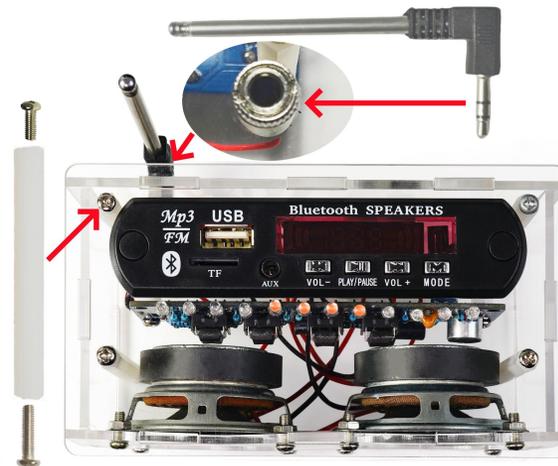
Tips:
Secure the circuit board to the rear housing using M3 * 28 nylon posts and M3 * 8 screws.

Step19: Connect the single terminal wire



Tips:
Connect the single terminal wire of the speaker to the decoder L-L+ and R-R+, and connect the single terminal wire of the power interface to 5V.

Step20: Install the housing



Tips:
Install the housing with M3 * 8 and M3 * 12 screws and M3 * 50 nylon posts, and plug in the radio antenna.

Operating Instructions



1. The power supply is recommended to be 5V2A or 2A or more.
2. 5 Modes: FM, AUX, Bluetooth, USB, TF. Press Mode button to switch.
3. FM Mode: Screen display FM, press Play/Mode button to start searching channels automatically, stop and start playing after searching 10 channels, press VOL+/VOL- to switch channels.
4. AUX Mode: Switch to AUX mode. Connect the speaker to your computer or cell phone with the audio cable, play on your cell phone or computer. At this time, VOL+/VOL- can only adjust the volume but not switch songs. Press Play/ Pause button to play or pause.
5. Bluetooth Mode: Connecting Bluetooth using your cell phone, Bluetooth name JQ-BT. Long press VOL+/VOL- to adjust volume, short press to switch songs. Press Play/ Pause button to play or pause.
6. USB Mode: Plug in USB, switch to USB mode.
7. TF Mode: Plug in TF card, switch to USB mode.
8. Recording Function: Insert USB or TF card, switch to USB or TF mode, long press Mode button to start recording, long press Mode button again to end recording. The recording file is stored in the last file in the USB or TF card
9. Adjust the sensitivity of the spectrum lamp: use a screwdriver to adjust the potentiometer, clockwise to increase the sensitivity counterclockwise to decrease the sensitivity.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Installation Steps

Congratulations !