Build Your Own Speaker

A Fun DIY Kit for Kids and Families (Ages 8+)

Welcome to the exciting world of DIY audio!
Build your own Wireless Speaker in 8 easy steps,
combining electronics, woodworking,
and sound engineering — all while having fun!

To prevent confusion with the small parts, please open and complete one kit before starting the next.

Assemble the Front Panel

Step1:

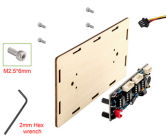
1. Open Kit #1. Check and identify all components: speaker drivers, protective grilles, LED light board, and the bonded front panel with pre-set installation holes.
2. Position the speaker drivers on the front panel, ensuring their metal wire leads are facing the outer edge of the panel.
3. Prepare six M2.5*15mm hex socket head screws, matching nuts, and a 2.0mm wrench.
4. Referring to Diagram Step1-2, insert the screws through the speakers and grilles, then thread them into the nuts on the back of the front panel.
5. **Important:** At this stage, only tighten the nuts finger-tight. Do not fully tighten them, as this will allow for minor adjustments to the installation hole positions when mounting the LED light board later.

Assemble the Front Panel

Retrieve four (4) M2.5*15mm hex socket head screws with matching nuts. Use these to securely fasten the LED light board in place. Then, proceed to fully tighten the nuts from the previous Step 1-2 assembly.

Assemble the Top Panel

Step 2:



1. Open Kit #2 and take out the LED light board along with its matching top mounting panel.
2. Position the LED light board onto the top mounting panel.
3. Using four (4) M2.5*8mm hex socket head screws and a 2.0mm wrench, securely fasten the light board to the top panel.

Assemble the Back Panel

Step 3:

1. Open Kit 3#find battery boxes, B500K potentiometers, black knobs, matching boards.
2. Place battery box on the board. Get M3*10mm cross countersunk screws, nuts, cross wrench; secure box.
3. Use 10mm wrench with hex nut to fasten B500K potentiometer to theboard.

Assemble the Bottom Panel

Step 4:

1. Open Kit #4 and inventory the following components: Bluetooth module and three black rubber foot pads.
2. Retrieve PWB M2.3x8mm cross-head screws and 3*6 red washers. Using a Phillips screwdriver, secure the Bluetooth module to the wooden baseboard.
3. Take M3*10mm cross-head screws with matching nuts, and install the black rubber foot pads onto the wooden baseboard in their designated positions.

Join the 4 Panels Together

Step5:

Assemble the assembled speakers, the battery box part, and the two side panels with no accessories to install according to the diagram.

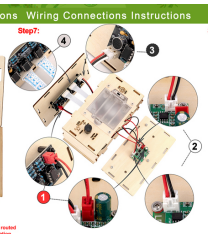
Wiring Connections Instructions

Step6:

1. To ensure the 7P ribbon cable of the LED light board is neatly routed without crossing or tangling, please strictly adhere to the installation orientation of the top panel as shown in the diagram.
2. Connect the CN3 plug of the LED light board's 7P ribbon cable to the CN3 socket on the control board, and the CN3 plug to the CN3 socket. Attach the white 3P connector of the B500K potentiometer to the 3P socket (WP1) on the control board. Finally, connect the red 2P connector of the battery box to the red 2P socket (CN1) on the control board.

Wiring Connections Instructions

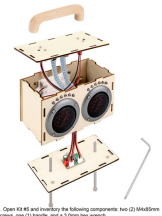
Step7:



1. Connect the other power cord from the battery box to the red socket on the B500K potentiometer (red to red).
2. Connect the two speaker wires to the two white sockets on the Bluetooth module (white to white).

Join the 6 Panels Together

Step8:



1. Open Kit #5 and inventory the following components: two (2) M4x85mm screws, one (1) handle, and a 3.0mm hex wrench.
2. Insert an M4x85mm screw upward through the bottom mounting hole, pass it through the top to engage with the handle, and then securely tighten it using the 3.0mm hex wrench.

Assembly completed

Step9:

Bluetooth Connection & LED Sensitivity Adjustment

Tips:
1.Knob adjusts LED only, not volume.
2.At low volume, LEDs may stay fully lit.
3.At the volume limit, LEDs may flash irregularly.

Low Battery Alert:
If Bluetooth disconnects, reconnects repeatedly, music stutters, or volume drops suddenly without adjustment, replace the batteries

Adjust LED Sensitivity
1.Turn the knob on the back to set the LED light sensitivity.
2.Match the sensitivity to your volume for the best rhythm effect.

Congratulations! Enjoy Now!

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. 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.ct.

The device has been evaluated to meet general RF exposure requirement.