

Autonomous Retail Is Smart, Efficient, And Profitable



Structural Concepts is the only refrigerated manufacturer to design and manufacture a **complete smart solution** for autonomous shopping—now available in two purpose-built configurations: ARM XL for high-volume environments and ARM SLIM for compact spaces.

By offsetting labor challenges, offering flexible refrigerated or dry merchandising formats, enabling cashier-less transactions, and streamlining inventory management, the ARM platform delivers a seamless, efficient solution designed for fast payback and increased profitability.



Autonomous Retail Merchandising Explained

ARMXL

ARMSLIM

A Fully Automated Experience for Consumers and Operators

Automated Checkout allows shoppers to browse products directly on the shelf, have their selections automatically added to the cart, and pay with credit/debit and mobile payment for faster transactions.

For the operator, the autonomous solution tracks inventory and requires less labor, resulting in increased productivity.

ARM Platform – Shared Intelligence

- Operates seamlessly in remote locations.
- Safe and secure cashier-less transactions.
- Simplest and lowest flat fee structures.
- Easy integration with existing payment systems.
- Accepts most methods of payment.
- Lowest overall operating costs.
- Includes SCC's hallmark industrial design and features.

Available in two sizes: ARMXL or ARMSLIM



ARMXL

Holds 23% more product than other models; fewer and easier restocks.



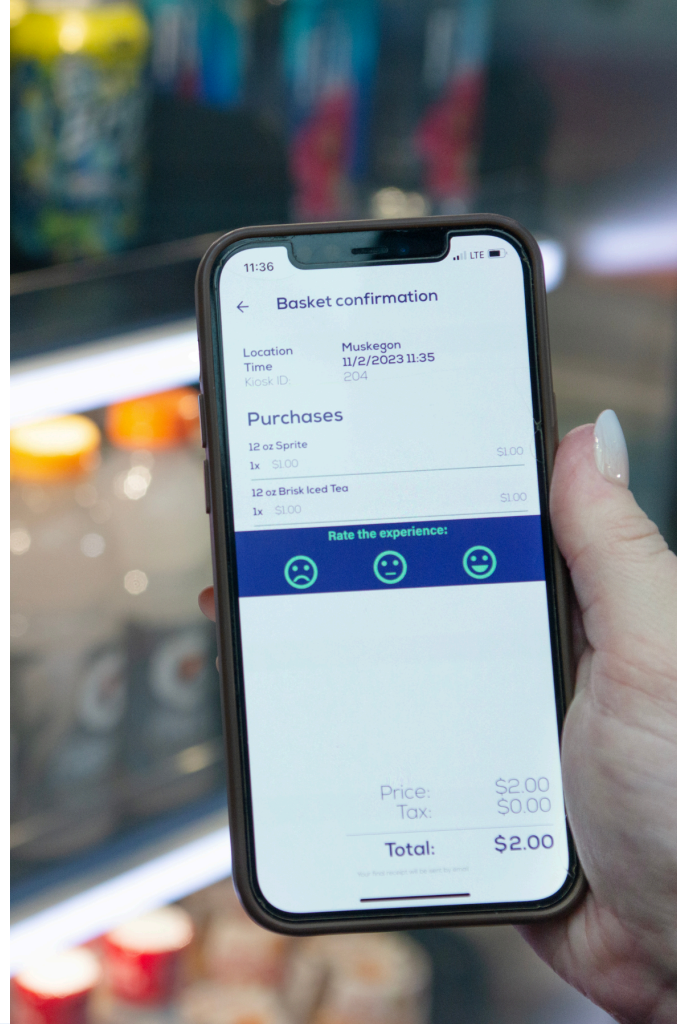
ARMSLIM

Compact footprint designed for space-constrained environments like corridors, lounges, and smaller locations

A Simple Working Process

1. The consumer presents a payment method.
2. Once the payment method is authorized, the door unlocks, and the consumer is free to take the desired items off the various shelves.
3. When satisfied with their selections, the consumer closes the door, and the door instantly locks.
4. If the consumer is done shopping, they can either tap the "Pay" button on the tablet screen or just walk away.

Market circumstances may dictate the best experience for the consumer. For instance, a healthcare or B&I environment may require a longer delay to finalize a "walk-away" than a College/University based on security or maturity of the customers. This and other parameters can be set up by the operator for each merchandiser.



A Closer Look at ARM

1 Security Camera

Directed down to only capture hand making selections; used only to settle disputes.

2 Load Cell Trays

Operator programs food in each tray via the App; weight tells systems what's been selected.

3 R290 Refrigeration System

Slide-out pan, variable speed compressor, and an on board condensate pan.

4 Interactive LED Shelf Lights

Identifies tray that product was selected from & turns red when wrong product is put in a tray.



ARMXL

ARMSLIM

5 Ordering Table Cart/Screen

67% of consumers highlight that contactless experiences are important because they're easy to use.

6 Credit Card Terminal

A majority of those who say that contactless experiences are important say its because they're quick (59%).

7 Electronics Box (E-Box)

65% of consumers said privacy was a heightened concern, and they prefer an anonymous/privacy-protected shopping experience.



The Structural Concepts Autonomous Retail Merchandiser is an Ideal Solution for All Fresh Food Selling Environments



Education

Modern students want access to food outside of traditional mealtimes as well as during normal operating hours, while campus dining foodservice operators are striving to strike a balance between efficiency, self-service, reducing labor, and other needs.

38% of college students want dining options open **24/7**.
McKinsey

Businesses & Institutions

With cost-effectiveness a growing concern, some in-house food service providers and large office cafeterias are too expensive to maintain, especially when employees have embraced more flexible work models. An autonomous store placed within a shared office space, such as a lobby, allows businesses to cater to busy workers with limited time on their hands while optimizing sales during rush hours.



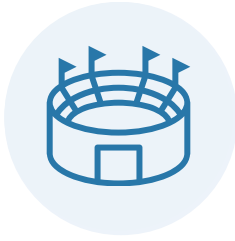
Less than **30%** of companies offer an on-site, formal cafeteria
SHRM



Healthcare

Autonomous stores offering 24/7 convenience can support many other healthcare foodservice operations including those of the staff during after-hours when formal dining facilities are not open.

71% of operators indicate that they are likely to invest in replacing equipment, and **68%** said they are likely to invest in technology within the next 24 months.
AHF State of the Industry Report

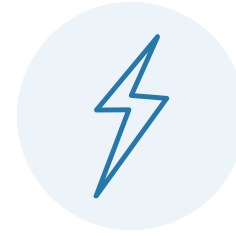


Travel & Entertainment

Autonomous stores ensure travelers can quickly get the items they need and get back to their travel adventures in minutes— sometimes even seconds.



Contactless options in the hospitality segment popularized by the pandemic will continue to be in-demand for the foreseeable future.



EV Charging

As the EV market has expanded, so have consumer expectations, giving rise to luxury EV charging stations. This shift is propelled by a growing segment of EV owners who are seeking more than just utility by craving comfort and luxury. An autonomous store is an ideal fit for the burgeoning market for innovative charging experiences.

Source: Pew Research



64%

of Americans live within 2 miles of a public charging station, and those who live closest to chargers view EVs more positively.

There are over 61,000 publicly accessible electric vehicle charging stations in the United States.



Convention Centers & Meeting Venues

Locations hosting business networking conferences or cultural events can greatly benefit from implementing an autonomous store.



Attendees can **quickly grab the food and drink** they need for lunch and get back to their business endeavors or favorite exhibition.

Source: AiFi, *How Autonomous Store Solutions are Transforming Industries for the Better*



Increase Profitability by Lowering Your Total Cost of Ownership with the Autonomous Retail Merchandiser

Total Cost of Ownership (TCO) Defined

In 2006, NAFEM'S Life Cycle Steering Committee aimed to accomplish this task by developing an Equipment Life Cycle Cost formula and make the results available to those in the industry most affected by TCO.

The association defines TCO, or life cycle cost analysis, as "a method of calculating the cost of ownership of a piece of equipment over its entire useful lifespan." These costs include the following operating costs and life cycle elements.

Operating Costs

- Education & Training
- Preventative Maintenance
- Cost of Procurement & Disposal of Consumables
- Disposal
- Food product loss
- Incremental labor to refill due to product loss
- Fees (Food Tech)

Life Cycle Elements

- Equipment Costs
- Purchase Price
- Freight
- Installation & Startup
- Energy Consumption
- Parts & Labor for Repairs

In Tests Conducted with the Competition, Structural Concepts Outperformed All Models in Key Areas

- 

Energy
40% lower
- 

Fees
54% lower
- 

Labor Costs
85% lower
- 

Capacity
23% higher
(ARM XL)
- 

Profitability
30% higher

Expand Your Product Inventory

Experience Unmatched Flexibility and Efficiency with Our Satellite Display Cases to Create the Perfect Autonomous Combination Solution

A versatile addition to your retail setup, allowing operators to **expand their merchandise offerings without incurring additional payment terminal fees.**

This satellite case seamlessly pairs with Refrigerated or Dry primary units, offering flexibility and convenience while **maximizing revenue potential and increased profitability.**



Available Configurations

- 1 Refrigerated/Refrigerated**
Keep your products chilled to perfection.
- 2 Refrigerated/Dry**
The perfect blend of freshness and convenience.
- 3 Dry/Dry**
Versatile options for any merchandise.

Advanced Technology That Powers ARM



Load Cell Technology

The ARM uses integrated load cell trays to accurately track product selection based on weight. Operators assign items digitally, allowing the system to identify what is removed or returned. LED shelf lighting visually confirms interactions and highlights discrepancies, ensuring accurate transactions and simplified restocking.



Inventory Management

Track inventory levels, product movement, and sales performance through a centralized platform. ARM provides real-time insights that allow operators to optimize assortment, reduce out-of-stocks, and make data-driven merchandising decisions across locations.



Security Systems

Advanced sensing, transaction validation, and access controls work together to ensure accurate purchases and prevent theft. Each interaction is tracked and verified, providing a secure and dependable autonomous retail experience.

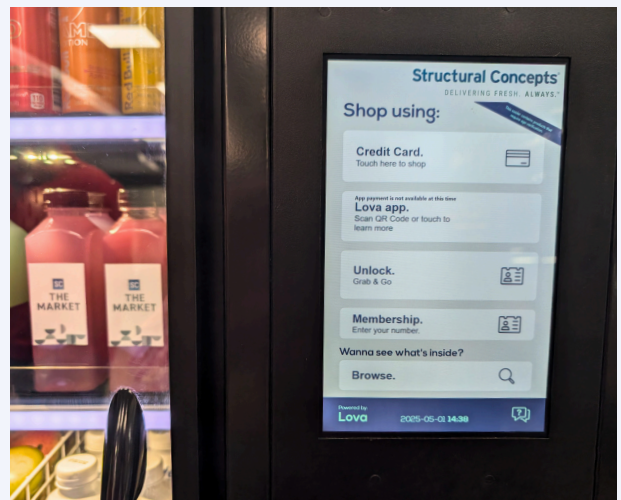
Flexible Operation: Autonomous or Traditional

ARM can operate as a fully autonomous, cashier-less retail solution or as a traditional cooler—giving operators the **flexibility to adapt to changing environments and operational needs**. In autonomous mode, customers enjoy a secure, frictionless shopping experience. In basic cooler mode, the unit functions as a conventional merchandiser, allowing products to be removed and purchased at a staffed checkout.

Operators can switch between modes instantly through the control interface—making it easy to adjust based on traffic patterns, staffing levels, or location requirements.

How it Works

- 1 Change the mode setting of the ARM from the kiosk using the operator's login.
- 2 Immediately change the mode setting (activate/cashier-less or deactivate/basic cooler) on the kiosk without having to preprogram a setting/time/day.
- 3 When the cashier-less mode is activated, the kiosk will only show a start screen.



Payment Options for the Autonomous Retail Merchandiser

Flexible, Secure, and Streamlined Access for Every Environment

ARM supports a wide range of payment methods and access options—including credit/debit, mobile, and credential-based solutions like employee and corporate IDs—providing flexible, secure access and seamless transactions across both open and controlled environments.



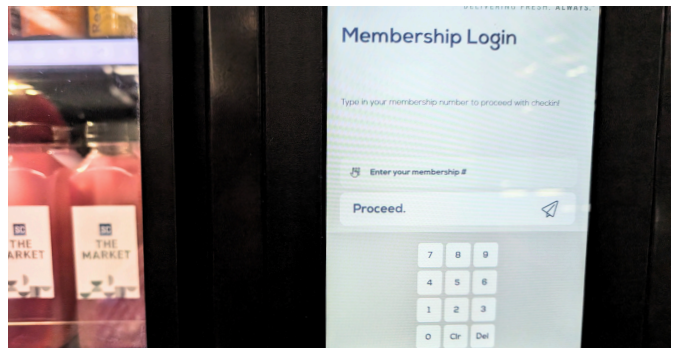
FOB Scanner

Supports secure, contactless transactions using key fobs—ideal for workplace settings or restricted-access locations.



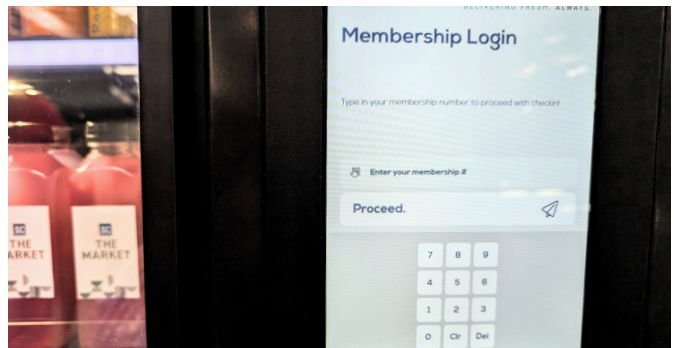
Barcode Scanner

Enables quick and seamless purchases with barcode-based IDs or internal credentials—perfect for streamlined user experiences in high-traffic areas.



Membership Function

Supports customizable membership access, allowing operators to control entry, track usage, and simplify billing across user groups.



Accept payment via corporate or employee identification



Use a scanner alongside or instead of a traditional payment terminal



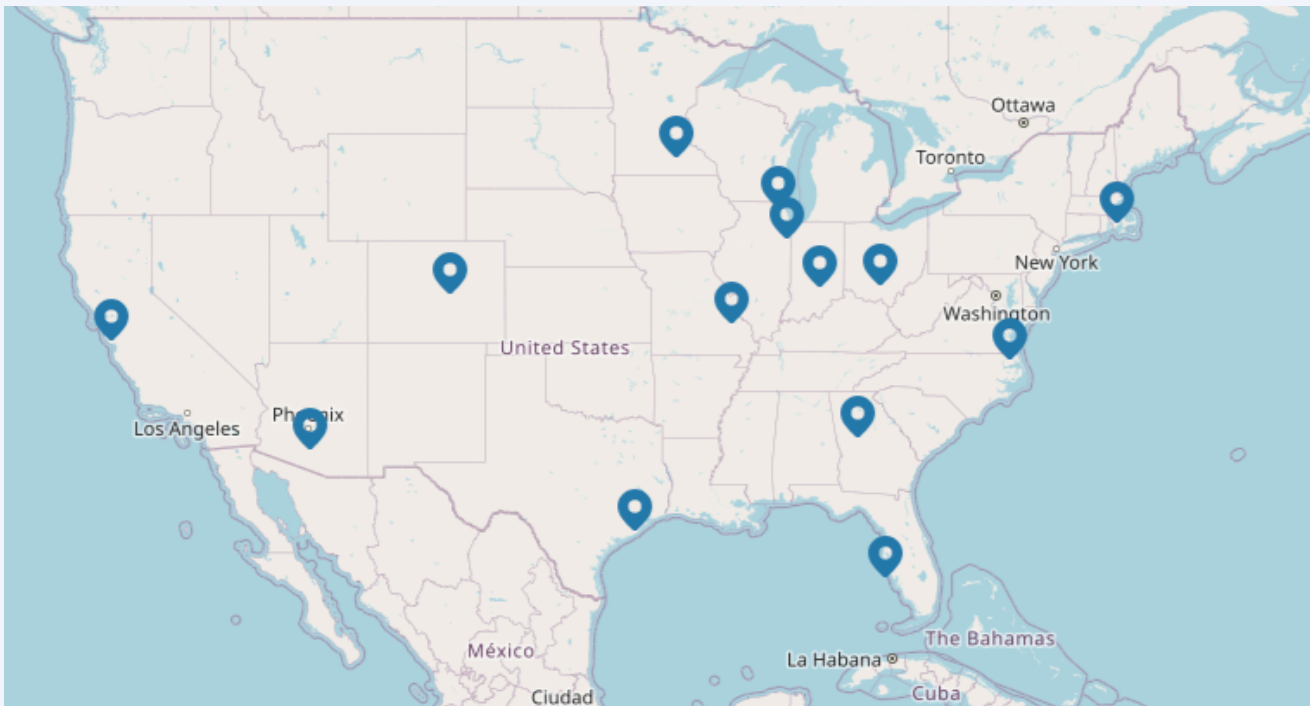
Enable closed-loop access and purchases



Support fast, contactless checkout in any environment

See the ARM Up Close in Your Market

Go to structuralconcepts.com/find-an-arm-unit to locate a Structural Concepts sales office in your market that has an Autonomous Retail Merchandiser in their showroom. Contact that office and arrange for an appointment for a live demonstration today!



What the Industry is Saying About the ARM



Kitchen Innovations 2023 Award

A featured recipient of the 2023 Kitchen Innovations (KI) Award celebrating the back of the house innovations that improve operations and generate growth through advances in automation, sustainability, efficiency, space saving and more.



2024 FCSI's Product of the Year Award

The Autonomous Retail Merchandiser (ARM) received the Product of the Year Award from the Foodservice Consultants Society International (FCSI) as part of their 2024 innovation Showcase. FCSI is one of the most respected, professional organizations offering design and management consulting services, specialized in the foodservice and hospitality industry, across the world.



National Retail Federation 2024 North America VIP Award Finalist

The ARM was recognized by NRF for Best Commerce/Multi-Vendor Platform Award. Structural Concepts was the only manufacturer considered for this prestigious honor as the other finalists included technology and software solution providers.



2024 Readers' Choice New Products of the Year Awards

The ARM is a nominee for the 2024 Readers' Choice New Products of the Year Awards through Vending Market Watch.

Payment Terminal Options

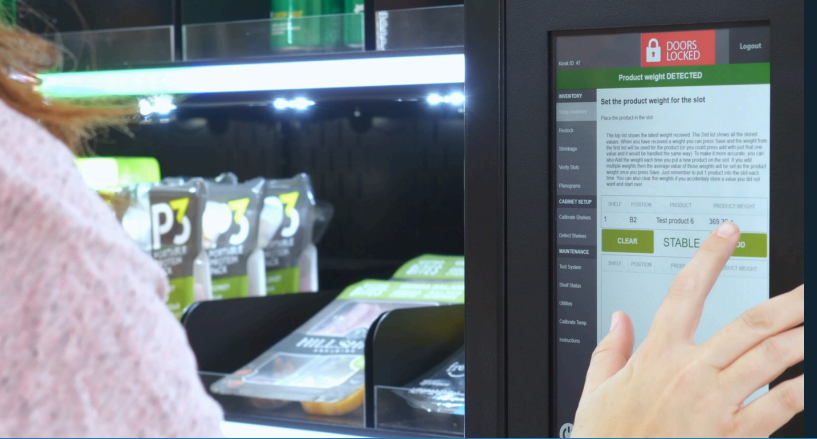
	Nayax (standard)	Cantaloupe	Payter	Castles
Service Type	Nayax holds MID ¹	Cantaloupe holds MID ¹	Bring your own MID ¹	Bring your own MID ¹
Available Acquirers	Chase Adyen Heartland	Fiserv	Fiserv	Apriva (Chase, TSYS)
Closed Loop Integration	CBORD Atrium MMHayes OneCard Transact itc Systems Military Star	Transact Blackboard CBORD Atrium SpotOn Touchnet itc Systems	N/A	Transact Blackboard CBORD Atrium SpotOn Touchnet itc Systems
Software License Fee	\$100 per month	\$100 per month	\$100 per month	\$100 per month
Transaction Fee	2.9% + .25 swipe fee (includes Interchange fee)	5.95% (includes Interchange Fee)	N/A	\$0.05 per transaction
Closed Loop Fee	Between operator and closed loop provider	Between operator and closed loop provider	N/A	Between operator and closed loop provider
Payment Terminal Fee	\$15 per month	\$9.95 per month	\$15 per month	\$15 per month
Interchange Fee	N/A	N/A	Depending on your acquiring bank	Depending on your acquiring bank
Cellular Fee²	T-Mobile = \$10 per month ²	T-Mobile = \$10 per month ²	T-Mobile = \$10 per month ²	T-Mobile = \$10 per month ²

¹ MID = Merchant of Record

² Operator can use their own SIM card if they have a corporate cellular plan

Ways to connect in preferred order:

1. Ethernet (Hardwired to network)
2. Cellular Signal



Stay Relevant in Today's Foodservice Marketplace

74% of small and mid-sized businesses expect their customers will continue to prefer contactless payments as much as or more than they do currently.

66% believe that automation can improve their shopping experience inclusive of the increasing need for food safety and product consistency.

To combat the increased complexity caused by the labor shortage, **72%** of retailers/sellers of fresh food are using, or planning to use, automation to decrease their team's time on hands-on work.

Source: McKinsey



While Improving the Overall Shopper Experience

Increased Speed and Accuracy of Transactions

Ease of Use

Consumers were twice as likely to choose ease of use (50%) as the most important aspect of contactless experiences over the next option (data security, at 25%).

Creates Familiarity

When compared to locations that offer little to no automation, automated stores experienced an 11% sales lift among shoppers, as well as an 11% increase in trip frequency.

Provide a Level of Comfortability

Alleviates shopper concerns by ensuring greater food safety and product consistency.



LEARN MORE
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