Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 27
Average Utilization: 77.8%
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	93.9%	1,023	1,513	97.7%	72.3%	Improvement Needed
Distribution Center B	Dallas, TX	58.3%	1,766	3,762	98.1%	79.4%	Improvement Needed
Distribution Center C	Atlanta, GA	32.4%	2,486	1,883	97.4%	94.4%	Optimized
Distribution Center D	Los Angeles, CA	35.4%	1,210	2,919	95.6%	77.0%	Improvement Needed
Distribution Center E	Newark, NJ	58.3%	2,115	2,387	98.5%	66.1%	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