

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 66  
Average Utilization: 73.3%  
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	40.4%	1,043	3,146	98.5%	66.0%	Improvement Needed
Distribution Center B	Dallas, TX	45.1%	2,010	3,240	98.0%	79.9%	Improvement Needed
Distribution Center C	Atlanta, GA	48.6%	2,047	3,594	98.8%	80.3%	Optimized
Distribution Center D	Los Angeles, CA	137.7%	2,894	3,804	98.9%	76.9%	Improvement Needed
Distribution Center E	Newark, NJ	67.2%	2,896	3,487	95.9%	63.2%	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