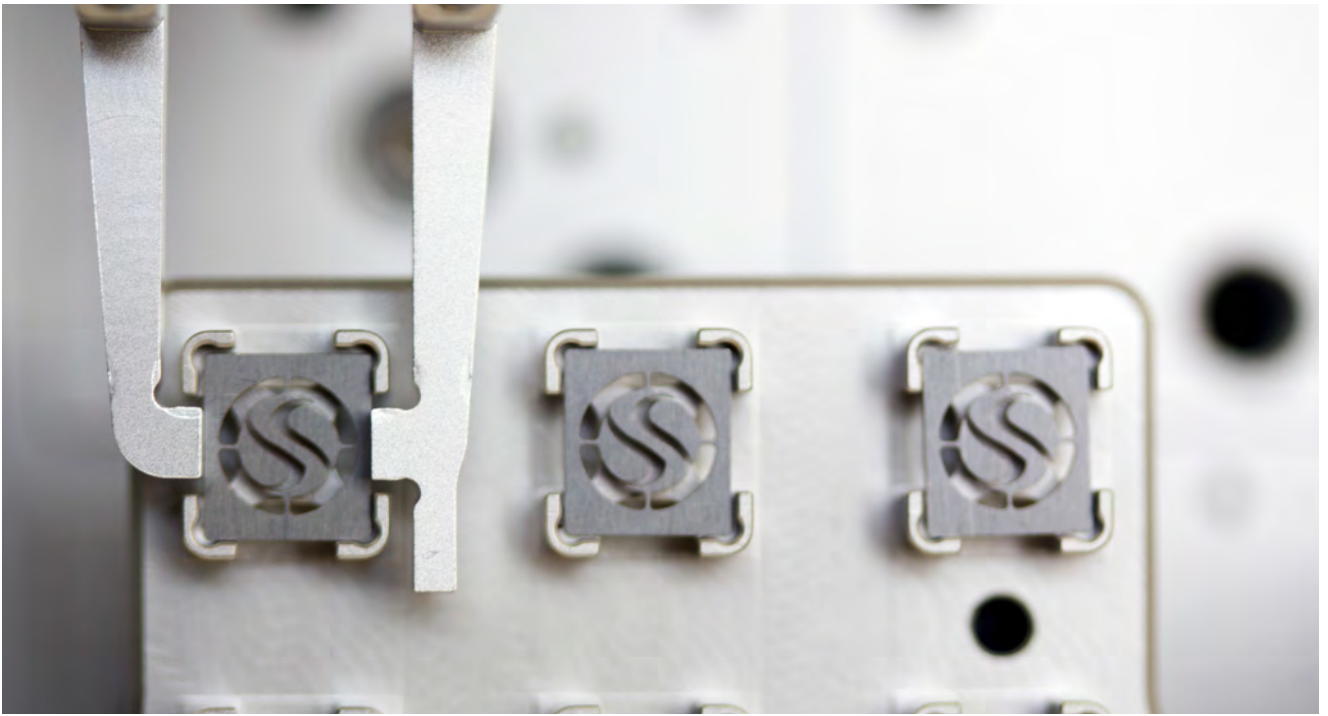


AUTOMATION

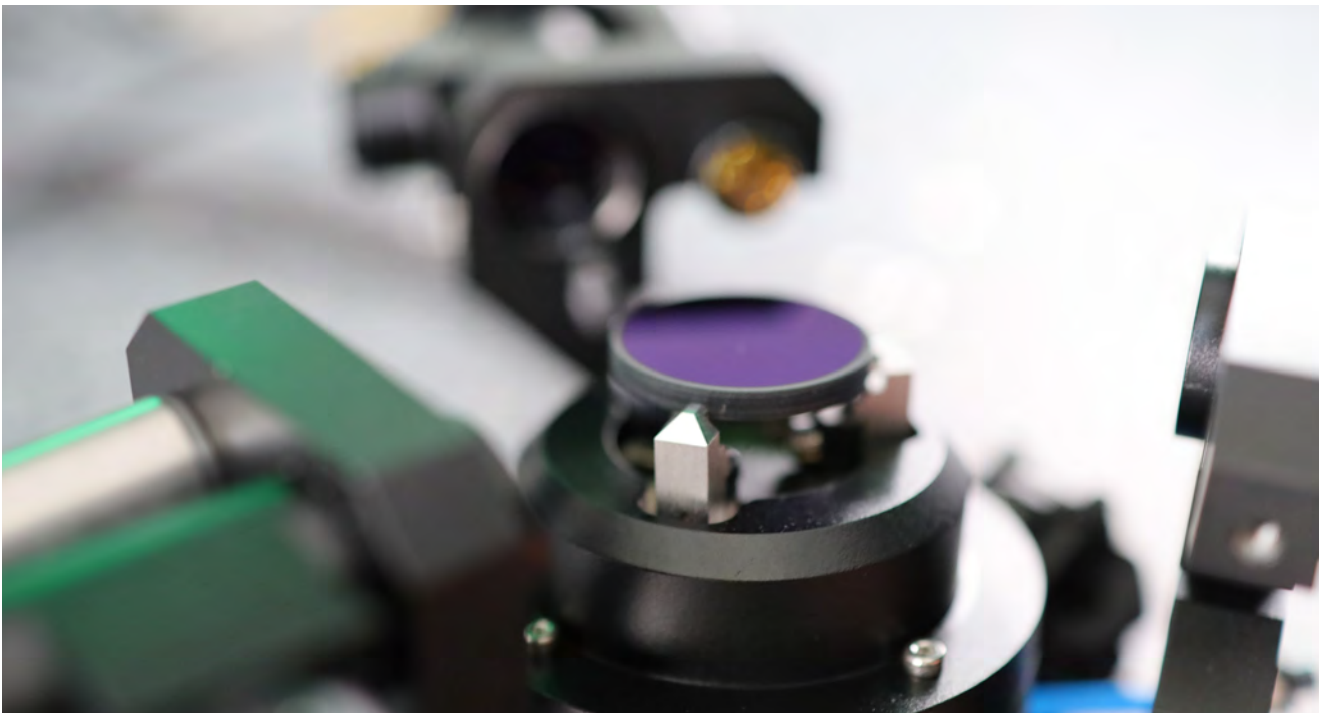
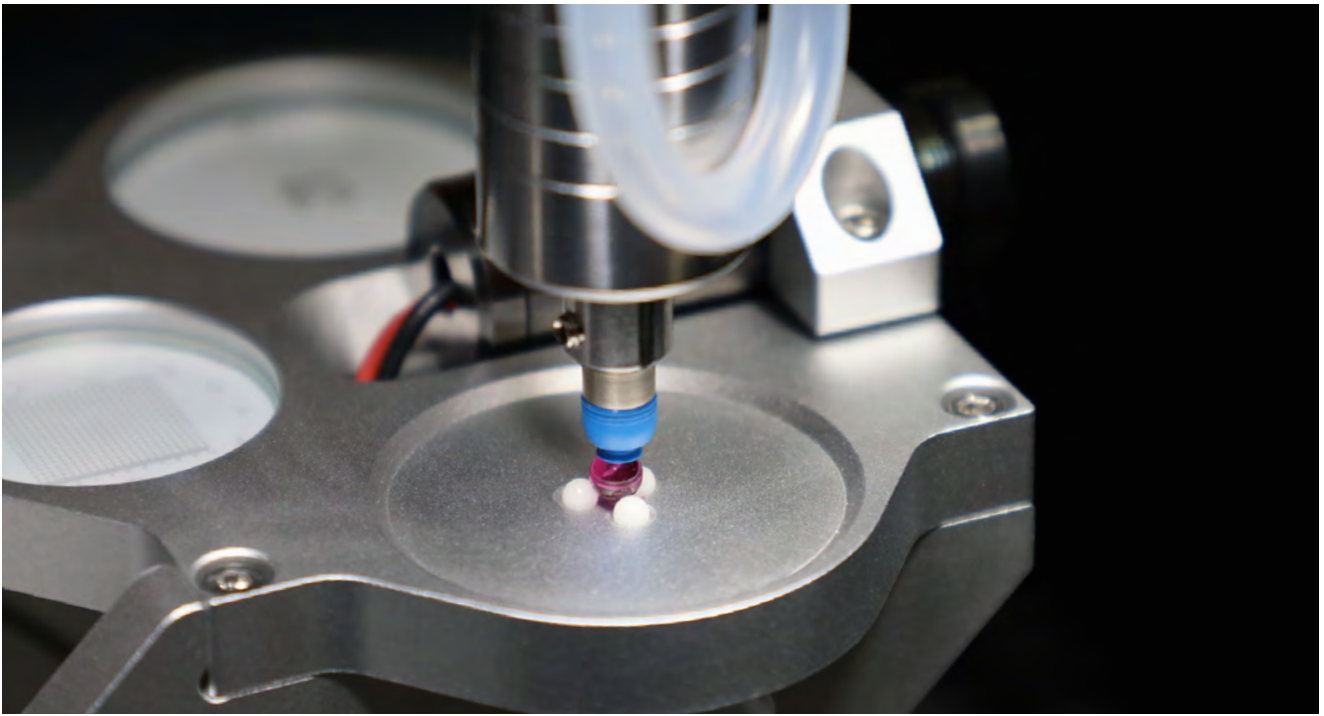
Fully automated microassembly solutions for accurate positioning, gripping, aligning and mounting of small components



Future-Proof Modularity

Based on strict modularity, SmarAct Automation develops both partially and fully automated systems. The most advanced products from the entire SmarAct Group are used and combined with further state-of-the-art technology to provide

precise, fast and reliable solutions. To complete this portfolio, SmarAct Automation also offers process development, outsourcing manufacturing, and of course the mandatory maintenance and service packages around these products - for rapid



development and future-proof integration of your microassembly processes into your production environment. The best-selling positioning systems such as the hexapod-like **SMARPOD**®s and XYZ positioning systems from SmarAct can be expanded

with versatile microgrippers and combined with sophisticated technical modules like the SmarAct lens alignment module.

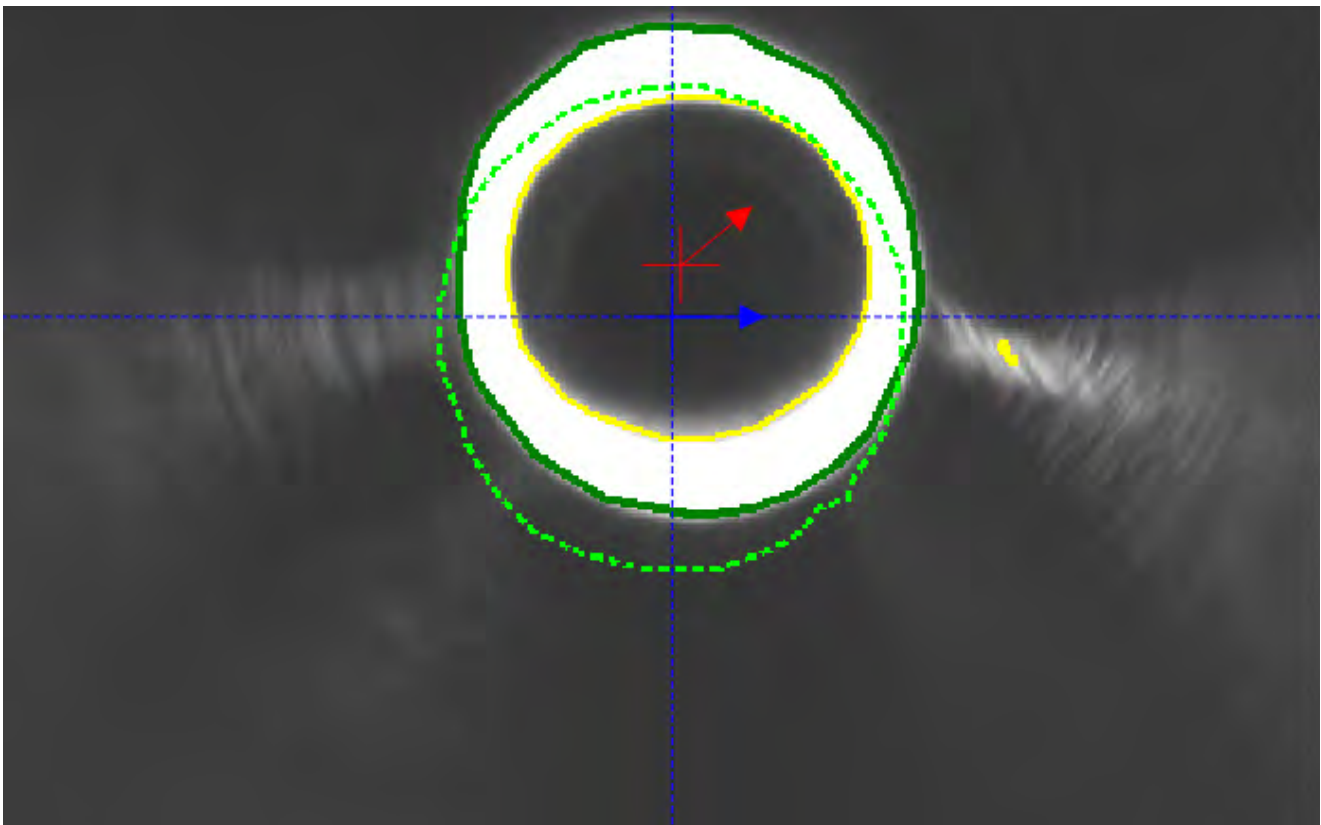
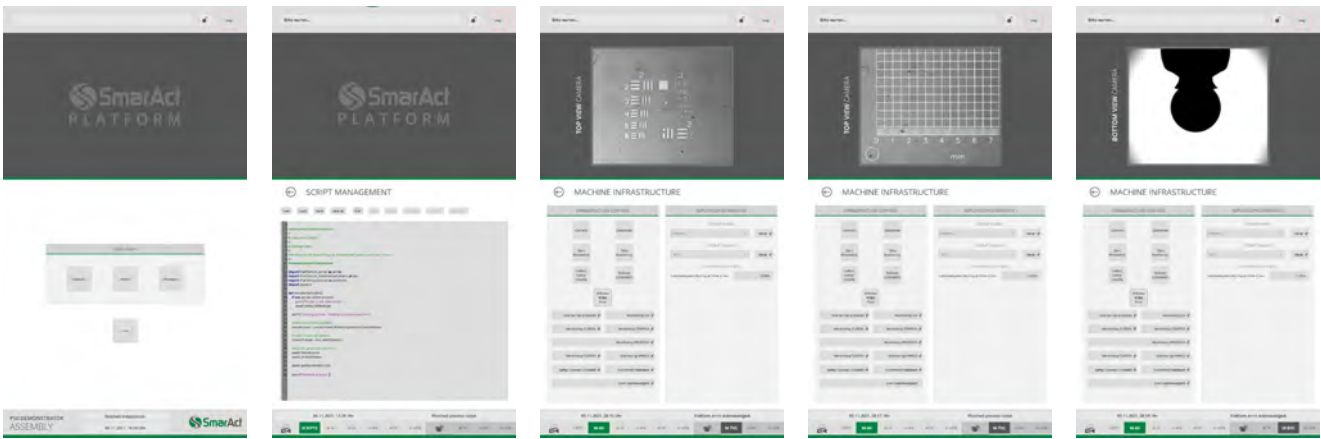


Large Scale Automation

The SmarAct Automation P50 provides you with a secure, future-proof and reliable foundation to transfer your promising idea from the lab to successful serial production.

Microassembly applications including the most demanding active alignment processes will get the robust and secure framework your prospective research needs to lead the markets of the future on a large scale.



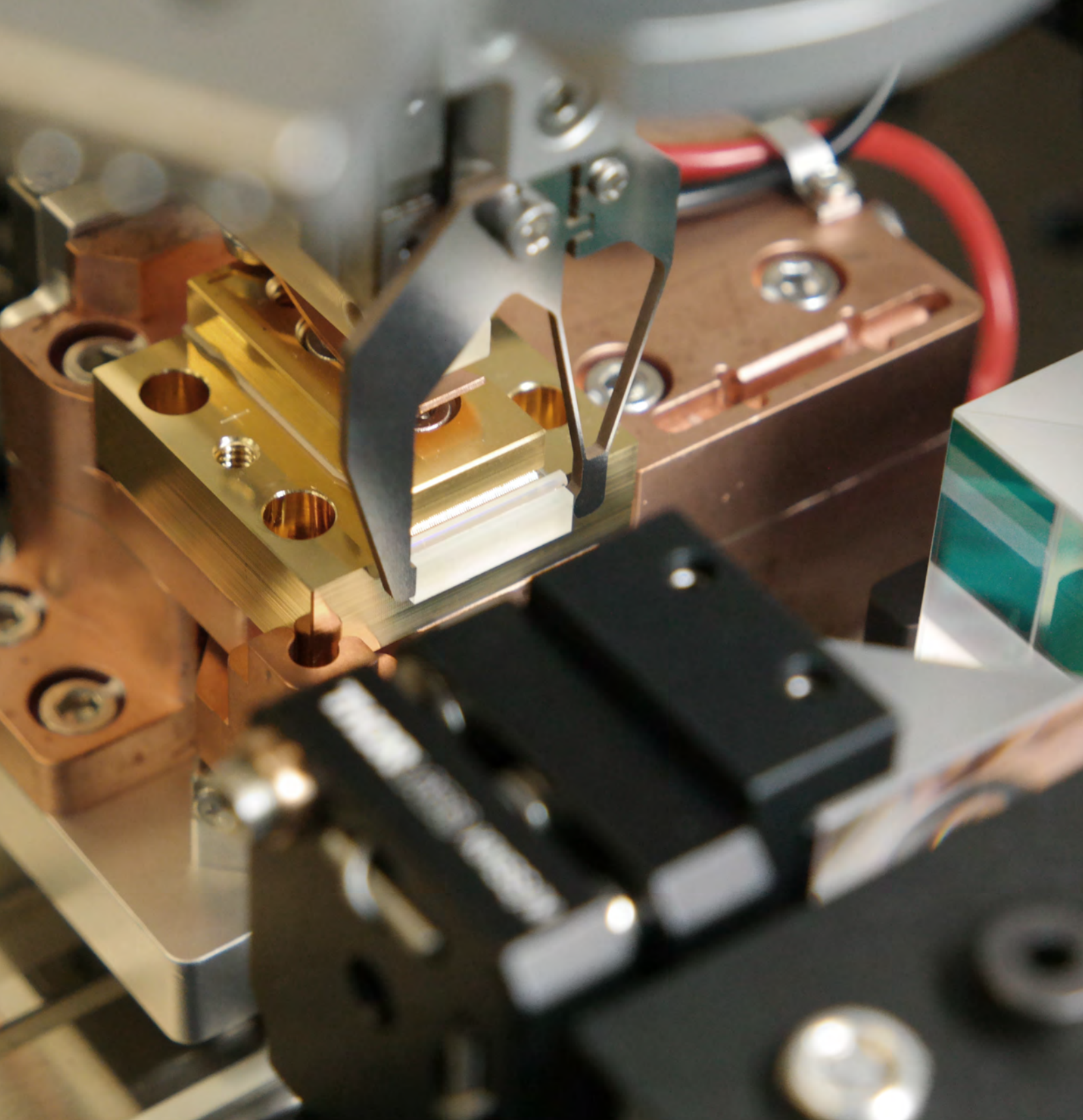


Customizable Operating Software

The modularity of your microautomation platform is not only reflected in the flexible use of various technical modules, but also in the software supplied.

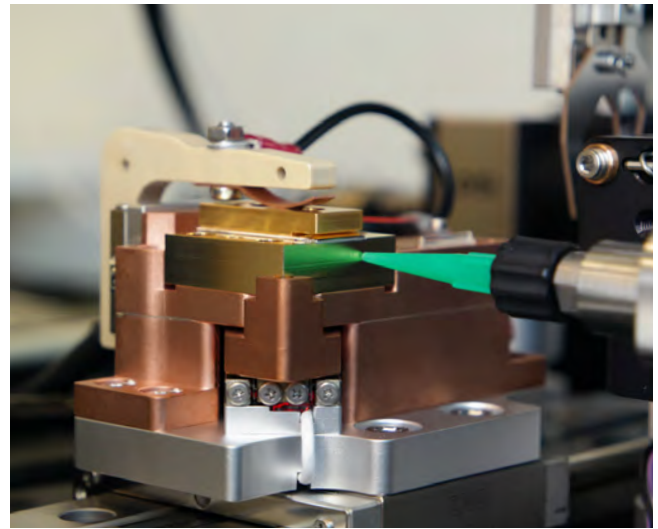
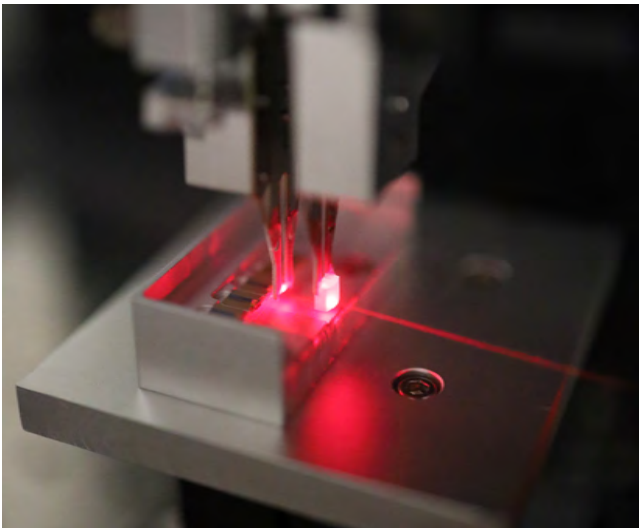
In addition to 100 % touch operability, the modular microautomation platform software offers an intuitive user guidance concept which adapts perfectly to the user's role.

Interface options range from a basic operator GUI, guiding the user through processes with short and engaging video tutorials, to a fully featured developer interface, with the ability to load, customize and run Python scripts through a scripting interface. This makes it possible to adapt your process on the fly.



Case Study – Automated FAC Alignment Station

The FAC Alignment Station automates the assembly of Fast Axis Collimation (FAC) lenses to laser diodes, starting with contacting laser modules up to the final measurements of beam collimation after adhesive curing. The active alignment of the lens in front of a multi-emitter laser diode bar is achieved in less than 25 seconds.



Key Facts

Laser diode bars

- Visible and near infrared wavelengths
- Operation at up to 50 W pulsed

Alignment resolution using SmarPod

- Down to 1 nm translational steps
- Down to 1 μ rad rotational steps

Active alignment

- Single and multiple emitters
- Alignment in less than 25 seconds

Grippers

- Customized gripper jaws for deterministic gripping
- Gripper jaws for objects from 50 μ m to several cm
- Force-feedback gripping for delicate objects

Alignment station features

- Automatic laser module clamping and referencing
- Needle valve, volumetric or jet dispensers
- Integrated UV-curing source

Control software

- User interface for monitoring and manual control
- Scripting interface for process development
- Customized GUI for small series production

Your personal contact

You need a micro automation solution that can be individually adapted to your requirements?

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SmarAct automation is your partner for high-precision alignment, handling and joining of components on a nano, micro and meso scale in all application areas where miniaturization becomes necessary for future development progress. As part of the SmarAct Group, SmarAct automation benefits from 15 years of know-how in high-precision positioning technology.

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