

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 47  
Average Utilization: 70.7%  
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 Status	
Distribution Center A	Chicago, IL	65.3%	2,454	1,729	96.6%	80.4%	Optimized
	Dallas, TX	45.0%	2,952	2,038	97.5%	78.3%	Improvement Needed
Distribution Center B	Atlanta, GA	82.2%	1,504	2,591	96.1%	61.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	50.8%	1,011	2,270	95.9%	60.2%	Improvement Needed
Distribution Center E	Newark, NJ	86.3%	2,184	3,763	96.0%	73.3%	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