Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 43
Average Utilization: 87.0%
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	57.0%	1,828	3,943	99.5%	89.6%	Optimized
Distribution Center B	Dallas, TX	90.6%	1,587	2,405	95.2%	88.0%	Optimized
Distribution Center C	Atlanta, GA	64.6%	2,300	2,291	97.6%	90.1%	Optimized
Distribution Center D	Los Angeles, CA	96.5%	2,761	2,984	99.4%	74.0%	Improvement Needed
Distribution Center E	Newark, NJ	39.8%	2,455	2,338	95.3%	93.1%	Optimized

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