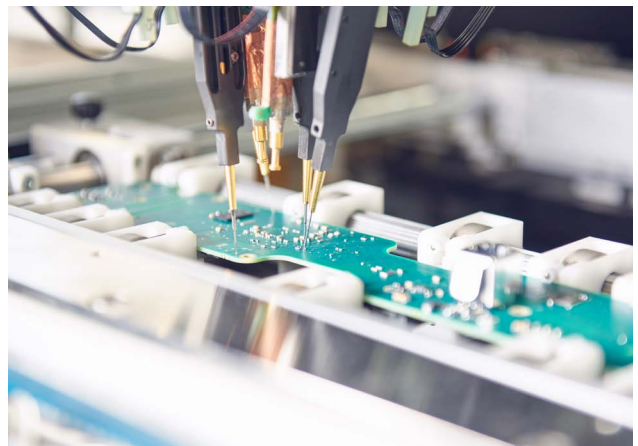
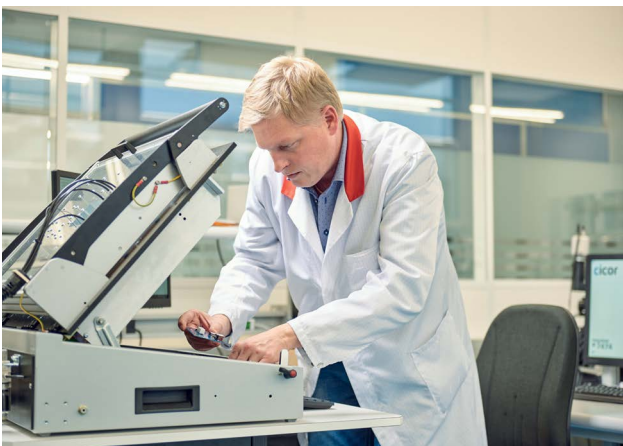


## Engineering services

HW-/SW development, test engineering

Technological advances in the development and manufacture of electronic products and regulatory requirements present manufacturers with major challenges. The qualified developers of the Cicor Group support customers from the idea to the finished product. The development engineers work closely with the production department. Thanks to this cooperation, an intensive exchange of know-how and technology takes place. Target-costing, design-for-manufacturing, design-for-testability and design-for-traceability are practically implemented in daily work.

The sites in Bronschhofen, Arad and Radeberg develop innovative electronics and associated software for customers in the fields of medical technology and industry. Cicor supports from the idea to the finished product. The development process at the site in Bronschhofen is ISO 9001 and ISO 13485 certified and the site also meets the requirements for the development and production for MFi products and is a registered FDA contract manufacturer according to standard 21CFR820.





## Portfolio

### Hardware development

- Low-power application
- Process and control technology
- Analog and digital signal processing
- Analog and digital measurements
- Distributed systems
- Functional safety systems
- Microcontrollers
- Bus systems/interfaces: profibus, profinet, ethernet IP, CAN, CANOpen, USB, SPI, I2C, RS485, WiFi, bluetooth
- User interfaces
  - Keyboard membranes and glass panels
  - Customized displays
  - Touchscreens
- Simulations
- Safety and design FMEA
- EMC
- Product safety
  - IEC 60601 und IEC 61010

### PCB layout

- Altium designer
- Mentor expedition
- Electronic circuit plans
- 3D modeling of modules
- High-density integration
- Import filters for current formats
- Certified interconnect designer (IPC)
- Flex, semi-flex, rigid-flex circuit board
- Design-for-manufacturing
- Design-for-testing/-traceability

### Test engineering

- Development of test concepts (AOI/ flying probe test/in-circuit/x-ray/ functional tests/boundary and frame scan)
- Design and programming of test systems
- Integration of test systems into the production environment
- Quality data management with traceability over the entire product life cycle

### Mechanics

- VariCAD, SolidWorks
- Animation/rendering
- Mechanical construction: Plastic injection molding, sheet metal, aluminum die casting/extrusion pressing, composite materials
- Housing and device construction
- Miniaturization
- Assembly drawings/instructions

### Software development

- ModelDriven design
  - UML modeling
  - Target code generation
- Firmware development in C and C++
- IBM rational rhapsody
- Keil uVision/RTX
- Bootloader
- GUIs with QT, HTML5
- Distributed systems
- Functionally safe systems
- Embedded linux
- IEC 62304 (Class A-C)

### Project management

- Project planning/controlling
- Design-to-cost
- Development documentation with Polarion ALM
- Life cycle management
- Feasibility studies and concepts
- Change management
- Risik management

## Markets



Industrial



Medical



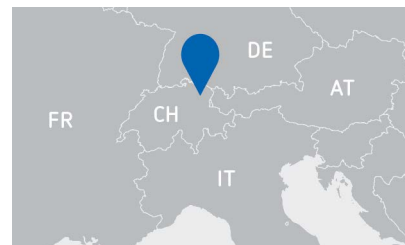
Watches and consumer



Automotive and transport



Communication



### Swisstronics Contract

**Manufacturing AG**, Bronschhofen

info-europe@cicor.com

**S.C. Systronics S.R.L.**, Arad

info-europe@cicor.com

**RHe Microsystems GmbH**, Radeberg

info-me@cicor.com

The Cicor Group is a globally active development and manufacturing partner with innovative technology solutions for the electronics industry. With about 2000 employees at ten production sites, Cicor offers highly complex printed circuit boards and hybrid circuits as well as comprehensive electronic manufacturing services (EMS) including microelectronic assembly and plastic injection molding.

Cicor supplies customized products and services from design to the finished product from one source.



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