

# Embedded Software Development Engineer (m/f/d)

## München, Unterföhring

For our international development team in Munich, we are looking for a **Electrical machine control engineer (m/f/d)**

Join us and take part in the development of innovative mechatronic systems for electromobility in the fields of automotive and truck industries.

With a close link to our customers, OEMs, and Tiers1, we develop next-generation electromobility applications, aiming to be part of the "Total Net Zero" emission transition for a better and more sustainable future.

**Compact Power Motion (CPM) GmbH**, a partner of Sonceboz Group (HQ based in CH, 1200 employees, 60Mpcs manufactured a year. [www.sonceboz.com](http://www.sonceboz.com)), relies on its agile creative team to develop the first concepts, theoretical studies, and self-made prototypes. Our main competencies are mechatronic development, software, motor control, electric motor, power electronics, and mechanics. Several of our innovations are already successfully on the market and help cut emissions. More are coming soon.

We reinforce our development capabilities in the field of embedded software and motor control development, and we are looking for an Engineer with a strong motor control background.

**Study:** Software Engineering, Electrical Engineering, or a related field

### **Mission:**

You develop very efficient motor control algorithms that drive a mechatronic system (e.g. air compressor, steering pump) for the next generation of electrified commercial vehicles or industrial applications. You are working together with a diverse team full of skilled people. Your ideas are highly valued and allow us to develop great prototypes.

### **Know-How:**

- Strong understanding of AC electric motors and drive systems analysis, modeling, and control
- Academic or industrial experience in defining requirements for motor control software interfacing hardware components including voltage, current, and position sensors
- Experience in designing current and speed control loops for electric motor control
- Academic or industrial experience in modeling low-inductance PMSM machines & high-switching frequencies
- Good German and English communication (spoken and written) required. French could be helpful

Beneficial to have:

- Experience in testing electric motors and hardware debugging (e.g. position sensors, comms interfaces)
- Experience with laboratory equipment (Oscilloscopes, Signal Generators, Logic Analyzer)
- Experience with Fixed-point C code development for timing critical embedded systems
- Experience with PWM schemes such as space vector, discontinuous, and sinusoidal modulation
- Experience with sensorless motor control algorithms and high-speed control techniques
- System-oriented understanding of high voltage DC-link integration

### **We offer:**

- Skilled colleagues covering the whole area of electric machine design and control
- Interesting and innovative projects in the automotive field
- Strong link with a manufacturing group that targets to bring our innovation into mass production
- Space to express creativity with prototyping capacity and opportunities for advancement within the group
- Modern, light, and spacious offices with free drinks and fruit basket

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## **München, Unterföhring**

- Good loan, with flexible working hours, home office, holidays, and bonus system according to salary scale
- multicultural, harmonious, family team spirit
- Based in Unterföhring (Munich) close to the north of the English Garden
- And for easy integration: Relocation to Munich from abroad and German language lessons are supported