

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 40  
Average Utilization: 73.5%  
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	61.6%	1,215	3,150	96.2%	68.4%	Improvement Needed
Distribution Center B	Dallas, TX	64.8%	2,549	3,508	95.6%	79.1%	Improvement Needed
Distribution Center C	Atlanta, GA	111.5%	1,688	3,534	98.3%	93.3%	Optimized
Distribution Center D	Los Angeles, CA	47.0%	2,291	2,039	98.6%	62.2%	Improvement Needed
Distribution Center E	Newark, NJ	59.3%	1,586	3,466	96.6%	64.4%	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