

Electronic design and manufacturing

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MATERIALS

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Foto: JOANNEUM RESEARCH/Schwarzl

In our electronic design and manufacturing laboratory in Pinkafeld, we offer a modern research infrastructure for cooperation with customers:

- EDA-Software Altium Designer for analog and digital circuit design including simulation (SPICE)
- Xilinx and Intel PSG (Altera) design environment for FPGA and CPLD
- Embedded Development (e.g. with ARM KEILTools) for various microcontrollers
- MATLAB, GNU Octave and Simulink/ Simscape for data analysis, algorithm development and system modeling
- PBT UniPRINT stencil printer
- Tresky T-3000-PRO software-controlled micro-assembly system with motorized Z-axis and flip-chip camera for placement accuracy up to $\pm 1 \mu\text{m}$
- Chip bonding by means of soldering, gluing or ultrasonic
- Stamping and dispensing of solder paste and (conductive) adhesives on various substrates
- Neoden 4 Pick & Place machine for placing SMD components in larger quantities
- ATV SRO 704 inert and forming gas reflow soldering oven up to 450°C for brazing processes under vacuum
- Asscon VP310 vapor phase soldering system for oxygen-free reflow processes without overheating
- JBC universal soldering, de-soldering and repair station, including hot air
- Raise3D E2 and Phrozen Sonic Mini 8K 3D-printers for rapid prototyping
- CNC-STEP HIGH-Z S-1400 T portal milling machine with a processing size of $1400 \times 800 \times 110 \text{ mm}$ including foil cutting and engraving