

HIGH SPEED

**ELECTRONICS**

DEVELOPMENT THROUGH

**AUTOMATED**

**PROTOTYPING**



**MULTIVATIVE**

# Current HW-development



## Long development times

Long waiting times for testable prototypes slows down the development time and increases the time-to-market enormously



## Inefficient work

Developers are distracted from actual work by tasks such as manual rework



## High time pressure & staff-shortages

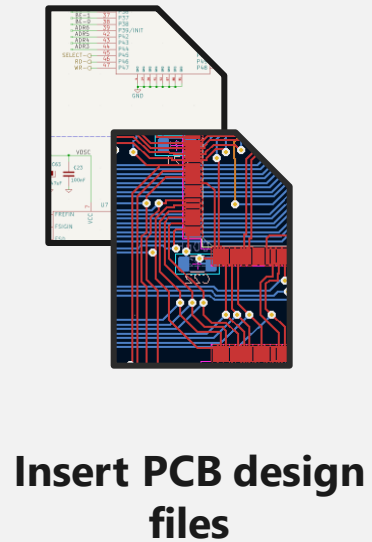
High competition increases time pressure, which is significantly increased by staff shortage



## Late changes to the requirements not possible

Late changes to project requirements can only be dealt with great expense due to linear development processes

## Automated in-house production of electronic prototypes.



**Faster** development **cycles**.  
**More** user feedback **iterations**.  
**Better** product-market fit.



**Engineers can focus** on development.  
**Eliminate cost** and **pain** of own prototyping lab.  
Reduce time-to-failure, **efficient development**.

# Advantage of MULTIVATIVE



## Short set-up times

**Developers spend very little time on the machine.**

Short set-up times and simple operation are our focus. It only takes a few minutes to set up the machine and start production. Thanks to our all-in-one system and high level of automation, no further manual interventions are required.



## High accuracy & stability

**Produce complex PCBs with our system**

Our system is designed for professional use and can produce complex PCBs thanks to its very robust mechanics.



## Fast availability of testable prototypes

**All-in-one system enables in-house production of electronic prototypes in the shortest possible time.**

Our system includes all the tools needed to produce electronic prototypes. It's highly automated and easy to use. Testable prototypes and small batches can be produced in a matter of hours.



## Automated rework

**Autonomous module change enables automated rework of faulty PCBs**

With our system, defective PCBs can be repaired very easily, quickly and fully automatically.

A photograph of two people in a laboratory or workshop setting. They are standing in front of a large 3D printer. One person, wearing a dark blue t-shirt with the word "MULTIVATIVE" on the back, is holding a blue printed circuit board (PCB) and pointing at it. The other person is pointing at a tablet screen that displays a software interface with various icons and text. The background is dark and industrial.

In-house prototyping. **Fast and simple.**  
The **3D printer** for the **electronic** development teams.



# Hard Facts

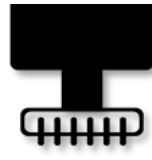


Working area: 500 x 500mm  
Machine size: 1400 x 1300 x 2000mm  
Precision: <10µm  
Power input: 230V AC, 1.5kW max.  
Air pressure input: min. 7bar  
Input data: ODB++, Gerber, GenCad, IPC-2581



**Dispense tool**

Materials: Solder paste, Adhesive  
Technology: Auger Valve  
Smallest dot size: 0.25mm\*



**Placer tool**

Vacuum nozzles  
Exchangeable nozzles  
Smallest components: 0402\*  
Tape and Bulk components supported  
Up to 50 different components



**Measure tool**

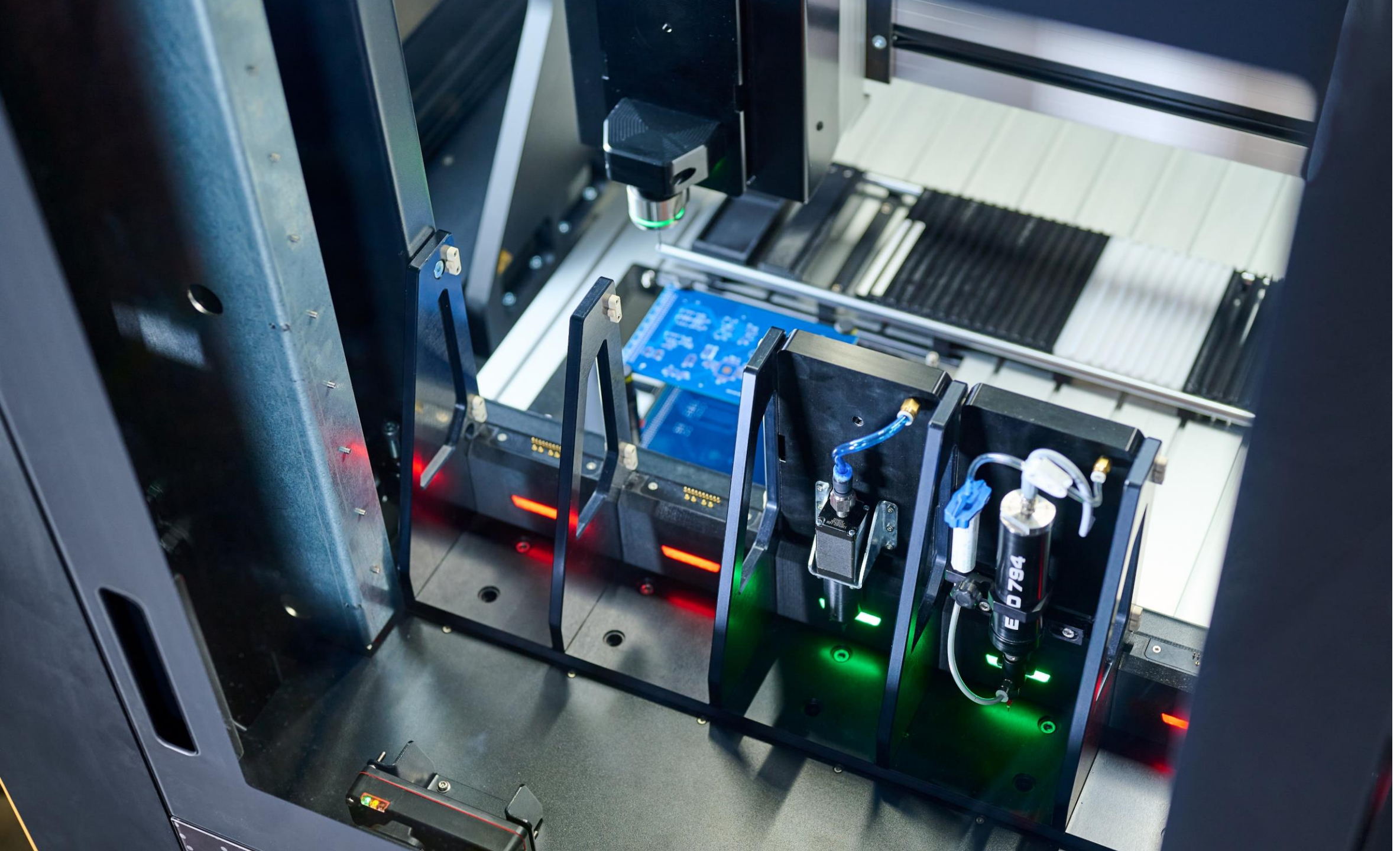
Precision: <10µm  
Exchangeable tips  
Tipping force: XY: 0,5.1N, Z: 2.5N



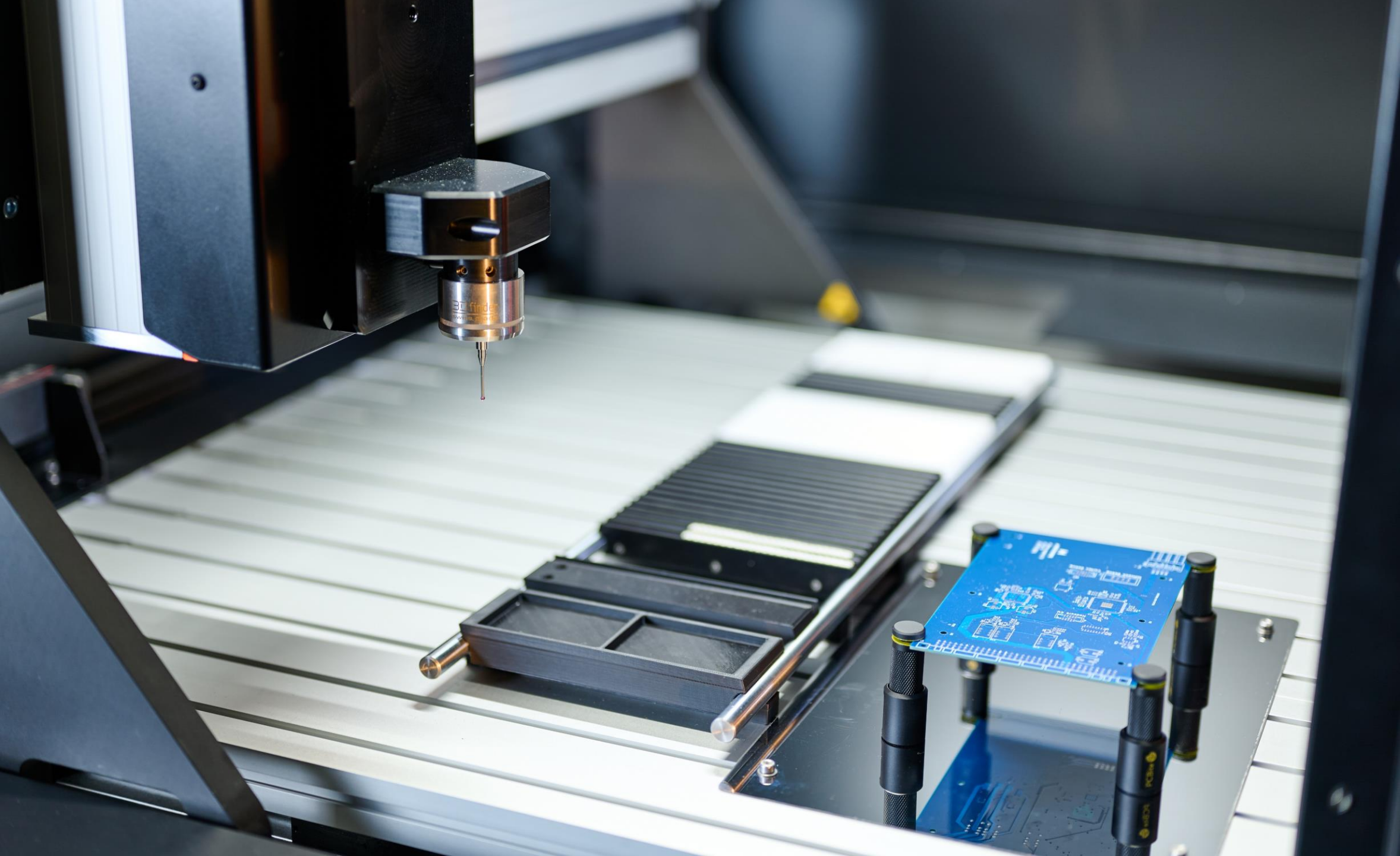
**Solder tool**

Hot air flow rate: 10l/min

\*These numbers state the current development state. We are constantly improving those numbers to achieve smaller dot sizes and components.









MULTIVATIVE

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# MULTIVATIVE

## Contact

**MULTIVATIVE GmbH**  
**Triester Straße 280**  
**8055 Graz**

+43 660 50 80 612  
info@multivariate.com  
www.multivariate.com

