

# 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: 72.2%  
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	81.2%	1,147	3,905	98.6%	71.1%	Improvement Needed
Distribution Center B	Dallas, TX	35.7%	1,701	1,909	97.0%	72.1%	Improvement Needed
Distribution Center C	Atlanta, GA	47.0%	2,495	2,069	97.4%	62.6%	Improvement Needed
Distribution Center D	Los Angeles, CA	73.4%	1,134	2,836	98.6%	67.8%	Improvement Needed
Distribution Center E	Newark, NJ	83.0%	1,867	3,222	98.8%	87.1%	Optimized

### 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