Control and interlink

Overhead stirrers

Magnetic stirrers

Thermostats

Evaporators

Peristaltic pumps
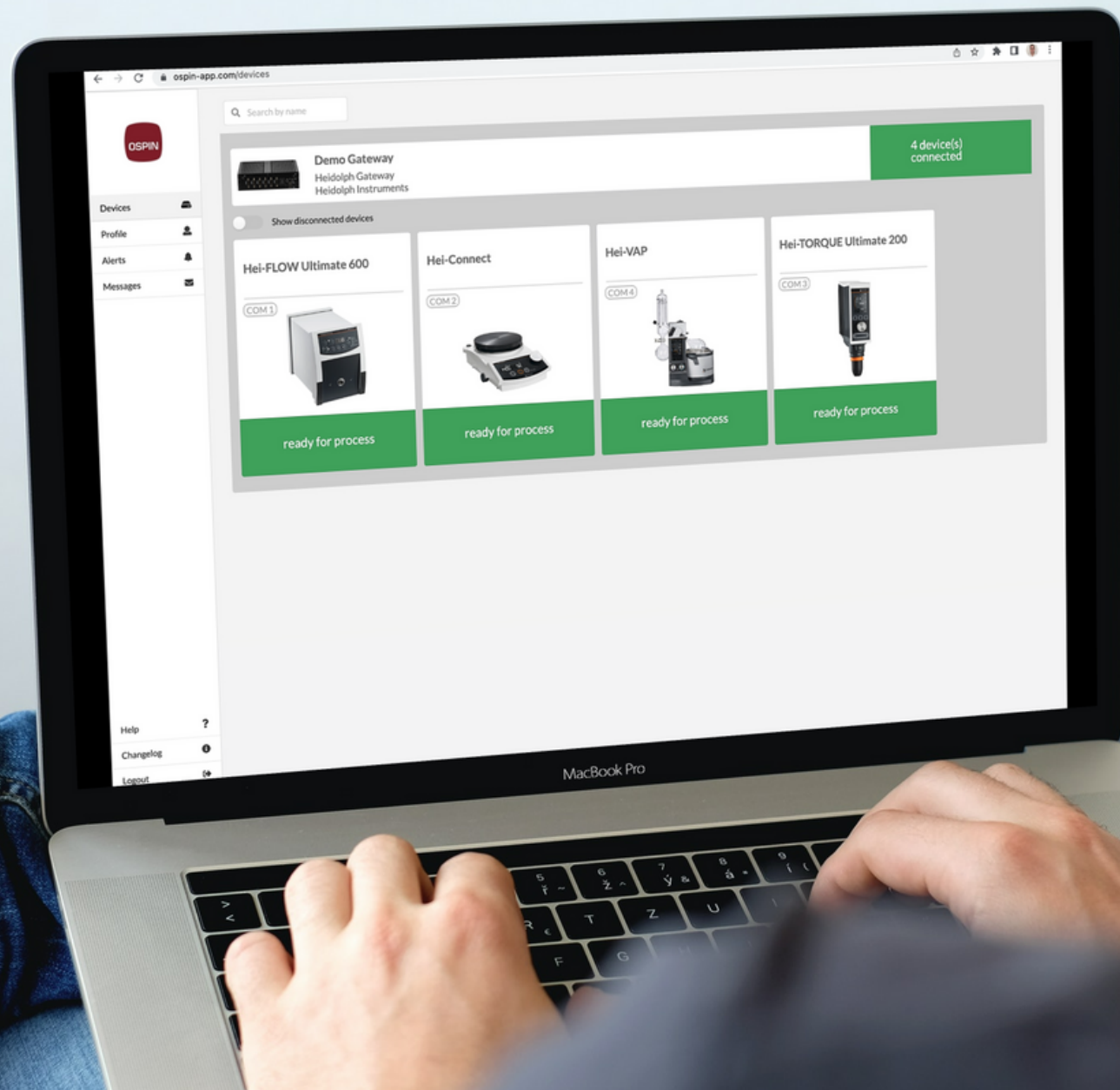
Scales

pH sensors

DO sensors

Conductivity sensors

Temperature sensors

Hei-PROCESS - The lab of the future starts here

Do you want to:

Control multiple devices during complex processes?

Have your experimental data automatically recorded, safely stored, and always accessible?

Reduce human errors and increase reproducibility?

Run processes remotely 24/7?

Have a setup tailored to your experiment and that you can modify on the fly?

**Then Hei-PROCESS is what you need**

Multi-device and multi-phase processes

- Control processes including any number of devices
- Program complex processes including any number of phases that can be grouped in loops
- Make on-the-fly process adjustments that are automatically tracked
- Interlink devices and set control loops and end-point conditions
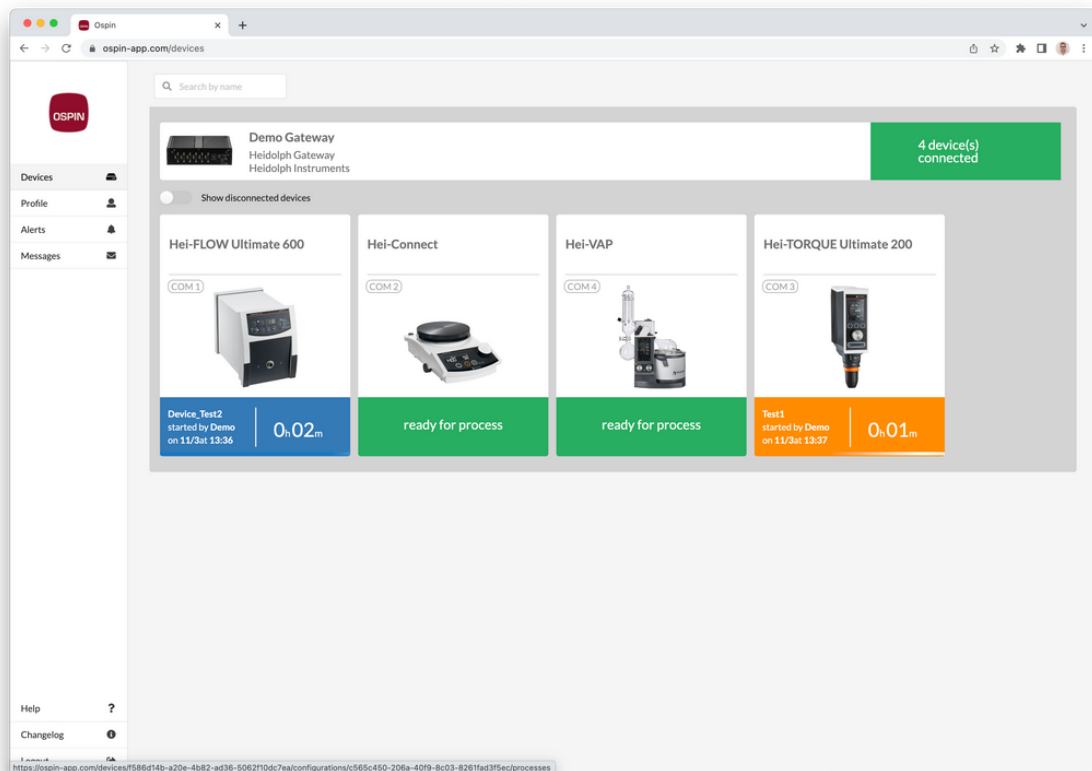
No more manual logging and errors

- Let the software record all your experiment data and visualize them in a customizable dashboard
- Clone process recipes for reproducible and consistent results
- Create reports in one click or download data for further analysis
- Have all your data saved in the cloud and accessible from any browser
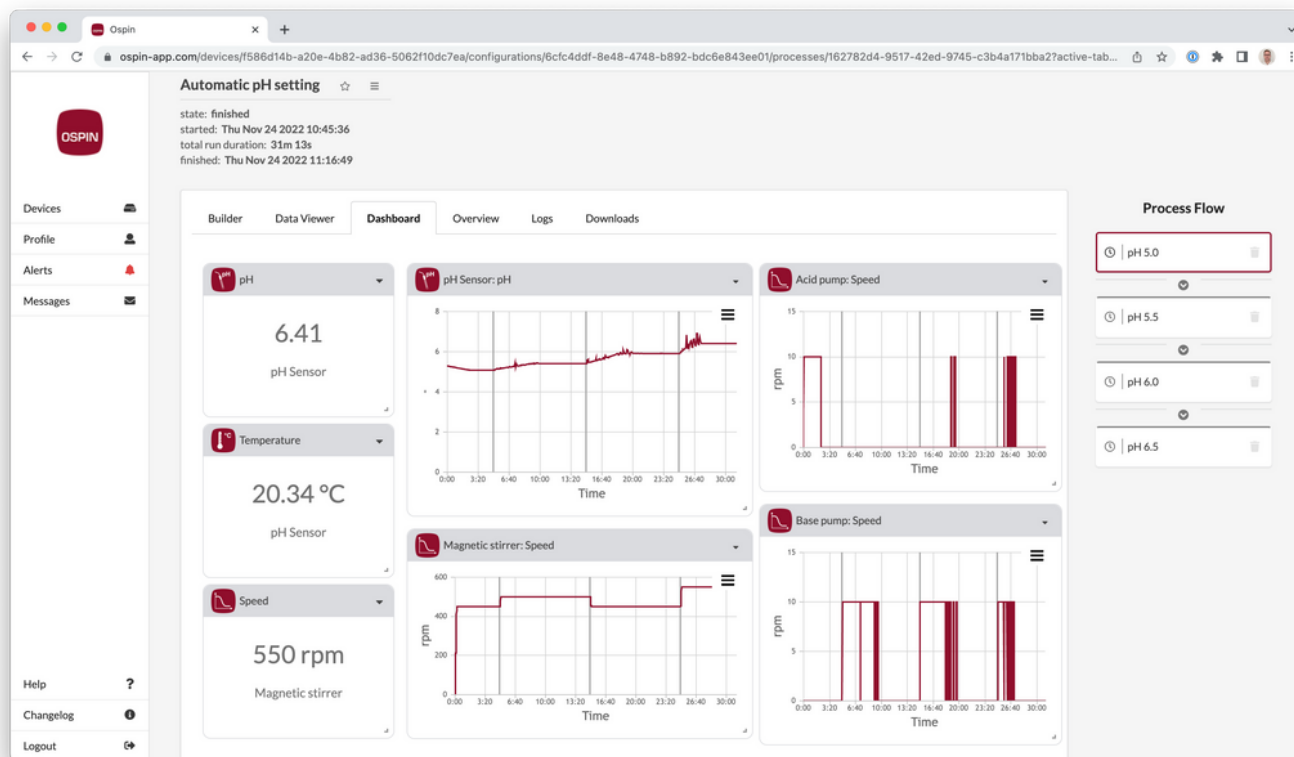
Remote, continuous processing

- Have devices working together for fully automated processes that do not need any manual intervention
- Monitor and control your processes and devices remotely from any browser
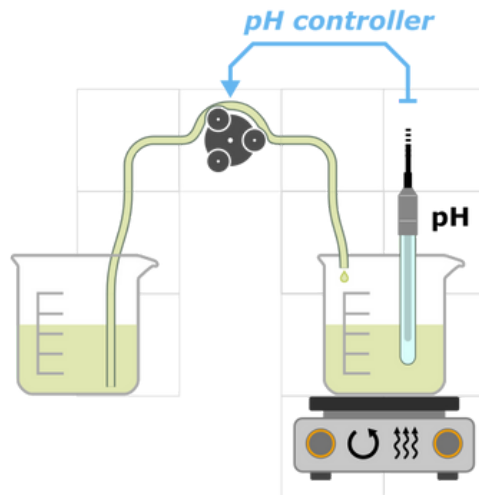- Set individual device warnings in your dashboard
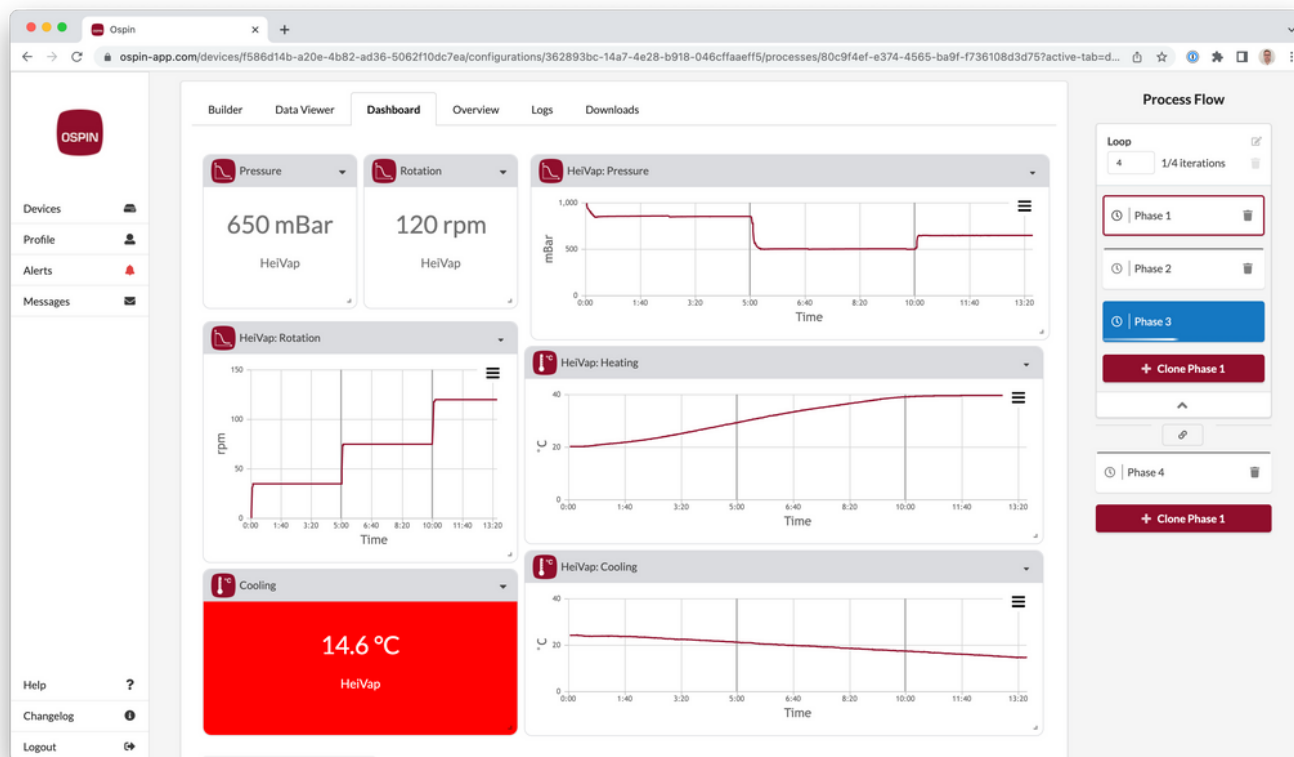
Customizable, flexible setups

- Choose device combinations for tailored experiment automation
- Modify device combinations when your experiment changes
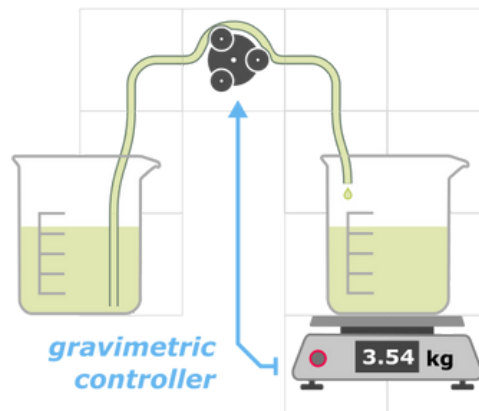- Interlink devices to create new functionalities on the fly

Pump-based controllers

This device combination allows you to reach and control the desired pH in your vessel: when the measured pH is below your target, an alkaline solution is pumped into your vessel.

Of course, you can also define an acid-based controller that can actively lower the pH.


With this device combination, you can dose solutions reliably, accurately, and automatically. You set in the software UI the mass of solution you want to add to your vessel and the pump dispenses it automatically based on the feedback from the scale: when the target amount is reached, the pump stops.

Chemical reactor
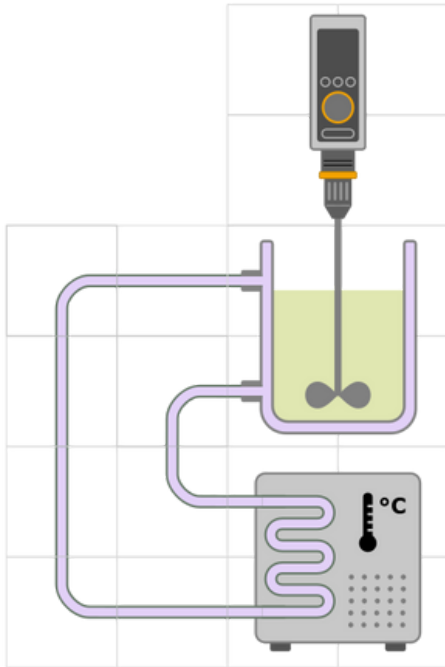
Start simple - This basic version includes an overhead stirrer and a thermostat and enables you to program the basic environmental parameters for chemical reactions. The stirrer speed can also be controlled by the temperature in the vessel.
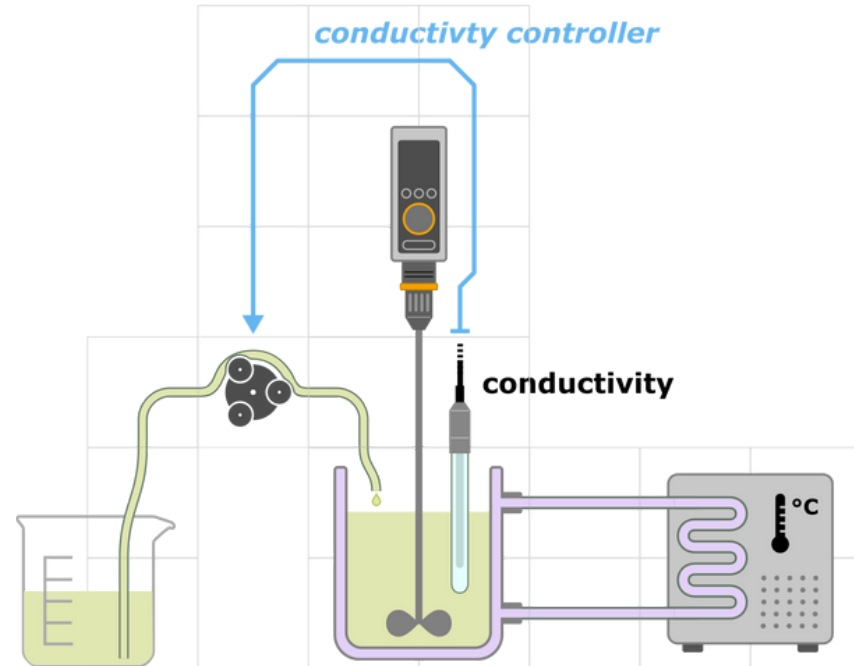
Add more modules later - To the basic version you can add several sensors, actuators, and controllers, such as pumps and pH and conductivity controllers.

Ask us for a specific device combination or build one yourself.

pH controller

gravimetric controller

3.54 kg

pH

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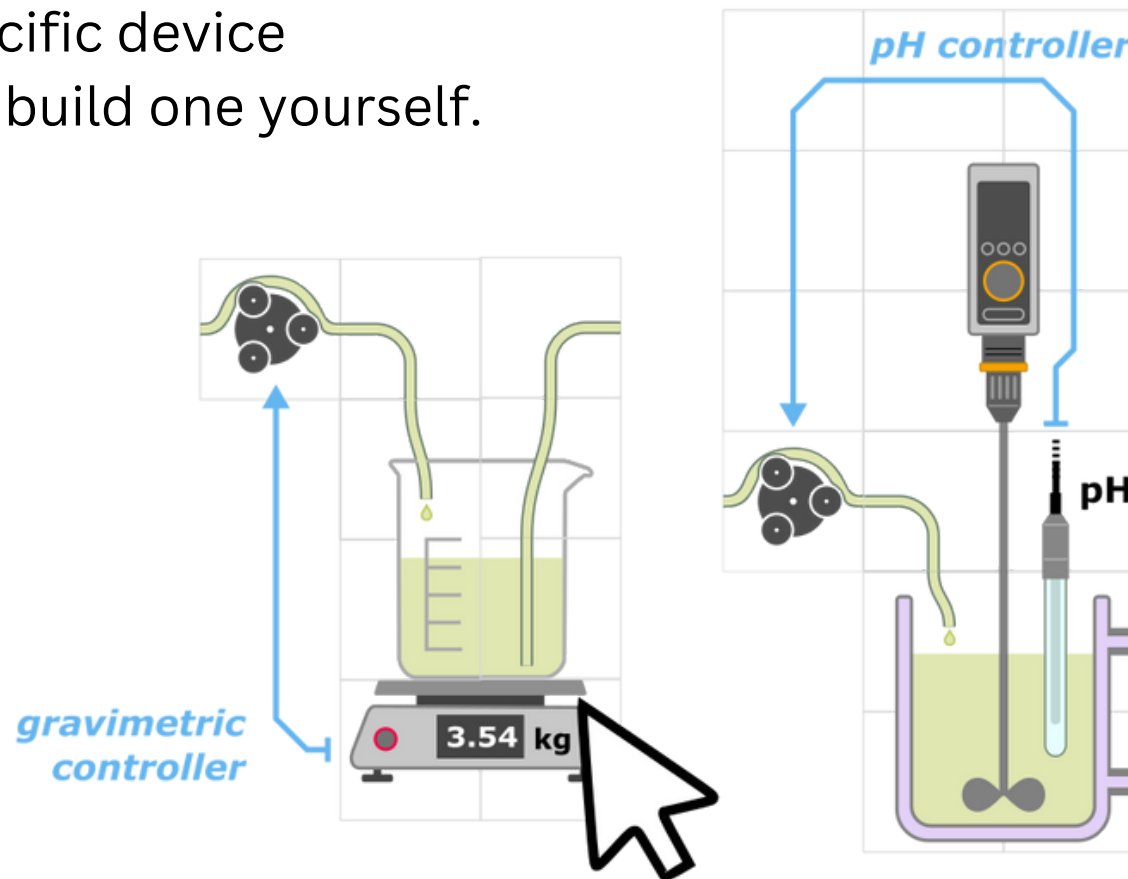
Software licenses

	Core	**Expert**	**Ultimate**
General capabilities	Up to 6 independent devices or pre-defined setups including up to 2 devices and 1 sensor.	For custom-predefined setups including any number of sensors and actuators.	Create your setup yourself based on combinations of compatible devices.
Pre-defined setups	Gravimetric dosing, pH controller, and basic chemical reactor	Chemical reactor with add-ons	

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Available devices and gateway

Magnetic stirrers	Heidolph
Overhead stirrers	Heidolph
Thermostats	Heidolph, Lauda, Huber
Evaporators	Heidolph
Peristaltic pumps	Heidolph
Scales	Kern & Sohn
pH sensors	Hamilton
DO sensors	Hamilton
Conductivity sensors	Hamilton
Temperature sensors	Heidolph

- 6 RS232 ports, extendable through USB serial multiplier
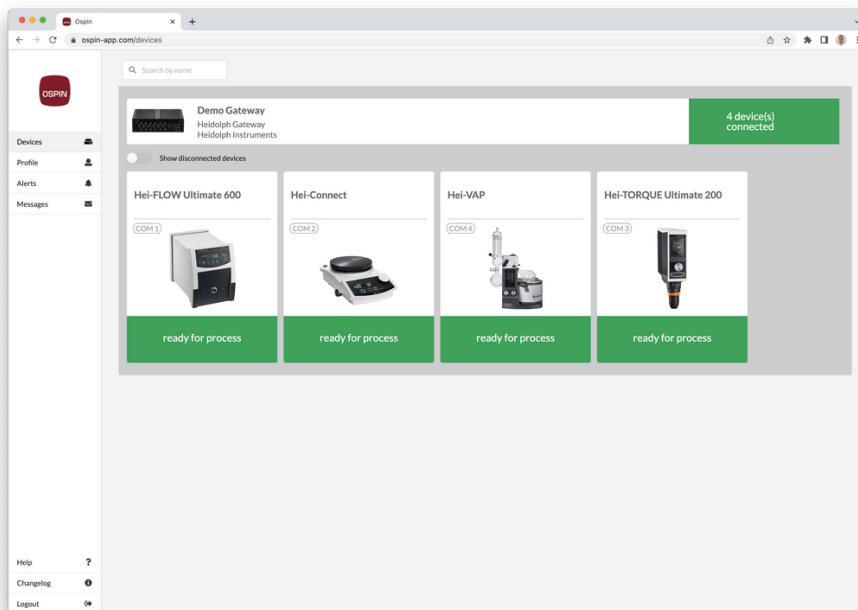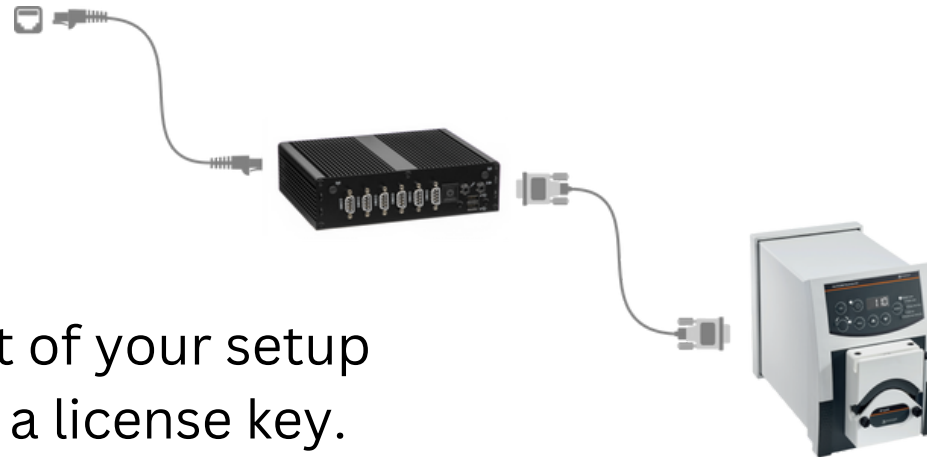- Ethernet port
- 2 USB ports

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STEP 1

You get from us:
- the lab devices part of your setup
- and a gateway with a license key.

Connect the gateway to the internet and the devices to the gateway.

STEP 2

Go to ospin-app.com, create a user account, and enter the license key your received with your gateway: your devices are now online and ready to be used.

STEP 3

Design your process by creating process phases and defining for each phase device settings and phase transitions (manual-, time-, condition-based). Then click on start, sit back, and relax!

Process design and execution

	Core	Expert	Ultimate
Recipe-based process control	✅	✅	✅
Manual and time-based phase transitions	✅	✅	✅
Conditional phase transitions	Up to 2 per process	✅	✅
Parallel process execution	✅	✅	✅
Single device processes	✅	✅	✅
Multi-device processes	Up to 2 devices and 1 sensor	Customizable, pre-defined setups	Create combinations yourself
Interlink devices and create controllers		✅	✅

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Data and monitoring

	Core	Expert	Ultimate	Add-on
Annotations	✅	✅	✅	
Timeline synchronization between datasets	✅	✅	✅	
Download of individual datasets	✅	✅	✅	
Customizable dashboard for data visualizaion	✅	✅	✅	
Alerts on dasboard	✅	✅	✅	
SMS and e-mail alerts			✅	✅
User right management	✅	✅	✅	

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Data and monitoring (cont.)

	Core	Expert	Ultimate	Add-on
Reports			✅	✅
GMP certification				✅
Custom user rights management				✅
Digital signature				✅
ELN				✅
Streaming webcam				✅

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