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: 84.3%
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	63.6%	2,051	3,098	97.8%	79.9%	Improvement Needed
Distribution Center B	Dallas, TX	44.1%	1,497	3,350	98.3%	87.7%	Optimized
Distribution Center C	Atlanta, GA	47.6%	2,695	3,921	97.1%	89.2%	Optimized
Distribution Center D	Los Angeles, CA	52.0%	1,451	2,324	97.7%	74.4%	Improvement Needed
Distribution Center E	Newark, NJ	46.1%	2,814	2,169	96.7%	90.5%	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