

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 38  
Average Utilization: 73.8%  
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	70.7%	2,279	3,128	98.7%	68.3%	Improvement Needed
Distribution Center B	Dallas, TX	87.5%	1,995	2,984	97.8%	76.0%	Improvement Needed
Distribution Center C	Atlanta, GA	64.1%	2,071	2,001	97.5%	71.3%	Improvement Needed
Distribution Center D	Los Angeles, CA	55.2%	2,383	3,769	95.3%	86.0%	Optimized
Distribution Center E	Newark, NJ	53.2%	1,277	2,134	96.9%	67.4%	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