

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 79  
Average Utilization: 74.1%  
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	104.1%	2,477	1,791	98.8%	68.4%	Improvement Needed
Distribution Center B	Dallas, TX	51.7%	2,527	2,579	95.8%	73.5%	Improvement Needed
Distribution Center C	Atlanta, GA	61.7%	1,815	2,014	99.4%	87.0%	Optimized
Distribution Center D	Los Angeles, CA	49.6%	2,584	2,060	99.0%	76.4%	Improvement Needed
Distribution Center E	Newark, NJ	46.0%	2,909	2,887	98.3%	65.3%	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