

## iRobot rt0

# iRobot® Root® rt0 Coding Robot with Coding at Sea Adventure Pack Instruction Manual

Model: RA104

## 1. INTRODUCTION

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This manual provides comprehensive instructions for setting up, operating, and maintaining your iRobot® Root® rt0 Coding Robot with the Coding at Sea Adventure Pack. Designed to introduce fundamental coding and robotics concepts, this product offers an interactive learning experience.

## 2. WHAT'S INCLUDED

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- 1x iRobot® Root® rt0 Coding Robot
- 1x Foldable, Double-sided 50 x 25in Whiteboard Activity Mat
- 1x Virtual Activity Mat for Use in the iRobot Coding App
- Digital Access to Themed STEM Activities
- 1x Set of Vinyl Cling Decals

The Root rt0 Coding Robot features over 20 reactive sensors and is designed for users of all experience levels in coding and robotics.

## 3. SETUP

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### 3.1 Robot Assembly

The Root rt0 Coding Robot comes pre-assembled. No initial assembly is required for the robot unit itself. Ensure the robot is fully charged before first use.

### 3.2 App Installation & Connection

To control and program your Root rt0 robot, you will need to download the iRobot Coding App on a compatible mobile device (iOS or Android) or computer. The app offers three learning levels suitable for beginners to experienced coders.

1. Download the iRobot Coding App from your device's app store or the official iRobot website.
2. Ensure your mobile device's Bluetooth is enabled.
3. Power on your Root rt0 robot by pressing the power button.

4. Open the iRobot Coding App and follow the on-screen prompts to connect to your Root rt0 robot via Bluetooth. Keep the device close to the robot during the connection process.



Figure 1: iRobot Root rt0 Coding Robot with Coding at Sea Adventure Pack components, including the robot, activity mat, and decals.

This image displays the iRobot Root rt0 Coding Robot alongside the Coding at Sea activity mat, various themed decals, and a laptop screen showing the iRobot Coding App interface. The robot is positioned on the mat, illustrating the interactive nature of the kit.

## 4. OPERATION

### 4.1 Play Mode

The Play Mode allows you to interact with the Root rt0 robot using your connected device as a remote control. This mode is ideal for immediate engagement and exploring the robot's basic functionalities.

- **Drive:** Use the on-screen joystick to manually control the robot's movement. You can also change the robot's LED colors and trigger sound effects.
- **Draw and Run:** Draw a path on your device screen, and the robot will attempt to follow it.
- **Musician:** Use the virtual piano keys to make the robot play musical notes or pre-programmed songs.
- **Voice Control:** Issue voice commands to the robot for movement or actions.



Figure 2: A child using a laptop to interact with the iRobot Root rt0 Coding Robot on the Coding at Sea activity mat.

This image shows a child lying on the floor, using a laptop to control the iRobot Root rt0 robot, which is positioned on the colorful Coding at Sea activity mat. The child appears engaged in a coding activity.

## 4.2 Coding Mode

The Coding Mode utilizes a block-based programming interface, allowing users to create sequences of commands for the robot. This mode is central to learning computational thinking and problem-solving.

1. Access the Coding Mode from the main app interface.
2. Drag and drop coding blocks (e.g., 'move forward', 'turn left', 'play sound') onto the workspace to build your program.
3. Adjust parameters within each block (e.g., distance, speed, angle).
4. Press the 'Run' button to execute your code on the Root rt0 robot.
5. Observe the robot's actions and debug your code as needed to achieve desired outcomes.





Figure 3: An adult guiding a child during an activity with the iRobot Root rt0 Coding Robot on the Coding at Sea activity mat.

This image shows an adult's hand pointing to a section of the Coding at Sea activity mat, while a child's hand holds a marker, suggesting a guided learning or problem-solving session with the iRobot Root rt0 robot.

### 4.3 Using the Coding at Sea Adventure Pack

The Coding at Sea Adventure Pack enhances the learning experience with themed activities and physical components.

- **Activity Mat:** Lay out the double-sided whiteboard activity mat. Use dry-erase markers to draw paths, mazes, or challenges for your robot.
- **Vinyl Cling Decals:** Use the themed decals to create storytelling scenarios and obstacles on the activity mat.
- **Digital Activities:** Access digital STEM activities within the iRobot Coding App that correspond to the Coding at Sea theme, providing virtual challenges and extensions.



Figure 4: A child drawing on the iRobot Root r0 Coding Robot activity mat with a tablet displaying the coding interface.

This image captures a child drawing on the Coding at Sea activity mat, with a tablet in the foreground showing the block-based coding interface. This illustrates the blend of physical and digital interaction offered by the product.

## 5. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the robot's exterior. The whiteboard activity mat can be cleaned with a dry-erase marker eraser or a damp cloth.
- **Storage:** Store the robot and accessories in a cool, dry place away from direct sunlight. The activity mat is foldable for easy storage.
- **Battery:** The robot does not require batteries. It is powered by an internal rechargeable battery. Ensure the robot is charged regularly for optimal performance.

## 6. TROUBLESHOOTING

- **Robot not connecting via Bluetooth:** Ensure the robot is powered on and fully charged. Verify Bluetooth is enabled on your device and that the device is within range of the robot. Try restarting both the robot and the app.
- **Robot not responding to commands:** Check the Bluetooth connection. Ensure the code is correctly assembled in Coding Mode or that the correct Play Mode function is selected.

- **Robot not following lines accurately:** Ensure the activity mat is clean and the lines are drawn clearly with appropriate markers. Check the robot's underside sensors for any obstructions.

## 7. SPECIFICATIONS

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- **Product Dimensions:** 0.39 x 0.39 x 0.39 inches
- **Item Weight:** 9.8 ounces
- **Manufacturer:** iRobot
- **Connectivity:** Bluetooth
- **Recommended Age:** 8+ years

## 8. WARRANTY & SUPPORT

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**Warranty Description:** N/a.

For further assistance, please visit the official iRobot support website or contact customer service through the iRobot Coding App.