The Connected Laboratory for LC and LC-MS Workflow Automation

Waters™

Andrew+™ is an intelligent robot that allows scientists to develop reproducible, traceable, and easily implemented sample preparation protocols through highly repeatable pipetting. When using OneLab™, a cloud-native software environment, experiments can be intuitively designed, reproducibly executed and tracked through a rapidly evolving ecosystem of connected devices and accessories.
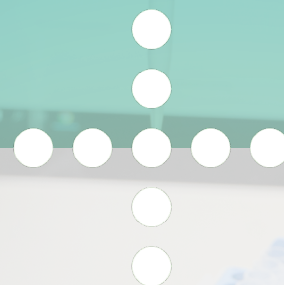
SIMPLE AUTOMATION

QUICK, FLEXIBLE, AND EASY TO USE

TRULY ACCESSIBLE SOLUTION

Welcome to the connected lab!

EFFORTLESS WORKFLOWS

Effortlessly transition from laborious manual pipetting procedures to error-free, fully-robotized lab workflows – without any knowledge of programming, laboratory robotics, or automation engineering.

- Method design wizards/actions useful for LC and LC-MS workflows.

- Serial dilution and normalization.

- OneLab cloud protocol library for LC and LC-MS applications.

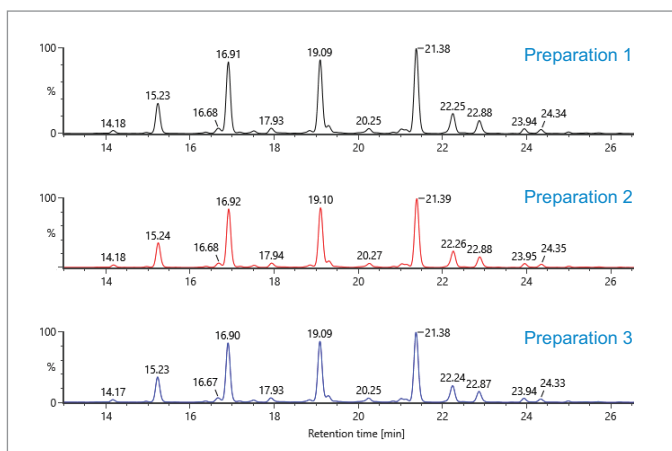- Automate protocols with Connected Devices, Tools, and Dominos.

EASE OF USE

When automation is easy-to-use, easy-to-learn, and easy-to-maintain, you can make quicker decisions and focus on value-added tasks like data analysis and interpretation.

- Pain-free drag and drop programming without the need for high-level technical expertise or programming knowledge.

- Intuitive touch interface for protocol design.

- Easy remote installation and implementation of workflows means a short learning curve for all users.

REPRODUCIBILITY AND ACCURACY

Variations introduced by sample preparation can often undermine an analytical method's performance, leading to inconsistent results. OneLab provides:

- A simple transition from laborious manual pipetting to guided pipetting or fully automated sample preparation.

- Centralized programming of connected pipettes and rapid sharing of protocols. Methods can be transferred from lab-to-lab or user-to-user with ease and consistency.

- Improved accuracy and reduced variability for added confidence in data.

Benefits of automated sample preparation.

Pipette
easy pipetting

FLEXIBILITY

Sample preparation techniques can vary from simple to complex, and the needs of your workflows may change overtime. A modular ecosystem of connected, automatable devices allows you the flexibility to expand the capabilities of your lab as the need arises, and execute your protocols how you choose including:

- Manual with standard pipettes and tools.
- Guided with electronic pipettes and connected devices.
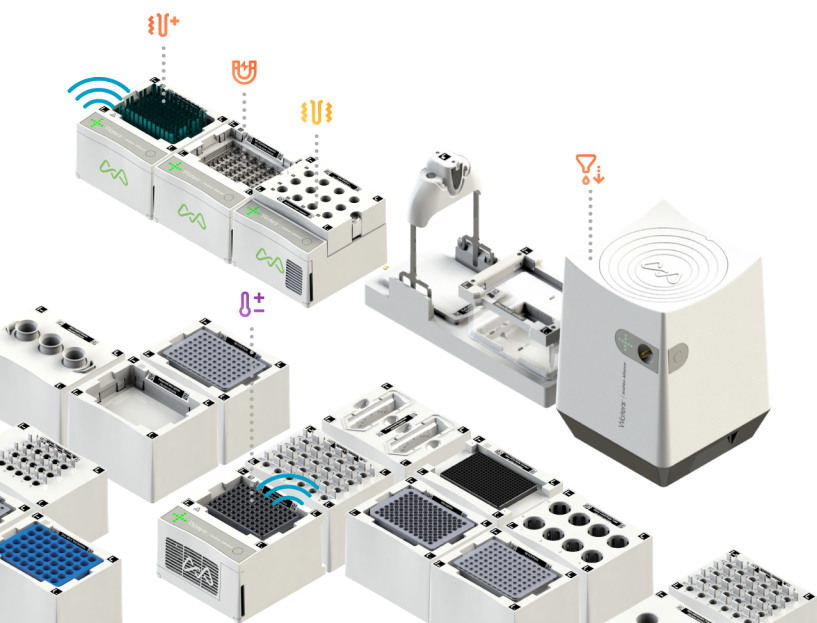- Fully automated with liquid handling robotics.

CONNECTIVITY

Consistency across workflows is key to ensuring reliable results you can be confident it. Coupled with OneLab, Waters™ connected devices and electronic pipettes eliminate the risk of error-prone experimental steps and inaccurate execution instructions. Capabilities include:

- Single and multi-channel pipetting with a dynamic range of 0.2 µL to 10 mL.
- Fully automated, hands-free flow through vacuum extraction.
- Reliable heating and cooling from 0 °C to 99 °C.
- Rapid and precise mixing, shaking, and magnetic bead separation.

OneLab
design & execute

TRACEABILITY

Electronic documentation of laboratory activities can ensure consistency, accuracy, and legibility of electronic records.

- Detailed documentation of every robot action, ensuring data integrity and minimizing the chance of costly errors.

- OneLab includes many technical controls to help laboratories looking to comply with electronic record regulations such as EU Annex 11 and 21 CFR Part 11 when combined with procedural and administrative controls.

- Capture of critical reagent metadata such as composition and preparation dates – providing critical data for analysts and auditors.

- Tracking of pipette and device calibration records.

HEALTH AND SAFETY

Musculoskeletal disorders (MSDs), often referred to as ergonomic injuries, account for over 30% of all workplace injuries and illnesses requiring time away from work. Robotics offer a quick solution for a stress-free and injury-free work environment.

- Reduces the hazards of repetitive motion injuries.

- Designed to fit in many hoods, benches, and biosafety cabinets.

- Collision sensors enhance safety of operation around humans.

Andrew
the pipetting robot

WATERS CONNECTED LABORATORY

From protocol design to execution, Waters has the solution for you:

- OneLab: A unique and free software solution to allow any scientist to design and execute laboratory protocols efficiently.

- Andrew+: The liquid handling robot that ensures reproducible and fully traceable experiments through automation.

- Pipette+™: Smart electronic pipettes that are controlled and guides from your browser while executing your experiments providing improved productivity with less workload.

Pipette
easy pipetting

Andrew
the pipetting robot

OneLab
design & execute

Design protocols

Execute experiments

waters.com\automate

For your local sales
office, please visit
waters.com/contact

Waters™