

MULTIVATIVE

HIGH SPEED ELECTRONICS DEVELOPMENT THROUGH AUTOMATED PROTOTYPING

Overview for engineers



Summary.

Our solution provides automatic in-house production of electronic prototypes to speed up testing and to introduce agile hardware development. With our multifunctional machine, we combine the necessary manufacturing steps into an all-in-one production cell, optimized for low setup time and high automation.

Electronics prototyping is tough.

Building a testable prototype in electronic development requires several production steps and is very time-consuming and cost intensive. Thus, these processes are often outsourced to external service providers, which causes delays in the development and therefore increases time-to-market. Existing automated electronic assembly lines are optimized for high quantities and require a major effort for setup and monitoring. Therefore, they are not suitable for the little quantities needed during prototyping.



Our solution.

With our machine we have shrunk those assembly lines into one single machine, a electronic assembly and prototyping cell. We optimize it for very short setup time, high automation and little monitoring requirements rather than for high throughput. For this reason, automated in-house prototyping and assembly of PCBs is possible without further overhead for development teams. What the 3D-printer is for mechanical engineering, our machine is supposed to be for electrical hardware development. Operators simply need to load the manufacturing data, insert the components & PCB and the machine will automatically manufacture the prototype.

Hard facts.

Working area: 500x500mm
Machine size: 1400x1300x2000mm

Precision: <math><10\mu\text{m}</math>
Input: 230V AC, 1.5kW, 7bar air pressure

Setup time: 5-10min
Production time: 10-30min



Dispense solder paste

Smallest dot size: 0.2mm

Input data: Gerber, GenCAD, ODB++



SMT Pick and place

Smallest components: 0201

Tape and bulk components

Up to 70 different components



Reflow soldering

Max. power: 380W

Max hot air flow rate: 35l/min

Infrared heat bed



Measurement

Mechanical edge measurement

Precision: <math><10\mu\text{m}</math>

Tipping force: XY 0.5N, Z 2.5N



Many more

More tools to come:

Rework

Electrical measure tools
etc.

About us.



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