

RobTM

Automated 96/384 qPCR set up



Accuracy



Precision



Saves money



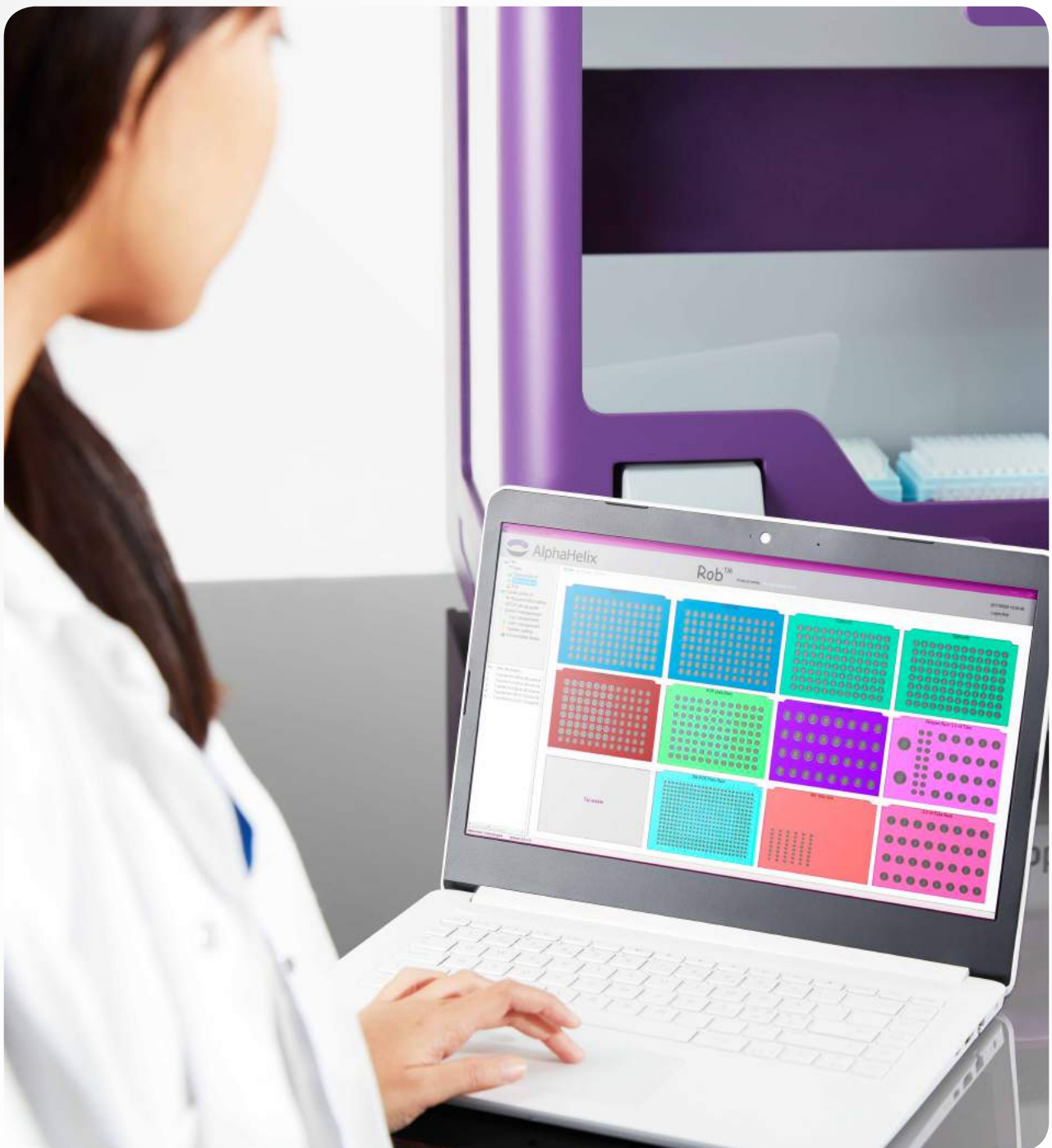
Saves time



Easy to use

Designed for everyone in the lab

Intelligent and unique. Incredibly precise and easy to use. Rob™ offers smart software and exclusive OneDip™ technology. With Rob™, there's no extensive training required. Within 5 minutes, anyone can operate the software and create protocols. This is supported with accessible help menu in every window.





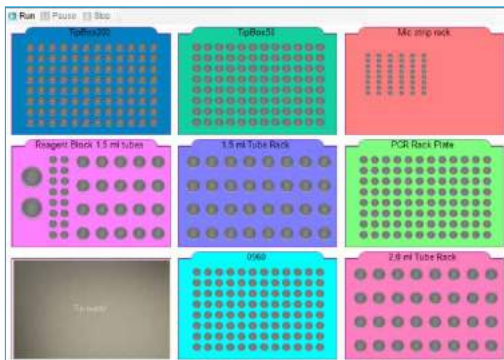
Easy to use

Liquid handling with intelligence

Rob™ utilizes virtual intelligence to simplify protocol set-up. The software takes care of everything. Rob™ predicts optimal conditions for dispense & aspiration speed, tips to use, and many more. This enables user to create protocol with the best precisions without any previous liquid handling knowledge.

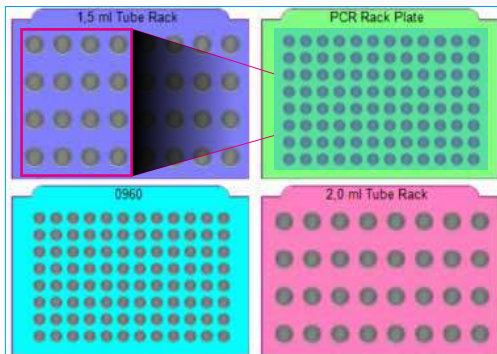
Three easy steps:

1.



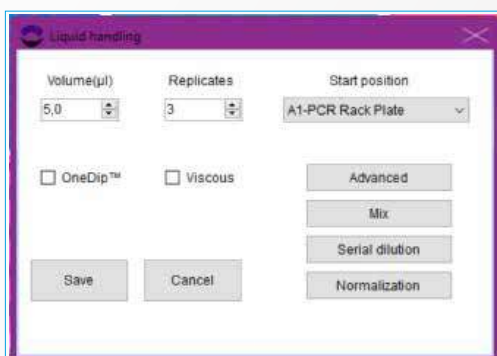
Select pre-set layout from [Protocol List](#).

2.



Mark [Source Wells](#) and drag to [Target](#).

3.



Enter [Volume](#) and number of [Replicates](#).



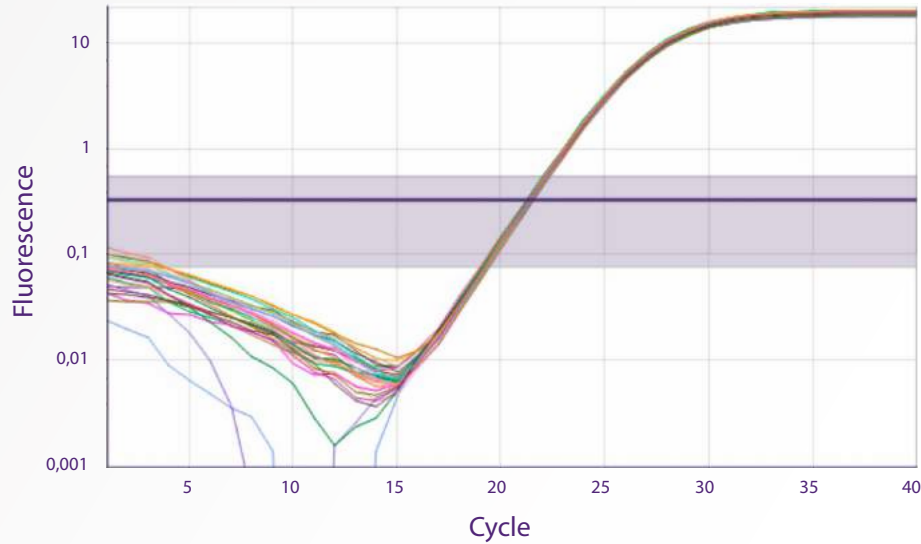
Precision



Accuracy

Unrivaled performance

Rob™ is optimized for PCR/qPCR set-up from a very low volume template. The reproducibility data on 1 µl dispense exceeds the reproducibility of 96/384-plate qPCR instruments.



Result: $Cq_{Average}$: 21.35
 Standard deviation (Cq): 0.08
 $Cq_{Max} - Cq_{Min}$: 0.30

Materials & methods: Primer is specific for mouse beta-actin. Single stranded DNA containing beta-actin amplicon sequence is used as template. Cycle condition were as follows: 2 min 95°C HotStart activation, then 40 cycles with 10 sec 95°C and 10 sec 60°C. Run time were 45 min with Mic qPCR cycler (Biomolecular System, Australia). The qPCR set-up were 18 µl qPCRBio SyGreen Mix (PCRBiosystem, UK) dispensed using multi-dispense followed by 1 µl template using single dispense from one tube. Run time were 8 min 14 sec.



Saves money

First choice for 384-plate set up

The propriety of OneDip™ technology allows Rob™ to make a PCR/qPCR set up with three sample replicates in just 45 minutes. This makes Rob™ the first choice for 384-well PCR/qPCR set up for medium through-put laboratories. Cost saving with OneDip™ is substantial. Usage of tips is reduced by 65% and dicard of reagents is less.

OneDip™ is limited to sample volume of 2 µl and 5 µl for reagent.



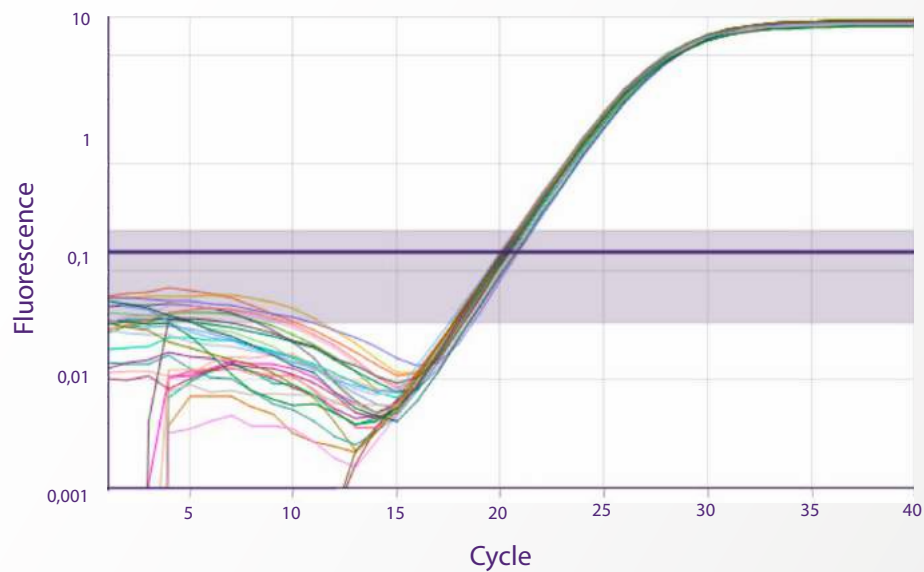
Saves money



Saves time

OneDip™ performance

Rob™ has OneDip™ technology, which enable multi-dispensing of liquid from 2 µl with proper precision. The amplification curve below showed the detection of 2 µl template prepared using OneDip™ mode. The data is analysed by taking an average of triplicates.



Result:	<u>Based on average Cq value of triplicate</u>	<u>Based on single template</u>
	Cq _{Average} : 21.25	Cq _{Average} : 21.25
	Standard deviation (Cq): 0.075	Standard deviation (Cq): 0.19
	Cq _{Max} - Cq _{Min} : 0.23	Cq _{Max} - Cq _{Min} : 0.82

Materials & methods: follow the same parameter with 1 µl experiment (left).

Reliable result

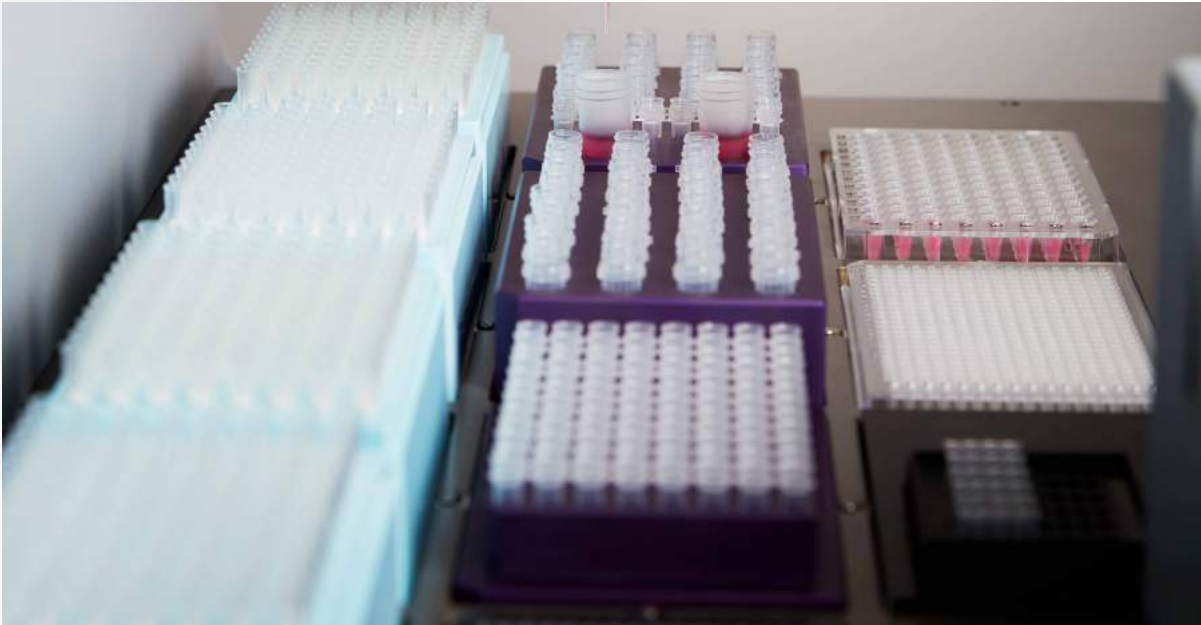
After you set up a protocol, you will get a Pre-run Report that informs you the volume required for reagents and samples. During the run, Rob™ verifies the reagents position and volume assuring no pipetting mistake will occur.

Liquid level detection (LLD) and tip detection mechanism ensure reliable aspiration and dispensing in every run. Since Rob™ utilizes pressure-based LLD, the use of expensive conductive tips become unnecessary.

Post-run Report is accessible in the software, anytime you need it.

Rob™ communicates with other systems

Rob™ is designed to communicate with all instruments for both upstream and downstream applications. Sample data can either be entered manually, by using barcode scanner, or imported as csv file. On every run, your protocol will be assigned a unique ID which is required quality assurance. To keep track of liquid handling, you can export the data from Rob™ to PCR/qPCR instrument or back to LIMS.



Easy to use

Software features

qPCR set-up guide: this will guide you to design the protocol of your qPCR experiment step-by-step. It optimizes the use of reagents, samples, controls and standards. The flexibility to use several Master Mixes in one run is also an advantage. Parameters in the protocol can be saved and modified easily, anytime.

Serial dilution: compare to manual pipetting, automation will maximize accuracy. Information that you need to enter are dilution ratio, number of dilution steps, and position of standard and diluent. This makes Rob™ a perfect tool for the job.

Sample normalization: you can normalize sample concentration with Rob™. Just input information of sample volume and the concentration measured by other instrument. Rob™ will calculate the required diluent volume automatically and pipet them accurately.

A close-up photograph of a pipette tip dispensing a purple liquid into a multi-well plate. The pipette tip is positioned vertically, and a thin stream of purple liquid is falling from its tip into one of the wells. The multi-well plate is in the foreground, and the background is blurred, showing other wells and the overall laboratory setting.

Who are we?

We design, develop, and deliver products for PCR/qPCR application. Our products are a result of over 25 years of experience in liquid handling and 10 years of support and service for automated qPCR set up.

Visit us at alphahelix.com



Product specifications

Liquid handling:

Volume range: 0.5 – 200 µl

Precision: CV < 2% for 2 µl

Set-up speed:

96 plate, three replicates, ready-made mix: < 28 min

Using OneDip: 13 – 14 min

Liquid level detection:

Detection limit: Detects as low 3 µl in a 200 µl PCR tube

Detection precision: ± 0.3 µl in a PCR tube with 20 µl volume after tip change.

Disposables and blocks:

50 µl filter tips	Cat no: 67-0050
50 µl tips	Cat no: 67-0050NF
200 µl filter tips	Cat no: 67-0250
200 µl tips	Cat no: 67-0250NF

Reagent block	Cat no: 66-5002
Block for 32 tubes, 1.5/2.0 ml	Cat no: 66-3215
Block for 96 tubes or plate, 0.2 ml	Cat no: 66-0096
Block for 384 PCR plate	Cat no: 66-0384
Block for Rotor-Gene 0.1 ml	Cat no: 66-0072

Ordering information Rob™ system (65-2001) including:

- Instrument with cables
- USB with software and user manual
- Three aluminum blocks for Cat no: 66-3215, -5002, -0096
- One package (10x96) each of 50 and 200 µl filtered pipette tips



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