Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 67
Average Utilization: 80.4%
Throughput Increase: 34.2%
Labor Cost Reduction: 28.5%
ROI Period: 2.3 years

Warehouse Performance

Warehouse	Location	Capacity Used	Inbound/ Day	Outbound/ Day	Picking Accuracy	Automation Level	Status
Distribution Center A	Chicago, IL	43.3%	2,146	2,464	97.7%	64.8%	Improvement Needed
Distribution Center B	Dallas, TX	96.5%	2,362	2,674	99.0%	92.8%	Optimized
Distribution Center C	Atlanta, GA	63.5%	2,134	2,210	98.6%	81.3%	Optimized
Distribution Center D	Los Angeles, CA	92.3%	2,316	3,515	96.8%	93.6%	Optimized
Distribution Center E	Newark, NJ	67.8%	2,424	2,945	99.2%	69.6%	Improvement Needed

Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement voice-

picking system to improve accuracy to 99.8%

- Upgrade WMS integration for real-time inventory visibility
- Add automated sortation system for small package handling
- Implement predictive analytics for demand-based staffing
- Consider AS/RS system for high-velocity SKUs