

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 49  
Average Utilization: 74.9%  
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	117.0%	2,438	2,240	95.2%	73.1%	Improvement Needed
Distribution Center B	Dallas, TX	59.1%	2,882	3,626	95.4%	70.6%	Improvement Needed
Distribution Center C	Atlanta, GA	52.9%	2,418	2,642	96.7%	90.9%	Optimized
Distribution Center D	Los Angeles, CA	64.2%	1,741	2,201	95.9%	74.4%	Improvement Needed
Distribution Center E	Newark, NJ	63.9%	2,304	2,351	98.7%	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