



Software Engineer-II (Embedded Systems)

Job Summary:

We are seeking a Software Engineer-II (Embedded Systems) to work collaboratively within our team of engineers to design, develop and maintain products and test system functionality.

Responsibilities:

- Assist in design, development, and maintenance of embedded software using RTOS (Real-Time Operating system) which is used for data acquisition, evaluation, and display systems for the Aerospace Industry
- Coordinate system/software requirements, design, and code development and maintenance
- Perform software verification and validation activities along with peer reviews of designs and software code
- Perform software/hardware and system integration
- Attend SOI audits with the FAA representatives and DER to certify the product
- Support of flight test from development through certification
- Prepare and present ideas for new/improved systems, addressing cost, schedule, and risks
- Assist in design or develop programs of use in the company's engineering projects aligned with DO-178B & C standards
- Evaluate product demand from customer and express theoretical design to meet customer requirements
- Translate technical guidance received from supervisor into usable data applicable to a particular project
- Develop software test procedures, software programs, and related documentation
- Day to day work with different microcontrollers (STM32F4 STM32F7-ARM based controllers) setting up their memory, assigning timers, ports and other peripherals, also communication protocols (ARINC825, ARINC429, RS232, RS422, I2C, UART, SPI, MODBUS) that are independent and codependent on other system variables to interact with larger mainframe devices
- Work closely with hardware in a lab setting, and debug using lab equipment (e.g. spectrum analyzer, digital oscilloscope)
- Perform source code management and version control management (GIT, Subversion and SourceSafe)
- Perform additional duties as required

Requirements:

- Master's Degree or Bachelor's Degree in Computer Science, Electrical Engineering, Aerospace Engineering or related field from accredited college or University
- Three to five years of experience in engineering programming
- Expert knowledge of embedded software and firmware development, including C and C++
- Experience with aerospace applications (DO-178) is a plus
- Knowledge of Software Development Life Cycle
- Knowledge in Graphical User Interface programming, preferably in C#
- Ability to read schematics and debug digital hardware using oscilloscope, logic analyzer, or similar tools for troubleshooting
- Must understand coding and OOP software design principles
- Experience parsing and assembling of packets for use over the serial data ports on a system that has RTOS
- Problem solving and analytical reasoning capabilities

We offer an excellent benefits package, including life insurance, comprehensive medical and dental plan, profit sharing and retirement plan and 401(k) plan. Salary will be commensurate with experience, education and ability.

Qualified applicants should e-mail resumes to hr@howellinst.com.