

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 39  
Average Utilization: 70.0%  
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	52.0%	1,473	2,323	98.0%	67.1%	Improvement Needed
Distribution Center B	Dallas, TX	53.5%	2,977	3,863	97.3%	63.4%	Improvement Needed
Distribution Center C	Atlanta, GA	59.3%	2,427	2,741	96.5%	88.4%	Optimized
Distribution Center D	Los Angeles, CA	45.3%	1,766	3,423	95.4%	68.0%	Improvement Needed
Distribution Center E	Newark, NJ	34.3%	2,167	3,184	98.2%	63.1%	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