

# Warehouse Automation Analytics

Performance metrics and automation optimization insights

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Use Case: warehouse-automation

## Automation Overview

Total Warehouses: 5  
Total Robots: 57  
Average Utilization: 74.5%  
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     | 90.2%         | 2,976       | 2,133        | 96.9%            | 85.2%            | Optimized          |
|                       | Dallas, TX      | 46.0%         | 2,069       | 2,333        | 96.6%            | 89.7%            | Optimized          |
| Distribution Center B | Atlanta, GA     | 51.8%         | 1,734       | 3,679        | 95.8%            | 65.4%            | Improvement Needed |
| Distribution Center C | Los Angeles, CA | 84.5%         | 1,445       | 1,881        | 97.8%            | 62.1%            | Improvement Needed |
| Distribution Center D | Newark, NJ      | 52.5%         | 2,049       | 3,580        | 95.6%            | 70.3%            | Improvement Needed |

## Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Implement AI-driven inventory tracking in Warehouse 1

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