



Laboratory robotics

Robots and robotic assistance systems are establishing themselves in many different medical areas - including use in specialised medical laboratories. They not only support the specialist staff, but also make a decisive contribution to optimising and improving sample quality, as well as utilisation. The robotic systems can also reduce operating costs.

The biggest advantage of laboratory robots is their speed, continuous precision and tirelessness in repetitive tasks. Thanks to technological advances, today's robots are smaller, more flexible in their job roles and meet higher hygienic standards. In addition, most robots include an integrated vision system and are easy to programme.

The most common tasks that robots perform in laboratories are dispensing, mixing, automating pipetting processes, assembling sterile instruments and loading and unloading centrifuges.

The flowbot ONE is dedicated to the automation of pipetting processes. Thanks to its intuitive user interface, it is possible to make adjustments to process changes easily and without time-consuming programming. Unlike other robot technologies, the flowbot is designed to adapt to workflows and laboratory processes.

In order to integrate the liquid handling robot ideally into daily business, a connection to a WLAN-capable computer or tablet must be established in advance. The specific requirements of the design can be easily set and changed at any time. Using a simple drag-and-drop solution, it is possible to change the individual components directly on the robot. These are automatically recognised by the AR technology. Both standard panel formats and customised rack formats can be used. QR codes and computer vision technology can be used to guide the setup and execute the correct protocol procedure. The integrated barcode scanner and the creation of output CSV files can ensure exact traceability of the samples.

Furthermore, the robot can be extended and optimised in its range of applications by additional, integrated devices such as a shaker or heater-cooler. The integrated device functions enable complete start-stop control in the workflow.

INNOVATIVE TECHNOLOGICAL APPROACHES

- ◇ **Company:**
Flow Robotics A/S
- ◇ **Product:**
Flowbot ONE
- ◇ **Application:**
Laboratory robots (Pipette robots)
- ◇ **Awards:**
DIRA Technology Award 2021
- ◇ **Advantages:**
Increase in productivity up to 40%

Intuitive user interface / no complex programming necessary
- ◇ **Website:**
<https://flow-robotics.com/>

Were we able to arouse your interest?

The use of robots or robotic assistance systems in medical technology is versatile and innovative. In our latest issue of arcoro INNOVATIONS you will find market insights, company overviews and technological innovations as well as an exciting expert interview on the topic of medical robotics! Don't miss it and visit our arcoro website!

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