

# 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: 76.7%  
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     | 40.1%         | 1,933       | 2,022        | 97.4%            | 68.9%            | Improvement Needed |
| Distribution Center B | Dallas, TX      | 53.3%         | 1,015       | 2,066        | 95.6%            | 70.0%            | Improvement Needed |
| Distribution Center C | Atlanta, GA     | 44.5%         | 2,163       | 2,078        | 98.3%            | 87.0%            | Optimized          |
| Distribution Center D | Los Angeles, CA | 69.8%         | 1,564       | 3,181        | 99.1%            | 74.0%            | Improvement Needed |
| Distribution Center E | Newark, NJ      | 54.4%         | 2,650       | 2,871        | 97.4%            | 83.3%            | Optimized          |

### Optimization Opportunities

- Deploy 5 additional AGVs in Warehouse 3 to increase throughput by 20%
- Imple

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