



About M-Tronic

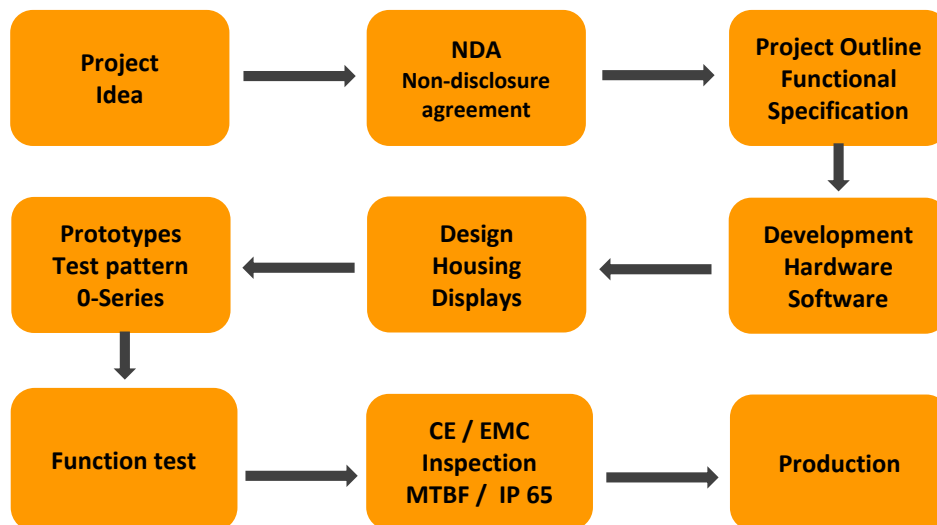


M-Tronic

An established, innovative development team with years of experience in hardware- and software-development, schematic and layout-design, and in development and production of complete control systems (e.g. embedded systems).

Geared to your needs and requirements, we materialize your project.

Planning, development, production, service - all from a single source



Company Profile

The company's headquarters is located in Rechberghausen (Baden-Württemberg) and was founded in 2001 by CEO Bernd Koppermann.

After completion of our new company building in 2008, we moved with our development department to present business location in Blieskastel (Saarland).

Grounded and reliable

Located in Baden-Wuerttemberg and Saarland, we satisfy our customers with quality products and services. By know-how, innovation and reliability, we have earned their trust.

Seeing the big picture

Our focus is on the functionality and operator convenience of the developments and products. Other aspects such as efficiency, design and environmental sustainability play an important role.

Made by M-Tronic

This applies to all our products: Development, technology and service are according to the highest German standards.

Development of electronics of all kinds

- **You want to turn your idea into reality?**
- **Develop a product ready to go into production?**



Whether simple or highly complex control circuits – analog or digital – we are a competent partner to materialize your project! When designing the circuit diagram and PCB layouts we guarantee EMC-compliant development.

Our core competencies

Procurement and selection of components

In the selection of relevant components you benefit from our many years of experience and close cooperation with our suppliers. So we pay attention, e.g. on the long-term availability of the components.

Planning and Production

We design electronic equipment with optimal usability and convince with the construction of test pattern. After functional and quality control, EMC testing with certificate can be made for each product

Embedded systems

M -Tronic develops and markets embedded systems in different capacity levels. They can be easily adapted to customers' requirements.

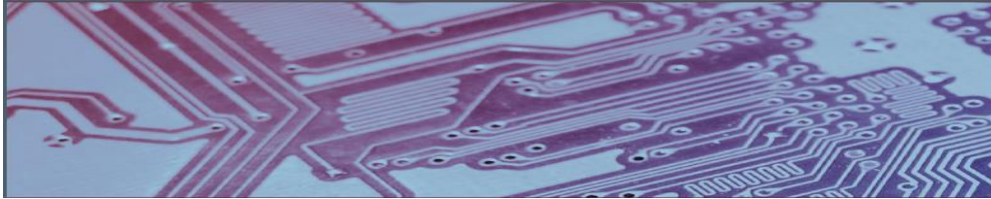
Display Technologies / Displays

By close cooperation with **ADKOM™ Elektronik GmbH*** Rechberghausen, we have direct access to the display market, and hence to all currently used products such as:

- LCDs, COG-LCDs, Color-LCDs, Bistable LCDs,
- OLEDs
- TFTs
- Touch-Panels
- E-Paper (E-Ink Technology)
- Backlights
- Rubber-Keypads, Elastomeric connectors, etc.



Our core competencies



Our range of Service

- Feasibility study , assistance in the preparation of specifications
- Schematic design and layout using Altium Designer
- Development of analog and digital circuits
- Microcontroller based digital circuits
- Circuits with power supply or DC / DC converter
- Printed circuit board layout (multilayer)
- PCB 3D data
- PCB format according to project requirements
- Trace width and distance 0.1 mm possible
- Components up to type 0201
- flexible circuit boards
- Impedance and length-adjusted routing (e.g. RAM routing differential pair routing)
- BGA routing , for example, with 0.08 mm pitch
- Standardized 230V layout of power supplies and 230V circuits
- virtual 3D-collision check for the fit between housing and PCB



Hardware-Development



Microcontroller programming

We support you in the selection of microcontroller up to programming.

Take advantage of our expertise in programming

- **8-Bit Microcontroller (e.g. SAM8 product family)**
- **16-Bit Microcontroller (e.g. MSP430 or H8 product family)**
- **32-Bit Microcontroller (e.g. PIC32 microchip)**

Embedded programming

Programming in Linux™ and Android™ are our daily development work.

In our Software-developments we use:

32-Bit ARM Microcontroller of all kinds, such as

- **ARM7, ARM9**
- **Cortex M3, M4.....,**
- **Cortex A8, A9.....**

Databases

We realize database applications specially geared to your needs from data modeling to visualization.





Graphic

We are your partner for 2D / 3D graphics programming.

Web Solutions

With e-commerce and content management systems based on open source, you have the options to a reasonable priced web presence. This web solutions can be handled easily by a web browser. Updates can be provided effortlessly.

Documentation

We are using professional software documentation for describing the application of the software we developed

Technology Consulting

Also at your own developments, we are your partner! We assist you in the selection of the platform and the development tools.

Existing Projects

Through our know-how, we are not only a strong partner in the new development, but also in the ongoing development and maintenance of existing systems.

Housing Development

You want to integrate your electronics into a housing? We make your mechanical constructions and housing-layouts with inspiration and so we create your individual casing.



Overview of our services

- 3D-housingdesign
- Support plates
- Shielding
- Modifications of standard housings
- Combination of 3D-housing and 3D-PCB
- Housing-Production under compliance with existing standards e.g. protection class IP65

Security for your project data

The M-Tronic GmbH guarantees the utmost care in relation to the safety of the transferred customer data and the subsequent M-Tronic services

Troubleshooting

In troubleshooting or optimizations of existing projects we can help you.

We assist you with:

- **Fault diagnosis in PCB layout**
- **Circuit fault**
- **Signal interference**
- **EMC problems**
- **Error Analysis Source (PC, Embedded and Microcontroller)**



Support

Our service is available during normal office hours. We can be reached by email and landline - no expensive hotline calls.

References

Since 2001, our company is developing and implementing a wide variety of custom hardware and software products. Everything from one source from the project outline up to series production!

At this point, many expect the attribution and logos our well-known national and international customers.

Not with us! In the sense of an enterprise data protection, we deliberately decided against it!

Our custom developments based on internal confidential data which we know to protect.

We are convinced that this is also in your interest.

Service & References

M-Tronic Design and Technology GmbH

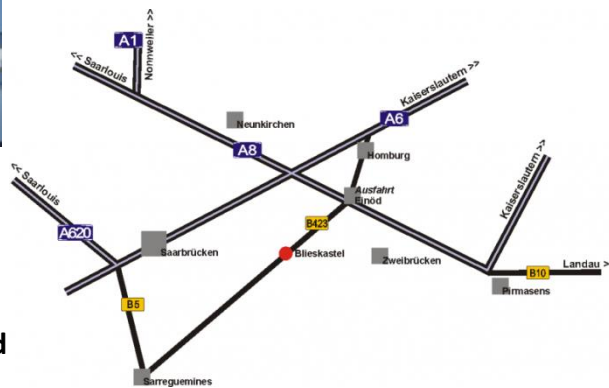
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Arrival to M-Tronic Design and Technology GmbH via the A8:



Leave the **A8** at the **exit Einöd** and drive towards Blieskastel. Follow the **B423** for **5.2 km**

At the **entrance Webenheim** please follow the **Bliestalstraße** until a **roundabout**. At the **roundabout**, take the **2nd exit towards Gersheim**. Turn left directly into the industrial area.

After **100 meters** turn **left** into the street "**Im Großen Gunterstal**" after **100 meters** you will find our building **on the right**.

Contact