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> [CYOEST DIY Speaker & Radio STEM Kits Instruction Manual](#)

**CYOEST DIY Speaker Kit & Radio Kit**

# CYOEST DIY Speaker & Radio STEM Kits Instruction Manual

Brand: CYOEST

## 1. INTRODUCTION

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Welcome to the world of hands-on electronics with your CYOEST DIY Speaker and Radio STEM Kits! These kits provide an engaging and educational experience, allowing you to assemble functional electronic devices from individual components. This manual will guide you through the assembly, operation, and maintenance of both the speaker and radio kits.



This image displays both the completed DIY Speaker and Radio Kits, showcasing their wooden enclosures and functional designs.

## 2. SAFETY INFORMATION

- **Small Parts Warning:** This kit contains small parts which may pose a choking hazard. Keep out of reach of children under 3 years of age.
- **Battery Safety:** Use only the specified battery type (AA batteries, not included). Do not mix old and new batteries, or different types of batteries. Insert batteries with correct polarity. Remove batteries if the device will not be used for an extended period.
- **Adult Supervision:** Adult supervision is recommended during assembly and operation, especially for younger users.
- **Handle with Care:** Electronic components can be delicate. Handle them with care to avoid damage.

## 3. PACKAGE CONTENTS

Before beginning assembly, please verify that all components listed below are present in your kit. If any parts are missing or damaged, please contact customer support.

### 3.1. DIY Speaker Kit Components



This image illustrates the various parts of the DIY Speaker Kit, such as the wooden panels, Bluetooth circuit board, speakers, and battery holder, next to the completed speaker unit.

- Wooden Panels (for speaker enclosure)
- Bluetooth Circuit Board
- Speakers (x2)
- Battery Holder (for 4 AA batteries)
- Power Switch
- Connecting Wires
- Screws and Fasteners
- Adhesive Pads

### 3.2. DIY Radio Kit Components



This image shows the individual components of the DIY Radio Kit, including the wooden panels, circuit board, speaker, battery holder, and antenna, alongside the fully assembled radio.

- Wooden Panels (for radio enclosure)
- Radio Circuit Board
- Speaker
- Battery Holder (for 4 AA batteries)
- Telescopic Antenna
- Control Buttons
- Connecting Wires
- Screws and Fasteners

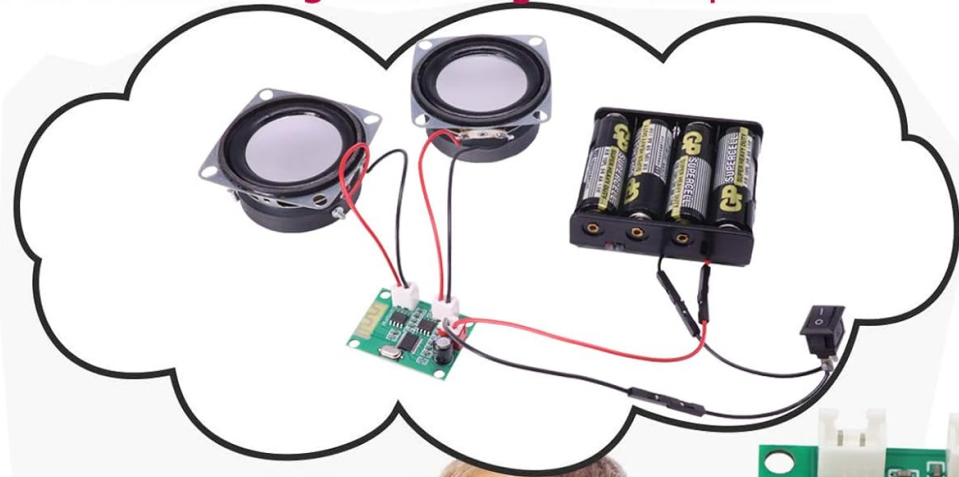
## 4. ASSEMBLY INSTRUCTIONS

Follow the steps carefully to ensure successful completion of both kits. No soldering is required for either kit.

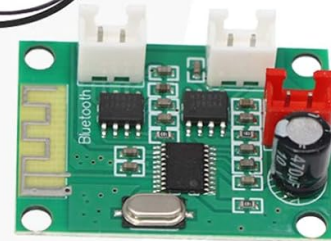
### 4.1. DIY Speaker Kit Assembly

# Discover How Speaker work

- ✓ **NO welding** required, **NO soldering iron** required!
- ✓ Learning simple circuit and discover how speaker work
- ✓ It is fun to build and good looking after completion



**NOTE:**  
Powered by 4 AA batteries  
(not included)



A visual guide detailing the connection of speakers to the circuit board and the placement of the battery pack within the wooden enclosure for the DIY Speaker Kit. Note that 4 AA batteries are required and not included.

1. **Prepare Panels:** Carefully detach all wooden panels from their frames.
2. **Install Speakers:** Secure the two speakers to the front wooden panel using the provided screws.
3. **Connect Speakers to Circuit Board:** Plug the speaker wires into the designated terminals on the Bluetooth circuit board. Ensure correct polarity (red to red, black to black).
4. **Install Power Switch:** Insert the power switch into its slot on the top wooden panel. Connect its wires to the circuit board.
5. **Attach Battery Holder:** Secure the battery holder to the bottom wooden panel using screws. Connect the battery holder wires to the circuit board.
6. **Assemble Enclosure:** Carefully interlock the wooden panels to form the speaker enclosure. Ensure all connections are secure and wires are not pinched.
7. **Secure Circuit Board:** Use adhesive pads to fix the Bluetooth circuit board inside the enclosure.
8. **Final Assembly:** Close the enclosure and secure all panels with the remaining screws.

## 4.2. DIY Radio Kit Assembly

The radio kit assembly follows a similar process to the speaker kit. Refer to the included printed instructions for detailed diagrams specific to the radio components.

1. **Prepare Panels:** Carefully detach all wooden panels from their frames.
2. **Install Speaker:** Secure the speaker to the front wooden panel.
3. **Connect Speaker to Circuit Board:** Plug the speaker wires into the designated terminals on the radio circuit board.
4. **Install Control Buttons & Antenna:** Insert the control buttons and telescopic antenna into their respective slots on the top wooden panel. Connect their wires to the circuit board.
5. **Attach Battery Holder:** Secure the battery holder to the bottom wooden panel. Connect the battery holder wires to the circuit board.
6. **Assemble Enclosure:** Carefully interlock the wooden panels to form the radio enclosure. Ensure all connections are secure and wires are not pinched.
7. **Secure Circuit Board:** Use adhesive pads to fix the radio circuit board inside the enclosure.
8. **Final Assembly:** Close the enclosure and secure all panels with the remaining screws.

### 4.3. Assembly Overview Video

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This video, provided by the seller, offers a brief overview of the assembly process and highlights key features of both the Bluetooth speaker and FM radio kits. It shows the components and the final products in action.

## 5. OPERATING INSTRUCTIONS

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### 5.1. DIY Speaker Kit Operation

# Wireless connections

After turning on the speaker,  
the device can be connected and the operation  
is simple and easy to understand.



This image demonstrates how to connect a smartphone to the assembled DIY Speaker Kit via Bluetooth, showing the device's Bluetooth settings menu.

1. **Insert Batteries:** Open the battery compartment and insert 4 AA batteries, ensuring correct polarity.
2. **Power On:** Flip the power switch on the speaker to the 'ON' position. You should hear an audible confirmation sound.
3. **Bluetooth Pairing:** On your smartphone or other Bluetooth-enabled device, go to the Bluetooth settings. Look for a device named 'CYOEST' or similar. Select it to pair.
4. **Play Audio:** Once paired, you can play audio from your device, and it will be amplified through your DIY speaker. Volume control is managed directly from your connected device.

## 5.2. DIY Radio Kit Operation

1. **Insert Batteries:** Open the battery compartment and insert 4 AA batteries, ensuring correct polarity.
2. **Power On:** Flip the power switch on the radio to the 'ON' position.
3. **Extend Antenna:** Extend the telescopic antenna for better reception.
4. **Tune Radio:** Use the control buttons on the radio to scan for FM stations and adjust the volume.

## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the wooden surfaces. Avoid using liquids or abrasive cleaners.

- **Battery Replacement:** Replace batteries when audio quality degrades or the device fails to power on. Always replace all batteries at once with new ones of the same type.
- **Storage:** Store the kits in a cool, dry place away from direct sunlight and extreme temperatures.

## 7. TROUBLESHOOTING

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- **Device Not Powering On:**

- Check battery polarity.
- Ensure batteries are new and fully charged.
- Verify all power connections to the circuit board are secure.

- **No Sound (Speaker Kit):**

- Ensure the speaker is properly paired via Bluetooth to your device.
- Check the volume level on your connected device.
- Verify speaker wires are correctly connected to the circuit board.

- **Poor Radio Reception (Radio Kit):**

- Fully extend the telescopic antenna.
- Try repositioning the radio to find a stronger signal.
- Ensure all antenna connections to the circuit board are secure.

- **Loose Connections:** If any part feels loose, gently re-check the interlocking panels and screw tightness.

## 8. SPECIFICATIONS

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This image provides the physical dimensions of the assembled radio kit, indicating its length, width, and height in millimeters and inches.

| Feature                      | Detail   |
|------------------------------|--|
| Brand                        | CYOEST   |
| Product Type                 | DIY Speaker Kit & Radio Kit                            |
| Power Source                 | Battery Powered (4 AA batteries per kit, not included) |
| Speaker Type                 | Stereo (for Speaker Kit)                               |
| Compatible Devices (Speaker) | MP3 Player, Smartphone, Tablet (via Bluetooth)         |
| Radio Type                   | FM Radio   |
| Material                     | Wooden Panels  |

## 9. WARRANTY AND SUPPORT

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Thank you for purchasing CYOEST products. If you have any questions or need help, you can click the "**Seller contact**" button in your Amazon account to contact us. We will strive to resolve any issues within 24 hours. For further assistance or to report any defects, please provide your order number and a detailed description of the issue.