

Odigo Datasheet





Odigo

Your Autonomous Smart Assistant & Media Solution

Odigo is an autonomous AI robot purpose-built for high-footfall environments, including corporate towers, transit hubs, exhibition centers, hotels, and retail destinations, combining smart concierge services, AI surveillance, and dynamic advertising on a single platform.

Key Features



Two-Way Audio Communication

Live microphone and speaker streaming between operators and the robot's primary camera.



10+ Hour Battery Life

Lithium Iron Phosphate (LiFePO4) battery for uninterrupted all-day operation.



Human Detection & Face Recognition

Includes profile registration requiring 6-angle facial capture, CSV batch user import, and face recognition (Authorized vs. Blacklisted tagging).



Smart Obstacle Avoidance

Multi-sensor real-time detection (including 2D LiDAR, 3D Depth Cameras, and Ultrasonic Sensors) for safe navigation in crowds.



Incident & Threat Detection

AI detection for fights/violence, unauthorized human intrusions, weapons, and license plates.



Autonomous Charging

Self-docks when battery is low; resumes operation automatically.



Autonomous Navigation

Cartographer and AMCL technology for precise, centimeter-level indoor routing.



Real-Time Analytics

Track ad plays, audience engagement, and navigation performance.



Dynamic OOH Advertising

Geo-contextual, day-scheduled[Sat] ads served on twin Full HD touchscreens.



Interactive Dual Touchscreens

32" capacitive displays for ads, navigation, and visitor interaction.



Centralized Dashboard

Monitor and manage all units, campaigns, and maps from one platform.



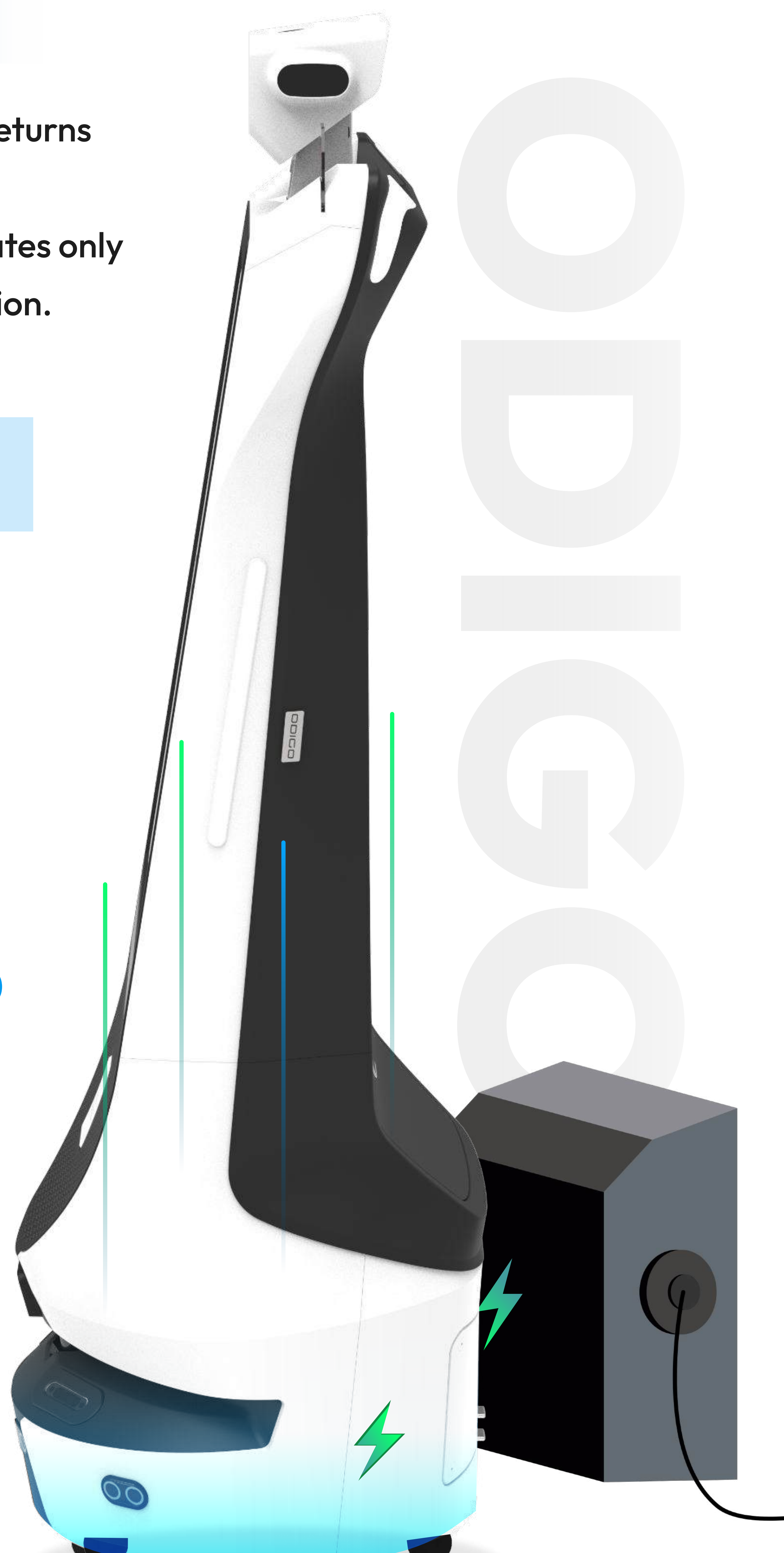
PHYSICAL SPECIFICATIONS

Body	ABS Thermoplastic + Metal Reinforcement
Support Frame	Steel Reinforced Chassis
Suspension	Aluminum Base Frame
Chassis	3 mm / 4 mm Mild Steel
Weight	65 Kg
Color	White
Machine Dimensions	1650 mm (H) × 630 mm (L) × 535 mm (W)

Power And Battery System

Odigo's advanced Battery Management System (BMS) ensures that it automatically returns to its charging station for recharging when battery levels drop below a configurable threshold (default: 20%). The charging station's intelligent power management activates only during the robot's recharging cycle, enhancing safety and reducing energy consumption.

Specification Parameter	Value / Detail
Power Button	Push Start Switch
Intelligent Power Mgmt.	Yes - auto-dock + BMS
Overcurrent Protection	Yes
Battery Type	Lithium Iron Phosphate (LiFePO4) 25.6 V / 25 Ah
Charging Time	6–8 Hours (4A adapter) / 4–5 Hours (7A adapter)
Power Adapter	Input: AC 220V, 50/60 Hz
Battery Life	10+ Hours (continuous operation)
Charging Mode	Automatic docking (Auto Docking PCB) + Manual plug-in
Low Battery Threshold	Configurable (default 20%)



Vision & Mobility System

AI Navigation

Mapping & Navigation	Cartographer (mapping) and AMCL (navigation)	Route Type	Multi-point, two-way (back and forth)
Max Speed	0.1 - 1.0 m/s (customizable)	Virtual Walls	Software-defined no-go zones on map
Motor	Hub Motor Drive System		

Lidar Sensors

Range	Up to 25 metres
Working Area	270° scanning angle
Wavelength	905 nm
Type	2D Single-Line LiDAR

Depth Camera

Type	3D Structured Light Depth Sensing Camera (3 Units)
Application	Environment sensing
Integration	Fused with LiDAR for comprehensive sensing

Ultrasonic & Auxiliary Sensors

Ultrasonic Sensors	Ultrasonic Obstacle Avoidance Sensors (4 Units) with Ultrasonic PCB for close-range detection
Webcam	Full HD (1080p) USB Camera (2 Units)
Microphone Array	4-Mic Array with onboard module for voice recognition and audio capture
Infrared Receiver Board	Custom IR receiver PCB for signal reception

Button & Controls

Emergency Stop	Metal Red Y switch - halts all functions immediately
Emergency Release	Rotate clockwise to release
Power Switch	Rear or side base — used for boot / shutdown
Operator Panel	PIN-protected, accessible via tap & hold on display



Display Specifications

Odigo features two display screens to drive advertising and interaction. The top display provides ambient branding presence, while the main dual touchscreen is the primary advertising and navigation interface — allowing visitors to browse store directories, confirm navigation, and interact with campaigns.

Top Display

Screen Size	7.9 inches
Resolution	400 × 1280 pixels
Touch	Display only (non-touch) / Optional Touch LCD
Application	Ambient branding

Dual Touch Display (Main)

Screen Type	Capacitive Touch Screen
Screen Size	32 inches (2 Units)
Resolution	1080 × 1920 pixels (Full HD Portrait)
Touch Support	Yes - multi-touch capacitive
Speaker	Integrated 5W 8Ω Box Speakers (4 Units) powered by Dual Channel 50W x 2 Audio Amplifier Board
Application	Primary advertising display + navigation interface



Other Technical Specifications

AI Navigation System (Industrial Mini CPU)

OS	Ubuntu 22.04
CPU / RAM	16GB + Processor
Navigation	Laser + Visual SLAM + Obstacle Avoidance
LiDAR	2D Single-Line LiDAR (RLT-R1), 270°, 25 m range - 30 m range
Remote Access	Supports remote monitoring and OTA updates

Interactive System

OS	Android 11
Connectivity	• Wi-Fi Dual-Band (2.4 GHz & 5 GHz), Microstrip FPC Antenna & External Magnetic Mount Antenna • Bluetooth 4.2 / 5.2 • Ethernet Splitter: TP-Link EH210 1-to-2 Gigabit Ethernet Splitter
Microphone Array Model	4-Mic Array
Speaker	5W Speakers with 50W x 2 Dual Channel Amplifier
Charging Port	Rear-bottom panel, aligned with docking station
USB Port	USB Hub for port expansion / firmware updates / tech support (restricted access)

Environmental Ratings

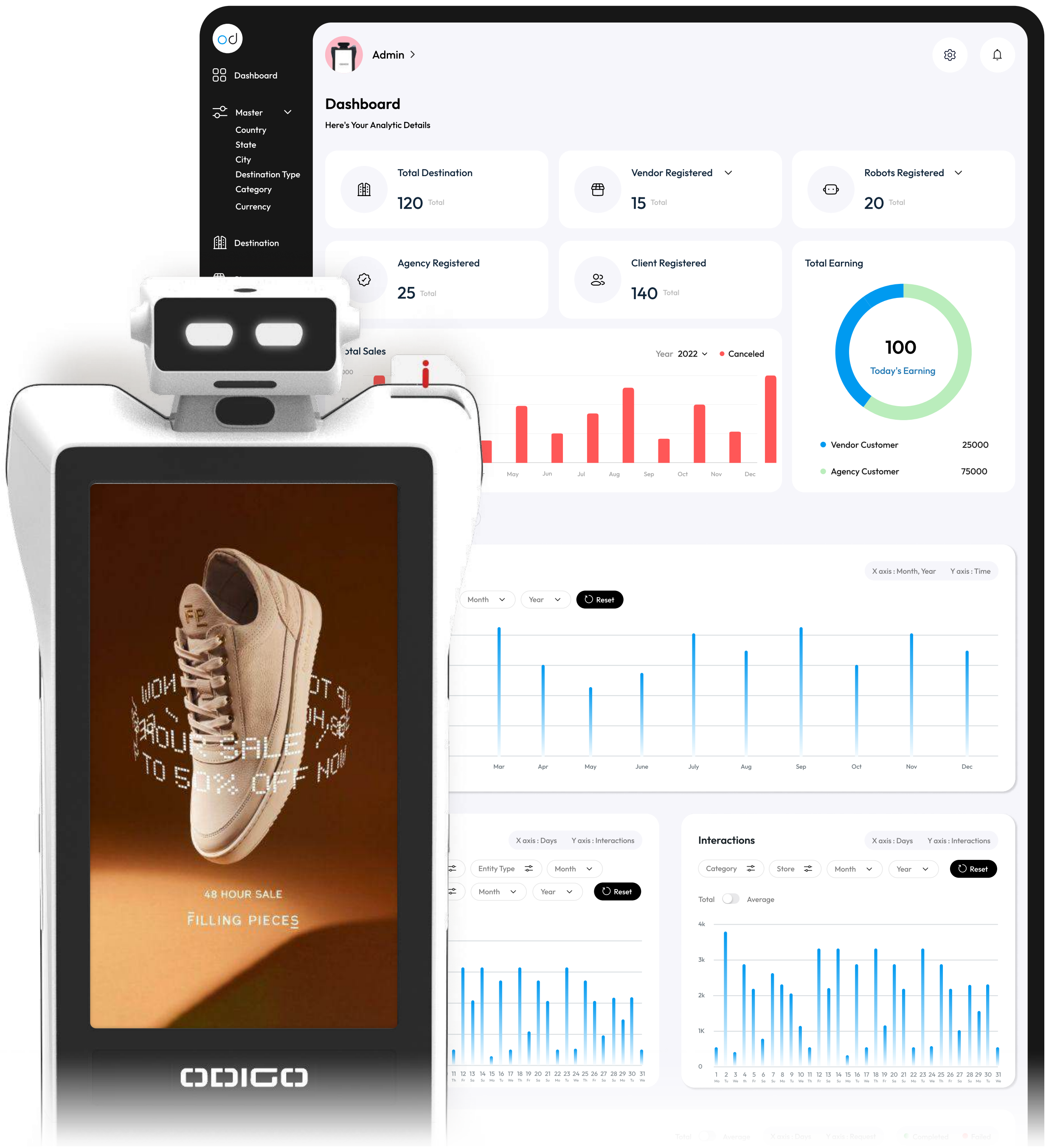
Operating Temperature	5°C to 40°C (Board tolerance: -15°C to +60°C)
Storage Temperature	-10 C to 45 C
Ambient Humidity	5% to 85% RH (Non-condensing)
Floor Requirement	Flat, solid indoor surface only
Terrain	Not suitable for carpet, slopes, or outdoor use

The Odigo Control System

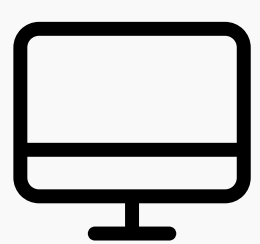
Effortlessly Manage Odigo and Your Advertising Operations

The Odigo Control System is a comprehensive, cloud-connected platform designed to simplify the management of your advertising robot fleet. From a single centralized dashboard, operators can monitor live performance, manage ad content, configure navigation maps, track engagement analytics, and control multiple units - all in real time. Managing ad campaigns, store waypoints, and robot health becomes effortless, and you can access detailed data to make informed, revenue-driving decisions.

The Odigo Control System simplifies and optimizes the management of Odigo and your operations. It is a comprehensive platform that ensures efficient, data-driven advertising delivery whether you operate a retail mall, airport, exhibition center, or corporate campus.

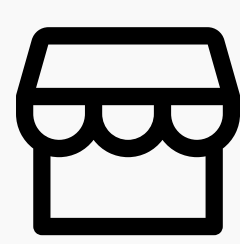


Platform Capabilities



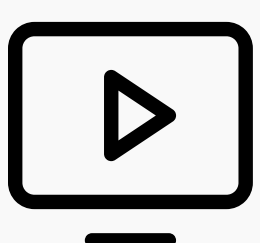
Centralized Dashboard

Real-time monitoring of robot status, battery level, ad playback queue, and navigation activity, across all deployed units from one interface.



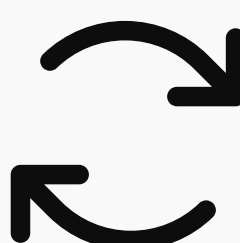
Navigation Mapping

Map stores and waypoints, so Odigo guides visitors directly to their destination, increasing foot traffic and time-in-store.



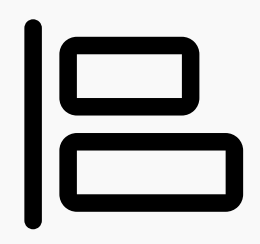
Dynamic Ad Management

Upload, schedule, and target advertisements by location, time of day, and audience demographics. Content updates push to the robot instantly.



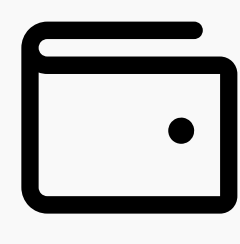
Sync & OTA Updates

Push new ads, map data, robot details, and cruise routes wirelessly from the server to the robot. No cables, no downtime.



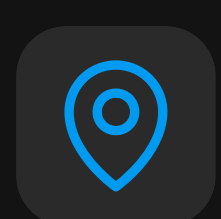
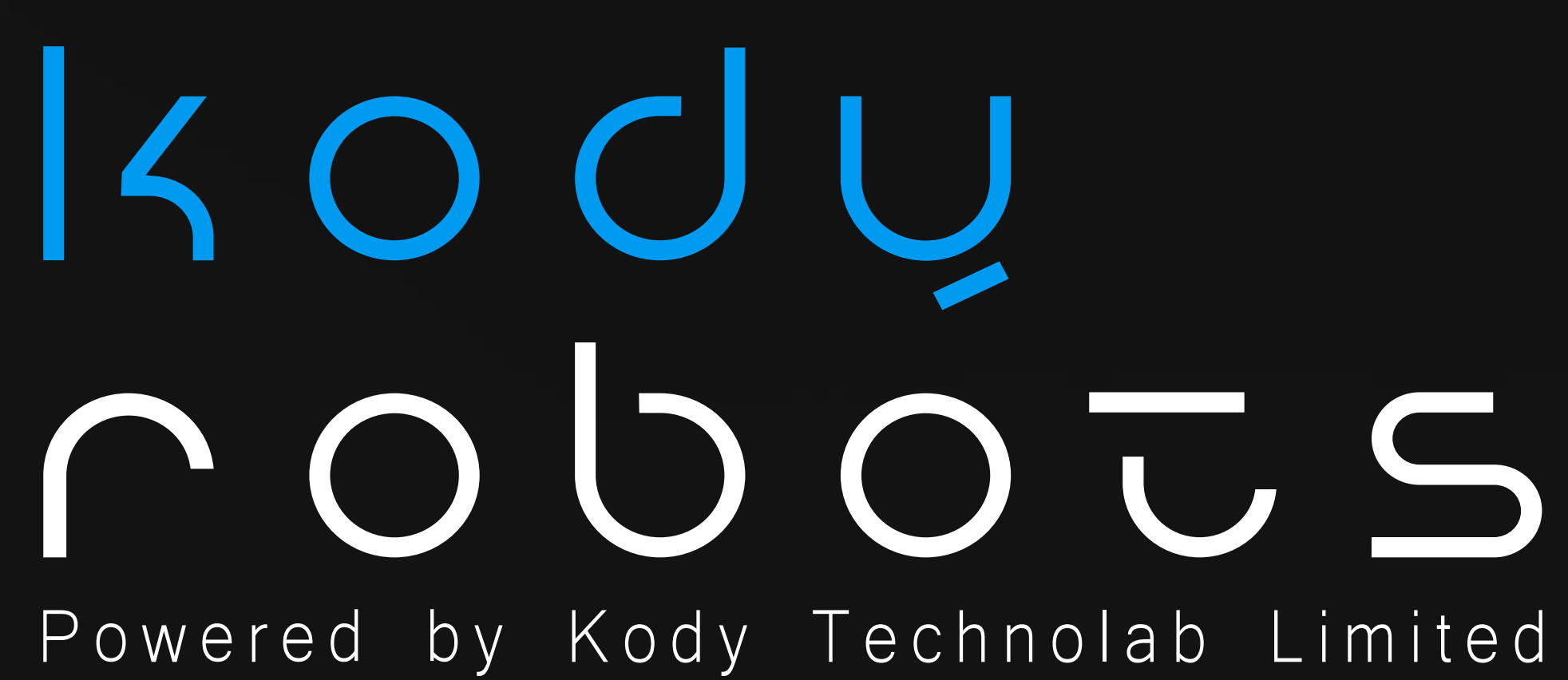
Interaction Analytics

Manage logs for human detection & face recognition, incident & threat detection.



Partner & Wallet Module

Track vendor and agency wallet balances, monitor ad performance per partner.



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