

## 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.

Offsetting labor challenges, an appealing refrigerated or ambient merchandising format with increased capacity, a cashier-less transactional system, and the ability to streamline inventory management, this single solution provides a quick payback turning into increased profitability.











# Autonomous Retail Merchandising Explained

## 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 Features

-  Operates seamlessly in remote locations.
-  Safe and secure cashier-less transactions.
-  Holds 23% more product than other models; fewer and easier restocks.
-  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.

### For the Operator

- ✓ Location flexibility; seamlessly expand footprint throughout food deserts.
- ✓ Manage and track inventory more accurately; real-time insights.
- ✓ Sell more - waste less.
- ✓ Reduce labor - redirect tasks.
- ✓ Enhanced security - reduce theft.

### For the End-User

-  Convenient shopper experience; Available 24/7.
-  Simplified user interface.
-  Fully secured, accurate transactions.
-  Ensures greater food safety.
-  Easy to use; Creates familiarity.



## 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*



### 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*



### 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*



## 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.

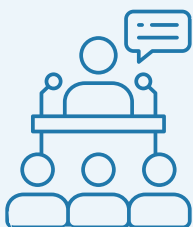
*Source: Pew Research*



**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.



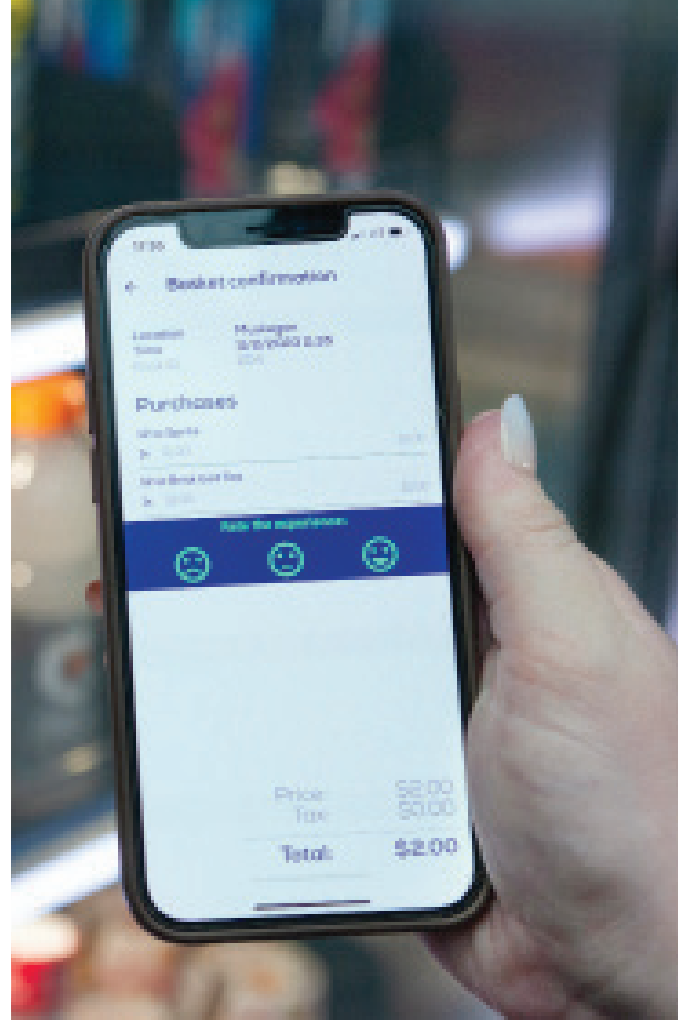
Attendees can **quickly grab the food and drink** they need for lunch and get back to their business endeavors or favorite exhibition.

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

# 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.



### 5 Ordering Table Cart/Screen

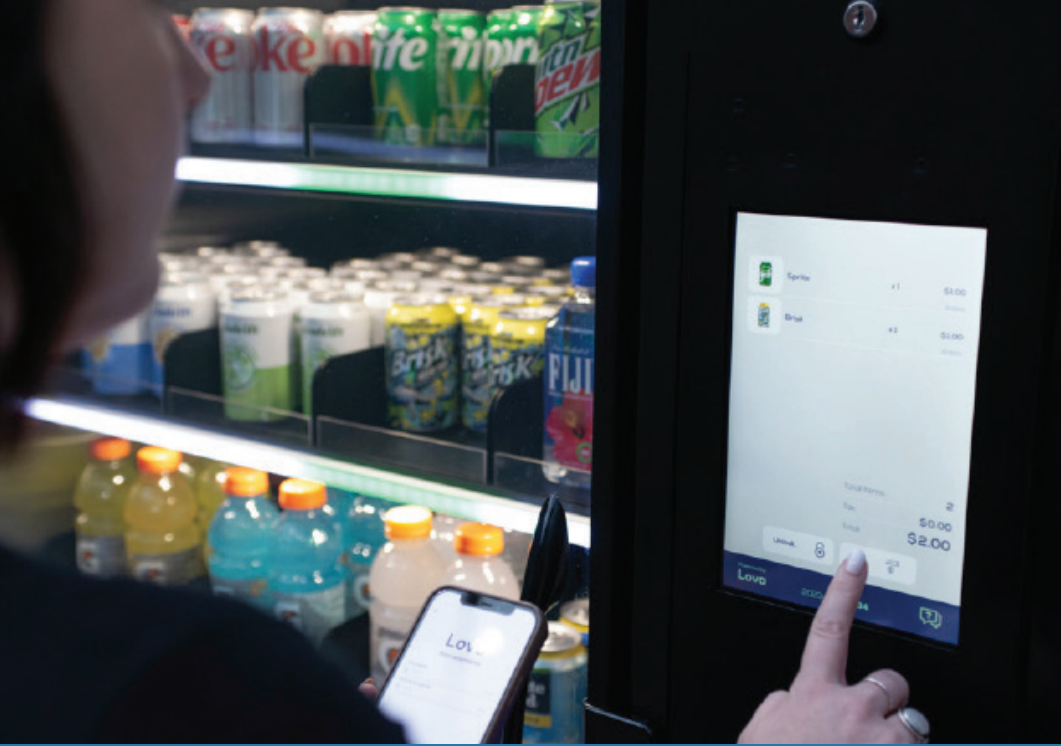
67% of consumers highlight that contactless experiences are important because they're easy to use.

### 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.



# 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



**Profitability**

30% higher

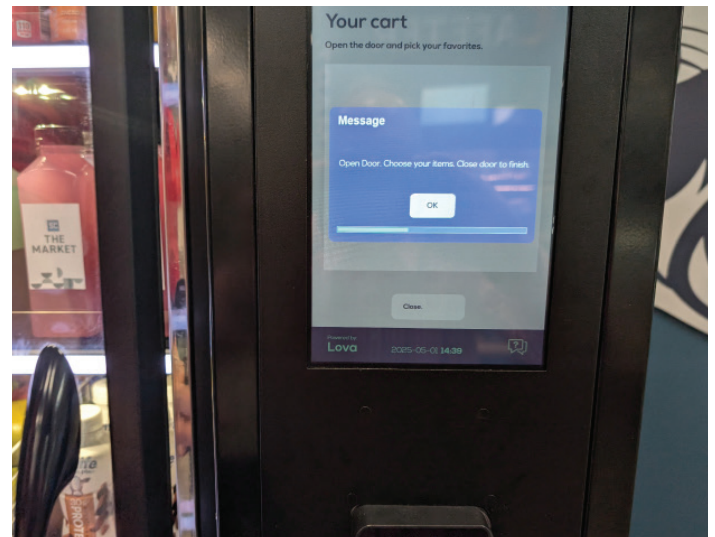
## Now You Can Run the ARM Both Ways

The ARM now has the ability to transition from a cashier-less system allowing shoppers to pay with credit/debit, mobile payments, or other forms of IDs for faster transactions to one of a utility open cooler where fresh food and chilled beverages can be manually taken out and purchased at the checkout counter.

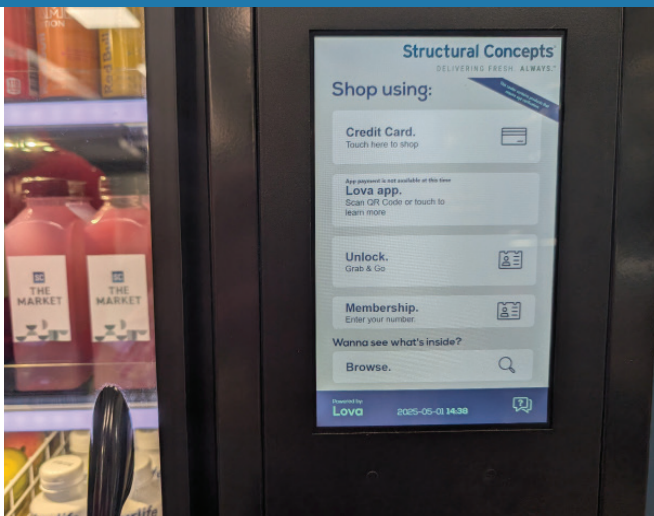
Depending on the situation, an active ARM can offset labor and operational challenges with a cashier-less transactional system; in an inactive state, the ARM can simply act as any other merchandiser, holding 23% more inventory than any other models, where products are taken off shelves and purchased manually.

### 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.



### ARM Membership Function



In addition to using a cashier-less system allowing shoppers to pay with credit/debit, mobile payments, or other forms of IDs for faster transactions, the ARM can now be programmed by type of membership account, meaning that preselected individuals or groups can access fresh food, chilled beverages, or non-food products by simply logging in with their member account number.

This is a perfect application for country clubs, health club facilities, and any other organization who want to sell more merchandise in a quick and efficient way, accessible 24/7 in remote locations, while still having the ability to track individual usage to bill its members.

### How the ARM Membership Works



- 1 Push the Membership Screen Button.



- 2 Enter Your Membership Number or Scan Your Membership Card.



- 3 Continue to Shop Following the Prompts.

# Scanner Payment Options for the Autonomous Retail Merchandiser

## Flexible, Secure, and Streamlined Access for Every Environment

We're expanding the capabilities of the ARM with new scanner-based payment options—offering greater flexibility for both open and closed environments. Whether you're leveraging employee credentials, corporate IDs, or traditional payment methods, ARM will soon support more ways to access and pay.

### 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.



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](https://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!

## Find an ARM Unit

Search by state or name

### Massachusetts

#### E3 Commercial Kitchen Solutions

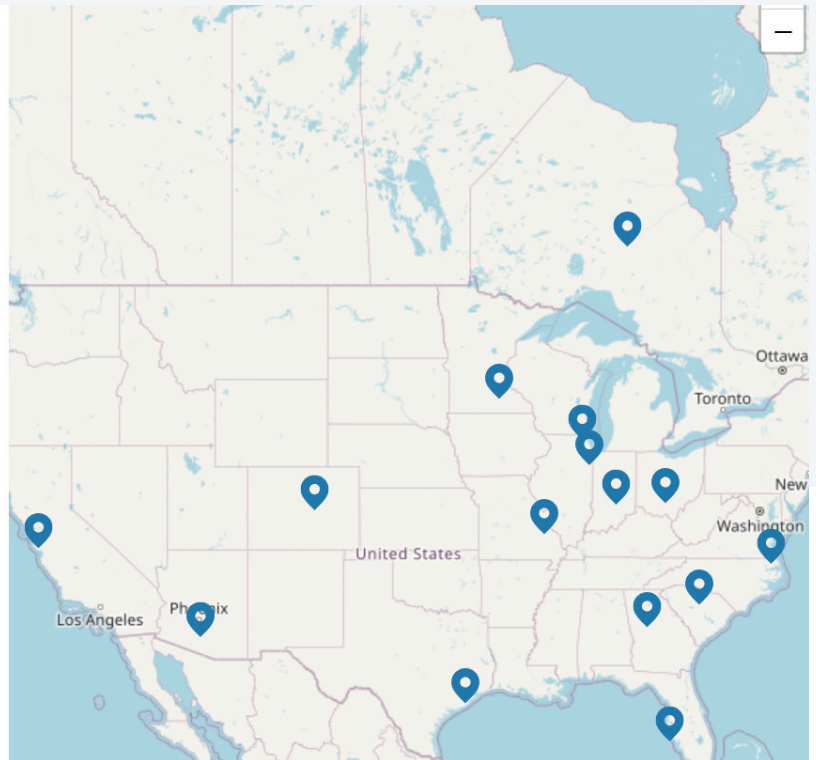
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island & Vermont

Contact Sales Rep 781-257-2871

### Canada

#### The Solution Foodservice Group

Quebec, Ontario, Manitoba, Saskatchewan, Maritimes



## 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-Vender 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.

# 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 either Refrigerated or Ambient 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/Ambient

The perfect blend of freshness and convenience.

3

### Ambient/Ambient

Versatile options for any merchandise.

# Payment Options

## Payment Terminals

## Gateway Providers

	Cantaloupe	Payter	Castles	Adyen - Castles (Enterprise Level Only)	Elavon - Payter	FreedomPay <sup>4</sup>
<b>Service Type</b>	Cantaloupe holds the MID <sup>1</sup>	Bring your own MID <sup>1</sup>	Bring your own MID <sup>1</sup>	Bring your own MID <sup>1</sup>	Bring your own MID <sup>1</sup>	Bring your own MID <sup>1</sup>
<b>Available Acquirers</b>	Fiserv	Fiserv	Apriva (chase, TSYS)	Adyen	Elavon	WorldPay Chase Elavon TSYS FiServ and more..
<b>Closed Loop Integration</b>	Transact Blackboard CBORD Atrium SpotOn Touchnet itc Systems	N/A	Transact Blackboard CBORD Atrium SpotOn Touchnet itc Systems	N/A	N/A	Transact Blackboard CBORD Atrium SpotOn Touchnet and more...
<b>License Fee</b>	4.9% of Revenue <b>OR</b> \$100 per month	4.9% of Revenue <b>OR</b> \$100 per month	4.9% of Revenue <b>OR</b> \$100 per month	4.9% of Revenue <b>OR</b> \$100 per month	4.9% of Revenue <b>OR</b> \$100 per month	4.9% of Revenue <b>OR</b> \$100 per month
<b>Transaction Fee</b>	5.95% (includes Interchange Fee)	N/A	\$0.05 per transaction	\$0.05 per transaction	N/A	Case by case
<b>Closed Loop Fee</b>	Between operator and closed loop provider	N/A	Between operator and closed loop provider	Between operator and closed loop provider	N/A	Case by case
<b>Payment Terminal Fee</b>	\$9.95 per month	\$15 per month	\$15 per month	\$15 per month	\$15 per month	Case by case
<b>Interchange Fee</b>	N/A	Depending on your acquiring bank	Depending on your acquiring bank	Depending on your acquiring bank	Depending on your acquiring bank	Depending on your acquiring bank
<b>Cellular Fee<sup>2</sup></b>	T-Mobile = \$10 per month <sup>3</sup>	T-Mobile = \$10 per month <sup>3</sup>	T-Mobile = \$10 per month <sup>3</sup>	T-Mobile = \$10 per month <sup>3</sup>	T-Mobile = \$10 per month <sup>3</sup>	T-Mobile = \$10 per month <sup>3</sup>

<sup>1</sup> MID = Merchant of Record

<sup>2</sup> Optional Fee for internet connectivity  
Ways to connect in preferred order:  
1. Ethernet (Hardwired to network)  
2. Cellular Signal

<sup>3</sup> Operator can use their own SIM card if they have a corporate cellular plan

<sup>4</sup> The actual extent of what FreedomPay can offer will be answered on a case-by-case basis



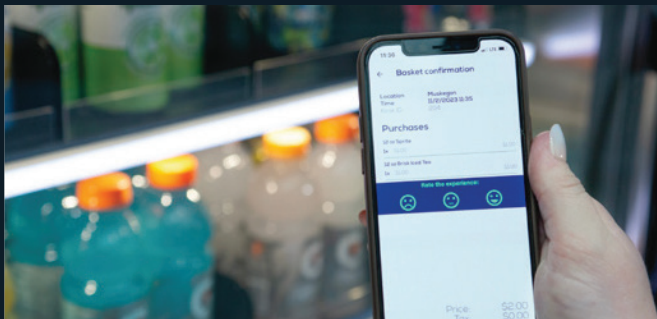
# Stay Relevant in Today's Foodservice Marketplace

**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

[structuralconcepts.com/arm](https://structuralconcepts.com/arm)  
[product.info@structuralconcepts.com](mailto:product.info@structuralconcepts.com)

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