

Job Title – Principal E-Drive Control Engineer

Date position required:	July 2019
Reports:	None
Salary:	Competitive (Permanent)
Benefits:	Pension, 28 days holiday (+ bank hols), salary sacrifice
Site:	hofer powertrain UK, 2 Titan Business Centre, Spartan Close, Warwick, CV34 6RR
Applications required by:	ASAP
Application format:	CV and covering letter

hofer powertrain – Part of the hofer AG (Group)

hofer, established in the 1980's, is a privately owned, German based, automotive powertrain production design and supply company employing over 850 people within the Group. We work with many of the world's automotive OEMs, Tier 1 suppliers and automotive technology centres and have numerous powertrain components in production; including hofer designed electric motors and hybrid modules through to full dual clutch transmissions.

With numerous offices across Germany, Austria, Italy, America, China and the UK, hofer has a truly global presence allowing comprehensive support for powertrain system design and supply projects across all vehicle sectors.

- System supplier for complete automotive powertrain systems.
- Full electrical and mechanical capability from clean sheet through to quality accredited production.
- Specific sites setup to support a lot of the global OEMs.
- Production supplier for many of the current and future advanced powertrain systems and components.

As part of hofer group's global growth, and the continuing expansion of hofer powertrain UK, a vacancy has arisen for a Principal E-Drive Control Engineer to join the business at the Warwick office.

Reporting to the Chief Engineer of Electrical Systems, hofer powertrain UK seeks a Control Engineer with experience of developing application software for production; particularly for automotive powertrain applications in EV and hybrid vehicles at system power levels from 50kW to >750kW.

The hofer powertrain UK Electrical department is currently involved in the customer-facing delivery of both hybrid and pure electric drivetrain solutions, supported by a team of over 110 e-machine; power electronics; electronic hardware and software specialists based in Würzburg and Lenting, Germany.

The key functions of the role:

Lead the design and delivery of control strategy and application software for a variety of customer applications, interfacing directly with the design teams in the UK and Germany and/or the appropriate hofer project team.

Capture and manage application software requirements, developing into specifications; models; simulations and software, ensuring alignment between internal team(s), suppliers and the customer.

Design and develop application software, primarily for power electronics/motor control hardware, to the agreed requirements and processes, from concept level through to production.

Use intelligent design robust software architectures and to deliver modular and scalable solutions; based on either internal software platform or fully bespoke development.

Drive software test activities including static, regression, and functional testing, from unit through to vehicle level.

Develop vehicle, system and component-level simulation capability within the UK.

Contribute to system functional safety case, and lead software functional safety case development as required, following industry standard techniques to ensure a robust design, e.g. FMEA.

Plan and action Design Verification (DV) and Production Validation (PV) activity at a software level.

Manage interfaces between the software and the rest of the e-powertrain system and/or vehicle, liaising with cross-functional teams within hofer and the customer.

Liaison with, including travel to, other hofer sites in order to co-ordinate design activities and ensure delivery is in line with the programme requirements.

Qualifications / Education / Experience required:

Degree or equivalent in a relevant Engineering or Science related discipline.

A minimum of 10 years' demonstrable control software design experience in an automotive or similar engineering environment.

Proven experience of developing and releasing control software for production applications and understanding their communication interfaces and integration into the powertrain system(s) and vehicle.

Verifiable experience in control software Specification; Requirements Capture/Management and DV and PV processes.

Experience of designing control software in accordance with ISO26262 Functional Safety processes and concepts, and an understanding of what this means for software design processes and the design realisation.

Familiarity with HiL and SiL test methods and tools, including dSpace environments.

Solid understanding of AUTOSAR standards and requirements, and their implementation.

Experience of UDS diagnostics and/or other service diagnostic functions and standards.

Confident user of MS Office products and competent user of industry-standard network and calibration tools, e.g. Vector CANalyzer, Vector CANape, ETAS INCA.

Know-how in physical testing support, parameterisation and calibration.

Experienced user of MATLAB Simulink or other model-based design tools.

A demonstrable understanding of embedded software development.

Familiarity with automotive network communications, e.g. Flexray, LIN, CAN, CAN-FD, Ethernet, and diagnostic requirements.

Other beneficial attributes:

An understanding of the implementation of automotive-qualified microcontrollers, specific experience with the Infineon Aurix family would be advantageous.

Good understanding of automotive HV standards; design methodologies and working practices.

Knowledge of German or other European languages.

Personal attributes:

Excellent attention to detail with good planning skills.

Strong communicator, capable of interacting with cross-functional teams both internally and externally.

Highly self-motivated and independent, with a willingness to seek guidance and involve others whenever required.

Remain focussed under pressure, familiar with working outside their normal comfort zone.

Proven record of successful delivery in a customer-facing environment.