

# Warehouse Automation Analytics

## Performance metrics and automation optimization insights

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Use Case: warehouse-automation

### Automation Overview

Total Warehouses: 5  
Total Robots: 35  
Average Utilization: 72.4%  
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     | 94.0%         | 1,289       | 2,065        | 98.3%            | 65.0%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 72.8%         | 1,373       | 3,075        | 98.4%            | 66.0%            | Improvement Needed |
| Distribution Center C | Atlanta, GA     | 32.1%         | 2,772       | 3,644        | 97.6%            | 83.3%            | Optimized          |
| Distribution Center D | Los Angeles, CA | 54.7%         | 1,015       | 3,592        | 97.2%            | 76.7%            | Improvement Needed |
| Distribution Center E | Newark, NJ      | 68.8%         | 1,965       | 1,950        | 97.9%            | 70.9%            | 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