



## ELECTRONICS DEVELOPMENT

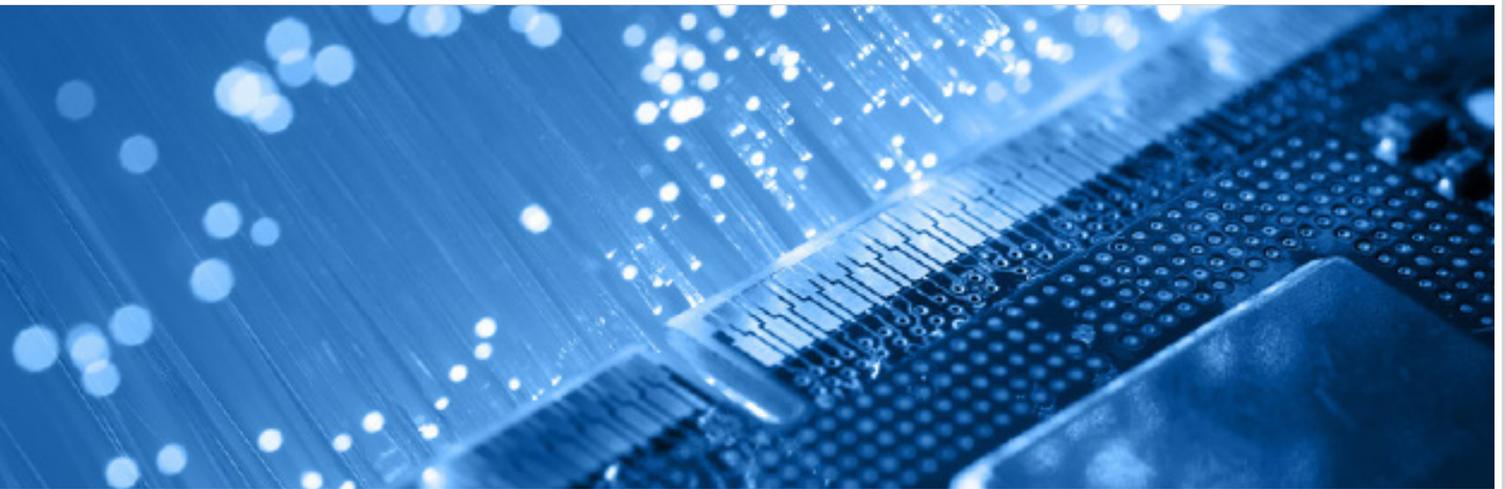
***LCM provides a one-stop shop where research meets development for customer-focused electronics development in the fields of sensors, power electronics and wireless communication. We bring individual components together to create integrated electronics solutions, which makes us a powerful partner for companies in a variety of industries.***

### YOUR BENEFITS:

LCM has years of experience in electronics development for a wide range of sectors. Thanks to our expertise, your research or development project is in the safest of hands – from concept through technology selection, circuit design, hardware-level programming and prototype construction, to support during certification. Our in-house production enables us to respond with speed and flexibility to any modifications to requirements, guaranteeing a seamless process. On request we can also involve your chosen series producer in the project from an early stage.

As all the threads come together at LCM, no project-specific requirements or design ideas are lost through lack of coordination. Even during development of the individual components, we make sure that electronics and sensors are optimally integrated, both spatially and functionally. We map out the entire development process – dimensioning, circuit design and PCB design. In prototype construction too, we are a partner you can rely on.





#### OUR EXPERTISE INCLUDES:

- Years of experience in a wide variety of sectors
- Cost-optimised implementation, from low-cost to high-end products
- Specialist knowledge from system and electronics development to the market-ready end product
- Conception, technology selection and simulation
- Circuit and PCB design
- Planning and implementation of hardware-level software
- Mechatronic integration into existing applications or new systems
- In-house creation of functional samples, prototypes and small series
- Support in selecting a suitable production partner, series production and certification
- Miniaturisation and integration of high-frequency structures

#### CURRENT REFERENCES:

Our knowledge and expertise in electronics development can be demonstrated by the numerous projects that we have undertaken for customers in a wide variety of sectors. This is just a small selection of our references:

- Power electronics for innovative actuators and highly dynamic motors
- Innovative circuit concepts for power electronics
- Quasi-current source inverter for high-speed drives
- Silicon carbide inverter
- Power electronics for bearingless motors of different power classes
- Digital position sensors for magnetic bearing drive systems
- Extremely miniaturised RFID readers for reading short distances in a metallic environment
- Evaluation electronics and signal processing for 24 GHz radar applications in ATEX areas
- Vibration monitoring including evaluation electronics and GSM connectivity in ATEX areas
- Rapid M2M boards for quick and easy development of machine-to-machine solutions
- Miniaturised and energy-optimised radio modules for use in real-time localisation systems or sensor networks
- Sensor electronics in the banking sector for the detection of skimming attacks