VELSSON
AN INNOVEL COMPANY

Tailored Workflows

Accelerated Breakthroughs

Reliable & Compliant

Uncompromising Precision

Optimized Value

Partner-Driven Success and Integrity

INNOSMART® SFS-Plus

Smart Fluid Station

Email: info@velsson.com

Add: 245 Main St, Cambridge, MA 02142

Web: www.velsson.com

Smart Fluid Station

INNOSMART® SFS-Plus

The INNOSMART® SFS-Plus is an intelligent fluid handling system that efficiently performs high-throughput liquid pipetting, liquid distribution, and liquid pumping operations.
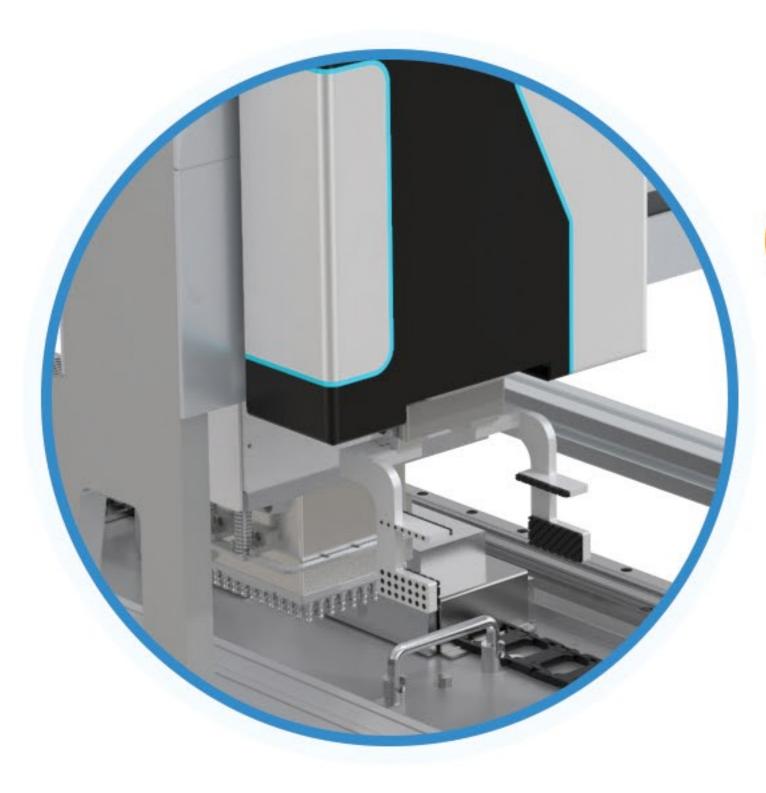The system comes with dozens of typical process standard libraries.

· Integration:Integrate 4+4-channel pipetting, 96-channel pipetting, pumping, centrifuge, metal bath, PCR, microplate reader, vacuum filtration, decapper, shaker(with temperature control) and other process units.
· Tips: Compatible with 10μL,50μL, 100μL, 300μL, 1000μL filter tips, sterile/enzyme free/pyrogen free.
· Graphical: Graphical process editing tool, full-process simulation verification technology.
· Laminar flow(optional): A-level laminar flow environmental protection to ensure the safety of experiment.
· Process Edition: Flexible process editing, and agile process change. Full process verification by simulation.
· International Standard: 21 CFR Part 11.
· Exception Handling: Smart exception handling.

5 Benchtop Component

· Dual robotic grippers for flexible consumable transfer.
· Holder Number: 44.

6 Metal Bath Array

· Metal bath array to meet large-scale temperature control needs.

1 Pipetting Module

· 8 single-channel pipettes, 8 independent channels' Z-axis motion.
· Independent spacing control between channels. Automatic liquid detection, tracking and pipetting. Automatic and precise pipetting with high-speed planar motors.
· 96 standard pipetting modules, overall fast pipetting.
· Optional 4/8/48/96 standard pipetting modules.

4 Top Module

· Easy-cleaning flat structure.
· Precise motion with dual planar motors.
· Optional laminar flow hood.

7 Waste Module

· 2 waste solid material storages, unmanned for long periods of time

2 Consumable Transfer Module

· Dual robotic grippers for 360° operation.
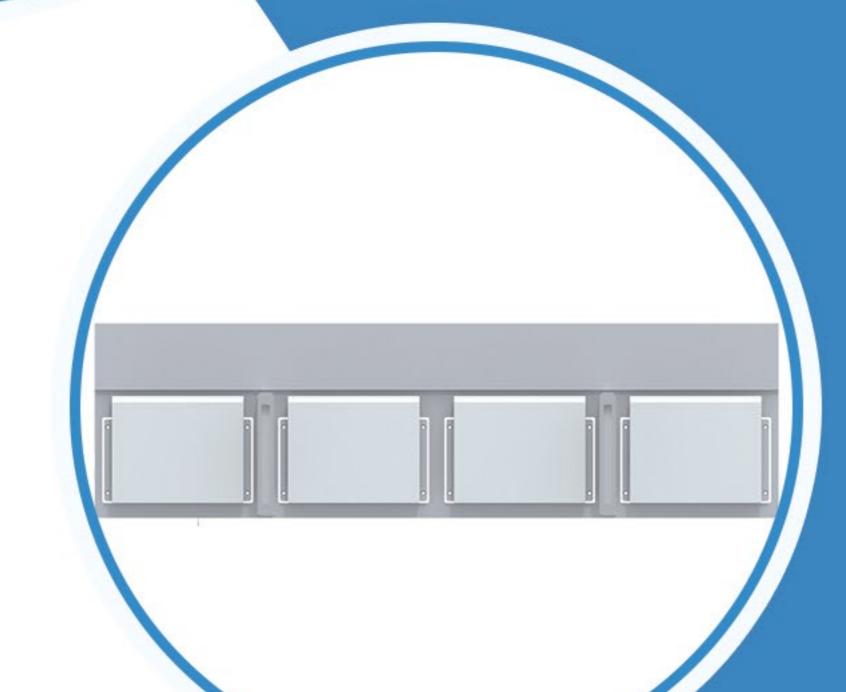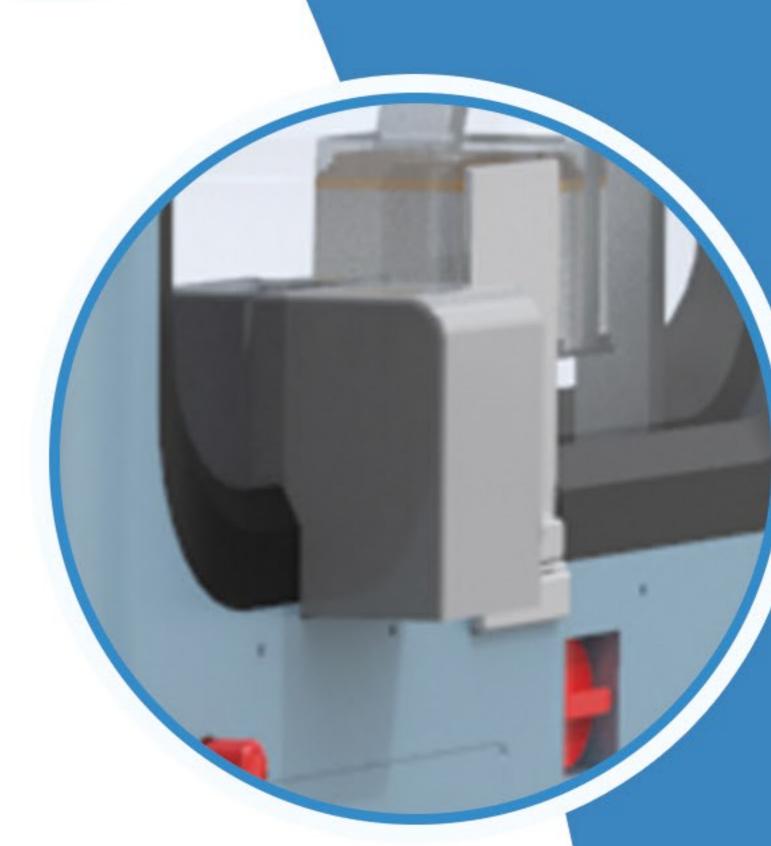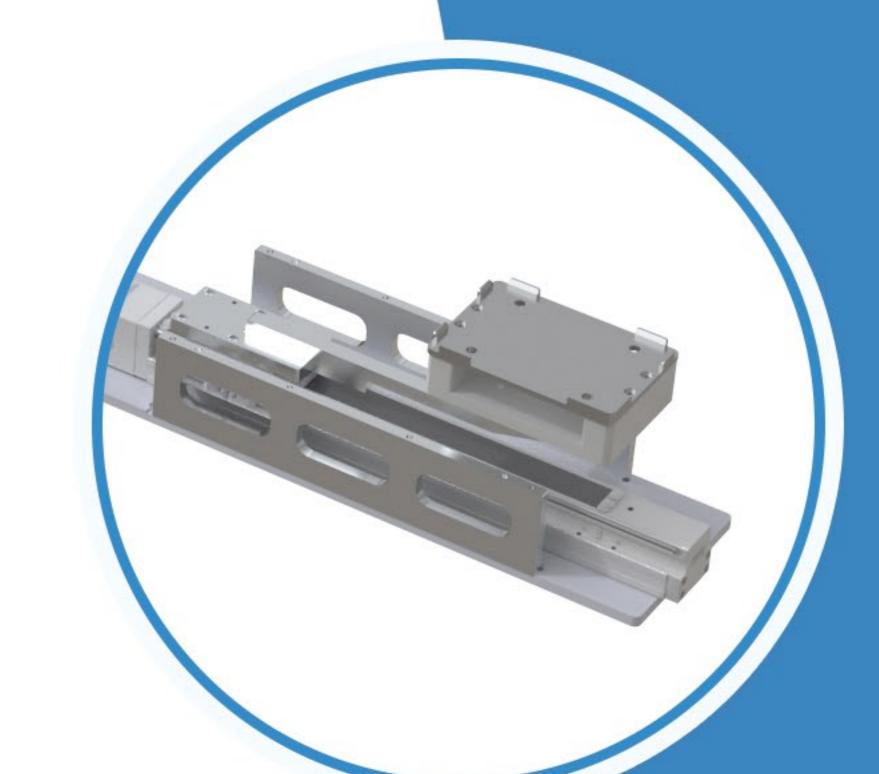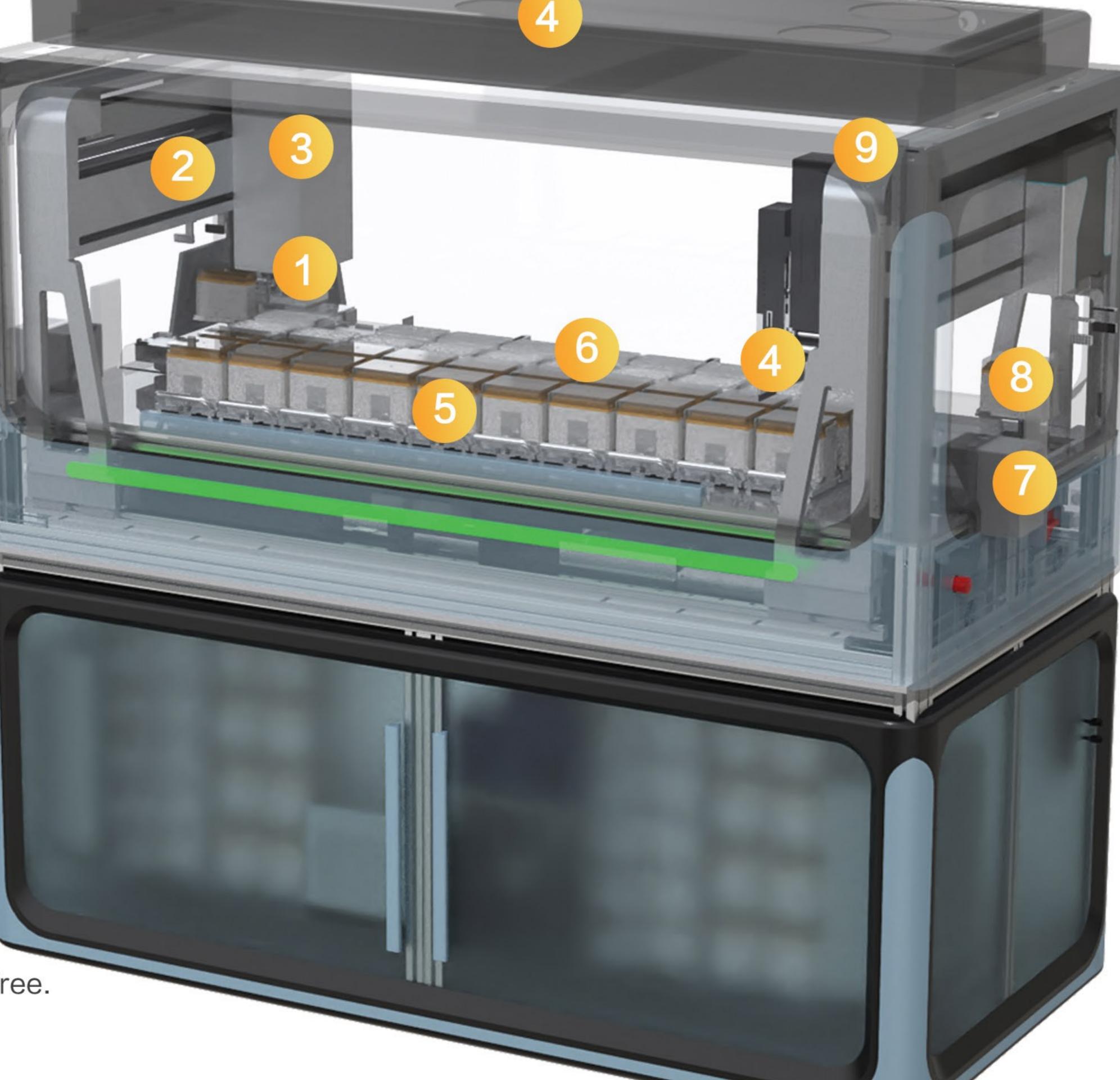· Highly efficient consumable transfer with storage units, incubators, analytical workstations, etc.

8 Sample Channel

· The process continuously enters and exits the sample channel, seamlessly connecting to automated equipment.

3 Solid-state Pipetting Module

· High precision of 1~1000μL pipetting.
· Solid-state module(not syringe), maintenance free.

9 Equipment Front Door

· Safe operation with nitrogen gas spring-assisted front door.

Tank Module

① Vertical Conveyor Channel

· Dual−channel consumable transfer between deck module and tank module, high−speed sample transfer and consumables loading.
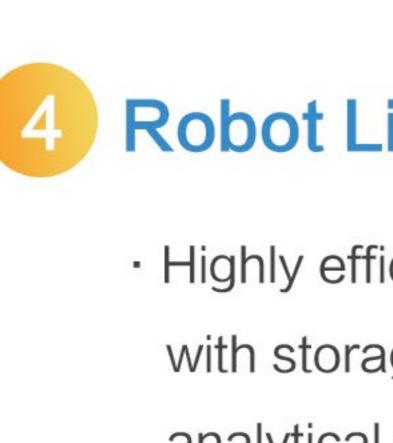
② Waste Module

· 2 waste solid material storages, unmanned for long periods of time.
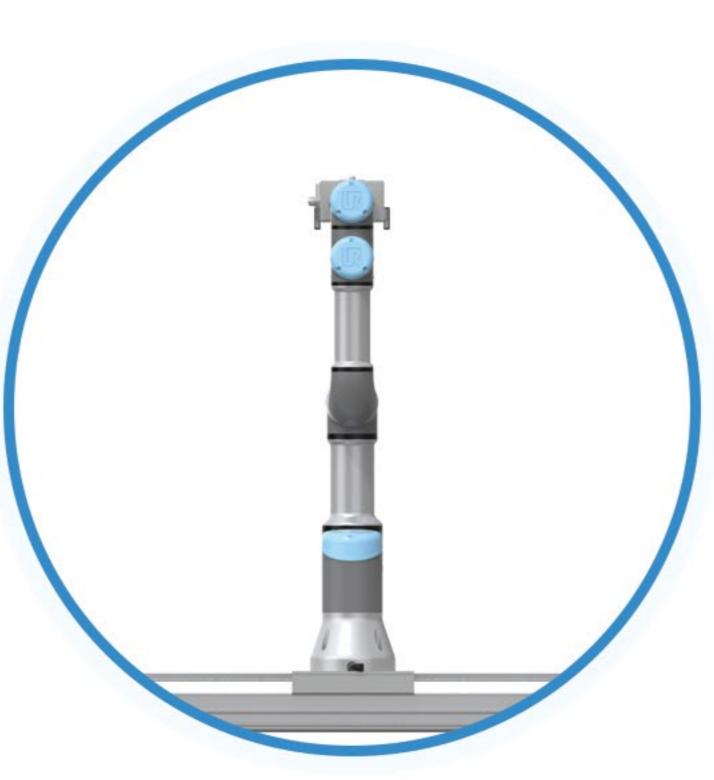
③ Consumable Storage

· 80 material storage locations, unmanned operation for long periods of time.
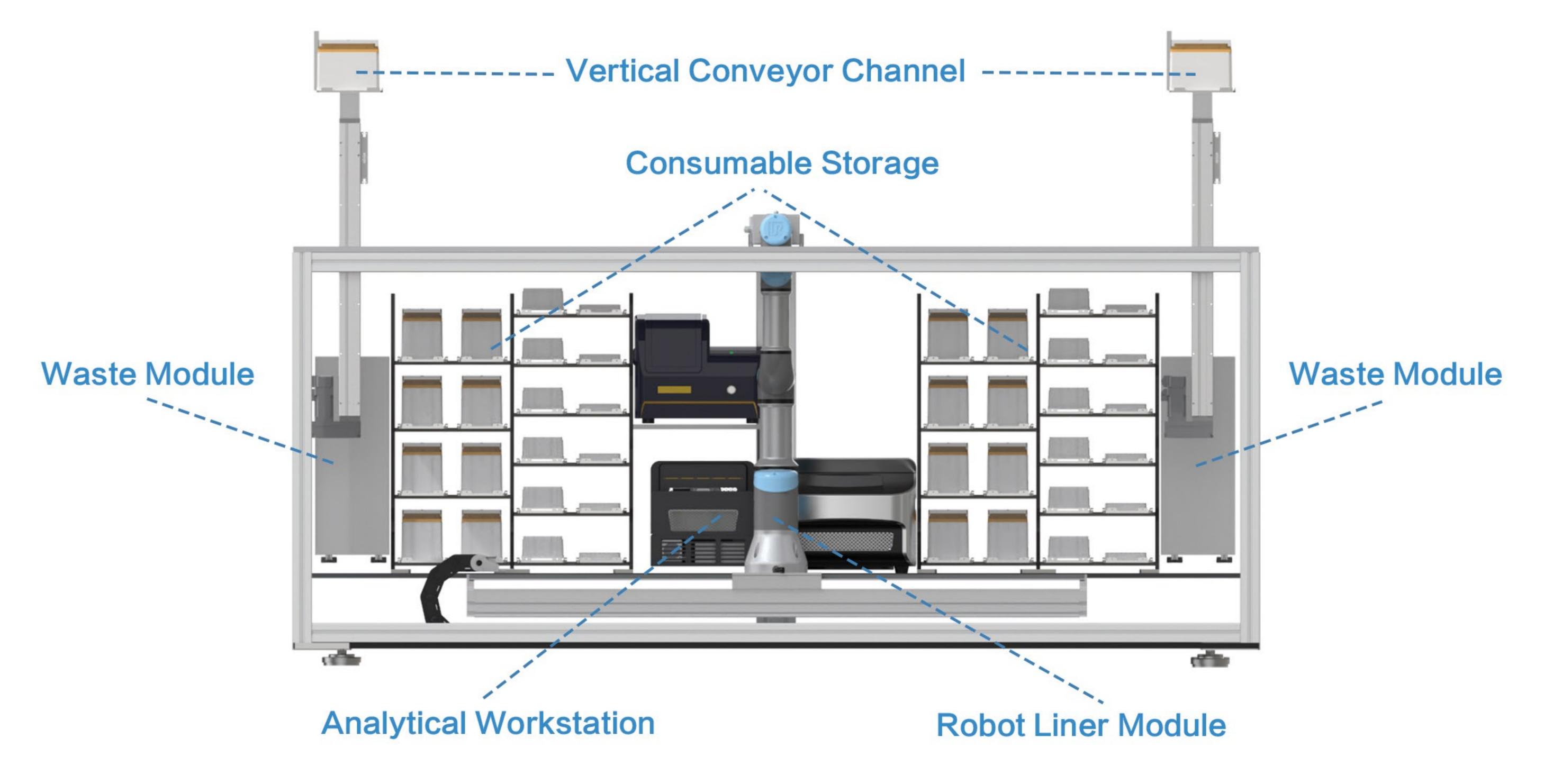
④ Robot Liner Module

· Highly efficient consumable transfer with storage units, incubators, analytical workstations, etc.
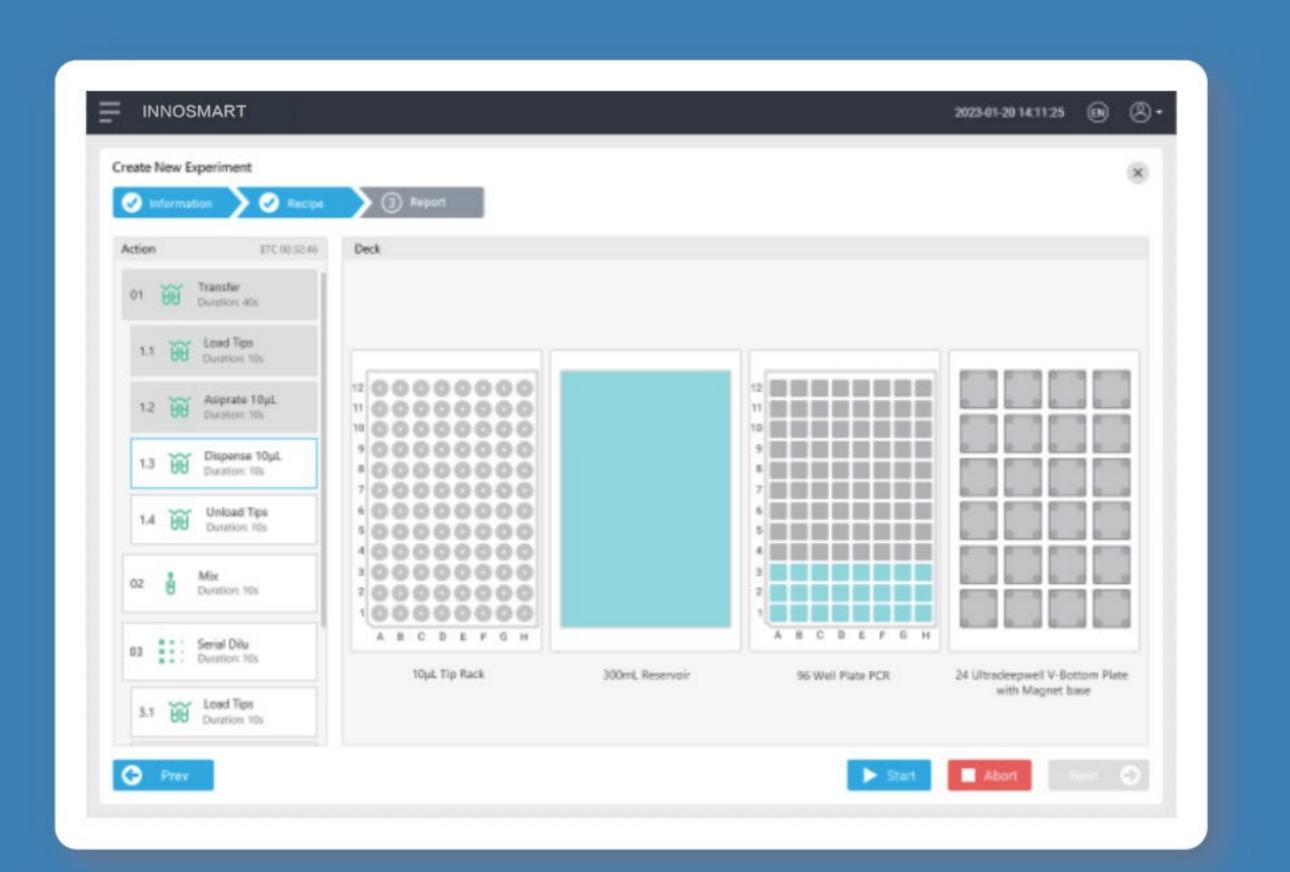
⑤ Analytical Workstation

· Optional centrifuge,sealer, peeler, PCR, microplate reader, spectrophotometer, imager, counter and magnetic bead−based purification unit.
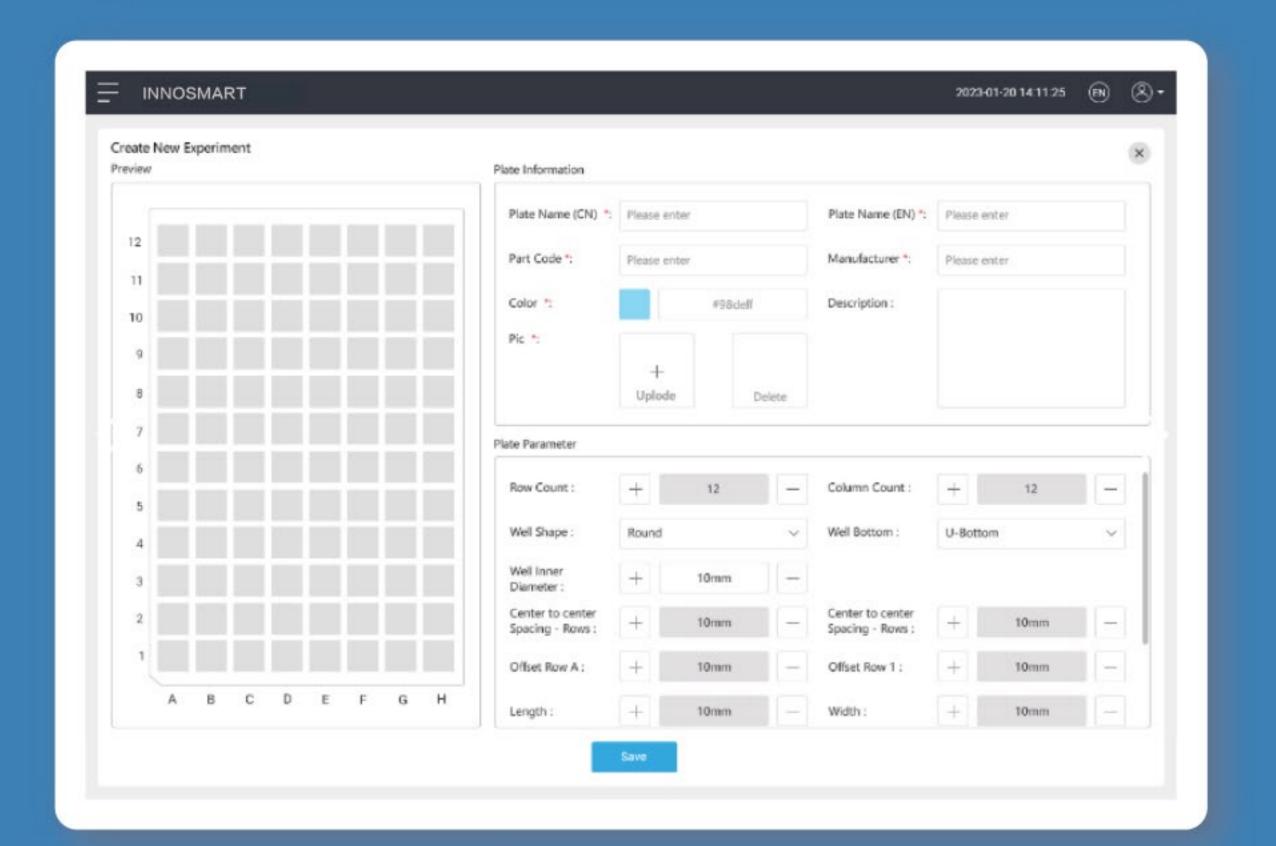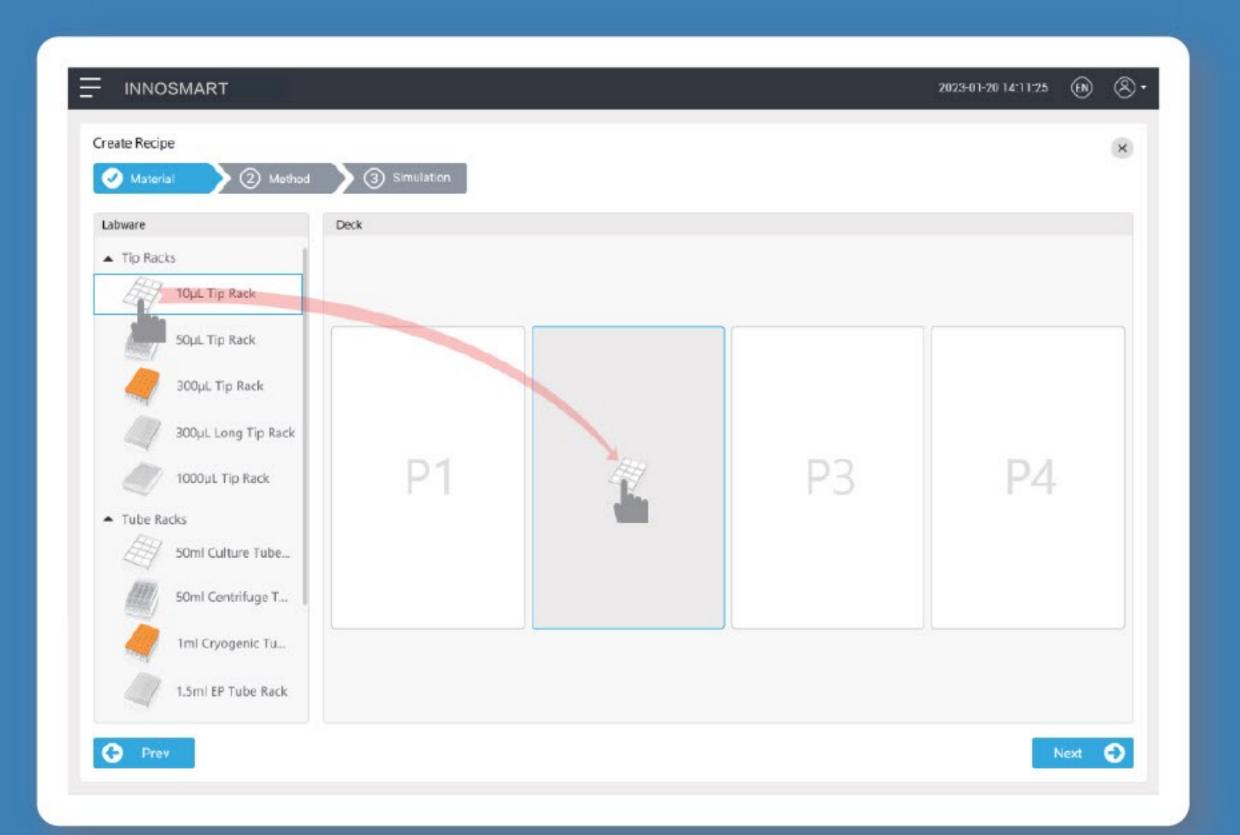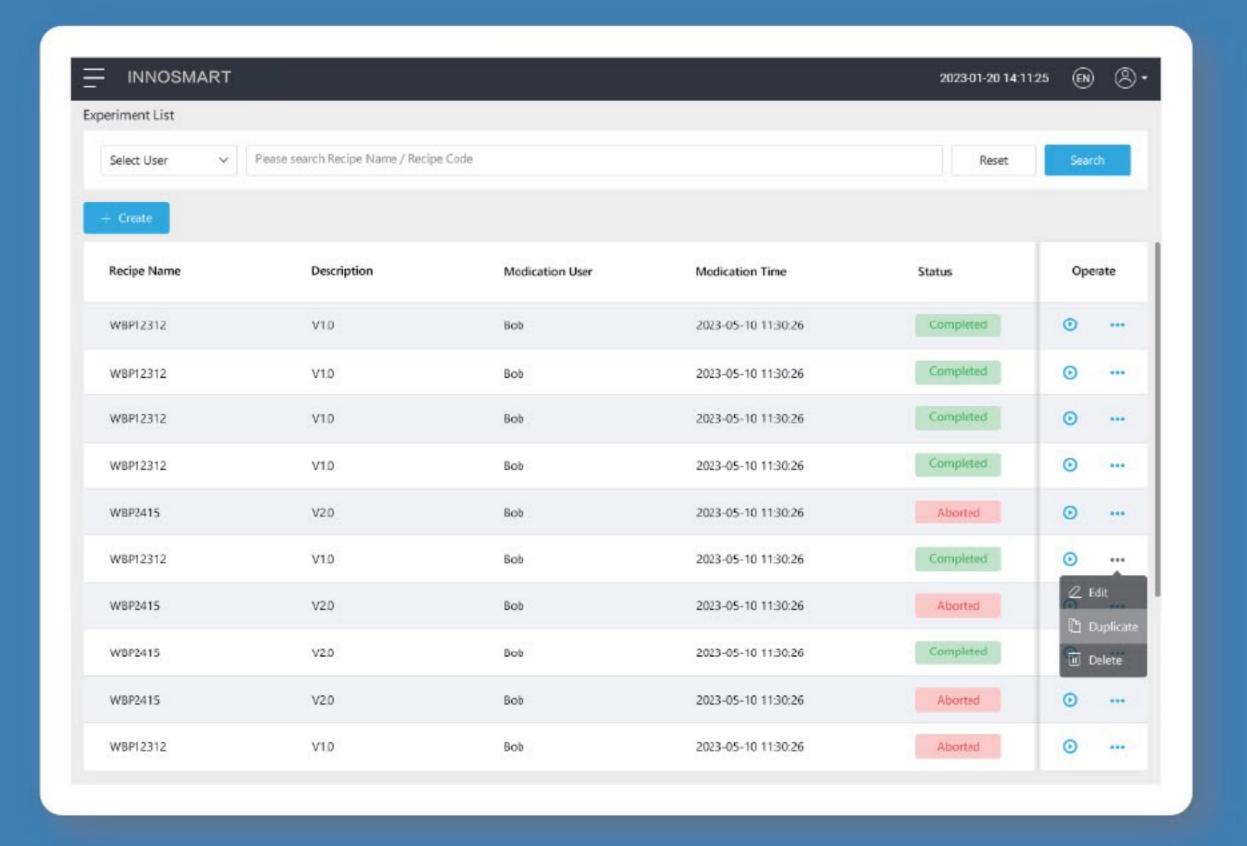
Specifications

	Model	**INNOSMART® SFS-Plus**
Specifications	INNOVEL Tips	1μL, 10μL, 50μL, 300μL, 300 μL(extended), 1,000μL
		Compatible with USP Class VI and ANSI, DNase/RNase free, nonpyrogenic, and sterilized by gamma irradiation
		Glass tips for acidic or alkaline corrosive liquid and organic solvent
	Pipetting Volume	1~1,000μL
	Pipetting Precision	≤5%（1~10μL）, ≤3%（10~50μL）, ≤1.5%（50~300μL）, ≤0.5%（300~1,000μL）
		Independent and adjustable channel spacing, and independent Z-axis motion
		Intelligent analytics of tip-loading force and loading effectiveness
		Automatic liquid detection and tracking
	X-Y Axis Motion	800mm/s Maximum Speed , within 0.01mm repeated motion precision
	Z Axis Motion	300mm/s Maximum Speed , within 0.02mm repeated motion precision
		Dust-free and lubricant-free motion system
	Holder Number	44
	Consumable Storage Number	80
		Industrial-grade built-in controller, and 15-inch touchscreen display
		Graphical workflow editing software
		Standard lab software communication interface
	Optional Units	Centrifuge,sealer, peeler, PCR, microplate reader, spectrophotometer, imager, counter, magnetic bead-based purification unit and 4/8/48/96 standard pipetting modules
		UV disinfection and optional laminar flow

Integrated Software System

Workflow Editing

· Standard process library
· Graphical process editing and optimization
· Real−time process monitoring and control
· Agile evolution of new processes based on templates

Equipment Monitoring and Operation

· Fluid material feeding
· Solid consumable feeding
· Consumable status management
· Historical liquid handling data
· Historical sample transfer data
· Module motion monitoring

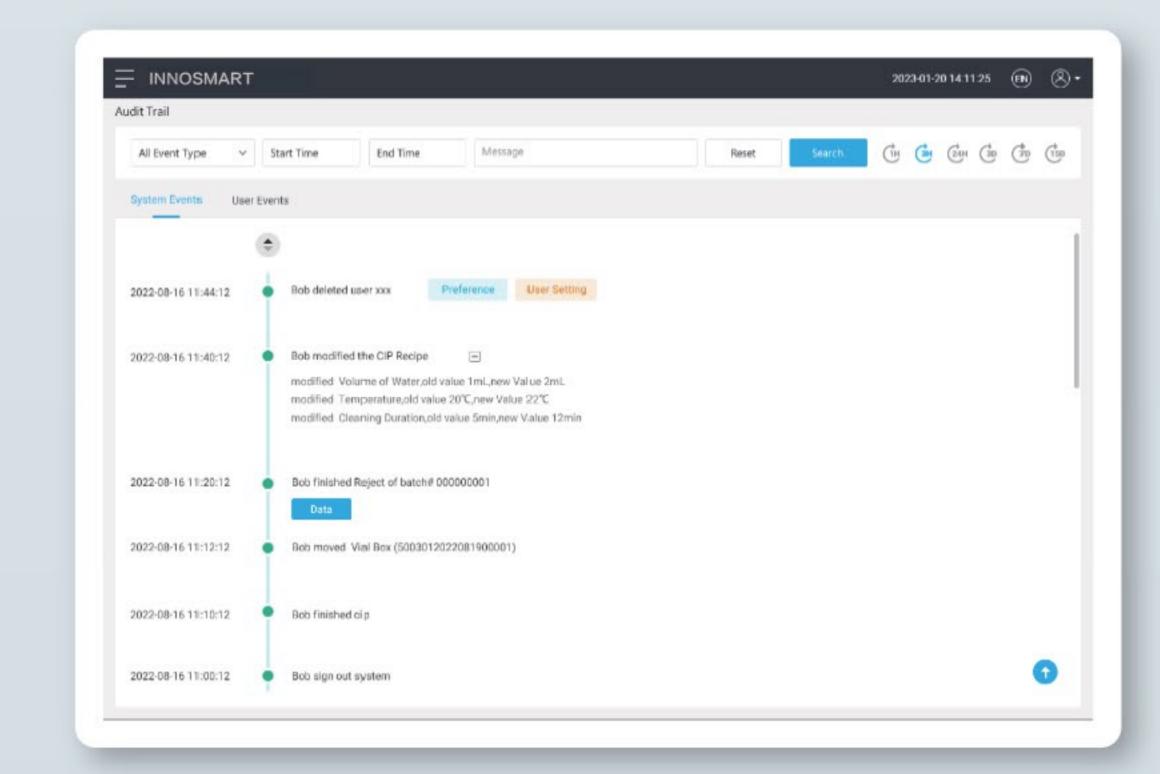## Equipment Calibration(Manual)

· Fluid unit calibration
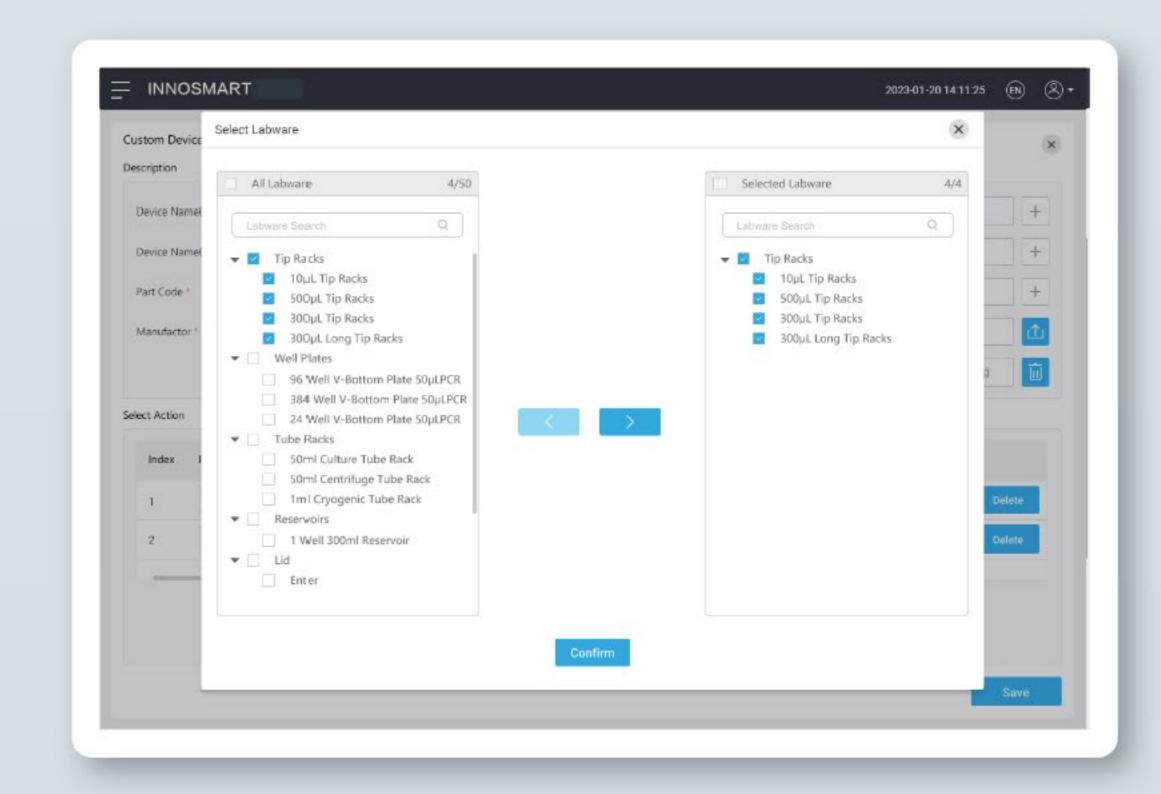· Motion unit calibration
· Agile process test

Data Storage

· Analytical sample data
· Operation data

200cm (79 inches)

99cm (39 inches)

200cm (79 inches)

178cm (70 inches)

VELSSON
AN INNOVEL COMPANY

Without laminar flow :79 x 39 x 70in (200 x 99 x 178cm)
With laminar flow :79 x 39 x 79in (200 x 99 x 200cm)

Log Notification

· Login Notification
· Consumable loading information
· Operation event information
· Equipment warning information
· Equipment error information

System Setting

· Personnel access control
· System parameter configuration