

Multiple Patent Protection

# @Pette Pro

## Vecverse Smart Pipettes

@Pette Pro helps customers address convenience, accuracy and repeatability in liquid handling scenarios by integrated multiple functions.



reddot award 2022  
best of the best



GOOD DESIGN  
AWARD 2024



### Supports Universal Tips

- Axygen
- Eppendorf
- Thermo
- Rainin
- Dicowilson
- CORNODE、Agen、Biosharp

### Fast Charging Long Battery Life

- 10W Fast Charging
- More Than 690 Cycles On A 10-Minute Charge
- Fully Charged In 1 Hour, Can Be Used For More Than 4141 Cycles
- \*Cycles Are Counted In 5-Second Intervals

### Full Traceability

- View Operation Logs And Calibration Records
- Read Serial Number Via NFC For Quick Inventory Of Assets.
- Support Exporting Usage Data And Calibration Records

### OTA Upgrade

- Built-In PetteOS System Can Be Updated By Connecting A Mobile Device Or PC Software
- Unlock More New Features At Any Time

### After-Sales

- Two-Year Warranty For The Whole Machine
- Multiple Repair Methods, Fast Response
- \*Excluding Charging Cable And Charger

## Multiple pipetting modes to cover all needs

### Pipetting

Able to draw in and dispense liquid



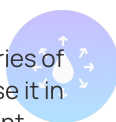
### Dispensing

Liquid is inhaled in the isotonic dispensing mode and the inhaled liquid is discharged in portions with the same volume of liquid being discharged each time.



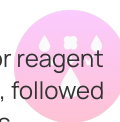
### Sequence

Continuous Dispensing Mode allows you to set a series of different volumes, inhale the liquid and then dispense it in stages. The @Pette Pro is equipped with an intelligent calculation that automatically deduces the next volume parameter based on the neighboring step volume, making it easy to increase or decrease the volume in an orderly manner.



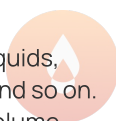
### Diluting

The Dilution Mode is suitable for diluting a sample or reagent with a suitable diluent. The diluent is first aspirated, followed by a section of air, and then the sample or reagent is aspirated.



### Reverse Pipetting

The reverse pipetting mode is suitable for viscous liquids, liquids with a high protein content, volatile liquids, and so on. This mode works by drawing up more than the set volume, with the first stage discharging the set volume and the second stage discharging the discarded liquid.



### Manual Mode

Use in manual pipetting mode is the same as for manual pipettes. Manual pipetting mode allows you to stop and continue pipetting, or draining, at any time.



### Auto mix

The automatic mixing mode can be set for 1-100 mixes and can be aborted at any time. Manual mixing can be performed in any mode except manual mode.



### Protocols Transmission

Existing preparation protocols can be transferred to the pipette via Bluetooth from a mobile or pc device. Pre-prepared solutions can also be executed in a stand-alone environment.

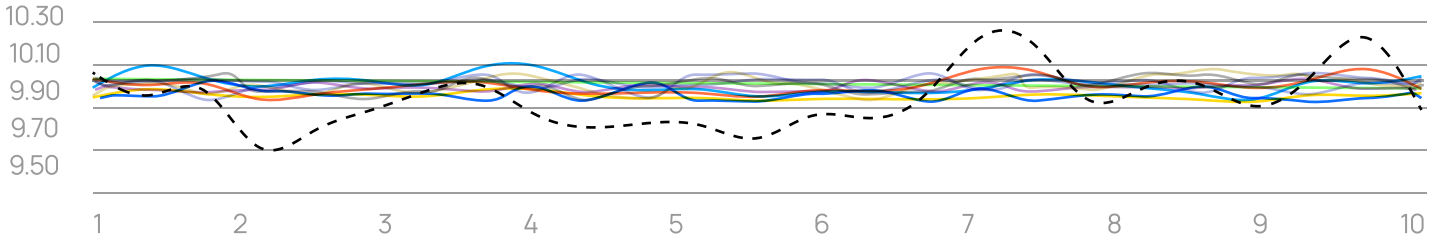


## High Precision Motor-Driven System

### Superior Performance

Piston-based mechanism liquid suction and discharge device with high interpolation value motors, stable and reliable repeat data

--- Other brand data  
— @Pette Pro data



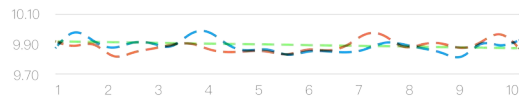
100ul,dispensing 10ul, 10 recordings

\*Data from vecverse Lab

## Double Auto-Calibration System

### Original "Taylor" Self-Calibration Function

Each aspirate and dispense = one automatic calibration



"Taylor" self-calibration data

### Traditional "Three-Point" Auto-Calibration Function

Suitable for periodic third-party agency calibration



### Real-Time Export Of Calibration Reports



## Certification and Verification

### Calibrated By A Third Party

Other types of calibration certificates are available upon request.



### Patents List

Utility Model Appl. No. 2024200774923	Design Appl. No. 2023306648662
Utility Model Appl. No. 202420610768X	Design Appl. No. 2022304516908
Utility Model Appl. No. 2023215380243	Design Appl. No. 2023306648658
Invention Appl. No. 2023107149143	Design Appl. No. 2022304513492
Invention Appl. No. 2024100492349	Design Appl. No. 2024302739258
Invention Appl. No. 2024103604666	Design Appl. No. 2022304517012
Invention Appl. No. 2022109601516	Copyright No. 2024R11L1284295
Copyright No. 2024SR0291709	Copyright No. 2024R11L1266591

**Reddot Award  
2022  
Life Science  
Best Of Best**



reddot award 2022  
best of the best

### Verified Accessories

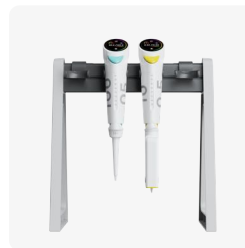
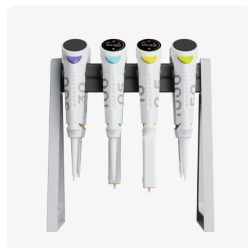
CE CCC ROHS

un38.3 Identification Report

## Flexiable Hangers and Rack

### Adapts To Multiple Scenarios And Responds To Multiple Needs

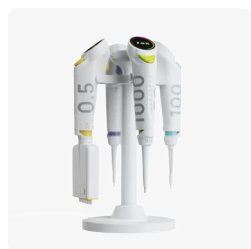
- Magnetic Swivel Charging Hanger
- Multi-function A-hanger
- Single Pipette Rack Module



### Multi-Function A-Hanger

Item Number:0100-0001

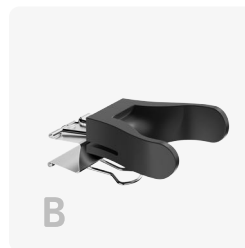
Simultaneous charging of up to eight pipettes  
Compatible with other pipettes



### Magnetic Swivel Charging Hanger

Item Number:0100-0002

Simultaneous charging of four pipettes  
360 degrees of silky smooth rotation



### Single Pipette Rack Module

Item Number A:0100-03

Item Number B:0100-05

Can be easily fixed to the lab bench with simple clips

## Extremely Strong Automation Expansion Capabilities

- Pipette and automation in one hand
- Free hands, efficient experiments, hand-held mode and automation mode switch at any time



# Intelligent Connected Mini App

The pipetting assistant applet can be connected to the pipette Bluetooth by WeChat scanning, using the mobile phone applet to directly control the pipette for pipetting operations, advanced mode parameter adjustment, view and export operation log.



WeChat Code

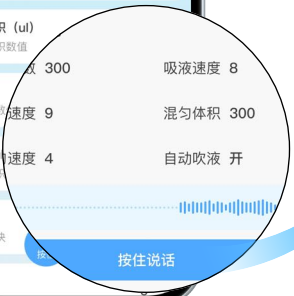
## Equipment Status Representation

Quick view of currently set parameters



## Adjustment Functions and Ranges

Pipette Parameter Adjustment



## Voice Control



## OTA Online Upgrade

Quick update after cell phone connection  
Pipette Firmware



## Product Tutorial and Best Use Practice






Pipetting from Beginner to Master

## Quick View Of Device Information








- Calibration log view/upload/export
- Real-time viewing/uploading/exporting of pipetting records
- Device Information View



@pette pro Single-channel measurements						JJG 646-2006 Standard Requirement	
Product	item number	Range/ $\mu$ L	calibration point	systematic error	random error	systematic error	random error
	0110-0010	0.5 $\mu$ L-10 $\mu$ L	1 $\mu$ L	$\pm 4\%$	$\leq 2.31\%$	$\pm 12.0\%$	$\leq 6.0\%$
			5 $\mu$ L	$\pm 1\%$	$\leq 0.6\%$	$\pm 8.0\%$	$\leq 4.0\%$
			10 $\mu$ L	$\pm 0.8\%$	$\leq 0.5\%$	$\pm 8.0\%$	$\leq 4.0\%$
	0110-0100	5 $\mu$ L-100 $\mu$ L	10 $\mu$ L	$\pm 2\%$	$\leq 0.31\%$	$\pm 8.0\%$	$\leq 4.0\%$
			50 $\mu$ L	$\pm 0.8\%$	$\leq 0.16\%$	$\pm 3.0\%$	$\leq 1.5\%$
			100 $\mu$ L	$\pm 0.5\%$	$\leq 0.1\%$	$\pm 2.0\%$	$\leq 1.0\%$
	0110-0200	20 $\mu$ L-200 $\mu$ L	20 $\mu$ L	$\pm 1\%$	$\leq 0.3\%$	$\pm 4.0\%$	$\leq 2.0\%$
			100 $\mu$ L	$\pm 0.5\%$	$\leq 0.15\%$	$\pm 2.0\%$	$\leq 1.0\%$
			200 $\mu$ L	$\pm 0.5\%$	$\leq 0.1\%$	$\pm 1.5\%$	$\leq 1.0\%$
	0110-0300	30 $\mu$ L-300 $\mu$ L	50 $\mu$ L	$\pm 0.5\%$	$\leq 0.23\%$	$\pm 3.0\%$	$\leq 1.5\%$
			150 $\mu$ L	$\pm 0.6\%$	$\leq 0.12\%$	$\pm 2.0\%$	$\leq 1.0\%$
			300 $\mu$ L	$\pm 0.38\%$	$\leq 0.12\%$	$\pm 1.5\%$	$\leq 1.0\%$
	0110-1000	50 $\mu$ L-1000 $\mu$ L	100 $\mu$ L	$\pm 0.8\%$	$\leq 0.1\%$	$\pm 2.0\%$	$\leq 1.0\%$
			500 $\mu$ L	$\pm 0.4\%$	$\leq 0.08\%$	$\pm 1.0\%$	$\leq 0.5\%$
			1000 $\mu$ L	$\pm 0.25\%$	$\leq 0.09\%$	$\pm 1.0\%$	$\leq 0.5\%$

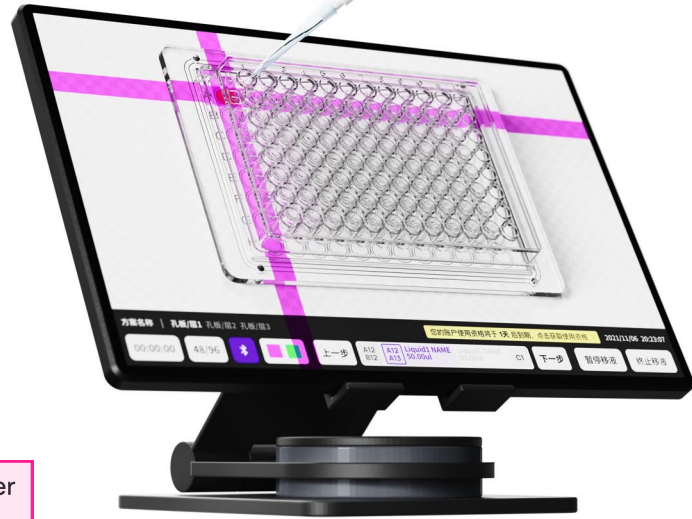
**@Pette Pro**  
Eight Channel Models

@pette pro Eight-channel measurements						JJG 646-2006 Standard Requirement	
Product	item number	Range/ $\mu$ L	calibration point	systematic error	random error	systematic error	random error
	0111-0010	0.5 $\mu$ L-10 $\mu$ L	1 $\mu$ L	$\pm 5\%$	$\leq 2.83\%$	$\pm 12.0\%$	$\leq 6.0\%$
			5 $\mu$ L	$\pm 1.4\%$	$\leq 0.93\%$	$\pm 8.0\%$	$\leq 4.0\%$
			10 $\mu$ L	$\pm 1\%$	$\leq 0.63\%$	$\pm 8.0\%$	$\leq 4.0\%$
	0111-0100	5 $\mu$ L-100 $\mu$ L	10 $\mu$ L	$\pm 2.2\%$	$\leq 0.76\%$	$\pm 8.0\%$	$\leq 4.0\%$
			50 $\mu$ L	$\pm 1.1\%$	$\leq 0.18\%$	$\pm 3.0\%$	$\leq 1.5\%$
			100 $\mu$ L	$\pm 0.6\%$	$\leq 0.1\%$	$\pm 2.0\%$	$\leq 1.0\%$
	0111-0200	20 $\mu$ L-200 $\mu$ L	20 $\mu$ L	$\pm 1.2\%$	$\leq 0.35\%$	$\pm 4.0\%$	$\leq 2.0\%$
			100 $\mu$ L	$\pm 0.6\%$	$\leq 0.2\%$	$\pm 2.0\%$	$\leq 1.0\%$
			200 $\mu$ L	$\pm 0.6\%$	$\leq 0.2\%$	$\pm 1.5\%$	$\leq 1.0\%$
	0111-0300	30 $\mu$ L-300 $\mu$ L	50 $\mu$ L	$\pm 0.7\%$	$\leq 0.28\%$	$\pm 3.0\%$	$\leq 1.5\%$
			150 $\mu$ L	$\pm 0.42\%$	$\leq 0.15\%$	$\pm 2.0\%$	$\leq 1.0\%$
			300 $\mu$ L	$\pm 0.37\%$	$\leq 0.14\%$	$\pm 1.5\%$	$\leq 1.0\%$
	0111-1250	50 $\mu$ L-1250 $\mu$ L	125 $\mu$ L	$\pm 1\%$	$\leq 0.2\%$	$\pm 2.0\%$	$\leq 1.0\%$
			625 $\mu$ L	$\pm 0.5\%$	$\leq 0.15\%$	$\pm 1.0\%$	$\leq 0.5\%$
			1250 $\mu$ L	$\pm 0.3\%$	$\leq 0.15\%$	$\pm 1.0\%$	$\leq 0.5\%$

# Efficient Pipetting Assistance Platforms

The Vecverse Digital Preparation Suite helps customers to significantly reduce the risk of potential errors in scenarios with complex experimental processes by means of intelligent data interconnections.

- Helps the user to develop a pipetting program, and works with the Techno Pipette to complete the pipetting under the guidance of a light spot.
- Supporting functions such as data traceability, it is a reliable assistant for improving work efficiency and accuracy of results.



Software item number  
0130-0001

Hardware and software version Item number  
0130-0002

## Rapid Pipetting Planning

- Customizing pipetting specifications
- Setting pipette parameters
- Manage liquid information
- Reusable pipetting solutions
- File import for automatic program generation
- Remote operation of the program from a PC

## Effectively Reduce Error Rates

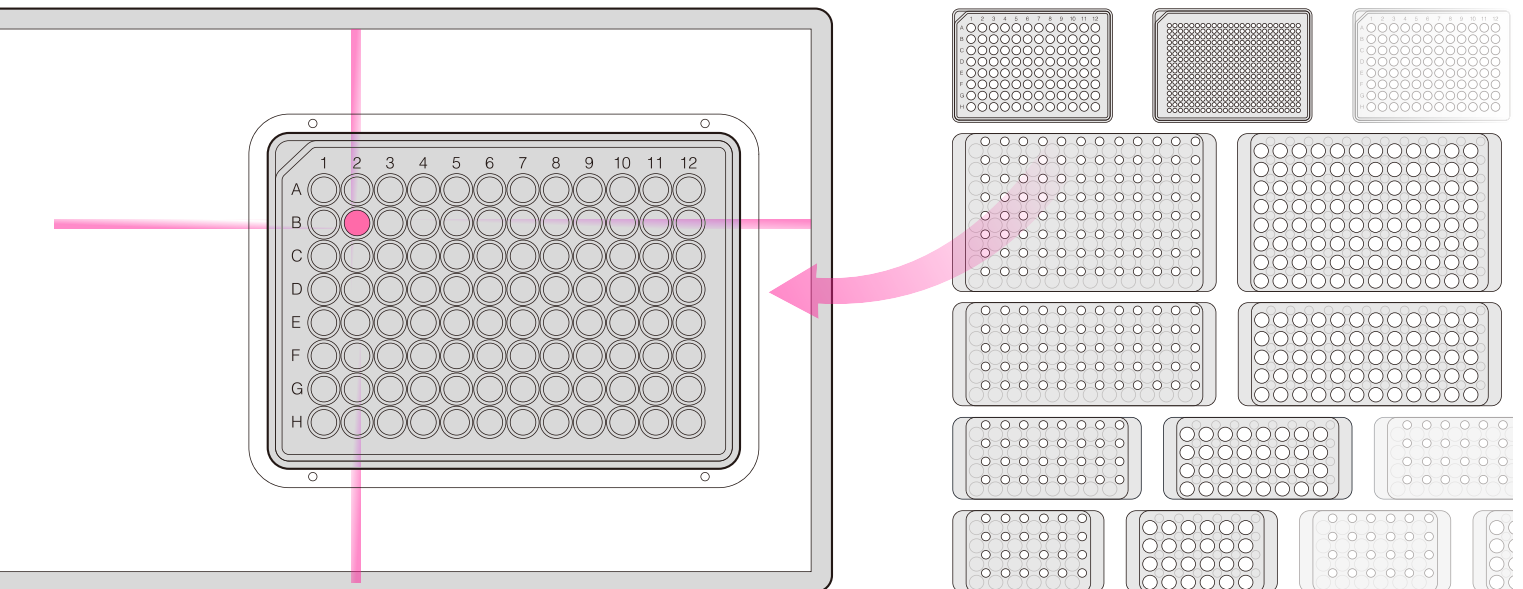
- Highlight the current hole position
- Voice prompts for device switching
- Support multiple pipettes to match the work at the same time
- Standby device automatically locks to prevent accidental contact

## Full Traceability Of Data

- Automatic Report Generation
- Automatic report management
- Multi-end synchronization, support for viewing pipetting reports on the web and tablet, data interoperability.

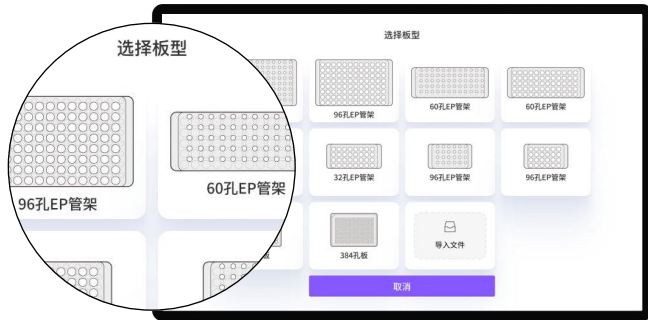
## Flexible Layout for Multiple Experimental Applications

A variety of well plates can be loaded, such as 96/384 microplates, eight-tube loaded, a variety of specifications of the EP tube racks



## Easy Pipetting Protocols Customization

Customize pipetting specifications, set pipette parameters, manage liquid information, etc., without worrying about complicated and tedious pipetting steps.

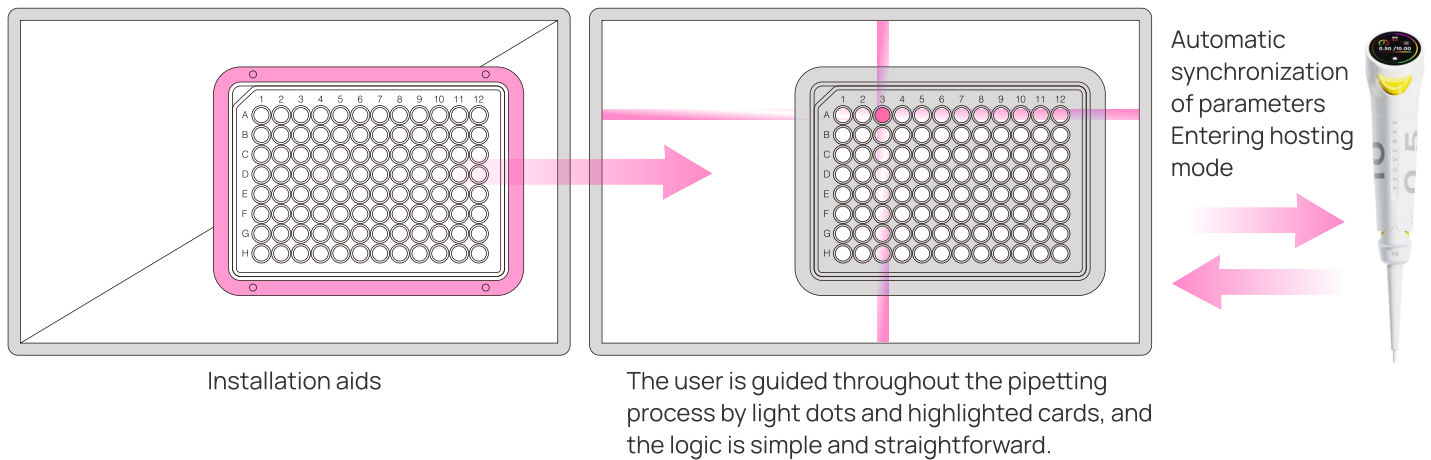


Online Programming



Import EXCEL file, generate program with one click

## Intelligent Guidance Of Pipetting Programs To Significantly Reduce Error Rates

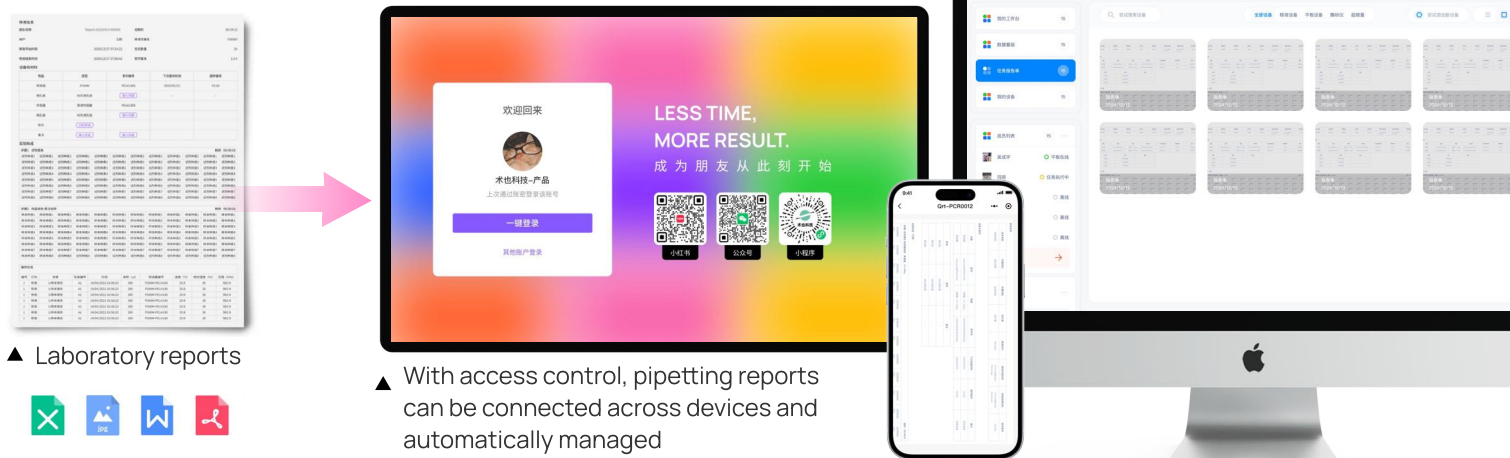


Installation aids

The user is guided throughout the pipetting process by light dots and highlighted cards, and the logic is simple and straightforward.

## Data Interoperability Throughout The Traceability

After the experiment, a report can be generated immediately, with detailed pipetting records, such as reagent information and operations, making the entire process traceable. Pipetting procedures and reports can be interconnected through computers, tablets, pipettes, and multiple devices, enhancing experimental efficiency and data management convenience.



▲ Laboratory reports



▲ With access control, pipetting reports can be connected across devices and automatically managed

# Targeted Scenario Solutions

## NGS Library Pooling

Multiple Patent Protection

**Existing Problem**  
Large sample volumes with varying requirements demand frequent adjustments, making the process time-consuming and labor-intensive.

**Automatic volume adjustment**  
The Digital Preparation Kit, when connected to a pipette, automatically adjusts the pipette settings according to the pipetting protocol, effectively saving pipetting time.


**Existing Problem**  
Complex 96-well plate spiking protocols with high risk of missed spikes

**spike guide**  
The Digital Preparation Kit reduces pipetting errors by automatically adjusting the corresponding pipetting device settings through spot-guided spiking.

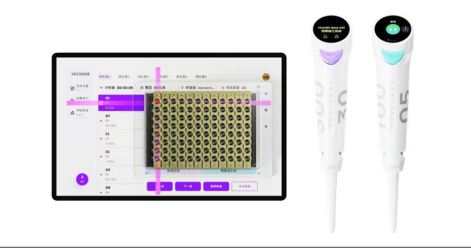
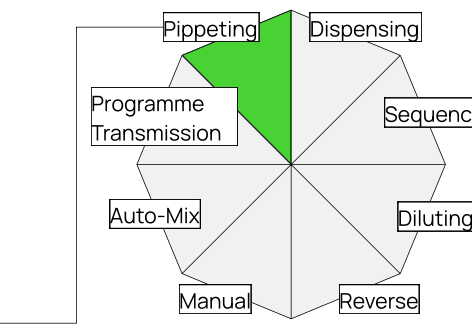
**Existing Problem**  
Manual recording of pipetting programmes is time-consuming and not easy to maintain

**Synchronized data**  
The Digital Preparation Kit keeps a complete record of all your operations in a visual format to ensure traceability and standardization.

**Pipetting Mode**  
Possibility to draw in liquid in pipetting mode and discharge the drawn-in liquid again



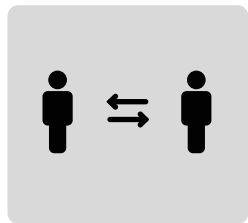
**@Lab Digital Prep Kit**

Effectively save 50% pipetting operation time; save 50% labor cost; increase data traceability, management easier; improve experimental efficiency, relieve work fatigue

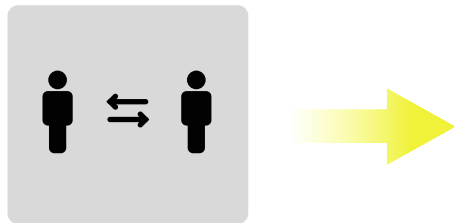
## Enhancing Pooling's Operational Efficiency with Digital Preparation Kits

Generally requires two people to collaborate, one person to experiment independently has a high error rate

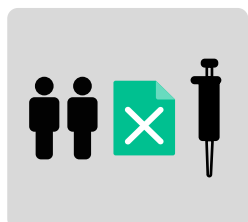


A unique and intelligent program for one person

One-click import of parameter files to automatically generate pipetting protocols, allowing one person to efficiently execute complex pipetting strategies.

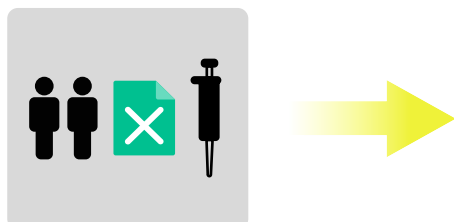


Tables need to be read and volumetric parameters modified before each aspirated sample

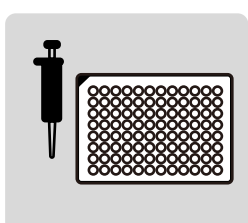


**Automatic adjustment of parameters**

Automatic adjustment of suction and discharge volume per hole, eliminating the need for multiple parameter adjustments.

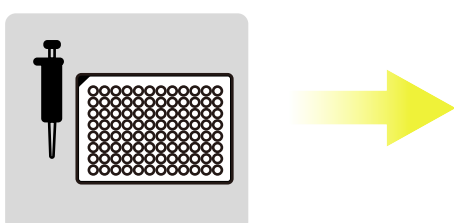


Manually locating the position of the aspirated sample is particularly difficult in multiwell plates



**spike guide**

Follow the red dot guide and start following the pipetting.



**Existing Problem**  
96-well plate spiking program is complex, easy to miss the wrong spiking

**Existing Problem**  
Requires precise pipetting, high pipette performance, and high operator experience

**Existing Problem**  
Frequent removal/retraction of the suction tip can lead to muscle strain.

**Spike Guide**  
The Vecverse Digital Preparation Kit reduces pipetting errors by automatically adjusting the corresponding pipetting device settings through spot-guided spiking.

**High Precision Liquid Handling**  
The Vecverse Smart Pipettes use high-frequency stepper motors with a "Taylor calibration system" to ensure accuracy.

**Ergonomic Design**  
Trigger-key suction and discharge operation, together with the motorized retractor head, can effectively relieve muscle strain caused by repetitive work.

**Pipetting**

Aspirate the liquid and dispense it again.

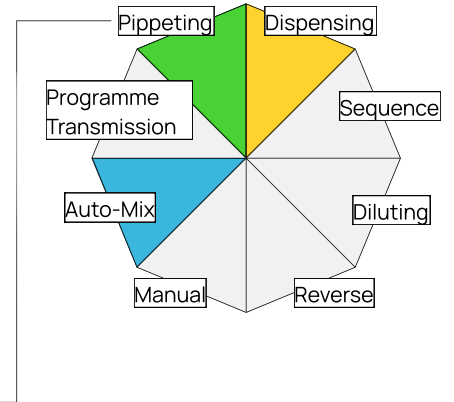
**Dispensing**

Aspirate the liquid, then dispense it in equal amounts over multiple times.

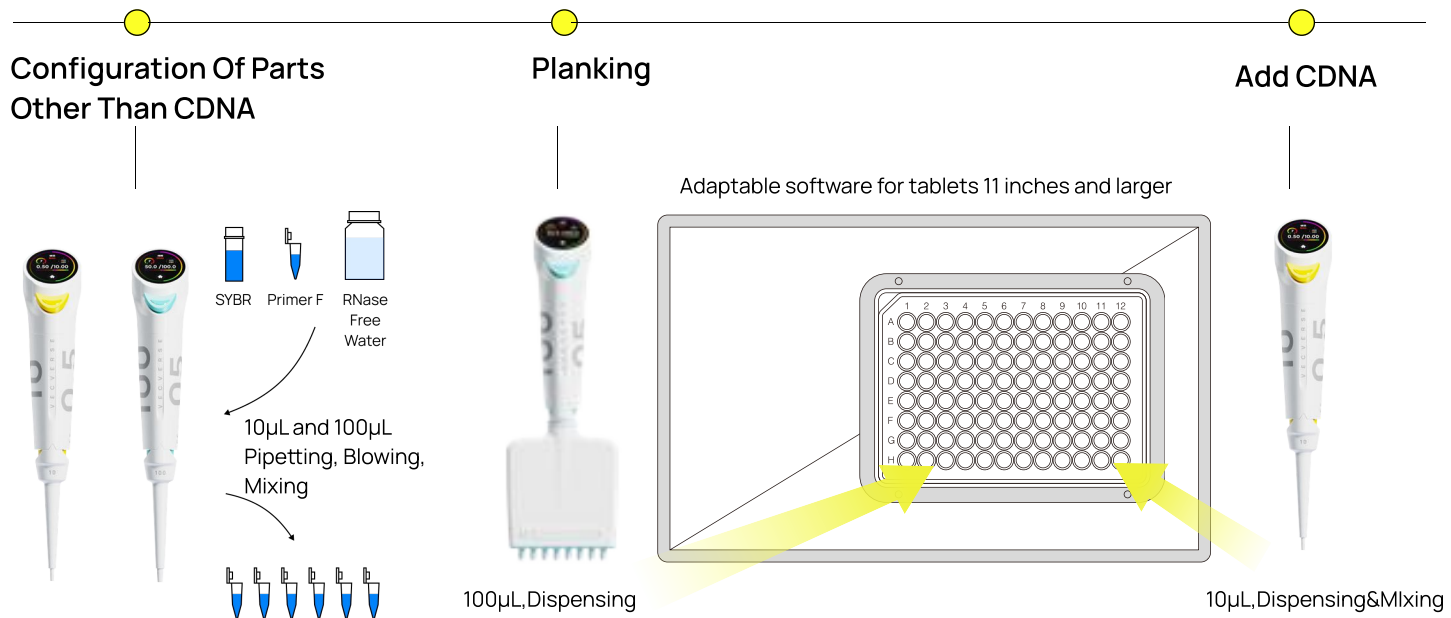
**Auto-Mix**

Automatic mixing mode can be set from 1 to 100 mixes.

**@Lab Digital Prep Kit**



Effectively save 70% of the pipetting operation time; improve the success rate of experiments, saving experimental costs; improve the efficiency of experiments, relieve work fatigue



# Targeted Scenario Solutions

## Screening Of Crystallization Conditions

Multiple Patent Protection

**Existing Problem**  
 Configuration of screening cell solution in 24-well plate/1.5mL EP multiwell plate with many operations.

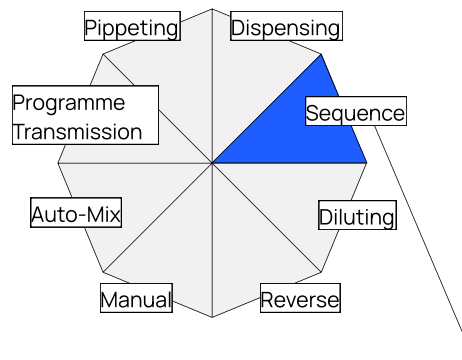
**Existing Problem**  
 Configuration of gradient concentration reagents requires frequent range adjustments.

**Existing Problem**  
 Pipette volumes require high accuracy and results require high reproducibility.

**Streamline Operations**  
 Each component of the cell solution can be added to different wells successively with a single aspiration.

**Continuous Dispensing Mode**  
 Continuous dispensing allows for continuous discharge of varying volumes of liquid without the need for frequent range adjustments.

**Precision Hardware Support**  
 High subdivision value stepping motor, ensure high repeatability of pool liquid component concentration



**Sequence Pipetting**  
 The Sequence mode lets you set various volumes, aspirate the liquid, and dispense it in batches.  
 The @Pette Pro features a smart algorithm that automatically derives the next volume based on adjacent step volumes, allowing easy sequential volume adjustments.

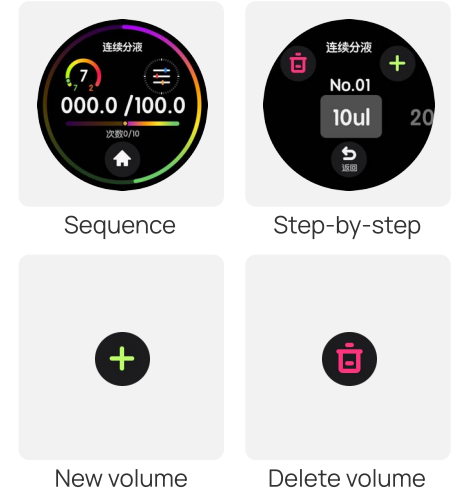
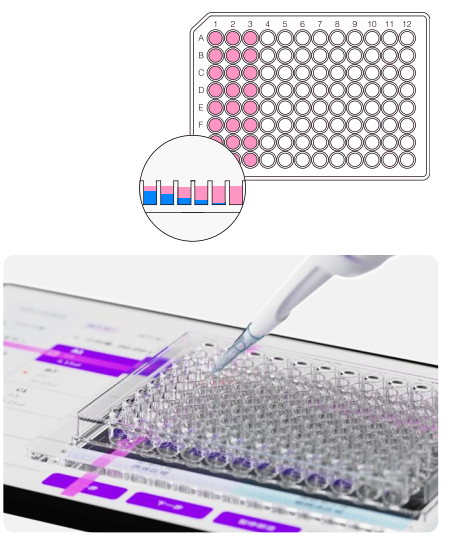


Improve the success rate of experiments, saving experimental costs; improve the efficiency of experiments, alleviate work fatigue

**Reduced number of aspirations**  
 The Sequence continuously discharges liquids of varying volumes without frequent range adjustments.

**Packing parameter setting**  
 Each component of the pool liquid can be added to different wells continuously by aspirating once, which simplifies the operation.

**Significantly improved reproducibility of results**  
 High subdivision value stepping motor, ensure high repeatability of pool liquid component concentration



# Targeted Scenario Solutions

## Determination Of Virus Titers

Multiple Patent Protection

**Existing Problem**  
Requires spreading cells in multiple wells, dilution of virus, complex and frequent operations

**Existing Problem**  
Gradient dilution of the virus needs to be well mixed, if each well is blown and mixed about 5 times, four samples need to be mixed more than 200 times

**Existing Problem**  
Requires jump-well spiking, gradient dilution requires continuous suction and drainage, easy to misoperate

**Increase Efficiency**  
Continuous Dispensing Mode allows for rapid spreading of cells on plates

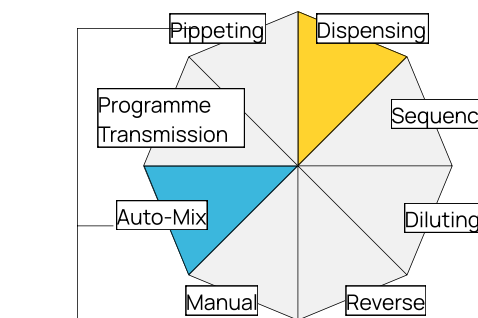
**Comfortable And Fast**  
Long press blending significantly reduces the strain on the thumb caused by continuous pressing of the blending.

**Spike Guide**  
Digital preparation kit with red dots to show the position of the suction and discharge samples, eliminating the need to memorize the position of the wells at each step of the experiment.

**Dispensing**  
Aspirate the liquid, then dispense it in equal amounts over multiple times.

**Auto-Mix**  
Automatic mixing mode can be set from 1 to 100 mixes.

@Lab Digital Prep Kit



Effectively save 70% of the pipetting operation time; improve the success rate of experiments, saving experimental costs; improve the efficiency of experiments, relieve work fatigue

**Data Transmission**  
Automatic adjustment of suction and discharge volume per hole, eliminating the need for multiple parameter adjustments.

**Auto-Mix**  
The long-press mixing/automatic mixing mode significantly reduces the strain caused by continuous thumb presses for mixing.

**Spike Guide**  
Follow the red dot guide and start following the pipetting.

