

Back-of-Store Automation for Retail Fulfillment

How Cartesian Kinetics enables small-footprint automation for modern retail and ecommerce fulfillment

The Retail Automation Challenge

Apparel and specialty retailers frequently manage fulfillment from compact back-of-store areas built for dense storage. Low ceilings, narrow aisles, and active daily operations leave little room for disruption. As ecommerce order volume grows and labor pressure increases, many automation solutions remain impractical, requiring floor prep, rack replacement, or construction that operating retail facilities cannot accommodate.

The Carte+ Solution by Cartesian Kinetics

Omni Rack Robotics for constrained back-of-store spaces



Back-of-Store Ready

Purpose-built for dense picking in space-constrained retail operations.



No Floor Prep

No floor traffic, no new concrete work, and no heavy construction.



Low-Touch Integration

Connects to existing WMS or OMS with minimal configuration and no operational disruption.



Built for Low Ceilings

Operates in spaces with ceilings as low as 8 feet.



Retail Ecommerce Ready

Optimized for high-velocity, piece-pick order profiles.



Small, Scalable Footprint

Deploy one aisle at a time and expand as volume grows.

Case Study Performance

Deployed in an active retail back-of-store environment with 8-ft ceilings, zero floor prep, zero rack replacement, and no operational downtime.

2,100

SKUs supported

16

Robots deployed

4,410 sq ft

System footprint

1,100 units/hr

Throughput

1–2 Operators

Per shift

85%

Manual labor reduction

65%

Projected annual cost savings

~1.5 Years

ROI achieved

Why It Matters

Back-of-store environments have long limited where automation could operate. Carte+ removes those constraints. Retailers can automate existing layouts, support ecommerce fulfillment, and scale within a small footprint. Automation becomes practical without rebuilding the facility.

Ready to Automate Your Back-of-Store Operation?

See how Carte+ brings high-throughput automation to your retail operation.

[Evaluate Back-of-Store Automation](#)