Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 31
Average Utilization: 72.8%
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	126.9%	1,853	2,201	96.6%	80.6%	Optimized
Distribution Center B	Dallas, TX	85.1%	1,062	3,238	97.9%	80.3%	Optimized
Distribution Center C	Atlanta, GA	105.4%	1,859	3,936	95.3%	62.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	72.9%	1,607	3,958	99.4%	60.3%	Improvement Needed
Distribution Center E	Newark, NJ	53.0%	2,344	3,930	99.1%	80.3%	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