

# 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: 75.3%  
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     | 102.3%        | 1,125       | 2,850        | 97.5%            | 77.4%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 73.6%         | 1,538       | 3,586        | 98.2%            | 91.0%            | Optimized          |
| Distribution Center C | Atlanta, GA     | 96.8%         | 1,383       | 3,211        | 99.2%            | 67.9%            | Improvement Needed |
| Distribution Center D | Los Angeles, CA | 86.4%         | 2,134       | 3,047        | 95.2%            | 65.7%            | Improvement Needed |
| Distribution Center E | Newark, NJ      | 54.5%         | 2,155       | 3,478        | 95.3%            | 74.7%            | 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