

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 60  
Average Utilization: 72.3%  
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	55.1%	2,398	1,889	95.3%	67.2%	Improvement Needed
Distribution Center B	Dallas, TX	93.4%	1,175	2,101	98.6%	72.1%	Improvement Needed
Distribution Center C	Atlanta, GA	70.1%	2,157	3,795	96.2%	80.4%	Optimized
Distribution Center D	Los Angeles, CA	110.6%	2,992	1,877	97.6%	75.1%	Improvement Needed
Distribution Center E	Newark, NJ	80.0%	1,082	2,266	96.1%	66.8%	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