

ROCKFORD CORPORATION

Rockford Fosgate is a leading automotive audio company which develops and manufactures connected audio and infotainment products for mobile, motorsports, motorcycle and marine applications. We are looking for enthusiasts who are passionate about developing elegant audio solutions and products that they would use in their own vehicles.

We are looking for a highly motivated individual to fill the position of Embedded Engineer. This individual will be an integral part of the advanced engineering team and will focus on leveraging the latest technologies to create hardware and software for embedded audio products. This role will have a high sense of ownership in the product since it will involve many aspects of design and validation from inception through launch. This position will interact with multiple groups within the organization including engineering, new product development, marketing and technical support as well as interface with OEM customers.

JOB TITLE: Embedded Engineer

KEY RESPONSIBILITIES:

- Work with new product team and OEM customers to define product requirements
- Electrical and mechanical component selection for new hardware design's
- Design schematics and PCB's using Altium Designer
- Design and develop embedded firmware using C/C++
- Perform board bring-up and debug to optimize embedded SW/HW on bench and in real-world conditions
- Work closely with hardware test engineers to develop hardware validation test plans and EOL test systems
- Work closely with software test engineers to develop software validation test plans
- Maintain existing products by performing SW/HW root cause analysis and component EOL/substitutions
- Facilitate production validation testing by travelling to 3rd party test labs
- Research new technologies to integrate into future products

REQUIRED SKILLS/QUALIFICATIONS:

- Experience in performing complex mixed signal schematic and PCB designs (6-layer min)
- Strong proficiency in writing and debugging C code on 32-bit microcontrollers
- Understanding of signal integrity and simulation tools such as Tina, LTSpice and PSPICE
- Experience with routing high speed buses such as SPI, A2B, CAN, USB, etc
- Knowledge of EMC/EMI best practices as well as mitigation techniques
- Strong experience with analog audio circuits such as active and passive filter design, preamps, buffers, etc
- Knowledge of power supply topologies such as buck, boost, and inverters
- Experiencing using audio data convertors (ADC's, DAC's and CODEC's) in designs
- Experience using microcontrollers and digital signal processors in designs
- Experience with bootloaders, linker files, and toolchains (GNU, IAR, etc)
- Ability to troubleshoot hardware using logic analyzers, oscilloscopes and spectrum analyzers
- Experience debugging C source code using hardware debuggers over JTAG and SWD
- Attention to detail and appreciation for good code architecture and documentation
- Experience with full product development lifecycle for all stages from conception through volume manufacturing

- Experience coordinating with external contract manufacturers and overseeing prototype/production builds, including hands-on work when needed
- Occasional travel to contract manufacturers facilities in Asia
- Must be able to solder and rework fine pitch components
- Able to work on multiple projects in a team Kanban environment
- Ability to be a self-starter and work as part of a larger group
- Excellent communication skills including verbal and written
- Minimum 7 years of relevant experience
- Bachelor's in electrical, Software, Computer or equivalent Engineering discipline

DESIRED SKILLS (OPTIONAL):

- System level audio design including knowledge of infotainment, audio amplification, transducer's and vehicle tuning
- Experience with automotive CAN bus (ISO-11898, ISO-11783, J1939, NMEA2K, ISO-15765, ISO-14229)
- Experience with Bluetooth Low Energy (L2CAP, GATT)
- Familiarity with product/technology/certifications (e.g. Bluetooth classic and Bluetooth Low Energy)
- Knowledge of basic DSP building blocks for audio processing (FIR, IIR, FFT, etc)
- Experience with embedded graphical HMI design
- Experience with Linux, QNX or Android based embedded operating systems
- Knowledge of creating scripts or programs using languages such Python, JS, C#, or LabVIEW
- System level audio design including knowledge of infotainment, audio amplification, transducer's and vehicle tuning

Interested applicants, send resume and cover letter to jobs@rockfordcorp.com.

This position is based in Tempe, Arizona. No relocation assistance provided.

To learn about Rockford, please visit us at www.rockfordcorp.com. We are an equal opportunity employer and value diversity in the workplace.