

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 engaging user experiences that they would use in their own vehicles.

We are looking for a highly motivated individual to fill the position of Embedded Software Engineer. This individual will be an integral part of the advanced engineering team and will focus on leveraging the latest technologies to create firmware 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 Software Engineer

KEY RESPONSIBILITIES:

- Work with new product team and OEM customers to define product requirements
- Design and develop embedded firmware based on product requirements
- Work closely with electrical engineers to bring-up hardware during development
- Debug, test, and optimize embedded firmware on bench and in real-world conditions
- Work closely with validation engineers to define and implement firmware validation test plans
- Work closely with test engineers to define and implement end-product production test systems
- Maintain and improve embedded firmware of existing products
- Research new technologies to integrate into future products

REQUIRED SKILLS/QUALIFICATIONS:

- Strong proficiency in writing and debugging C code on 32-bit microcontrollers
- Experience with using embedded OS (FreeRTOS, etc)
- Knowledge of microcontroller peripherals (SPI, I2C, UART, DMA, IRQ, USB, timers, etc)
- Experience with automotive CAN bus (ISO-11898, ISO-11783, J1939, NMEA2K, ISO-15765, ISO-14229)
- Experience with Bluetooth Low Energy (L2CAP, GATT)
- Experience with bootloaders, linker files, and toolchains (GNU, IAR, etc)
- Knowledge of audio data converters (ADC's, DAC's and CODEC's)
- Basic knowledge of board support hardware (power supplies, clocks, analog signal conditioning, etc)
- Knowledge of basic DSP building blocks for audio processing (FIR, IIR, FFT, 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
- 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 3 years of relevant experience
- Bachelor's in electrical, Software, Computer or equivalent Engineering discipline

DESIRED SKILLS (OPTIONAL):

- Mixed signal hardware design including schematic capture and PCB layout (6 layer min) using Altium
- Ability to create PC utilities using Python, JS, C#, LabVIEW or equivalent
- Advanced DSP audio algorithm design (e.g. adaptive noise cancellation)
- Experience with embedded graphical HMI design
- Experience with Linux, QNX or Android based embedded operating systems
- Past experience developing products for wireless audio and/or communication
- Cross-platform app development for mobile devices
- 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.