

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 50  
Average Utilization: 73.4%  
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	61.5%	2,963	3,696	97.9%	66.0%	Improvement Needed
Distribution Center B	Dallas, TX	62.9%	2,608	3,181	95.8%	60.5%	Improvement Needed
Distribution Center C	Atlanta, GA	36.3%	2,923	2,899	97.7%	80.8%	Optimized
Distribution Center D	Los Angeles, CA	83.8%	2,984	3,348	96.5%	87.0%	Optimized
Distribution Center E	Newark, NJ	44.1%	2,813	1,926	95.8%	72.4%	Improvement Needed

### Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement predictive maintenance for all automated systems

ment voice-  
picking  
system to  
improve  
accuracy to  
99.8%

- Upgra  
de WMS  
integration  
for real-time  
inventory  
visibility

- Add au  
tomated  
sortation  
system for  
small  
package  
handling

- Imple  
ment  
predictive  
analytics for  
demand-  
based  
staffing

- Consid  
er AS/RS  
system for  
high-  
velocity  
SKUs