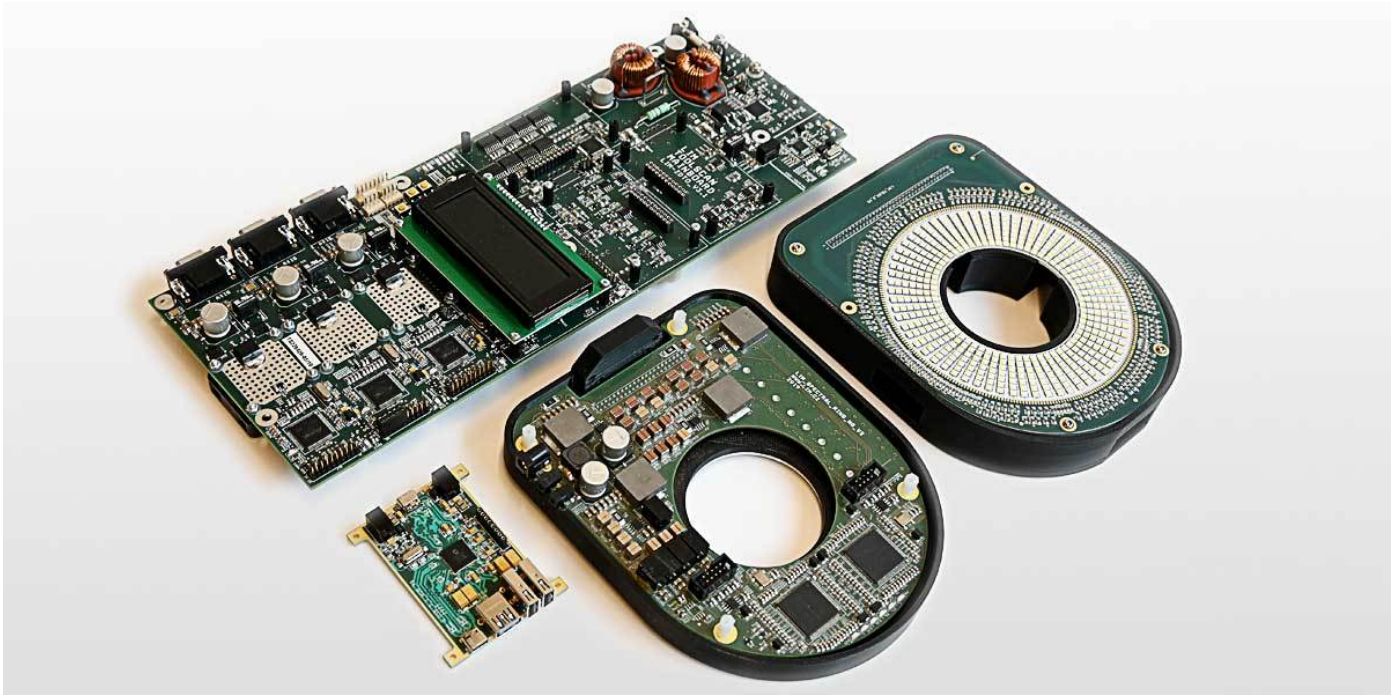




We offer OEM and custom development of advanced electronic components for external partners. We rely on our long-term know-how, experienced team of engineers, and our own testing capabilities, which allow us to implement projects even beyond our own product portfolio.

We provide a complete development process – from the initial concept and design through prototyping to validation and final optimization. We design the resulting solutions to meet both the customer's technical requirements and the relevant regulatory and technical standards.

BACKGROUND AND EXPERTISE

Since 2005, we have been developing electronic systems for our own equipment designed for capturing of images in forensic laboratories. Thanks to these many years of experience, we have extensive know-how in the design of reliable and high-performance electronics for demanding professional applications.

In 2024, our development and production teams moved to new, modern premises. The new facilities offer a complete infrastructure, including testing laboratories, specialized technical equipment, and a fully anechoic EMC chamber. This enables us to carry out complex turnkey development projects.



3D-scanning system with multispectral illumination.

SERVICES

Our services are primarily intended for clients in the Czech Republic and Central Europe and include:

Design and manufacture of printed circuit boards

Complete design, prototyping, and assembly of printed circuit boards, including high-frequency (GHz) electronics.

EMC testing Measurement of printed circuit board parameters and verification of electromagnetic compatibility in our own fully anechoic EMC chamber (100 MHz – 18 GHz).

Iterative design optimization Optimization of electronic designs to achieve maximum electrical performance and meet EMC requirements.

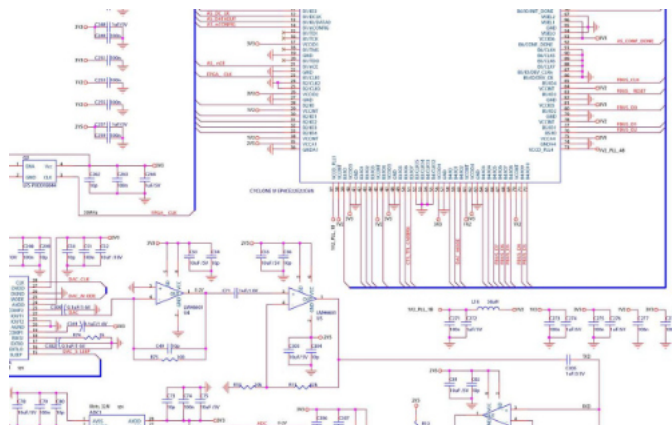
Automated testing and burn-in Automated verification and stress testing to ensure product reliability prior to shipment.

Firmware development Custom programming of low-level firmware and its optimization.

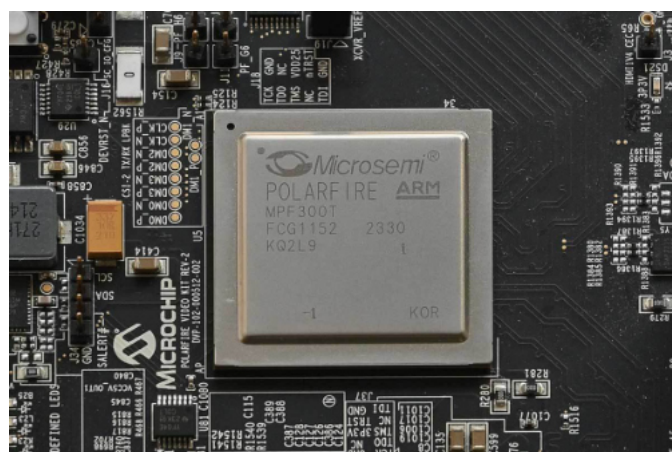
Software development Development and optimization of control and application software.

3D printing Production of small mechanical components using 3D printing for electronic system assembly and prototyping.

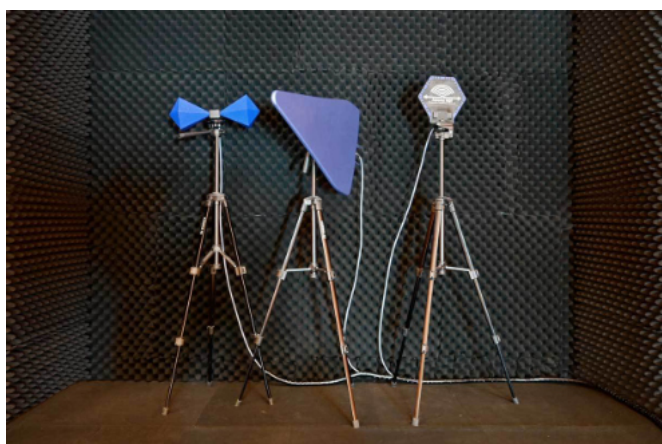
Metalworking and mechanical production Casings, mechanical parts and device assemblies. We provide CAD design and technical drawings as well as complete manufacturing, including surface finishing and assembly.



PCB designs



Polarfire gate array



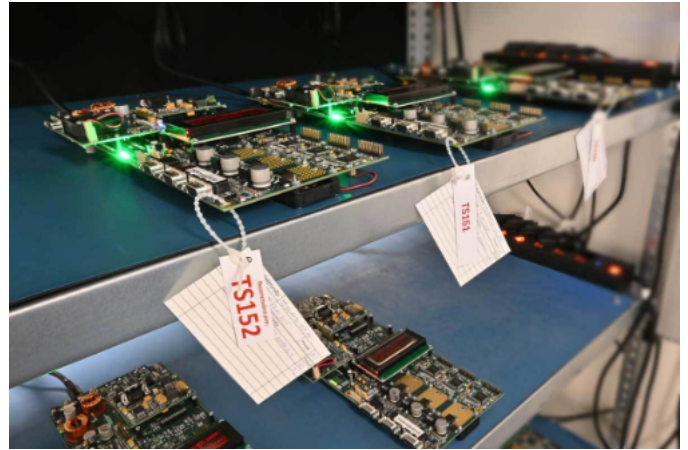
Fully Anechoic EMC chamber, Prague 15, Hostivař



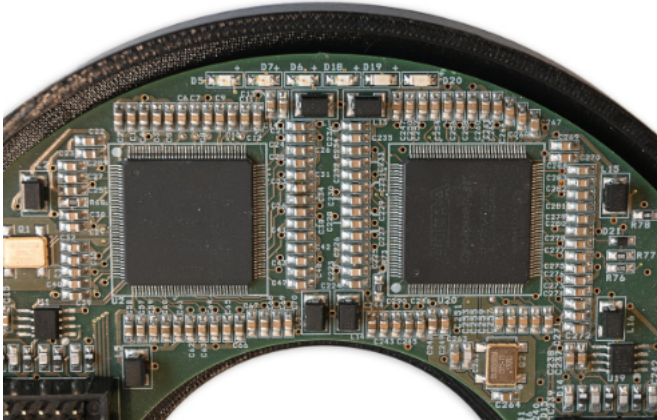
Aluminum mounting part for a high-power LED illuminator

TECHNOLOGIES USED

- printed circuit boards (RF, Cu, Al)
- FPGA platforms *Cyclone* and *PolarFire* (processing of images from cameras, controlling of motors, 3D LED illumination, optical shutters, detection systems, and power supplies)
- *C*, *C++*, *VHDL*, *PHP* programming languages
- Firmware and drivers at both the hardware and software levels
- Our own *OneBus* multiprocessor architecture with a custom control system.
- 32-bit ARM processors



Testing and burn-in room



Gate array on an illumination unit.



Testing and burn-in of multi-spectral LED panels

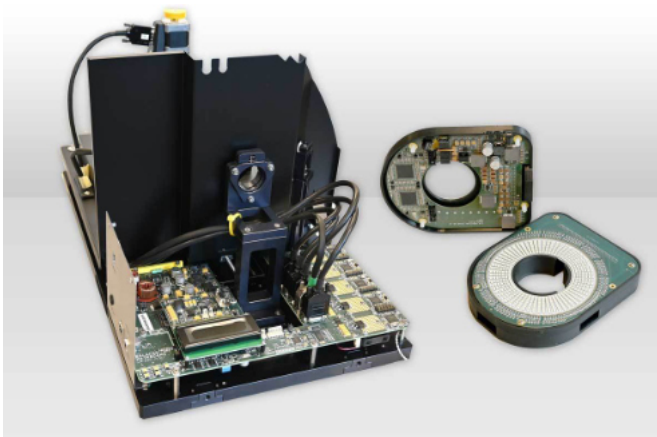
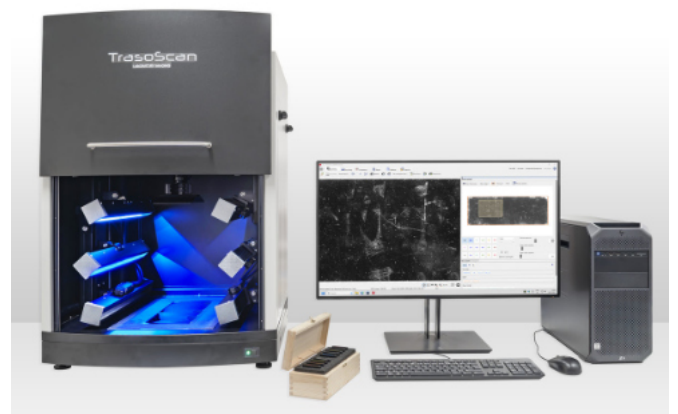


Image acquisition motorized devices



System for shoeprint and fingerprint examination

COMPANY

Laboratory Imaging s.r.o. (LIM) is a company with extensive expertise in microscopy, image processing, and analysis. We develop, produce and sell high-quality laboratory systems for scientific, biomedical, forensic and industrial imaging.

The company was founded in 1991 and has been steadily growing since then.

- In 1991, we began producing software for forensic laboratory devices.
- In 1992, we established a partnership with Nikon and began developing NIS-Elements software for microscopy.



Our building

For over 30 years, we have been growing and developing increasingly advanced and high-quality technologies used by professionals worldwide. Our company, based in Prague, employs dozens of experts divided into three specialized divisions according to the target field: forensics, cytogenetics, and general microscopy (NIS-Elements).

FORENSIC SYSTEMS FROM LABORATORY IMAGING S.R.O.

Laboratory Imaging s.r.o. supplies state-of-the-art systems for a wide range of forensic disciplines, including shoeprint, toolmark, fingerprint, and ballistic examination, providing forensic experts with accurate and reliable solutions tailored to their specific needs. In addition, several forensic systems have also found use in industry (in quality control departments) and archaeology.

KEY USERS

Our systems have earned the trust of leading police forces and forensic institutions around the world. Among our key users are the FBI, US Army, Bundeskriminalamt, The State Criminal Police Office in Germany, Institute of Forensic Research in Poland, Kanagawa Prefectural Police, Dubai Police H.Q., Kantonspolizei in Switzerland, Scientific Research Center in Ukraine the Federal Police Laboratory in Belgium and more. These organizations use our systems to solve crimes and in other areas of their work.



European countries where our forensic systems are installed.

Contact us for a consultation regarding your project at forensic@lim.cz.
