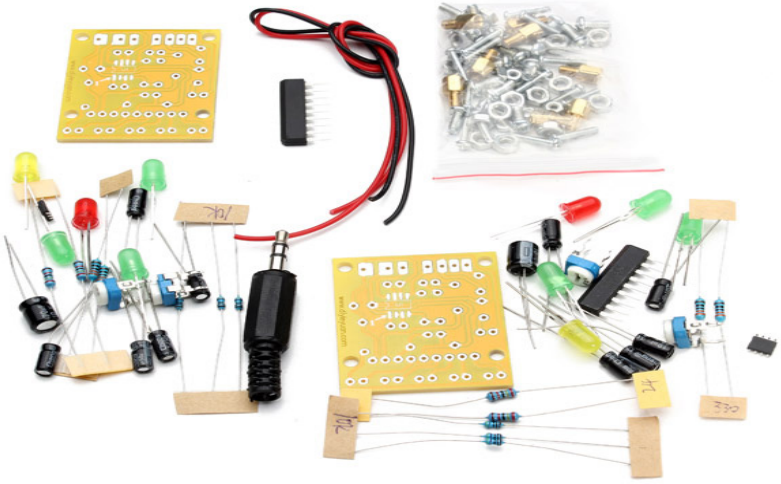
DIY Mini Amplifed Speaker Kit



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DIY Mini Amplifed Speaker Kit Assembly Instructions

1. Locate the two PCB's and the enclosed component set for each.
Locate the tiny surface mount amplifier IC's in the component set that are to be mounted to the bottom of the PCB's.
Solder the IC amplifiers to the bottom IC pads making sure that the dot on the IC is at pin 1.
(See Fig.1)

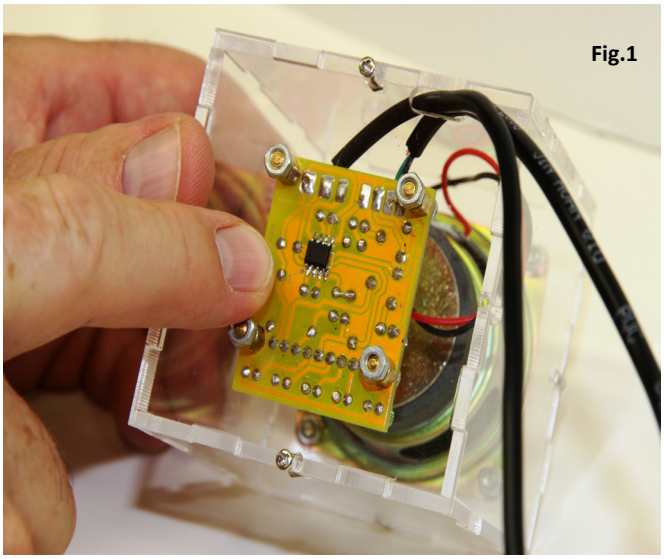


Fig.1

2. Refer to the enclosed PCB component layout diagram for the resistor value placement and the correct orientation for the electrolytic capacitors on the PCB and solder them in place.
Use an ohmmeter to measure the resistor values if not sure which is which.
Note that there is a 50K potentiometer in RP1 and a 10K potentiometer in RP2 position.
The VU meter LED's D1, D2, D3 are green D4 is yellow and D5 is red.
(See Fig.2)

3. Locate the two lengths of red and black wires.
Solder the red to V0+ and the black to V0- on P3 of both PCB's.
These are speaker outputs that will be connected to the speakers.
(See Fig.2)

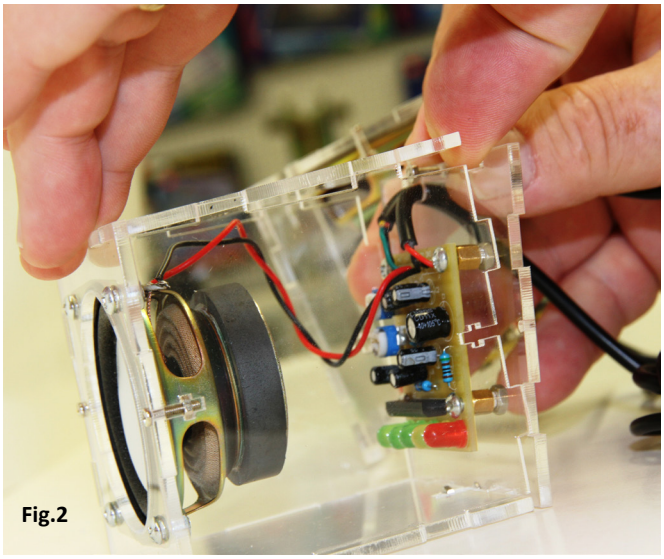
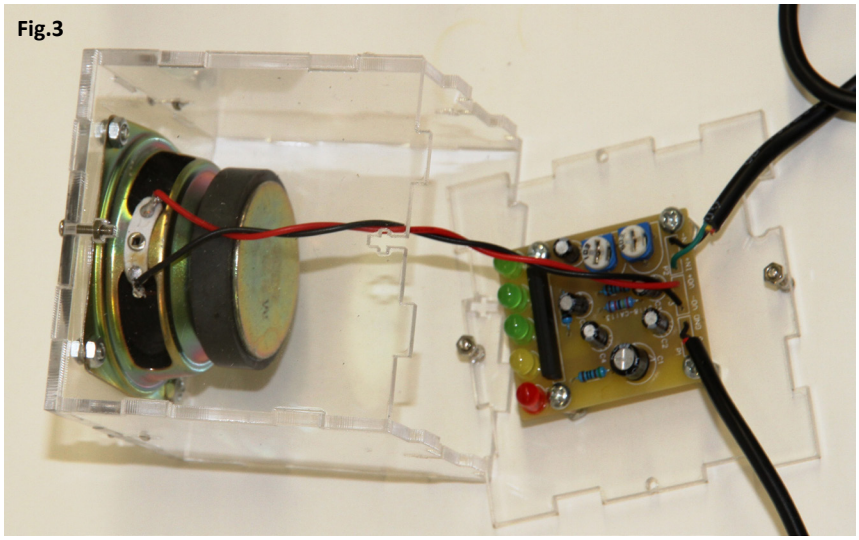


Fig.2

4. Locate the three conductor and four conductor wire lengths.
Select the three conductor wire (red, yellow, black) and cut it in half (two equal parts).
This will be used for the 5V power connection.
Strip both ends to expose the wires.
Cut off the yellow wires on both ends of both wires.
Solder a red wire to the +5V and a black wire to the GND connector P1 on each of the boards.

5. Select the four conductor wire (red, green, yellow, black) and cut it in half (two equal parts).
These will be used for the audio input and will be connected to the 3.5mm stereo connector.
Strip both ends to expose the wires.
Cut off the red wires on both ends of both wires.
On one of the cables cut off the yellow on each end leaving black and green wires.
On the other cable cut off the green on each end leaving black and yellow wires.
Connect the yellow wire to IN+ and the black wire to IN- on P2 of one of the boards
Connect the green wire to IN+ and the black wire to IN- on P2 of the other board.
(See Fig 3)

Fig.3



6. Peel off the protective paper coatings on the acrylic speaker enclosure panels.
Mount the speakers to their face plates using the larger diameter screws and nuts.
Solder the red VO+ and the black VO- wires on the PCB's to the speaker terminals.

7. Install four brass standoffs with nuts to each of the two rear panels.
Mount the PCB's to the standoffs with the larger screws with the wires facing the exit cut out.

8. Insert 4 of the M2 screws into the openings on the speaker face plate.
Attach an M2 nut to teach of the screws.
Proceed to install each of the four side top and bottom panels to the speaker panel locking in the screws and nuts into the cut-outs on the panels.

9. Take the two red +5V and black GND (P1) power wires from both PCB's and twist the two red wires and the two black wires together.
Solder the two red +5V wires to the center pin of the 2.1mm DC power connector provided and the two GND wires to the outside ground connection.

10. Take the two audio input wires and twist the black ground leads together.
Solder the green and yellow wires to the two inside 3.5mm stereo connector pins respectively.
Solder the black wires to the outside ground connection.
(See Fig. 4)

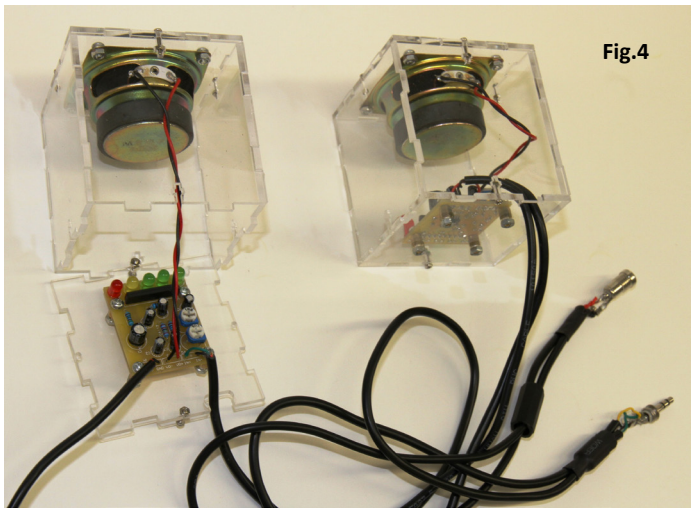


Fig.4

11. Connect the 3.5mm to an audio source.
Connect the USB connector to a computer port or USB adapter and plug it into the 2.1mm DC power connector just wired to power up.
Set the 50K RP1 potentiometer to full clockwise position for maximum volume.
With power on and the speakers playing, adjust the 10K RP2 potentiometer so that the red topmost LED VU indicator just comes on at maximum volume.

12. Run the power and audio input wires through the cut out on the rear panel and install the rear panel using the remaining M2 screws and nuts.
(See Fig.5)

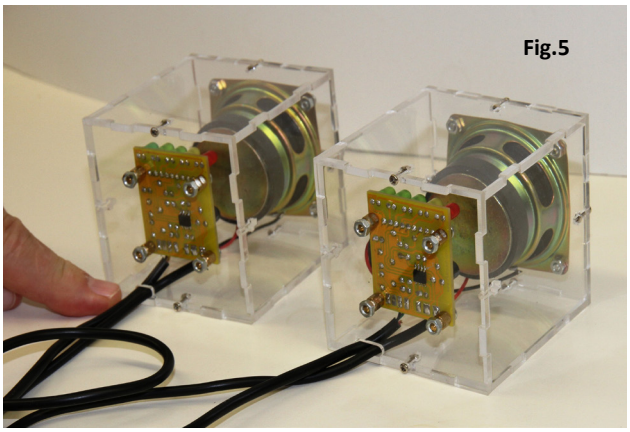


Fig.5

13. Enjoy the sound.