

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 30  
Average Utilization: 74.6%  
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	73.4%	1,367	3,785	98.4%	79.2%	Improvement Needed
Distribution Center B	Dallas, TX	42.9%	2,804	3,234	95.5%	74.9%	Improvement Needed
Distribution Center C	Atlanta, GA	80.6%	2,756	3,373	96.6%	64.5%	Improvement Needed
Distribution Center D	Los Angeles, CA	59.9%	2,592	2,375	97.1%	91.1%	Optimized
Distribution Center E	Newark, NJ	40.3%	2,953	3,256	96.5%	63.5%	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