



Introducing LB AR/RS



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ONLINE OR IN MIDTOWN, NYC

Openshelf's LB AR/RS is a modular robotics platform that automates the storage and tracking of physical inventory, helping teams replace repetitive manual handling with a more efficient, connected workflow. Built as a fully open-source hardware and software system, LB AR/RS is designed for flexibility, giving organizations a practical way to modernize inventory operations while maintaining visibility, control, and adaptability as needs evolve.

→ **Versatile Inventory Capacity**

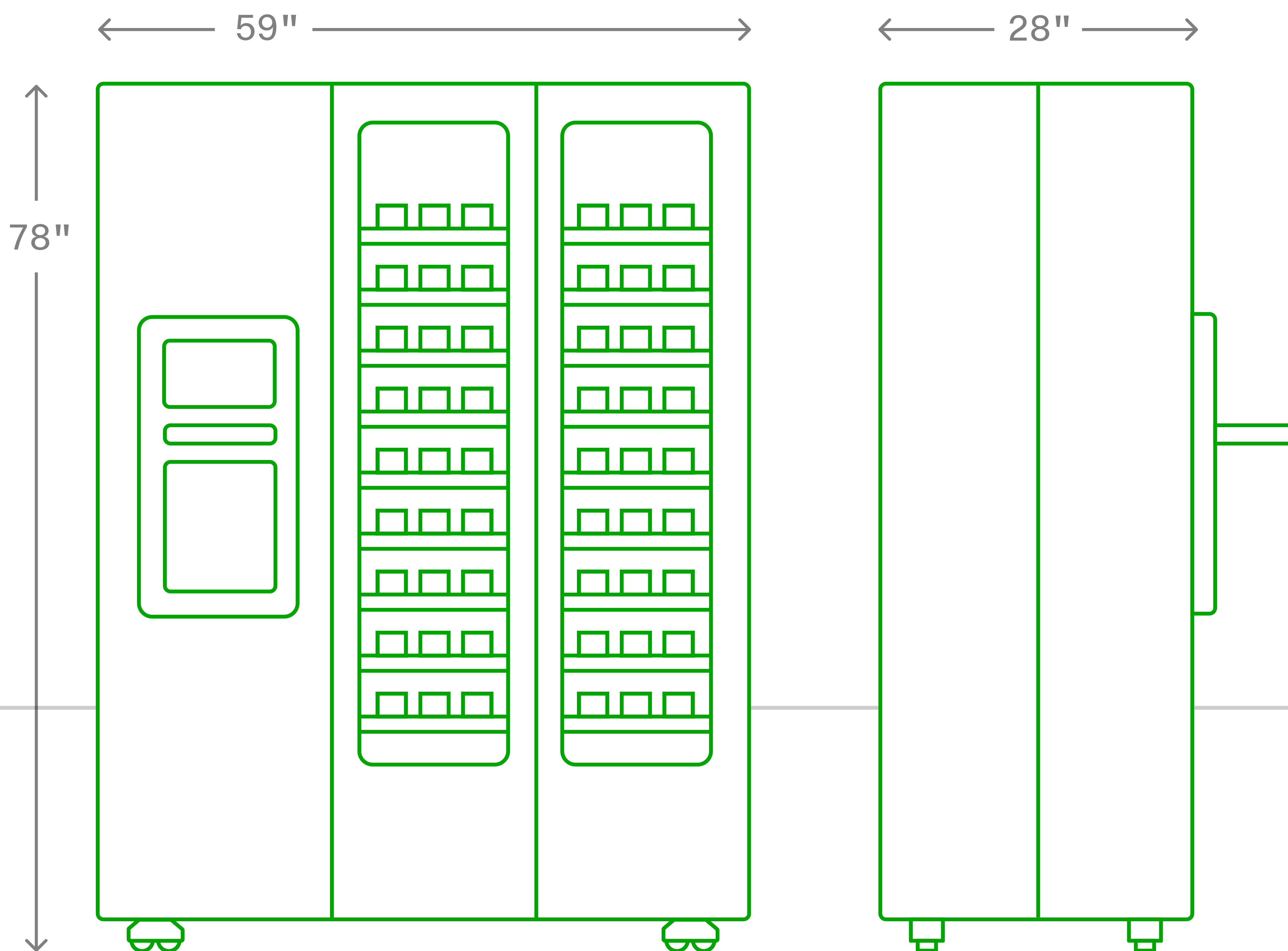
Designed to handle a wide range of physical inventory, LB AR/RS currently supports both SBS plates and bottles in a compact automated format. The system can store up to 200 standard 96-well plates and up to 150 bottles depending on size, including approximately 150 small bottles (60×100), 95 medium bottles (100×150), or 40 large bottles (140×250). This makes LB AR/RS a strong fit for teams that need reliable storage, tracking, and retrieval across mixed inventory types.

→ **Integrated Automation**

LB AR/RS combines physical automation with integrated workflow tools to improve inventory accuracy and day-to-day usability. The platform includes a barcode scanner, label printer, and high-precision scale, while the software layer supports an HTTP API, IMS integration, access control, remote management, and an open-source architecture. Together, these capabilities make it easier to connect automation with existing inventory processes and manage operations with greater consistency.

Keeping Inventory in Motion.™

OPENSHELF



LB AS/RS

MARCH 2026

\$12,000

PLUS SHIPPING
AND INSTALLATION

SPECIFICATIONS SUBJECT
TO CHANGE WITHOUT NOTICE

Specification

Weight

- Empty: 120 kg
- With maximum load: 264 kg

Footprint

- Without clearance: 11.47 sqft.
- With clearance: 14.20 sqft.

Electrical input

100-127 VAC, 50/60 Hz, 12A

Communications

Optional Wi-Fi or Ethernet connectivity for remote management and software updates

Equipment

- Barcode scanner
- Label printer
- High-precision scale
- 10" capacitive touchscreen

Onboard computer

- Raspberry Pi 5 with 8 GB RAM
- Software stack: Pi OS, Python, SQLite, Docker

Software

- HTTP REST API
- Integration with IMS
- Multi-user access control
- Remote management
- Open-source architecture
- Tamper-protected audit logging

Environmental

- Operating: 41°F to 86°F (5°C to 30°C)
- Storage: 5°F to 104°F (-15°C to 40°C)
- Relative humidity: 20-85%
- Altitude: Up to 6,561 ft (2,000 m)
- Dissipated heat: 1,844 BTU/h max
- Pollution degree: 2
- Indoor use only

Capacity

- SBS plate storage: Up to 200 96-well plates
- Bottle storage: Up to 150 misc. bottles
- Small bottles: 150 (60 × 100)
- Medium bottles: 95 (100 × 150)
- Large bottles: 40 (140 × 250)

Performance

- Average of 20 seconds per item (±5 seconds)
- Weight tolerance: Up to ±5 g

Coming soon

- Camera inspection
- Cherry picking
- Refrigeration

Frequently asked questions

What is included in the \$12,000 price, and what ongoing costs should we expect?

The \$12,000 includes the LB AS/RS robot and open-source API access. No service contract is included. Shipping and handling are separate and depend on location.

What is the timeline for shipping?

We are currently taking orders for Q2-Q3 2026 delivery.

What are the installation requirements for the LB AS/RS?

Installation requires dedicated floor space, standard network connectivity (Wi-Fi or Ethernet), and standard 120V wall power.

Which inventory types are supported beyond plates and bottles, and what are the size/weight limits?

LB AS/RS supports standard SBS plates, bottles, boxes, tubes, and most common lab ware formats. We validate your exact container mix during solution design to confirm fit before finalizing your configuration. Maximum item size is 145 mm × 145 mm × 250 mm. Maximum item weight is 5 kg.

How does LB AS/RS integrate with our existing IMS/LIMS/ERP systems?

LB AS/RS integrates through a documented HTTP API with OpenAPI documentation, including endpoints for inventory, storage locations, robot operations, and system status. Your IMS/LIMS/ERP can call these APIs directly to synchronize records.

What security and access-control options are available for teams and audit trails?

The platform includes authenticated access with JWT tokens, role-based permissions, and configurable access levels for users and inventory.

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