

**Your WMS Knows Half the Story
We Bring the Full
Picture!**



Search. Spot. Sync. Your Warehouse, Reimagined.

Your WMS is blind. Let VECROS give you full picture!

In an era defined by rapid e-commerce growth and same-day delivery expectations, inventory accuracy is no longer optional – it's mission-critical. Yet most warehouse management systems (WMS) operate with outdated or incomplete data, relying on slow, manual processes to keep tabs on fast-moving stock.

The Reality on the Ground

Warehouse operators today grapple with a perfect storm of challenges: increasing storage density, rising SKUs, limited labor, and mounting pressure for faster fulfillment. But despite advances in warehouse automation, **inventory tracking remains stuck in the past** – dependent on humans walking aisles, climbing ladders, and manually scanning barcodes.

What's Going Wrong?

High-Risk Manual Practices Still Dominate Inventory Audits

- Workers are routinely asked to **climb ladders** or be **raised by forklifts and scissor lifts** to scan and document SKUs stored on high racks.
- These methods are not only inefficient but also **dangerous and unnecessary** in today's automation era.
- While **OSHA regulations** permit such practices, the lifting platforms must be built in compliance with **ANSI/ITSDF B56.1 (USA)** safety standards.
- The real challenge? **Many workers are uncomfortable and reluctant to be lifted to such heights**, especially for prolonged or repeated scanning tasks during cycle counts.



8–12% Inventory Variance in Every Audit

- Manual inventory counting processes often result in **8–12%** inventory inaccuracy. On average, 1 in every 10 items is **miscounted, misplaced, or misrecorded**. These discrepancies contribute to **stockouts, double-picking, and customer claim disputes**, collectively costing businesses estimated **2–10% of annual revenue** through delays, lost sales, and inventory write-offs.

Time-Consuming and Labor-Intensive Cycle Counts

- Traditional audits require staff to walk aisles or operate forklifts to **manually scan barcodes** and reconcile physical inventory with records. This consumes **40–60%** of total operational auditing time and often takes **several days to complete a full-cycle count**, depending on warehouse size. The delay in updating inventory data causes prolonged visibility gaps and elevated operational risk.

30% Rack Space Misreported

- Studies show that nearly **30% of rack locations** marked as “occupied” are actually empty. This leads to **inefficient space utilization, wasted capacity, and flawed slotting strategies** – all of which restrict growth and increase costs.



High-Risk Manual Practices
Still Dominate Inventory Audits



8–12% Inventory Variance
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Time-Consuming and Labor-
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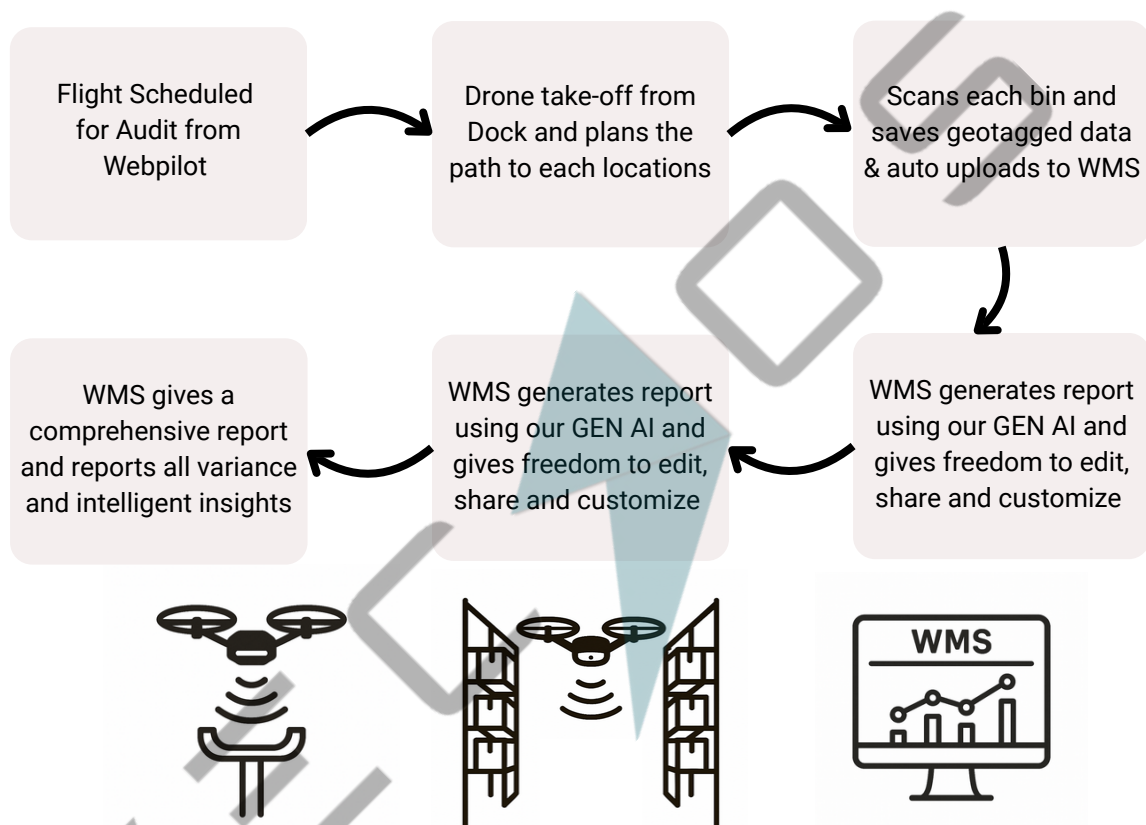


30% Rack Space
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How VECROS Solves It

VECROS addresses warehouse inventory challenges head-on through a powerful combination of **GPS-Denied Autonomous Drones**, **Edge Computing**, **AI-powered Analytics with VECROS WMS**, and a **User-Friendly Dashboard for Fleet Management** - designed to deliver real-time visibility, eliminate blind spots, and drastically reduce the time and cost of audits while completely eliminating the need of pilot for flying these drones!

Workflow



Autonomous Aerial Scanning — From Floor to Ceiling

- VECROS drones autonomously navigate warehouse aisles and racks, capturing inventory data in real-time using **multi-angle camera suite** (patent pending), **proprietary computer vision and AI models**.
- With vertical **reach of up to 12 meters**, they eliminate the need for ladders, scissor lifts, or manual access equipment — **scanning up to 400+ locations per hour**, or over **10,000 in a single 8-hour cycle**.
- They operate continuously, even during regular working hours, **ensuring ongoing inventory monitoring without disrupting operations**.

Real-Time AI Analytics — Errors Detected in Minutes, Not Days

- The system instantly cross-references scanned data against WMS records, **reducing reconciliation cycles from days to minutes**.
- AI algorithms automatically classify discrepancies by severity, allowing managers to focus on high-impact issues first.
- This **cuts manual review time by over 70%**, and has shown to reduce inventory-related errors by up to 90% across deployments.

Centralized Dashboard – Full Facility Visibility at a Glance

- All drone-collected data is unified in a **centralized dashboard in VECROS WMS** where managers can visualize inventory density, stock movement through time, and potential bottlenecks and report them as well.
- The platform generates **automated daily, weekly, and monthly reports**, enabling trend tracking on accuracy, space utilization, and process improvement.
- Seamless **ERP/WMS integration** ensures verified inventory counts are instantly synced with the core systems – **eliminating manual reconciliation and ensuring data integrity across the board with proofs!**

Scalable, Non-Disruptive Deployment

- The system is built to **integrate into live warehouse environments with zero downtime**.
- No need for temporary shutdowns or physical infrastructure changes – VECROS drones are **ready to deploy, scale, and deliver value within days, not months**.

Human-Centric Automation – Amplifying and Empowering People, Not Replacing Them

- VECROS automates up to **85% of routine cycle counting tasks**, freeing staff to focus on fulfillment, quality checks, and customer service.
- The result is **higher job satisfaction, reduced physical strain, and fewer audit-related safety concerns** - all without requiring workforce downsizing.
- This model of **human-drone collaboration** ensures smooth adoption, minimal pushback, and meaningful gains in both safety and productivity.

The Result: Always-On Visibility, Zero Guesswork!

By closing the **visibility gap, automating repetitive work, and catching errors** before they snowball, VECROS solution transforms inventory audits from a **compliance task into a strategic advantage**. **Real-time data, smarter decisions, and empowered teams – that's the difference VECROS makes.**

Tangible Value Delivered by VECROS

Warehouses that adopt the VECROS aerial inventory system report measurable gains across key operational metrics, transforming audits from bottlenecks into business enablers:

Order Fulfillment Accuracy - Real-time stock validation ensures the right items are always picked, packed, and shipped—reducing errors and customer claims.

Capacity Utilization - Drone-based scans reveal underused or falsely marked rack locations, unlocking up to 30% hidden storage potential.

Throughput Efficiency - Fewer delays from inventory mismatches means faster order processing, optimized workflows, and improved SLA adherence.

Labour Productivity - By offloading routine cycle counts to drones, your workforce can focus on higher-value tasks like fulfillment, quality control, and exception handling.

Data Integrity Between WMS and Reality - Most warehouses suffer from a critical mismatch: WMS/ERP inventory records often don't reflect what's actually on the floor. VECROS bridges this gap with real-time, validated data—ensuring operational decisions are always based on facts

Warehouses using the VECROS system have reported:

- **50–70% faster decision-making** through instant access to actionable insights
 - **Up to 90% reduction** in reconciliation time
 - **70% drop** in manual exception verification
-

Benefits of the VECROS Inventory Drone Solution

Implementing VECROS doesn't just fix inventory audits — it delivers **widespread operational and financial benefits** across your warehouse and supply chain.

Reduced Stockouts and Overstocking

Real-time, accurate inventory tracking ensures that reorder points are based on actual stock levels, not outdated or error-prone records. This minimizes lost sales from stockouts and reduces carrying costs from excess inventory buildup.

Increased Efficiency

Autonomous aerial scans dramatically reduce the time, labor, and equipment needed for routine audits. Warehouse operations become faster, safer, and smarter, allowing teams to focus on critical tasks like order fulfillment and exception management.

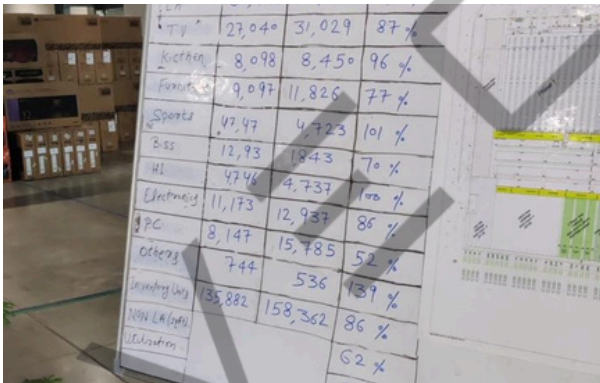
Improved Profitability

Shrinking inventory errors by up to 90% leads to lower fulfillment costs, fewer customer claims, and less revenue leakage. Better capacity utilization and labor optimization translate into direct margin improvements.

Better Supply Chain Management

Accurate, real-time inventory data feeds into your WMS and ERP systems, giving supply chain managers true end-to-end visibility. Faster, fact-based decision-making improves forecasting, replenishment strategies, and supplier negotiations, strengthening the entire value chain.

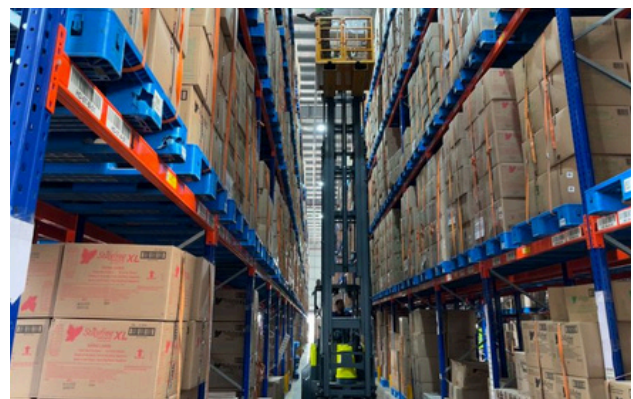
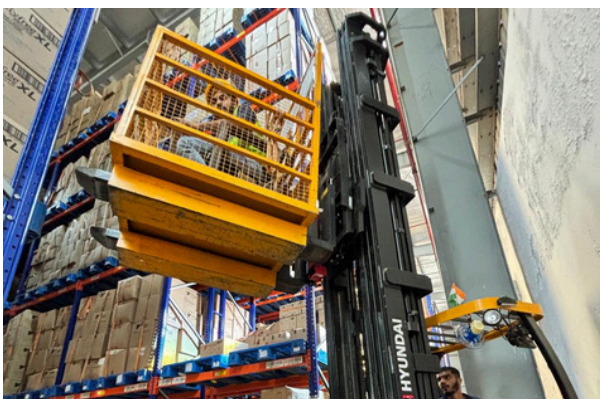
freeing the warehouse from this traditional methods ...



whiteboard contains the empty bin inventory count audited manually



warehouse auditor filling up excel sheet manually for cycle count

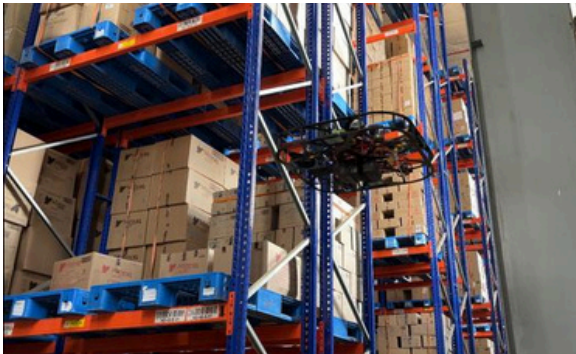


warehouse operator scanning barcode by reaching at height of 7 meter with the help of forklift

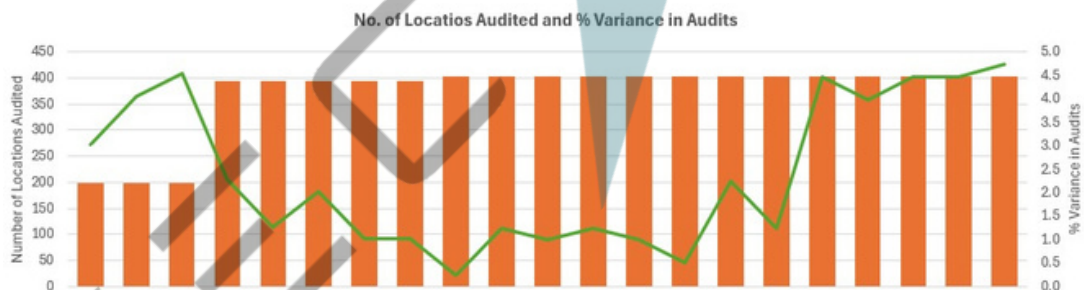
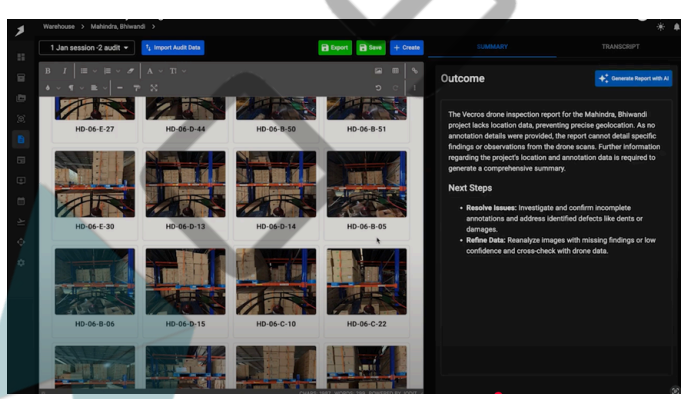
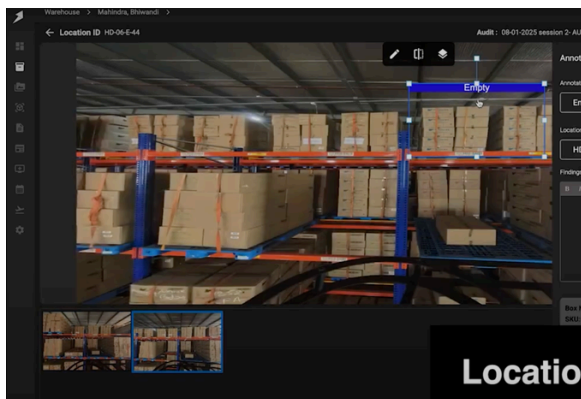
Comprehensive value proposition derived through LIVE deployment

Operations	Traditional Manual Process	VECROS Drone Solution	Benefits and Value proposition
Empty Bin Audit	Manual visual inspection by walking aisles or lifting workers to scan bins. Often delayed, error-prone, and unsafe.	Autonomous aerial scans rapidly identify empty bins across all racks with barcode/RFID verification using cameras	70% time saved on inventory auditing processes. Upto 30% space recovery from misreported "occupied" bins.
Cycle Counts	Workers physically count inventory section-by-section over days or weeks or months	Drones complete 3X-5X more cycle counts per month with continuous automated scanning.	3X increase in monthly cycle counts. 98% audit accuracy. 90% reduction in inventory errors.
Inventory Accuracy Check	Barcode scanning by hand with paper records or handheld scanners; mismatch risks high.	AI-powered real-time matching between scanned data and WMS/ERP records, flagging discrepancies immediately.	98%+ audit accuracy. 70% less manual intervention. 90% faster error detection and resolution.
Audit Documentation	Handwritten or digital notes; photos taken manually if any. Geotagging rare and prone to human error.	Every scan includes automated photo evidence with barcode/RFID data, and geotagged location tagging.	Comprehensive documentation: Photo evidence with each scan. Precise geolocation for every item. Enhanced compliance support.
Labor Allocation	Large teams dedicated to cycle counting and audits, often leading to high costs and inefficiencies.	Reallocate labor to fulfillment, customer service, and value-added tasks	100% cost savings on audit-specific labor. Higher workforce productivity and empowerment

and reinventing the NEW FASTER SAFER ways to audit inventory



Jasper drone flying autonomously in gps-denied warehouse environment



generated by VECROS WMS over days of data for scanned location and percentage variance found in inventory monitoring

Fundamentally Transforming the Way Audits Are Done

VECROS's solution offers a true paradigm shift in warehouse management—transforming slow, error-prone manual audits into a **seamless, real-time, AI-driven ecosystem**. By integrating autonomous aerial scanning, edge computing, and an intelligent centralized dashboard, VECROS delivers dramatic improvements in inventory accuracy, eliminates visibility gaps, and reduces operational downtime — all while significantly lowering labor costs. From large distribution centers moving from quarterly audits to daily, full-facility scans, to labor-constrained operations realizing sharp productivity gains, the real-world impact is clear and measurable. Reduced inventory variance, reclaimed storage capacity, faster reconciliation, and safer operations — these are no longer future aspirations but current realities with VECROS. As warehouses continue to scale and the demand for agile, data-driven supply chains intensifies, the urgency to abandon outdated inventory methods grows stronger.

VECROS empowers decision-makers with a cutting-edge, scalable solution that not only enhances today's operational efficiency but future-proofs warehouses for a fully digital, automated era.

The future of warehouse visibility is no longer a vision—it's here. With VECROS, warehouses don't just keep up with change; they lead it.