

MiOYOOW GY21464-2

MiOYOOW Robot Alarm Clock Soldering Practice Kit

Model: GY21464-2

1. INTRODUCTION

This manual provides detailed instructions for assembling and operating your MiOYOOW Robot Alarm Clock Soldering Practice Kit. This kit is designed as an educational STEM project, allowing users to learn basic electronics and improve soldering skills while building a functional robot-shaped digital alarm clock that displays time, date, weekday, and temperature.

The completed robot clock serves as a practical desktop accessory and a testament to your hands-on learning.

2. SAFETY INFORMATION

- **Eye Protection:** Always wear safety glasses when soldering to protect your eyes from solder splashes or fumes.
- **Ventilation:** Solder in a well-ventilated area to avoid inhaling fumes.
- **Hot Surfaces:** Soldering irons become extremely hot. Avoid touching the tip and allow components to cool before handling.
- **Electrical Safety:** Ensure the power supply is disconnected when assembling or performing maintenance. Do not short-circuit components.
- **Adult Supervision:** This kit is recommended for ages 10 and up. Younger users should have adult supervision during assembly.
- **Component Handling:** Handle electronic components carefully. Some components are sensitive to static electricity.

3. PACKAGE CONTENTS

Before beginning assembly, verify that all components are present in your kit. Refer to the detailed paper manual included for a complete component list and visual identification.

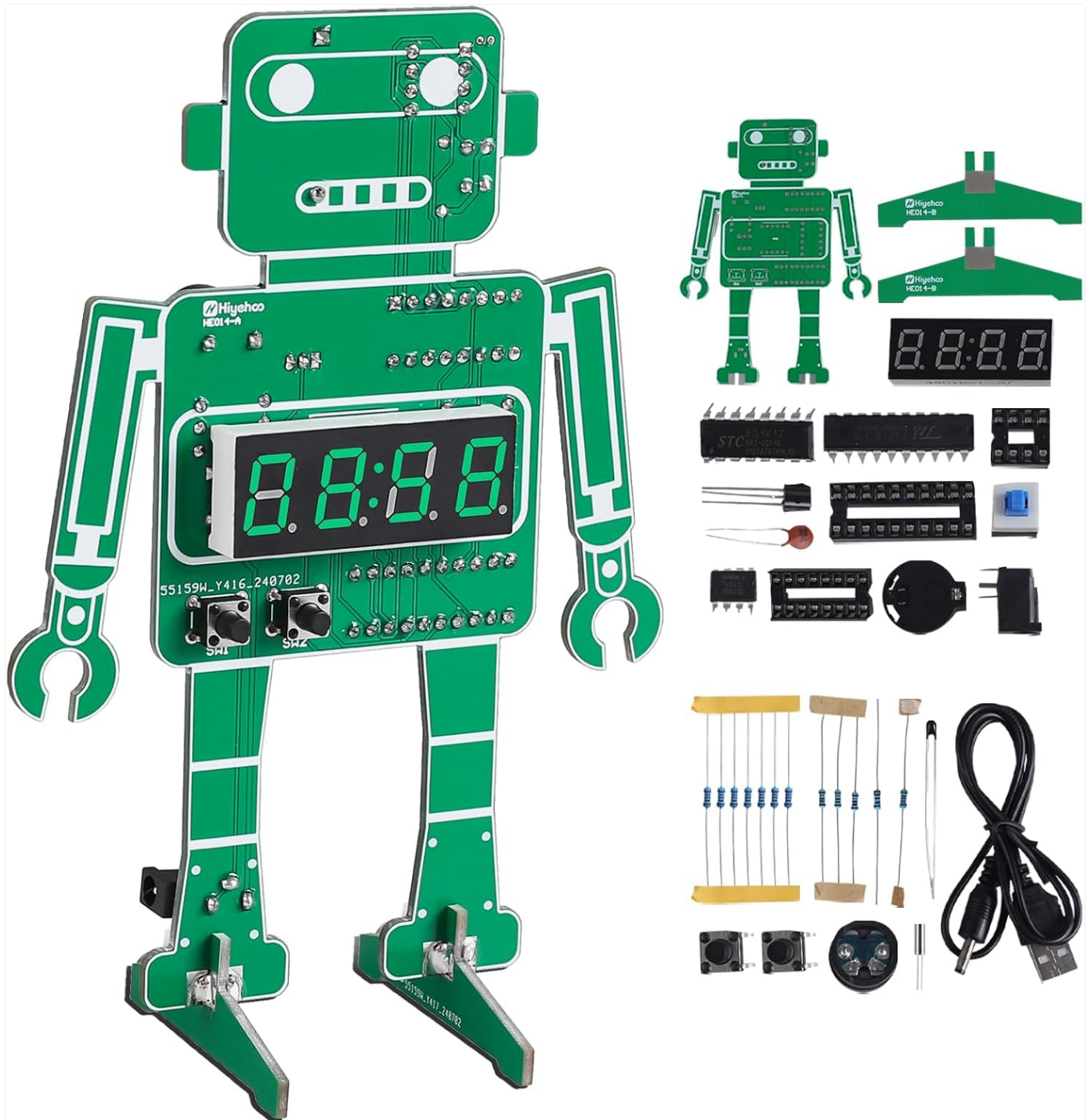


Image 3.1: All components of the MiOYOOO Robot Alarm Clock Soldering Practice Kit.

The kit typically includes:

- Printed Circuit Board (PCB) shaped like a robot
- 4-digit LED display module
- Various electronic components (resistors, capacitors, diodes, integrated circuits, buttons, etc.)
- USB power cable
- Detailed paper instruction manual

4. ASSEMBLY INSTRUCTIONS

Follow the step-by-step instructions provided in the included paper manual for proper assembly. Basic electronic theoretical knowledge and soldering skills are required. Ensure you have a soldering iron, solder, and any necessary tools (e.g., wire cutters, desoldering pump) before starting.



Image 4.1: Overview of the assembly process.

General Assembly Steps:

1. **Component Identification:** Carefully identify all components using the provided manual and component list.
2. **Soldering Order:** Typically, smaller components (resistors, diodes) are soldered first, followed by larger components (capacitors, IC sockets, LED display).
3. **Polarity:** Pay close attention to the polarity of components such as diodes, electrolytic capacitors, and integrated circuits. Incorrect polarity can damage the components or prevent the circuit from functioning.
4. **Solder Joints:** Ensure all solder joints are shiny, smooth, and form a good connection without bridging to adjacent pads.
5. **Mechanical Assembly:** Once all electronic components are soldered, assemble the PCB parts to form the robot shape.

Robot Clock Soldering Training Board



Image 4.2: Example of soldering in progress.

Product Details

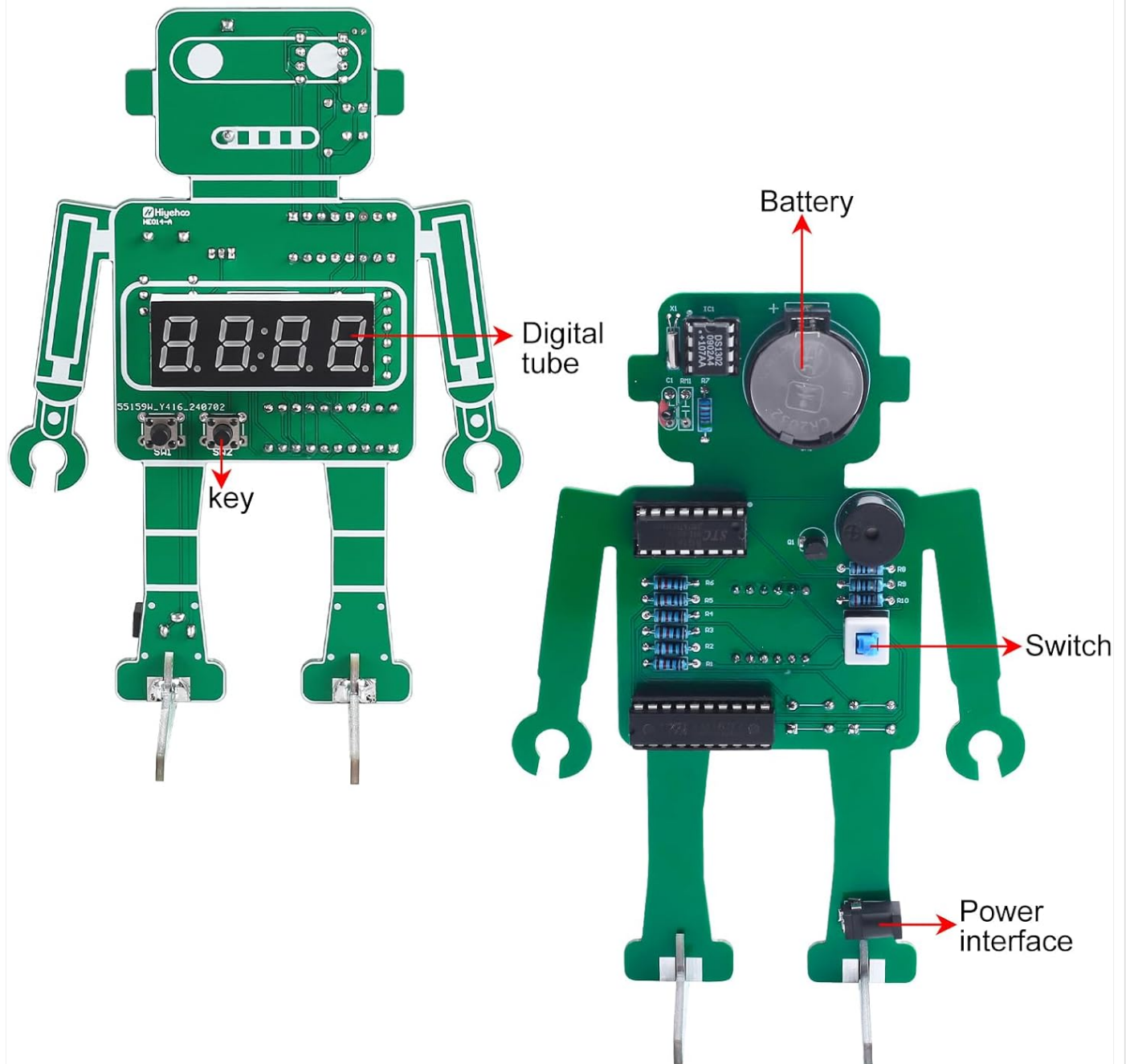
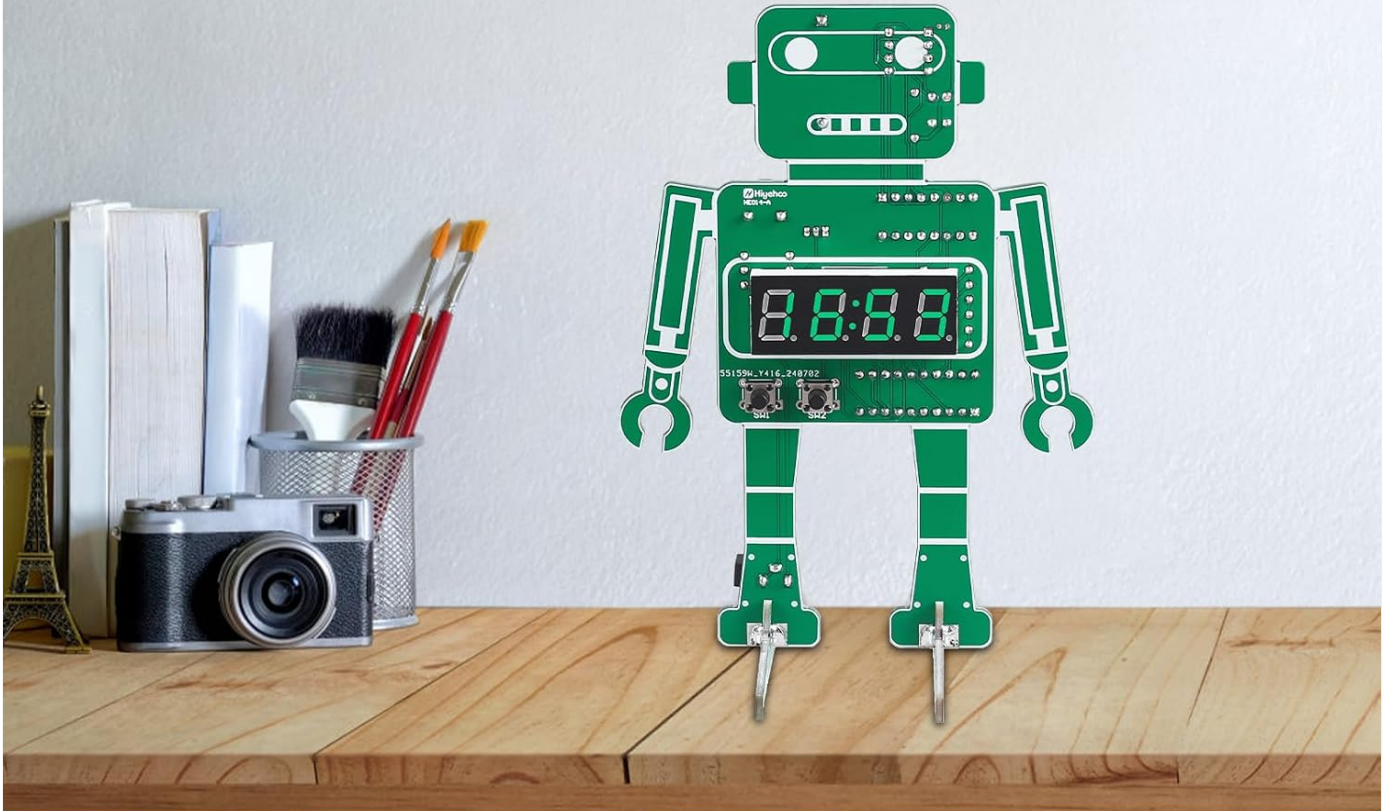


Image 4.3: Detailed view of the robot clock's front and back, labeling key parts.

5. OPERATING INSTRUCTIONS

After successful assembly, connect the USB power cable to power on your robot clock. The clock features a 4-digit green LED display and two control buttons (SW1 and SW2) for setting and mode selection.

Display Time/Temperature/Date/Week/Year



88:88

Year

88:88

Date

88:88

Week

88:88

Temperature

Image 5.1: Robot clock displaying various information.

Display Modes:

Short press **SW1** to cycle through the display modes:

- Time (HH:MM)
- Date (MM.DD)
- Week (Day of Week)
- Alarm Time (AL.HH)
- Alarm Switch (ON/OFF)
- Temperature (XX.X°C/°F)

Alarm Clock Function

Never miss any important event

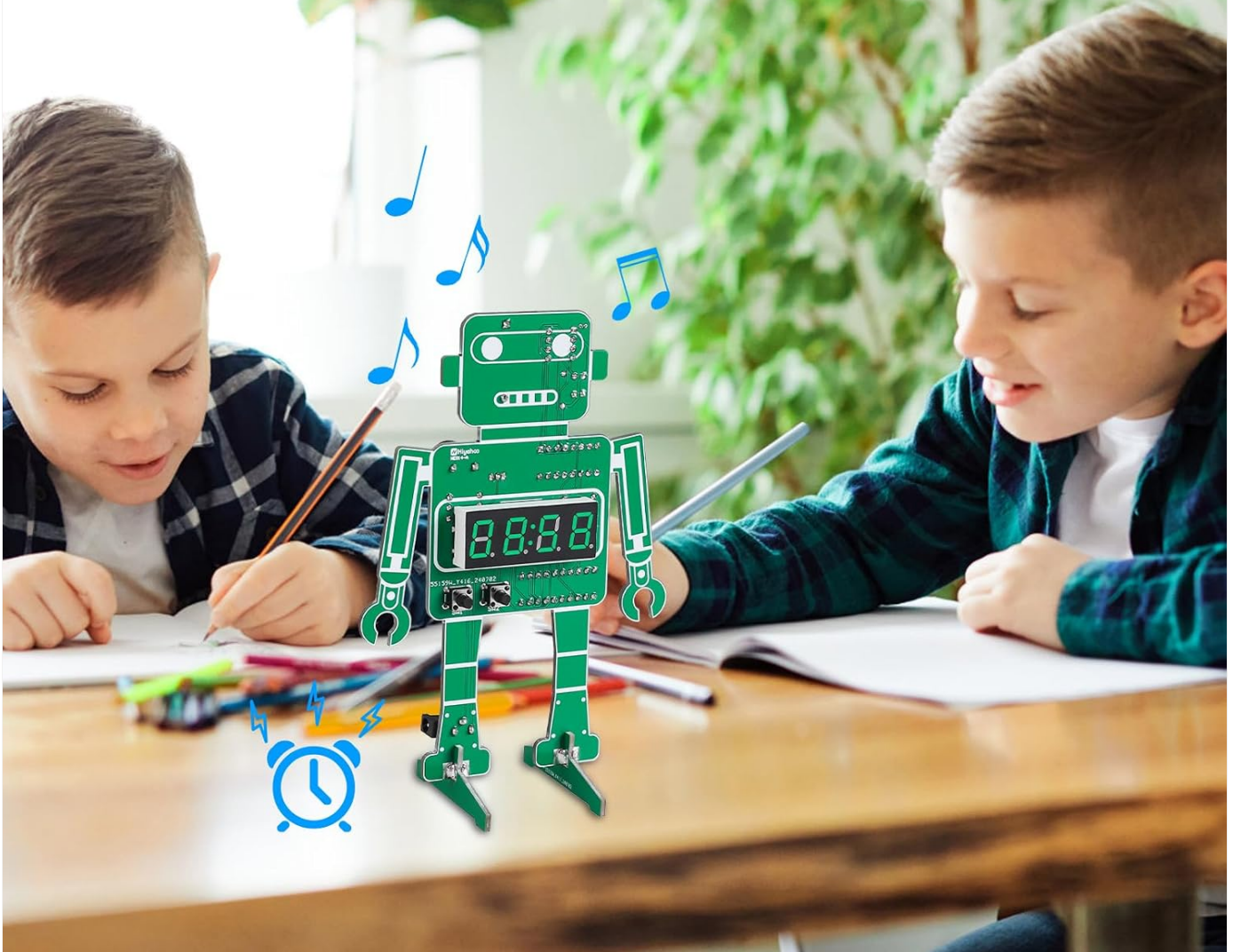


Image 5.2: Alarm clock function.

Setting Time and Other Parameters:

Long press **SW1** to enter the setting mode. In setting mode, short press **SW1** to select the parameter to adjust (year, date, time, week, alarm time, alarm switch). Use **SW2** to adjust the value of the selected parameter. After setting, long press **SW2** to save the data and exit the setting mode.

Your browser does not support the video tag.

Video 5.1: Demonstration of setting time, date, and alarm functions on the robot clock.

6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the robot clock. Avoid using liquids or abrasive cleaners.
- **Power:** Always use the provided USB cable for power.
- **Battery:** The clock uses a small button cell battery (CR1220 or similar, as indicated in Image 4.3) for backup power to maintain time settings when the main USB power is disconnected. Replace the battery if settings are lost after

power cycles.

- **Storage:** Store the clock in a dry environment, away from extreme temperatures and direct sunlight.

7. TROUBLESHOOTING

- **Display Not Lighting Up:**
 - Ensure the USB power cable is securely connected and receiving power.
 - Check all solder joints for the LED display and power components for cold joints or bridges.
- **Incorrect Time/Date Display:**
 - Follow the operating instructions to reset the time and date.
 - If settings are lost frequently, check the backup battery (if installed) and its connections.
- **Alarm Not Sounding:**
 - Verify that the alarm time is set correctly.
 - Ensure the alarm switch is set to 'ON' in the settings.
 - Check the buzzer component for proper soldering.
- **Buttons Not Responding:**
 - Inspect the button components for proper soldering and ensure they are not stuck.
- **Temperature Reading Incorrect:**
 - Check the temperature sensor component for proper soldering and orientation.

8. SPECIFICATIONS

Feature	Detail
Brand Name	MiOYOOW
Model Number	GY21464-2
Educational Objective	STEM
Theme	Robotics
Material Type	Plastic (PCB)
Assembly Required	Yes
Item Dimensions (L x W x H)	5.12 x 3.74 x 0.7 inches
Item Weight	0.07 Kilograms
Included Components	PCB and electronic components

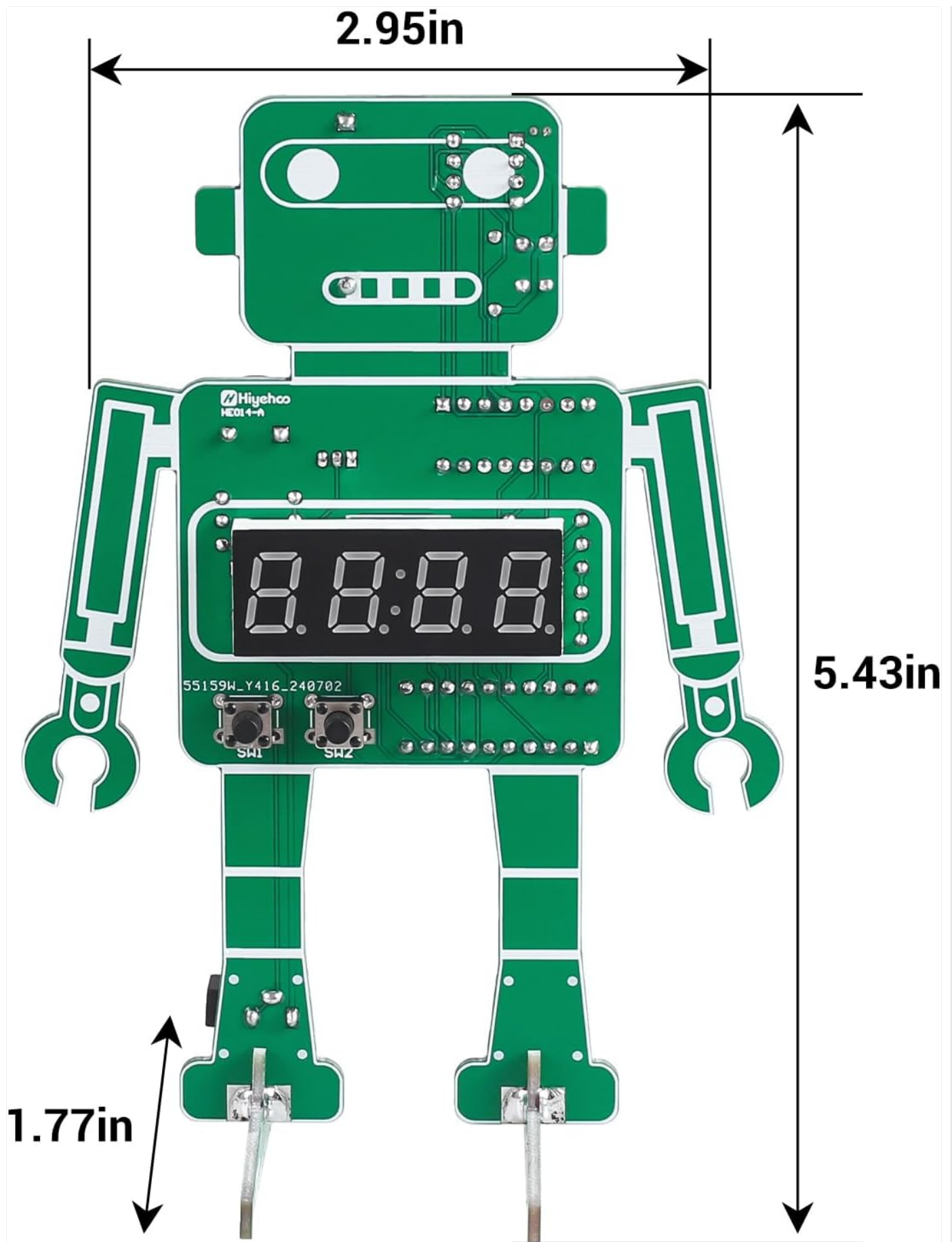


Image 8.1: Dimensions of the assembled robot clock.

9. WARRANTY AND SUPPORT

For any questions, technical assistance, or support regarding your MiOYOOOW Robot Alarm Clock Soldering Practice Kit, please refer to the contact information provided in your product packaging or reach out to the seller directly. As this is a

DIY kit, successful operation relies on correct assembly and soldering techniques. Please ensure all steps are followed carefully.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question