Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

Automation Overview

Total Warehouses: 5
Total Robots: 33
Average Utilization: 82.3%
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	71.2%	1,976	1,670	99.2%	61.9%	Improvement Needed
Distribution Center B	Dallas, TX	109.7%	1,891	2,092	97.8%	84.4%	Optimized
Distribution Center C	Atlanta, GA	52.3%	1,745	2,314	95.4%	90.4%	Optimized
Distribution Center D	Los Angeles, CA	48.5%	1,469	3,262	97.8%	88.3%	Optimized
Distribution Center E	Newark, NJ	124.0%	2,415	1,901	96.0%	86.7%	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