



NOVAMove Flex

Streamlining Laboratory Operations:
Fully Automated Sample Flow from
Accessioning to Analysis



Healthcare & Laboratories



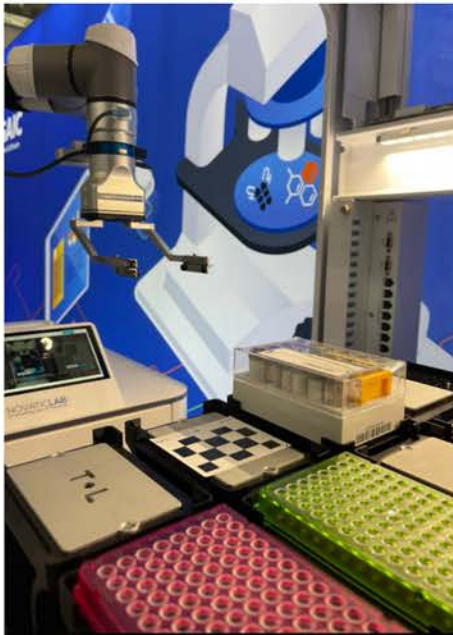
Pharmaceuticals & Research



Food, Cosmetics & Environmental Testing

NOVATICLAB
Empowering labs of tomorrow

Key Features and Benefits



1* Advanced Sample Handling

- Equipped with a robotic arm capable of manipulating racks and tubes, automating the entire process from loading to unloading, enhancing throughput and precision in sample management.

2* Smart Vision System

- Utilizes AI to accurately read barcodes and handwriting, sort tubes by color, monitor equipment states, and detect errors, streamlining sample management and increasing laboratory efficiency in one comprehensive solution.

3* Increased Productivity

- Automates repetitive tasks such as sample transportation, loading, and unloading, allowing lab technicians to focus on more complex analytical tasks, thus boosting lab throughput and efficiency.

4* Operational Efficiency

- Adapts to various lab layouts and can handle a wide range of sample types and analyzer interfaces, providing labs with the flexibility to expand or modify their setups without compromising efficiency.

5* Enhanced Workplace Safety

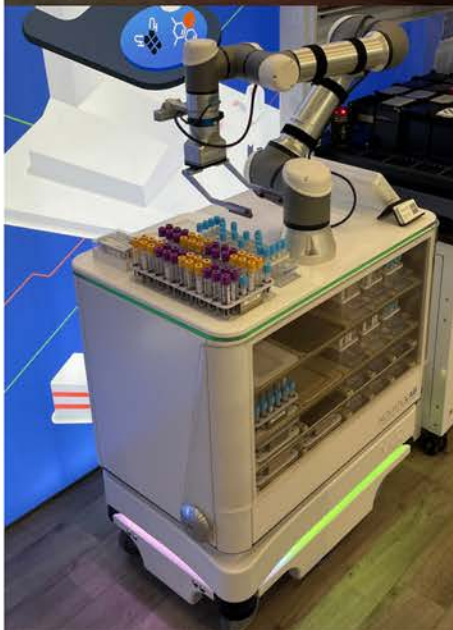
- Minimizes the physical handling of potentially hazardous materials by lab staff, reducing the risk of accidents and exposure to harmful substances.

6* Unmatched Flexibility

- Equipped with an automated toolchanger, the system effortlessly handles a diverse range of labware, from racks and plates to sample tubes and reagent bottles, supporting items up to 5kg. This adaptability ensures the NOVAMove Flex can meet various laboratory needs without the requirement for manual configuration changes.

7* Scalability and Future-Proofing

- The system's modular design not only supports easy expansion to meet growing demands but also ensures laboratories stay competitive by incorporating the latest in automation technology, making it a lasting investment in operational efficiency.



Technical Specifications

Technical

- Minimum Passage Width: **800mm**
- Payload per drawer: **10kg**
- Battery Life: up to **8 hours non stop operation**
- Charging Time: 10% to 90% in 52 minutes
- Maximum Incline/Decline: $\pm 5\%$ at 0.5 m/s

Navigation and Safety

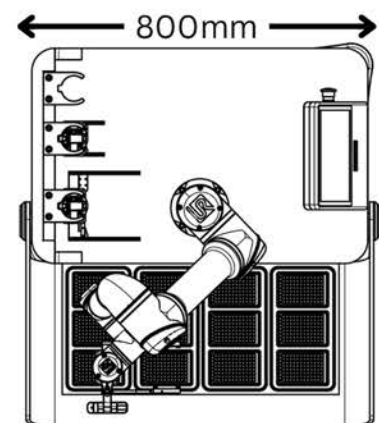
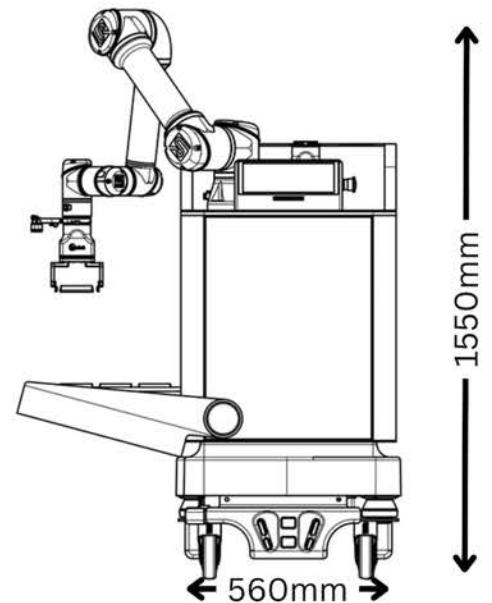
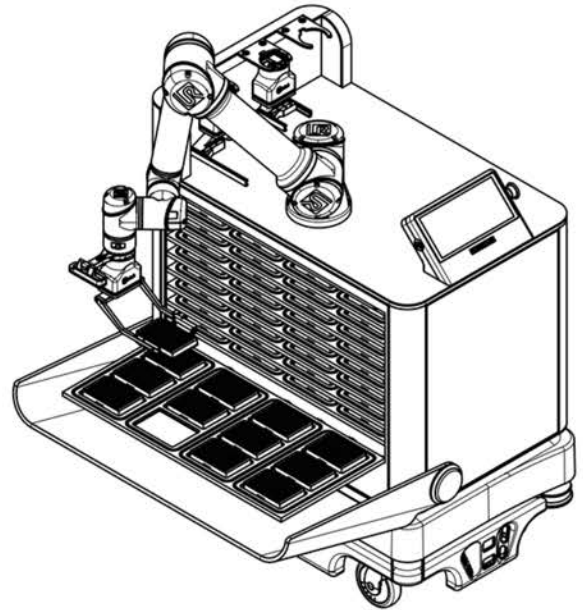
- **Advanced Sensors:** Features Lidar and 3D vision for obstacle detection and navigation.
- **Machine Vision:** AI enabled vision system allows to precisely locate sample tubes or racks, scan tubes, detect cap types, colors, presence, as well as detecting spills and other error states.
- **Visibility and Alerts:** Equipped with safety lights and auditory signals for increased awareness.
- **Security Features:** Includes RFID/NFC, fingerprint, and PIN access for secure content management.
- **Data Protection:** Employs encrypted communication to safeguard information.
- **Emergency Stops:** Accessible stop buttons ensure immediate halting if needed.
- **Adaptable to Environments:** Operates reliably across varied conditions.

Communication and Integration

- **Standard Integration:** Compatible with SiLA 2 and OPC-UA for seamless process management connections.
- **IoT Communication:** Supports MQTT for real-time IoT device integration.
- **Wireless Options:** Provides Wi-Fi and Bluetooth for flexible remote interactions.
- **Data Security:** Ensures encrypted transmissions for secure data handling.
- **Extended Connectivity:** Offers LTE/4G options for reliable operation in areas with poor Wi-Fi coverage.

Additional Features

- **Customizable:** Flexible drawer setups to fit all types of racks/microplates and options for barcode, RFID/NFC enhancements.
- **Environmentally Robust:** Functions in wide temperature ranges and conditions.
- **Durable Design:** High-quality construction for longevity in tough settings.
- **Certified Safe:** Complies with strict safety and quality standards.



NOVAMove Flex: Flexible Lab Workflows

NOVAMove Flex autonomously enhances laboratory workflows where traditional fixed automation solutions fall short. Capable of navigating complex and dynamic lab environments, it ensures efficient sample logistics across departments.

Key applications include:

- **Inter-Department Sample Transfer:** Efficiently transports samples between departments that lack direct automated connections, improving workflow continuity across diverse lab areas.
- **Urgent Sample Delivery:** Prioritizes the rapid delivery of critical samples to ensure timely processing in urgent testing scenarios.
- **Cross-Platform Integration:** Acts as a mobile conduit for samples between different lab platforms, facilitating seamless sample integration without the need for physical infrastructure.
- **Remote Sample Retrieval:** Retrieves and delivers samples from various storage conditions to testing stations, optimizing the handling of sensitive or critical materials.
- **Automated Refilling Supplies:** Delivers essential consumables and reagents directly to workstations, minimizing operational interruptions and maintaining testing momentum.
- **Decentralized Lab Environments:** Serves expansive or multi-building lab facilities by ensuring reliable sample transport over greater distances, enhancing the scope of lab operations.
- **Hazardous Material Handling:** Safely transports hazardous or sensitive materials between lab stations, reducing risk and enhancing safety protocols.

With NOVAMove Flex, laboratories can achieve higher efficiency, safety, and adaptability, meeting the dynamic needs of modern medical testing environments.

Learn More

Transform your facility's efficiency and safety today with the NOVAMove Porter. Contact us to find out how our smart, customizable solutions can revolutionize your material transport needs. Don't wait to innovate – the future of autonomous logistics is here.

