

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 41  
Average Utilization: 75.7%  
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 Level	Status
Distribution Center A	Chicago, IL	59.0%	1,688	2,502	95.1%	78.2%	Improvement Needed
Distribution Center B	Dallas, TX	78.3%	2,073	2,007	96.9%	65.4%	Improvement Needed
Distribution Center C	Atlanta, GA	53.3%	2,656	3,189	95.5%	94.2%	Optimized
Distribution Center D	Los Angeles, CA	48.5%	2,029	3,631	99.1%	76.4%	Improvement Needed
Distribution Center E	Newark, NJ	47.7%	1,998	3,829	95.8%	64.3%	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