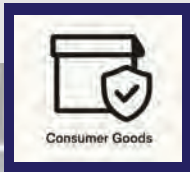




Food and Beverage



Consumer Goods



Warehouse



Apparel



Electronics

Transforming Retail-Ready Palletizing

A flexible, scalable pallet display assembly system designed to reduce costs, streamline operations, and future-proof your end-of-aisle retail strategies.

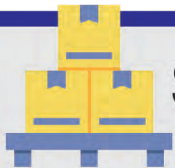


Powered by

MOTION CONTROLS
ROBOTICS

Challenges Solved by MCRI's Automated Palletizing System

- **Labor Optimization:** Eliminates manual stacking, improving safety and efficiency.
- **Retail Compliance:** Builds consistent, stable, and store-ready pallet configurations.
- **Inventory Accuracy:** Integrated barcode scanning ensures SKU verification.
- **Scalability:** Customizable system to adapt to high and low production volumes.
- **Flexibility:** Creating multiple pallet configurations with SKUs in the MSRS (Manual Storage & Retrieval System).



Solution Overview

This automated system begins at the MSRS area (20+ lanes), where pallets of product are staged, operators load lanes with a unique SKU.

Overhead Impact IQ Dashboards designate product information and have visuals for operators so they know the proper lane for the case.

Once the pallet build is complete, stacks exit to the finishing & branding area where operators apply signage and specialty dunnage.

Pallets move to the automatic banding system, which secures each with one or two bands.

Now off to the transport pallet building station where all the quarter and half pallets are loaded onto a full transport pallet.

The sortation loop feeds two case pick areas, allowing one lane to build the current layer while the other preps the next, speeding up cycle time. Both pallet building stations are continuously building $\frac{1}{4}$, $\frac{1}{2}$ or full-size pallets with up to 20 different SKUs per pallet.

The completed transport pallets are sent to the stretch wrapper before heading out for delivery to retail locations.

Retail Store Pallet Requirements

Retail chains require specific pallet configurations to meet stocking and transportation requirements. MCRI's system ensures compliance with:

Quarter Pallets – Ideal for end cap displays for dollar or convenience stores, allowing four pallet builds per full pallet.

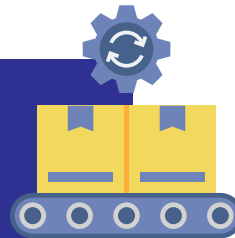
Half Pallets – Used in center aisles or promotional spaces, balancing brand visibility with space efficiency.

Full Pallets – Perfect for membership and warehouse stores.



To keep shelves stocked and shoppers engaged, you need stable, organized, and display-ready pallets. Motion Controls Robotics' End Cap Display Assembly System eliminates the complexity of manual palletizing by automating the creation of quarter-, half-, and full-size pallet loads. Designed for flexibility and speed, the system helps you meet retailer compliance standards while delivering visually appealing, shelf-ready presentations—streamlining operations without sacrificing presentation quality.

System Highlights



- Configurable SKU lanes that automatically scan bar codes to prevent loading of the wrong SKU.
- Sortation loop with dual case-pick areas and capacity for surge rates
- Multi robot palletizing cells (palletizing + dunnage handling)
- Quick-change EOAT for various case types: **RSC, open top, display-ready cases, trays, and plastic bins**
- Continuous build with no downtime during dunnage replenishment
- Real-time Impact IQ dashboard for up to 20 SKUs with tracking and operator guidance



Featuring FANUC Robots - The Strength Behind Every Stack

At Motion Controls Robotics, we exclusively integrate FANUC robots—recognized globally for their unmatched reliability, longevity, and performance. As one of the most trusted names in industrial robotics, FANUC ensures our systems deliver consistent, high-quality results for years to come. This End Cap Display Assembly System features FANUC robots at its core, providing the precision and durability required for high-demand palletizing operations.



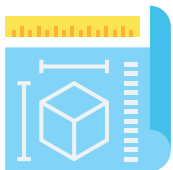
The Golden Yellow Standard in Robotics

MCRI's Advanced Robotic Palletizing System

Our system includes five, high-performance robots working in together:

- **2 Palletizing Robots:** Stack quarter-pallet, half-pallet, and full pallet formats using quick-change end-of-arm tooling.
- **2 Dunnage-Handling Robots:** Automate pallet, tier sheet, and other dunnage placement.
- **1 Unitizing Robot:** Picks and places quarter and half-pallets onto full pallets, prepping them for shipping.

From RSC to Bins—We've Got It Covered



The system is designed to handle a wide variety of case types, including RSC, open top, display-ready cases, trays, and plastic bins—ensuring flexibility for diverse packaging needs.

Specification	Details
Weight Range	2 to 50 pounds
Size Range	9" x 11" to 20" x 24"
Throughput	24 - 40 cases per minute

Intuitive HMI for Fast Pallet Configuration

Setting up pallet builds is simple—just input your product dimensions, select the SKUs to be included, and the system handles the rest. The user-friendly HMI interface can also be customized to match your existing color schemes and product codes for seamless integration.

Customer Testimonial

"This system gives us the flexibility to adapt to changing demands while future-proofing our palletizing process with consistent, automated performance."

