06 / MOBILE INVENTORY ROBOT

RFID Inventory Robot

A mobile base, antenna lift and inventory software work together for zoned warehouse capture and discrepancy review.

Prototype integration in progress



> Xinhuotong structural illustration · System integration and on-site validation in progress

Bring capture equipment to the shelves and turn physical counts into results that can be checked against business records.

Plan routes, antenna capture and review tasks around agreed warehouse zones and a counting time. Full EPCs deduplicate individual items, while SKU quantities support book-to-physical checks. Location clues help guide follow-up checks.

01 **Mobile capture**

Assess capture routes against the actual aisles, shelves and tag distribution.

02 **Antenna lift structure**

Discuss antenna placement and coverage against shelf height; review mechanics and cabling with the prototype.

03 **Evidence-based discrepancy review**

Retain unknown tags, quantity discrepancies and capture records for review.

WORKFLOW & DELIVERY

Workflow and delivery conditions

01

Define the scope

Confirm warehouse zones, the inventory snapshot, product mapping and the counting window.

02

Capture along the route

Move through the agreed area, capture individual tags and deduplicate them.

03

Rescan and review

Review unknown tags, quantity discrepancies and areas with incomplete capture.

04

Produce inventory results

Produce SKU quantity comparisons, discrepancies and recount records.

Workflow outputs Individual tag capture records / SKU quantity discrepancy list / Recount tasks and records

Hardware components	Mobile base, lift mechanism, antennas, reader and operator terminal, confirmed per project.
10.1-inch Pad with quick-release magnetic mounting	A 10.1-inch Pad has an approximately 110×110mm rear magnetic mount. The base rotates and tilts forwards and backwards. Connect Type-C to the equipment-specific interface to control RFID reading/writing, printing and other functions. Reuse the Pad across four device types at different times to reduce purchasing and application maintenance costs.
Data preparation	Product mapping, an agreed counting scope and an inventory snapshot from the same point in time.
On-site validation	Aisles, flooring, shelf height, obstructions, cross-reads and safe operating conditions.
Delivery approach	Assess first, then validate a prototype. Configuration, software scope and acceptance criteria are agreed separately.

Current capabilities and validation scope
The product is currently at the structural and system integration stage. An RFID read does not directly establish an exact storage location. Read completeness, routes and counting efficiency require validation with on-site samples.

Discuss your goods-handling workflow

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Hardware, software, interfaces and services are confirmed against the actual configuration.