

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 52  
Average Utilization: 71.7%  
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	80.6%	2,101	3,943	95.5%	74.7%	Improvement Needed
Distribution Center B	Dallas, TX	69.1%	1,702	3,847	98.5%	66.6%	Improvement Needed
Distribution Center C	Atlanta, GA	82.7%	1,848	1,704	95.8%	81.2%	Optimized
Distribution Center D	Los Angeles, CA	87.8%	2,809	2,161	98.7%	70.1%	Improvement Needed
Distribution Center E	Newark, NJ	50.6%	2,036	2,959	96.4%	66.2%	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