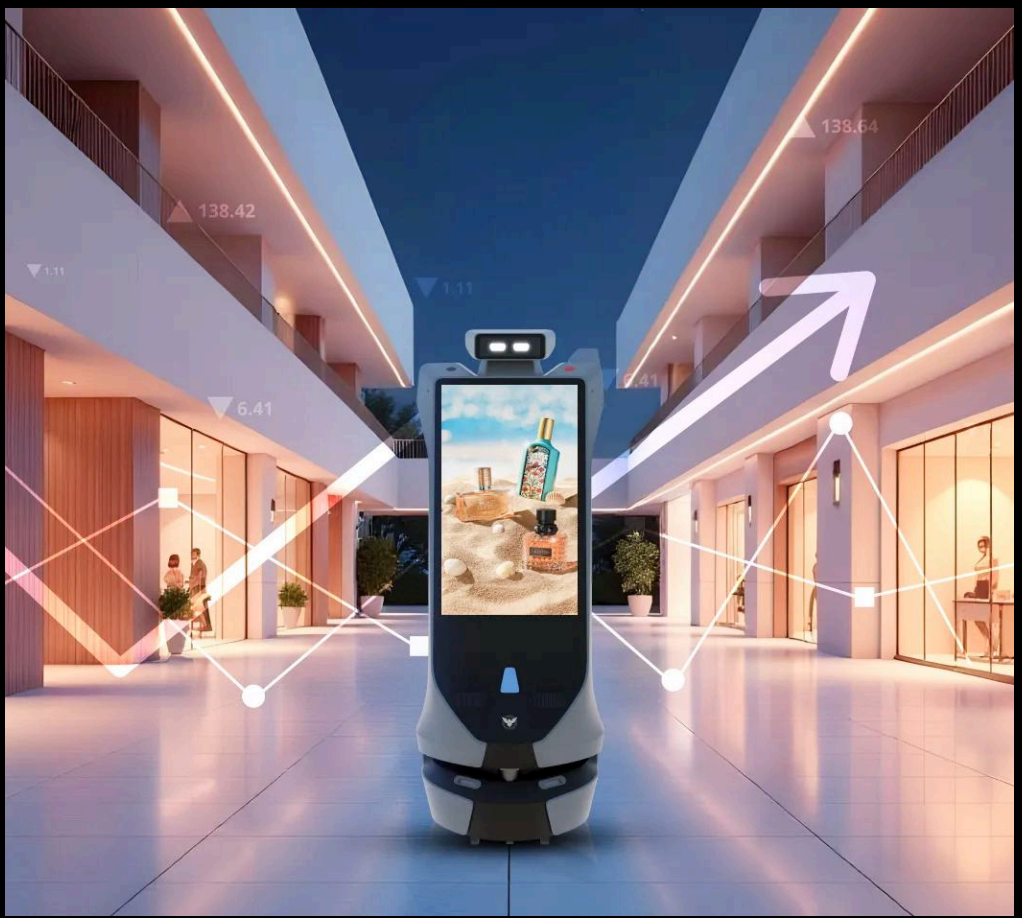
ODIGO

User Guide

Autonomous Advertising Robot



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PRODUCT INTRODUCTION

Product Introduction

1.1 Overview of Odigo

Odigo is a state-of-the-art autonomous robot crafted to transform how people interact with retail and public environments. Specifically designed for high-footfall locations such as shopping malls, airports, exhibition centers, and hypermarkets, Odigo serves a dual purpose: intelligent navigation assistance and targeted digital advertising.

At its core, Odigo uses AI-powered navigation to guide visitors effortlessly through complex spaces. Whether it's helping a shopper locate a specific store or leading a traveler to their gate, Odigo ensures a smooth and efficient journey by providing real-time directions and updates.

What sets Odigo apart is its integration of Out-of-Home (OOH) advertising with navigation. As it moves through public spaces, Odigo displays dynamic, real-time, and geo-contextual advertisements on its high-definition screens. These ads can be tailored based on location, time of day, and audience demographics, ensuring maximum visibility and relevance. This makes Odigo a mobile digital billboard that captures consumer attention in the most engaging way—while they are actively navigating retail environments.

By merging functional guidance with impactful marketing, Odigo creates a unique customer experience that benefits both users and businesses. For shoppers, it reduces time spent searching and enhances satisfaction. For retailers and brands, it drives foot traffic, boosts sales, and offers valuable data insights into customer movement and ad engagement.

1.2 Applications & Use Environments

Odigo is designed for deployment in high-footfall, structured indoor spaces, offering real-time navigation and dynamic advertising capabilities. Primary use cases include:

Retail Malls & Shopping Centers: Odigo guides shoppers to stores, helping them navigate complex mall layouts while serving targeted ads that enhance the shopping experience.

Airports: In airports, Odigo assists travelers in locating gates, baggage claim areas, lounges, and more, while displaying ads relevant to the traveler's location and interests.

Exhibition & Convention Centers: At trade shows or conventions, Odigo can direct attendees to booths or specific events, all while boosting engagement through tailored promotions.

Large Office & Complexes: Odigo helps employees and visitors navigate corporate spaces and conference areas, ensuring smooth transitions through large buildings.

Healthcare Facilities: In hospitals or medical centers, Odigo directs visitors to departments, providing real-time information and advertising health-related products or services.

1.3 Robot Design and Highlights

Odigo is designed with high user engagement, seamless navigation, and effective advertising in mind. Its compact design ensures it can easily navigate through large, crowded spaces like malls and airports, while maintaining a sleek and modern appearance.

Core Features:

- **AI Navigation:** Combines laser sensors, Dual SLAM technology to provide precise, centimeter-level navigation throughout indoor environments.
- **Targeted Advertising Platform:** Serves dynamic, location-based ads to enhance user engagement and maximize advertising ROI for brands.
- **Interactive Touch Screens:** Odigo's screens offer real-time interaction for visitors, showcasing customized ads and providing clear navigational guidance.
- **Centralized Dashboard:** Enables mall or event management to monitor Odigo's performance, foot traffic analytics, and advertising campaigns in real-time.
- **Obstacle Avoidance System:** Smart sensors ensure smooth navigation by avoiding obstacles and ensuring safe travel paths in busy environments.
- **Real-Time Analytics:** Provides performance insights, including visitor engagement and ad interaction rates, for advertisers and venue operators.
- **Autonomous Charging:** Automatically returns to its charging dock when battery levels are low, ensuring it is always ready for operation.
- **Battery Life:** Up to 8 hours of continuous operation on a full charge.
- **Sleek, Futuristic Design:** Odigo is designed to blend seamlessly into modern retail and commercial environments, with a professional aesthetic that enhances the overall customer experience.

2
SAFETY GUIDELINES

Safety Guidelines

2.1 General Precautions

To ensure safe and reliable operation, users must strictly follow the guidelines below:

- Do not operate **Odigo** immediately after moving it from a cold to a warm environment. Let it **adjust to room temperature** to avoid condensation damage.
- **Avoid** using Odigo in environments that are wet, dusty, oily, or have strong magnetic fields, as these may impair its sensors and internal systems.
- Never operate the robot near **flames, heat sources, or explosive materials**.
- Keep Odigo out of direct sunlight for prolonged periods to **prevent overheating**.
- Ensure the floor surface is flat and solid. Odigo is **not suitable** for **carpeted**, **rough, soft, or sloped terrains**.
- Do not use the robot **outdoors** or in areas with elevation changes, steps, or open ledges.
- In environments with glass doors or transparent partitions, place safety markers **22–25 cm from the ground** to prevent collisions.
- Use only **original** accessories and **parts** provided by Falcon Tech Robotics to maintain safety and warranty.
- Do not disassemble, puncture, crush, bend, cut, or paint any part of Odigo. Internal repairs must only be performed by **authorized technicians**.
- Avoid excessive pressure on the robot's **touchscreen or components**. Use fingers only.
- Keep Odigo's path free of low-lying **obstacles under 25 cm**, as these may go undetected by its sensors.

2.2 Environment Requirements

For smooth and uninterrupted operations:

- Ensure the robot's workspace is at **room temperature (5°C to 40°C)** and **humidity levels of 5%–85%.**
- Avoid reflective surfaces, black walls, or glass partitions in unmapped areas.
- Maintain a **clear radius of 1.5–2 meters** around the charging dock.
- The charging area should be dry and free of any electrical hazards.

2.3 Emergency Handling

- **Emergency Stop Switch:** Located near the touchscreen, press to halt all movement immediately. Use only in emergencies.
- **Post-Emergency Recovery:**
  01) Release the emergency stop by rotating it clockwise.
  02) Manually reposition the robot if needed.
  03) Restart the system or reinitialize the map if the robot fails to resume tasks.

Caution: Moving the robot manually while emergency stop is pressed may result in **positioning loss**. Always recalibrate after manual relocation.

3
SPECIFICATIONS

Specifications

3.1 Technical Specifications

Specifications	Details
Platform	**Linux / Android**
RAM CPU	8GB
Interactive System	Android 11
Speaker	10W
Android System	8GB
Connectivity	Wi-Fi Support (Dual-Band 2.4GHz & 5GHz)
Battery	Lithium Iron Phosphate (25.6V / 25Ah)
Charging	Automatic
Weight	65 Kg
Dimensions	1650mm (H), 630mm (L), 535mm (W)
Top Display	7.9 inch, 400x1280
Dual Touch Display	32 inch, 1080x1920
Operating Temperature	5°C to 40°C
Storage Temperature	-10°C to 45°C
Ambient Humidity	5% to 85% RH
Movement Speed	0.1 – 1 m/s (customizable)
Navigation	Laser + Visual SLAM + Obstacle Avoidance

Specifications

Specifications	Details
Laser Angle & Range	270° scanning angle, up to 25 meters
Depth Camera	Front environment sensing
2D LiDAR	Laser navigation and obstacle detection
Emergency Stop Switch	Immediate halt of all functions
Remote Access	Supports remote monitoring and OTA updates

3.2 Interface & Ports

- **Power Switch** – Located on the rear or side base, used for boot/shutdown
- **Emergency Stop –** Red push switch near front panel
- **Charging Port –** Rear bottom panel, aligned with docking station
- **USB Port –** For firmware updates or tech support (restricted access)

4
GETTING STARTED

4.1 Unboxing and Initial Checks

Upon delivery, inspect the Odigo packaging for any visible damage. Carefully unbox the robot and verify that all components are present.

Included Items:

- 1 × Odigo Robot
- 1 × Charging Dock with Power Cable
- 1 × Instruction Manual & Warranty Card
- 1 × QR Code for Software (for initial dashboard access)

Note: Store the original packaging in case the robot needs to be returned or transported for servicing.

4.2 Powering On / Off

To Power On:

01) Locate the main power switch on the rear-bottom or side base of the robot.

02) Switch it ON to boot the system. The screen will light up, and the startup chime will play.

03) Wait ~30 seconds for the system to fully load into the **main dashboard interface.**

To Power Off:

01) Press and hold the shutdown icon on the touchscreen.

02) Confirm shutdown when prompted.

03) Once the screen turns off, switch the **main power toggle** to OFF.

Caution: Do not manually power off while the robot is navigating or delivering. Always allow it to return to idle state first.

4.3 Battery Charging (Manual & Automatic)

Odigo supports both **manual plug-in charging** and **automatic docking.**

A. Manual Charging

- Plug the charger into a **standard 220V wall socket.**
- Connect the charging cable to the **charging port** on the rear-bottom panel.
- The screen will show a **charging icon**, and LED indicators will begin to pulsate.
- Disconnect the charger once the screen indicates **100% charge.**

Charging time:

- With 4A adapter: 6–8 hours
- With 7A adapter: 4–5 hours

B. Automatic Charging (Docking Station)

- Ensure the **charging dock is placed on a flat, open surface** with at least 1.5 meters clearance on all sides.
- Plug in the dock and ensure its **alignment markers** face forward.
- During map building, define the dock's location as the **charging point.**
- Once battery drops below the threshold (configurable, e.g., 20%), Odigo will **autonomously return to dock.**
- While charging, the robot will remain inactive and display a charging progress screen.

Getting Started

Important:

01) Keep the dock area clean and dry

02) Avoid placing obstacles or reflective surfaces nearby

03) Never move the dock after mapping unless the map is rebuilt

5
NETWORK & MAP BUILDING

Network and Map Building

This section explains how to connect Odigo to the internet, access its dashboard, and configure core system settings such as language, volume, screen, and broadcast content.

5.1 Connect Robot to WiFi

Once Odigo is switched on, you'll see a screen with a list of available Wi-Fi networks.

Steps to Connect:

Tip: Use a **5GHz network** for faster map syncing and dashboard access.

5.2 Map Configuration Process

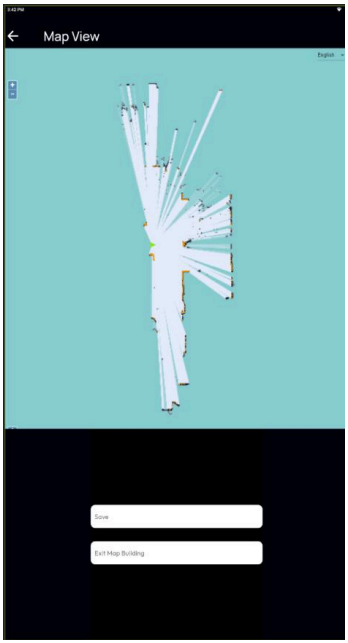
After connecting to the WiFi, a dialog will appear asking the user to configure the map.

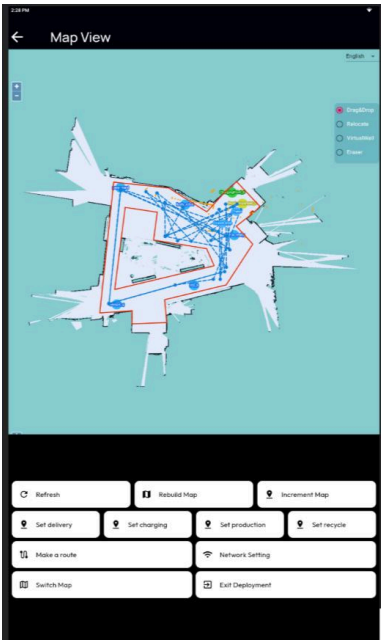
- If the user selects Yes, they will proceed with the existing flow and be redirected to the map list screen.
- If the user selects No, they will be redirected to the create map flow, where they can create new maps. In this flow, the robot must be operated manually.

Note: The process described above applies if the user selects No for the map configuration dialog.

5.3 Map Building Process

1. Move Odigo to the Desired Floor: In map-building mode, position the Odigo robot on the desired floor and ensure that the entire map is completed, including detection of all obstacles and areas where the robot can move.
2. Save the Map: Once the mapping is complete, click Save Map to store the map.
3. Set Required Points: Before exiting map-building mode, ensure the following key points are created on the map. To create them, move the robot to the specific locations where you want to place each point:
4. Home Point
5. Charging Point
6. Destination Point
7. Redirect to Points Setup: After the map is saved, the user will be redirected to the next screen where they can set and configure all the points.





5.4 Route Management

Routes define the paths that Odigo follows to move between points of interest. Users have the ability to create, update, or delete routes based on operational needs.

- To add more points to the route, click on the next point in the sequence.
- To complete the route, click on the final point to mark the end of the path.

5.5 Virtual Walls

Virtual walls define restricted areas where Odigo is not permitted to enter.

- Users can draw these walls directly on the map to block off sensitive or inaccessible regions, ensuring both safety and operational efficiency.

To create a virtual wall:

1. Tap on the desired point to mark the start point of the wall.
2. Tap on another point to mark the end point of the wall. This action will create the virtual wall.

Refresh

The Refresh option is useful when the robot is unable to acquire the correct location or if its position is inaccurate. Refreshing will help reset the map and improve location detection.

Rebuild

The Rebuild option allows users to create a completely new map from scratch. This is useful when a fresh map is needed, starting from a blank canvas.

Increment

The Increment option is used to modify or add to an existing map. It allows users to update the current map with new changes or additional areas.

Relocate

The Relocate feature allows for manual intervention when the robot incorrectly assumes its current position. Users can adjust the robot's location to correct its assumed position.

5.6 Steps for Relocation:

- Select the Incorrect Position: Users select the robot’s incorrectly assumed position on the map.
- Specify the Correct Location: The user then places the robot at the correct location on the map.

- System Updates Position: The system updates the robot's position, ensuring accurate real-time tracking.
- Drag and Release: Users can drag the robot and release it at any point on the map to relocate it to the desired position, including setting the appropriate angle.

Set Point
The Set Point option allows users to designate the robot's current location as a Delivery Point or a Location Point for store navigation. This helps in guiding the robot to specific destinations within the space.

Set Production
The Set Production option allows users to define areas where the initial reference point is marked. These points serve as important locations for mapping and navigation and can be customized on the map as needed.

Set Charging
The Set Charging option defines locations where the robot can recharge its batteries. These charging points are critical for ensuring operational continuity and can be strategically placed on the map to optimize robot up-time.

Note:
After saving all the required points, click Exit Deployment. You will be redirected to the Download Screen, where data will begin downloading, only if the map includes:

- 1 Home Point
- 1 Destination Point
- 1 Charging Point
- 1 Route

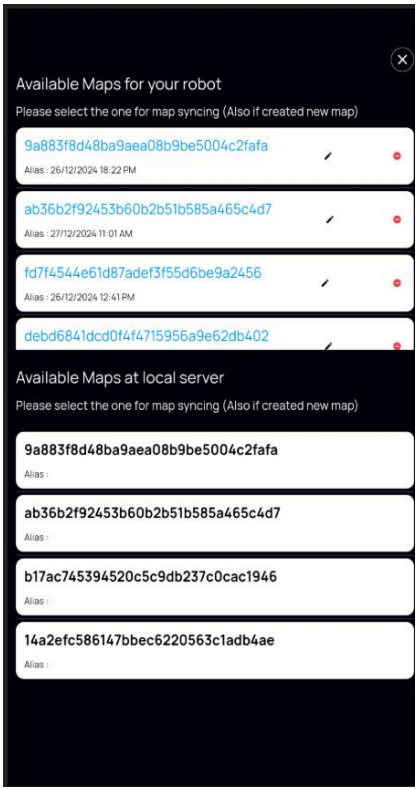
If any of these points are missing, the user will be prompted to create them before proceeding further.

5.7 Map List Overview :

There are two map lists displayed on the screen:

1. **Top List**: This list comes from the offline server (backend) and contains maps that have already been stored for the robot (if previously synchronized).
2. **Bottom List**: This list shows maps stored on the local ROS server (robot chassis), which are stored locally on the robot.

This screen facilitates communication between the ROS and the offline server. If a map is selected from the bottom list, it will be uploaded from the local ROS server to the offline server, where it will be saved for that specific robot.

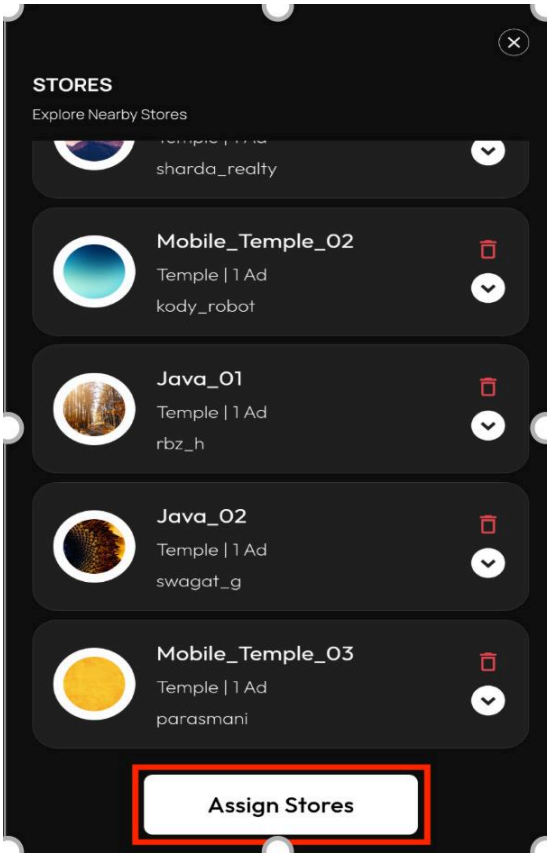


5.8 Store Mapping Flow :

Store Mapping is the process of merging stores created by the Vendor/Agency with waypoints (location points created during map creation). This process ensures that the robot can be navigated to the respective stores.

List of Mapped Stores

The Mapped Stores List displays a comprehensive list of stores that have been successfully mapped to their corresponding waypoints (location points created during the map creation process).



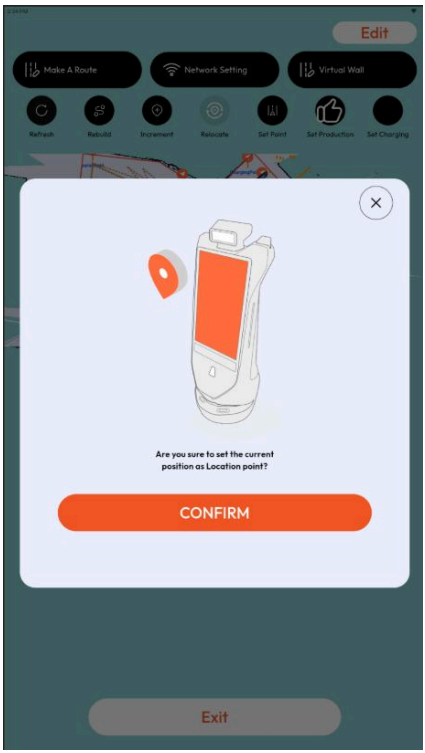
5.9 Map Management Flow :

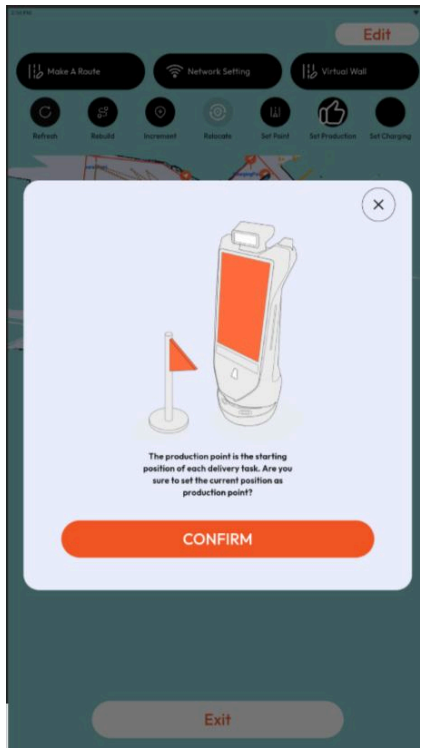
The Map Management Flow is a centralized system designed for efficient and user-friendly management of robot current operational maps. This flow ensures that the robot's working environment is accurately configured and maintained, enabling seamless operation.

Below Points are compulsory for the operation of robot.

1. Creation of Points of Interest

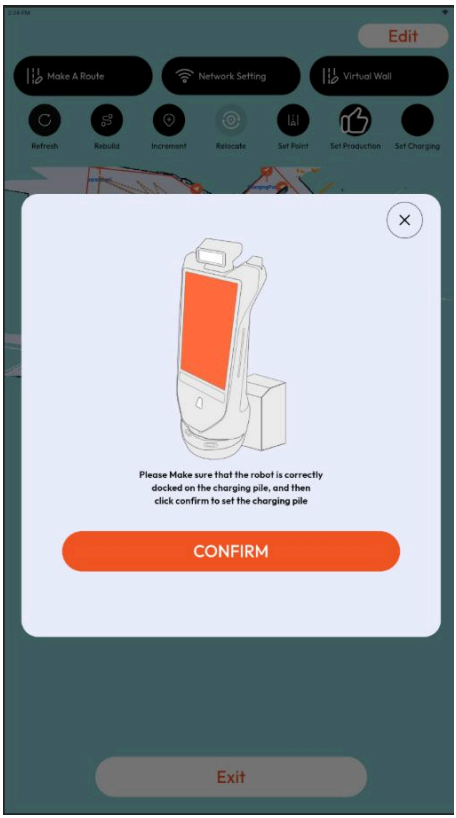
1.1 Delivery Points: These are designated spots on the map where the robot would navigate. Users can add multiples delivery points as per operational needs.





1.2 Production Points: These are areas where the initial point of reference is marked. Users can define these points on the map. Multiple production points can be created and mapped for to and for navigation.

1.3 Charging Points: Locations where robots recharge their batteries. These points are critical for operational continuity and can be placed at strategic spots on the map. The charging point is required for the synchronization of data from the local-offline server at the starting time of that destination. The time would be 30 minutes before the start time of the destination.

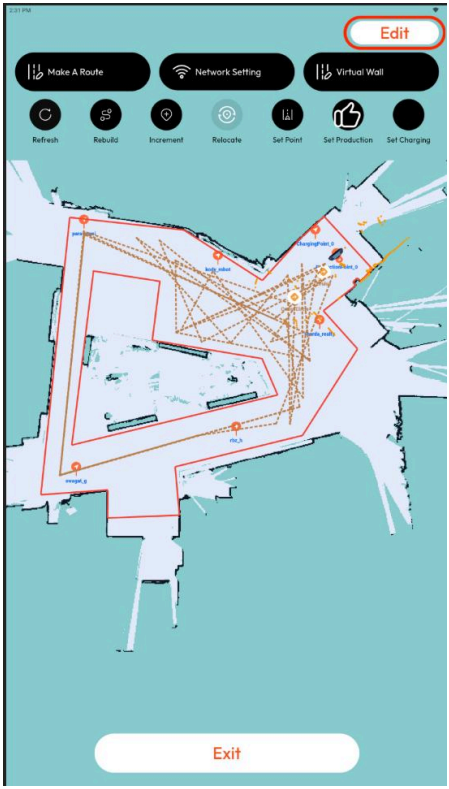


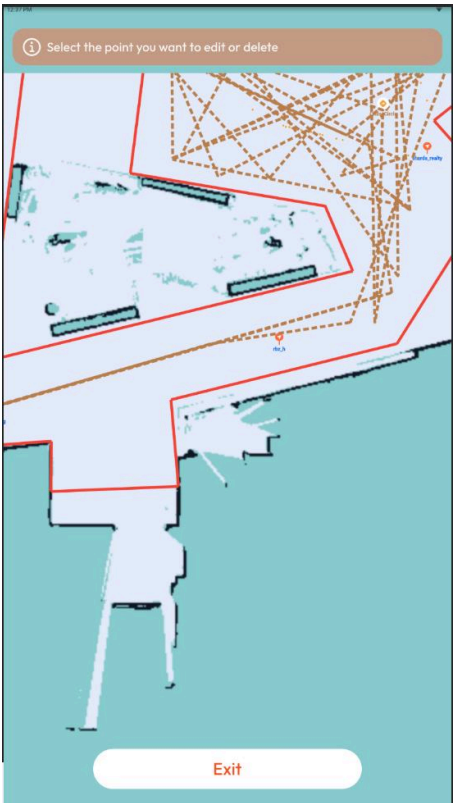
1.3 Edit Points: Al the points can be deleted if any point is wrongly marked to ensure smooth operations.

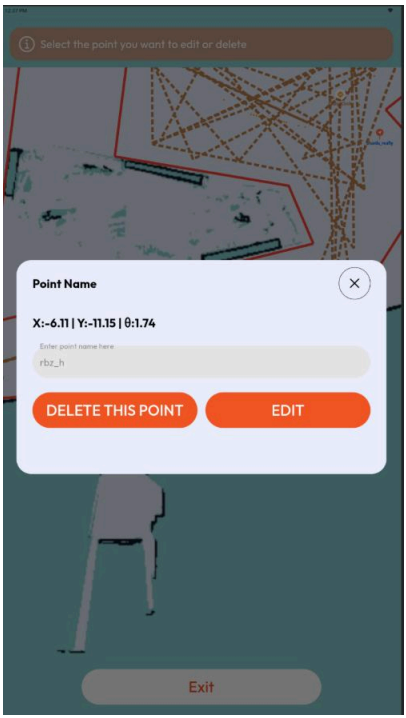
Network and Map Building

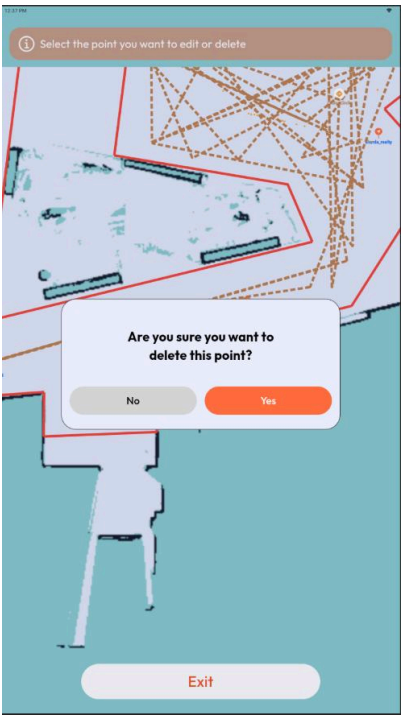
-On click on edit, the edit map mode would be enabled.

-To delete or edit any point user needs to click on given point and a confirmation dialog will pop and the process will be executed.









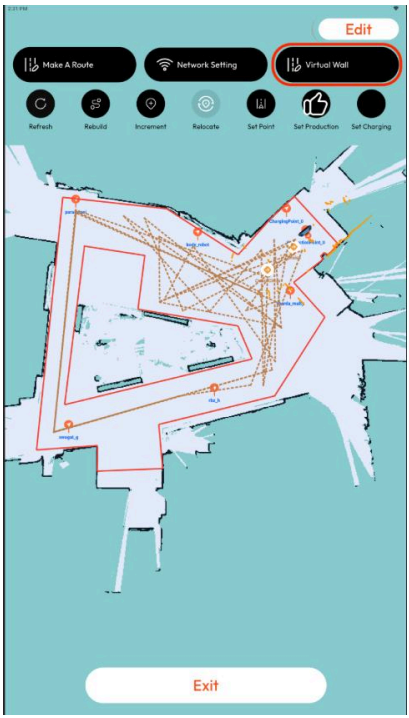
2. Virtual Walls (Red color line over map)

2.1 Virtual walls define restricted areas where the robot is not allowed to cross the line and to move within the map. It is also used to cover the obstacles which were not at the time of map creation.

2.2 Users can draw these walls directly on the map to block off sensitive or inaccessible regions, ensuring safety and efficiency.

- Tap at a desired point to mark start point of wall

-Tap to another point to mark the end point of the wall. This will create a wall for them.



-Select Erase wall option to delete the created walls. Hold and drag to the point you want to delete the wall from. It will delete the wall in the selected area.

3. Route Definition

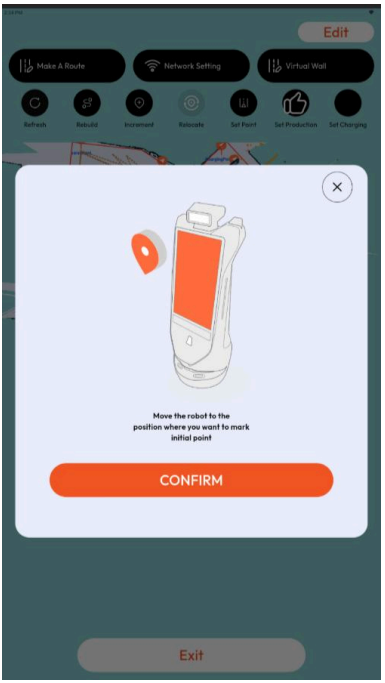
3.1 Minimum one route is required for operation of robot (where the robot is going to cruise itself, there can be multiple routes).

3.2 Routes dictate the paths that robots follow for movement between points of interest.

3.3 Users can create, update, or delete routes based on operational requirements.

3.4 Routes support two-way (back and forth) navigation.

Network and Map Building



-You need to move the robot on the floor to get a clear idea of the current position of robot resulting in perfect route creation for the cruise process.

- You need to move the robot on the floor once you start the route button(Make a route) then after move according to your path requirement.

Moving the robot will also reflect over the map.

-Click on the next point to add more points to the route.

-Click on the final point to mark the point where the route would be completed.

4. Robot Relocation

4.1 When a robot incorrectly assumes its current position, this feature allows manual intervention.

4.2 Steps for Relocation:

-Users select the incorrectly assumed robot position on the map.

-The user specifies the correct location by placing the robot on the map.

-The system updates the robot's position, ensuring accurate real-time tracking.

-Drag and release at any point in a map to relocate the robot to that given position and created angle.

Network and Map Building

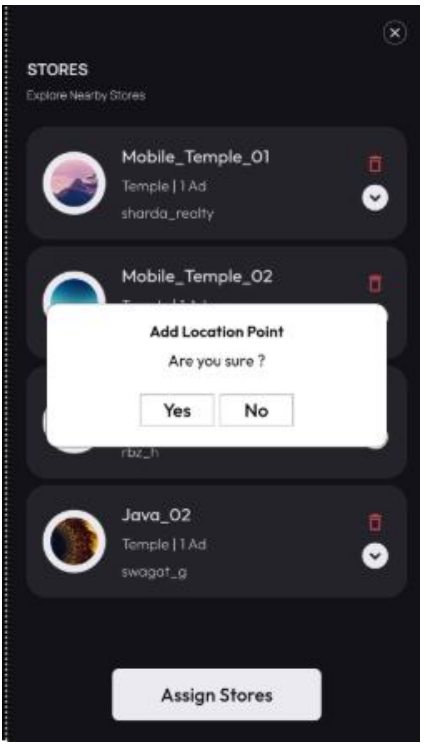
6
STORE SETUP

6.1 Selecting a Store

- Click the Assign Store button to view the list of unassigned stores.
- The user reviews the list and selects a store from the unmapped stores.
- Ensure that only relevant and unassigned stores are chosen for mapping.

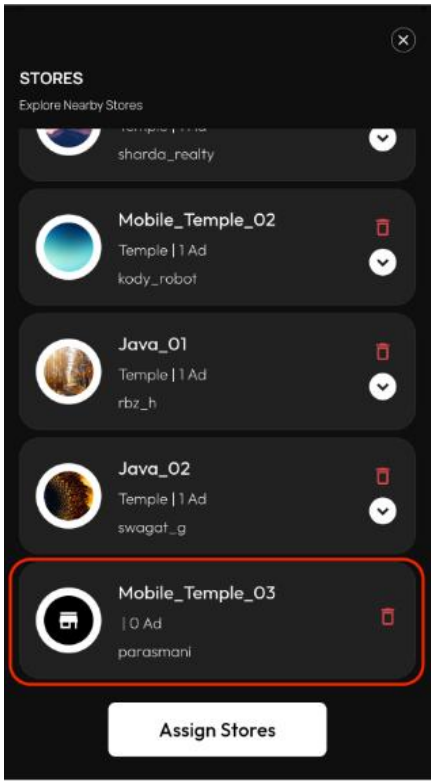
6.2 Selecting Waypoint

- After selecting a store, the user chooses the appropriate waypoint to the map.
- Confirm the association between the selected store and the chosen waypoint.



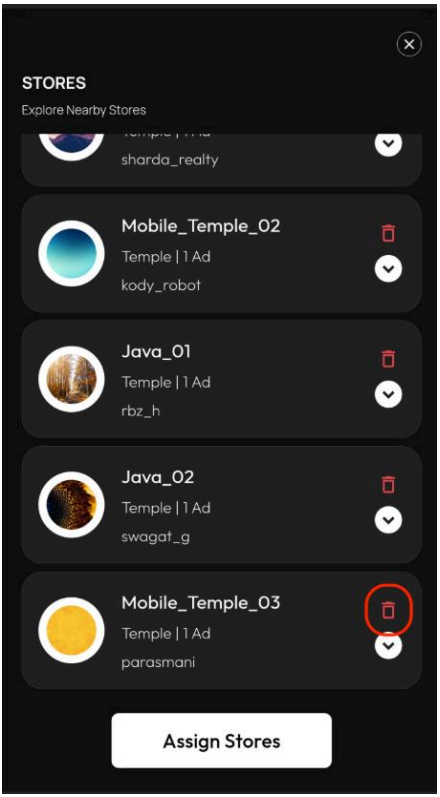
6.3 Automated Location and Location Point

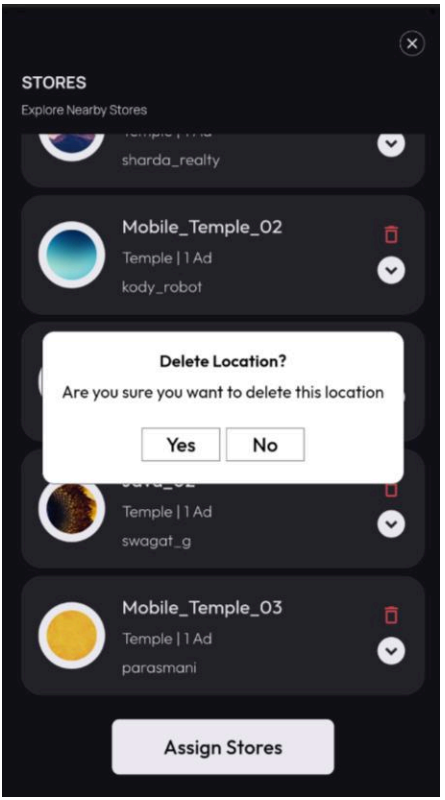
- Upon selecting a waypoint, a location is automatically created with the store's name.
- A location point is then generated and linked to the location, with the name matching that of the waypoint.



Error Handling and Data Management

- If an incorrect waypoint is selected by mistake, the **location point** associated with that waypoint can be deleted.
- This feature allows for **corrections** in the mapping process without impacting other **correctly mapped stores**.
- It ensures **data accuracy** and maintains a clean **mapping structure**, facilitating efficient **synchronization** and **delivery**.

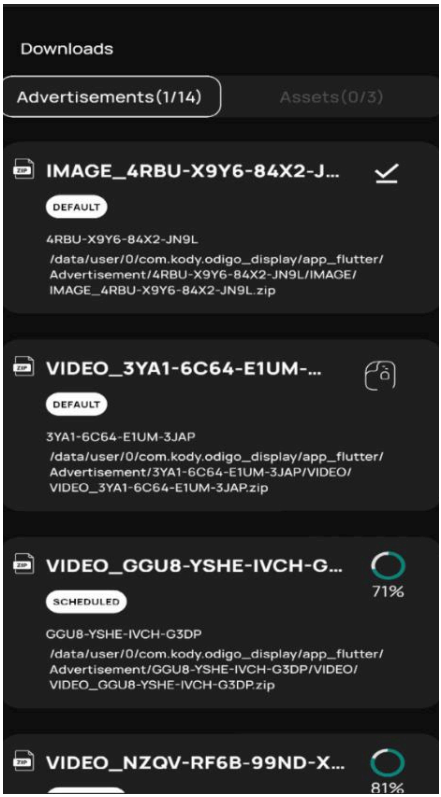


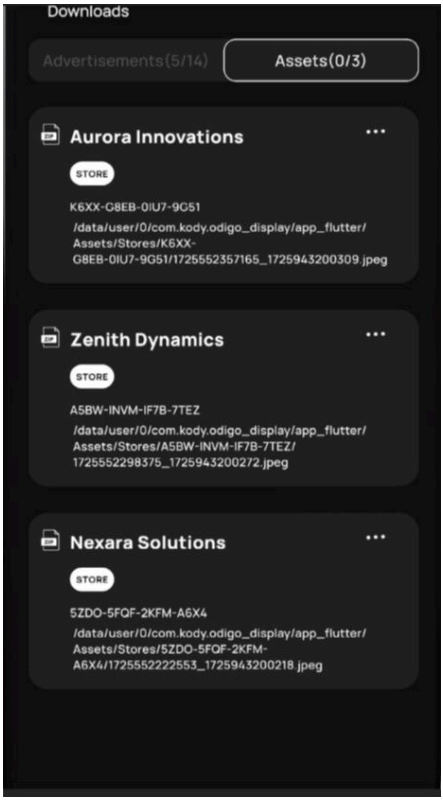


Syncing Data from Offline Server

On this screen, data is being synchronized from the offline server. All images and videos stored on the offline server are downloaded to the robot.

In case of network fluctuations causing download failures, the system will automatically attempt to download each image/video up to three times.
Note: For the sync process to complete successfully, both the Odigo robot and the offline server must be connected to the same Wi-Fi network.





Display Ads Screen

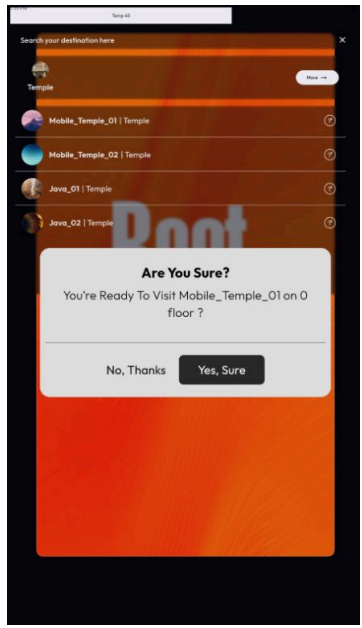
The Display Ads Screen shows all the advertisements, which are displayed alongside the cruise mode. This screen includes several key features:

1. Tap & hold to open Operator Panel Interface

- When the user taps and holds on the screen, the Operator Panel Interface will pop up.
- Only operators with a valid PIN, generated from Odigo Admin, can access the operator panel.
- If the operator enters the correct PIN, they will be redirected to the Operator Screen.

2. Store Navigation Feature

- Users can tap on the screen to access the Store Navigation feature.
- Emergency Button Alert:
- In the first image, Store Navigation will be disabled when the Emergency Button is pressed.
- The user will see an Emergency Button Pressed alert on the screen when they try to navigate.
- Store List:
- The second image shows the list of stores available at the destination, which are generated from Odigo Admin.
- Store Navigation Confirmation:
- In the third image, when the user taps on a store name for navigation, a confirmation dialog will appear for approval.



Operator Tabs

Operators can manage multiple robots using the swipe-down gesture on the screen, as shown in the last image. The Operator Panel includes the following controls:

1. Home Point

- The Home Point button allows the operator to send the robot to a designated production point.

2. Charging Point

- The Charging Point button enables the operator to send the robot to a predefined charging station to recharge its battery.

3. Cancel Navigation

- The Cancel Navigation button allows the operator to abort the robot's current navigation route, stopping it immediately.

4. Waiting Time

- The Waiting Time setting allows the operator to specify a delay (in seconds) before the robot resumes cruise mode after completing its navigation.

5. Relocate

- The Relocate button allows the operator to manually relocate the robot to a specific point on the map.

6. Speed and Volume Controls

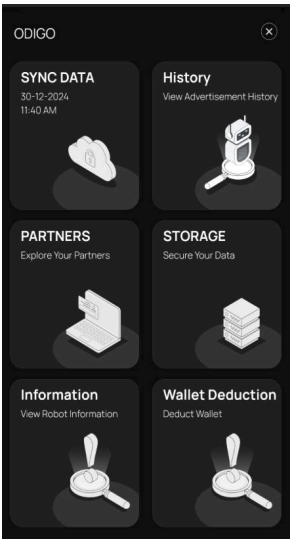
- The Speed and Volume controls enable the operator to adjust the robot's movement speed and sound volume as needed.

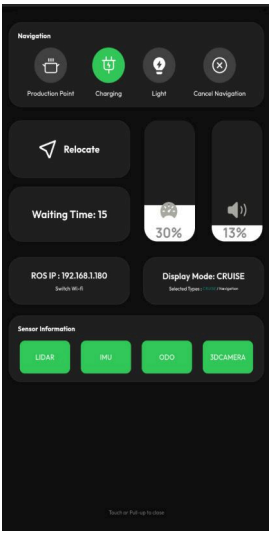
7. ROS IP

- The ROS IP displayed (e.g., 192.168.1.180) confirms that the robot is successfully connected to the ROS.

8. Sensor Information

- The operator panel shows the robot's sensor data from the ROS at the bottom of the screen.
- If there is a sensor malfunction or a disabled sensor, or if the ROS IP is null, it indicates a ROS connectivity issue.
- If the ROS IP is visible but some sensors are not functioning, the operator should contact the Robotics Department to resolve the issue.





Sync Data

Before initiating the sync process, ensure that the Odigo robot is positioned at a charging station or server room with stable local network connectivity. This ensures that the robot can receive data from the server without any interruptions.

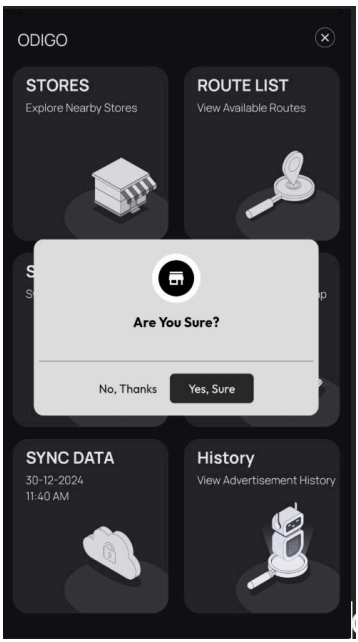
Operators can manually sync data from the local Java server to the robot's local storage by following these steps:

1. Click on Sync Data: Upon clicking the button, a confirmation dialog will appear, asking whether to proceed with the sync.
2. Forceful Sync: The sync process will begin without checking the timestamp of the last sync, forcefully retrieving new data from the server.
3. Download Screen: After confirming, the user will be directed to the Download Screen, where the latest data from the server will be downloaded. Upon completion, the user will be automatically redirected to the Display Ads Screen.

Sync Process Includes:

- New ads/assets.
- Updated store details with location points.
- Latest robot details.
- Cruise mode routes.

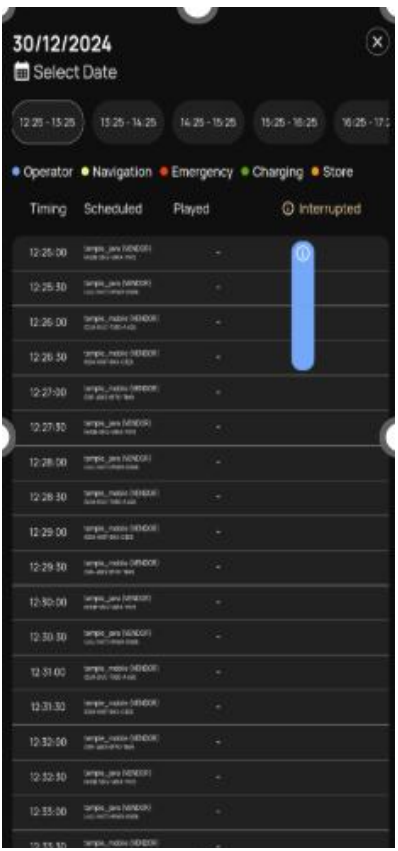
Once the sync is complete, the new data will replace the existing data, except for ads that have already been played.



7
OTHER SETTINGS

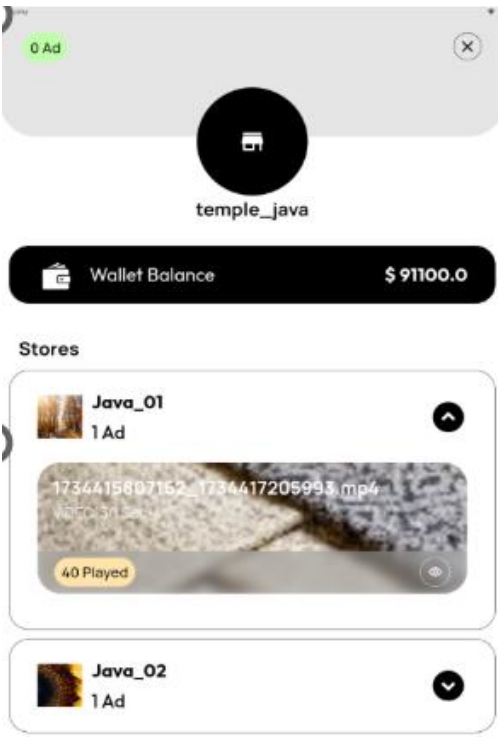
7.1 History

- When you tap History, you will be redirected to the History Screen.
- This screen provides a detailed-time overview of the robot's activities, displaying data for today as well as previous days.
- You will also see different color indicators, each denoting a specific type of interruption within the time frame.
- First Image: Shows the played entries overlaid on the scheduled entries.
- Second Image: Displays the operator interruption bar, indicating when the operator intervened.
- Third Image: Shows the operator interruption dialog, providing further details on the interruption.



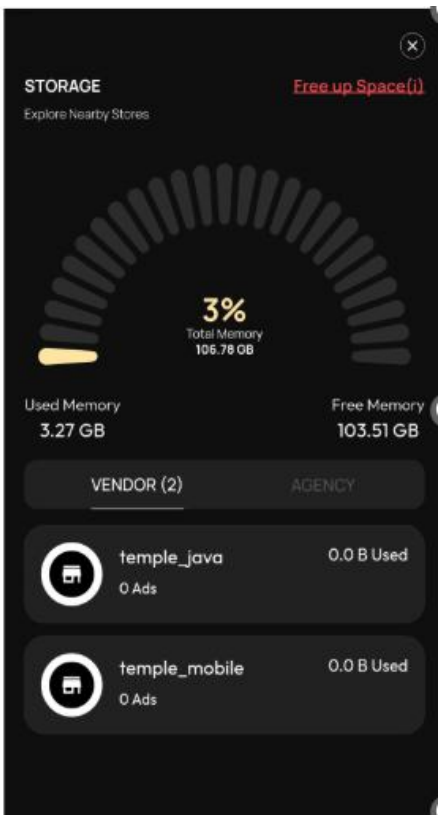
7.2 Partners

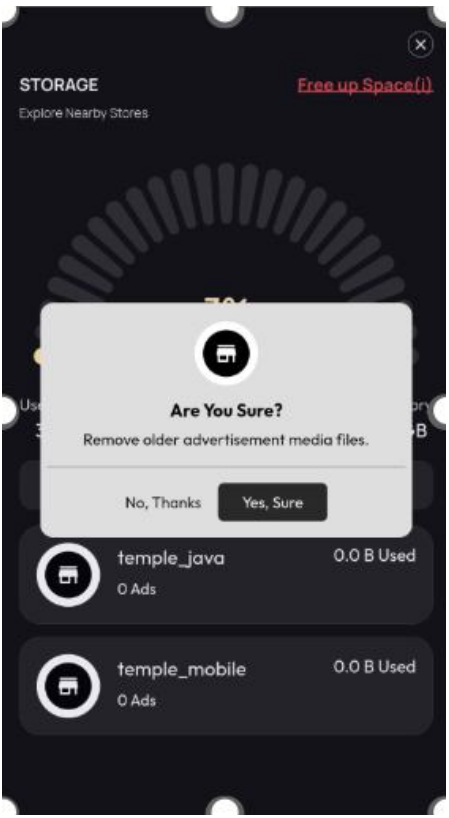
- First Screen: Displays vendor or agency-related details, including the current wallet balance, previous wallet deductions, and their associated ads.
- Second Screen: Provides detailed information about the vendors or agencies, along with an ad preview feature that allows you to view their ads.



7.3 Storage

- The Storage screen provides information about the robot's storage usage.
  - Free Up Space: If there is limited space on the device or if the operator wants to delete unused data, they can use the Free Up Space button.
  - This action will remove ads that are marked as unused on the offline server, helping to free up storage space.

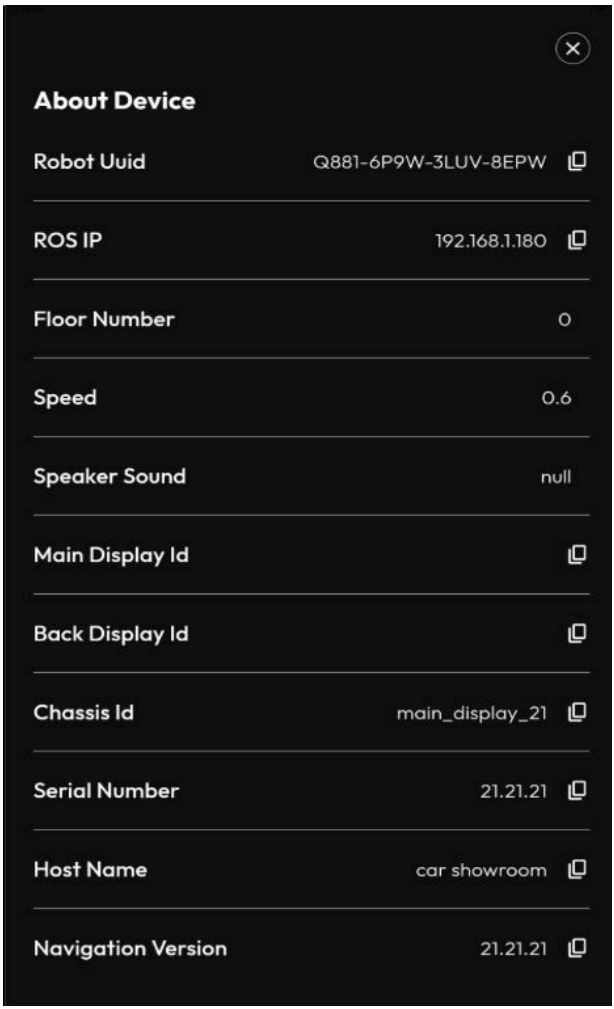




8
INFORMATION AND WALLET DEDUCTION

8.1 INFORMATION

You can see the robot's hardware and software details from here.



8.2 Wallet Deduction

In some cases, automatic wallet deductions may not occur on the robot.
If this happens, the operator can manually initiate the process by pressing the Menu Button. (Normally, wallet deduction occurs automatically after the destination's closing time.)
Important: Ensure the robot is located in the server room or charging station, where a stable network connection is available for the process to complete.

9
MAINTENANCE & TROUBLESHOOTING

Maintenance & Troubleshooting

To ensure Odigo performs reliably and safely in live environments, operators must follow routine maintenance practices and know how to respond to common technical issues. This section outlines actionable checks, error handling, and system-level recovery methods.

9.1 Daily Maintenance Checklist

Perform the following checks at the **start and end of each operational day:**

Functionality	Description
Battery Level Check	Ensure Odigo is charged to at least 60% before peak hours. Auto-dock if battery is <20%.
Screen Inspection	Confirm the ad panel is on, responsive, and showing the correct content.
LIDAR & Sensor Clean-Up	Wipe front and side LIDAR sensors gently with a microfiber cloth. Dust may affect navigation.
Caster Wheel Check	Rotate the wheels to check for any hair, dirt, or debris that may cause misalignment.
Tray Sanitation	Clean the trays using a food-safe surface disinfectant before meal delivery sessions.
Network Reconnection	If using server mode, verify that the robot is connected to Wi-Fi and DMS.
Error Code Display	Ensure no error codes are flashing on the controller panel. Refer to Appendix A if any appear.

Log these checks in a maintenance sheet if used in multi-shift environments.

9.2 Common Errors and Solutions

Odigo includes built-in error prompts on its controller panel and screen.
Below are the most frequently encountered errors and how to resolve them.

Maintenance & Troubleshooting

Error: “Navigation Failure”

Cause:

- Route point not reachable
- Obstruction in path
- Floor reflection or poor lighting

Solution:

- Clear obstacles from the route
- Reboot Odigo and retry the route
- If error persists, recalibrate the affected point (See Section 7.4)

Error: “Charging Failed”

Cause:

- Charging station misaligned
- Charging port or base pin not contacting

Solution:

- Manually push Odigo 5–10 cm forward/backward on the dock
- Check for dust or dirt on metal contacts
- Restart charging module from the controller panel

Error: “Motor Overload / Stall Detected”

Cause:

- Weight imbalance
- Wheel obstruction or uneven surface

Solution:

- Move Odigo to an even surface
- Restart and monitor for repeated alerts

Error: “Panel Not Connected” (Ad Display)

Cause:

- Disconnection from AdRemote
- Wi-Fi failure in server mode

Solution:

- Reconnect using pairing QR code (see Section 9.2)
- For server deployments, verify Wi-Fi and server login
- If still offline, restart panel manually

Error: “Sensor Blocked”

Cause:

- LIDAR or obstacle sensor dirty or obstructed

Solution:

- Clean sensors gently with microfiber cloth
- Avoid direct light/glare on sensors
- Restart if issue persists

Note: For unresolved issues, always check the **Error Code List in Appendix A** for additional context and support escalation.

9.3 Repositioning and Recalibration

If O loses orientation, drifts off-route, or fails to return to a known point, follow this guide to **reposition and recalibrate** the system safely.

When to Recalibrate:

- After a major collision or physical relocation
- When Odigo fails to align with route points or charging dock
- If “Position Lost” or “Unable to Navigate” errors appear frequently

Step-by-Step: Repositioning Odigo

01) **Power OFF Odigo.**
Hold the power button until the screen turns off and the lights dim.

02) **Physically Move Robot to a Known Position.**
Place it in front of a mapped reference point (like a dock or labeled stop).

03) **Power ON and Observe Screen.**
Wait for the system to boot and check if the map re-aligns automatically.

If the system recognizes its position, you're done. If not, proceed to recalibration.

Tips:
- Avoid recalibrating near reflective floors or heavy glass.
- Use **Tag-based recalibration** over manual if available—it’s faster and more precise.
- Always save progress before restarting map mode.

9.4 System Updates and Recovery

To ensure stability, compatibility, and access to new features, Odigo's software and control systems must be kept up to date. This section explains how to perform updates, recover the system in case of failure, and reset core modules.

9.4.1 System Update (OTA)

OTA = Over-the-Air Update (no cable needed)

Steps:

01) Connect Odigo to a **stable Wi-Fi network.**

02) Navigate to the **Dashboard Panel → Settings → System.**

03) Tap **"Check for Updates".**

04) If an update is available, tap **"Download & Install".**

05) Wait for reboot. Do **not power off** during the process.

Updates may include performance enhancements, bug fixes, or new operation modes.

9.4.2 Factory Reset (Use with Caution)

Only use this when instructed by the Falcon Tech Robotics Support Team.

Warning:

Factory reset will erase:

- All maps, routes, schedules
- Dashboard settings
- Ad panel content and pairings

How to Reset:

- From Dashboard → Admin Settings
- Tap **"Factory Reset"**
- Confirm with password and wait for reboot

+971 52 595 7037

sales@falcontechrobotics.com

www.falcontechrobotics.com

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