

# Senior Firmware Engineer

## **Position Title: Senior Firmware Engineer**

Location: Bangalore, India  
Business Unit: Allegion India Pvt. Ltd

Allegion India is seeking a highly motivated, Senior Firmware Engineer who is responsible for systematically defining and documenting the definition/scope and requirements of firmware; coding, unit testing, integration, and maintenance of modules and subsystems.

Engineer will be responsible for Firmware development of assigned modules within a larger system. Responsibilities include participation in firmware specification development, firmware architecture, design, code development, debugging, and participation in code reviews, documentation, unit/integration/system testing, and other assigned engineering tasks.

Individual will be responsible to deliver to objectives including meeting deadlines and schedule.

## **Required Education and/or Experience:**

- BE or M Tech in Electrical and Electronics
- 5+ Years embedded electronics experience in Firmware development.

## **Job Description:**

- Design, develop and debug new firmware for electronic products and systems
- Maintain and improve existing designs and source code to help attain goal of having a modular structure
- Work with a team to produce full documentation of design and unit test cases. Utilize systems approach tools such as functional block diagrams, flow diagrams, simulations, fault tree analysis, state-diagrams, and others as required in product development
- Conduct Hardware & Firmware trade-offs to insure lowest overall cost, highest reliability and best performance in the intended application
- Perform design & code analysis utilizing appropriate tools
- Work with and support manufacturing & operations in Manufacturing test code development to support in-line functional testing
- Work with validation lab in supporting FW Engineering Validation Test code and Product validation code testing
- Work across multiple sites/teams domestically and internationally

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## **Required Knowledge, Skills and Abilities:**

- Extensive experience working on embedded firmware
- Excellent C programming skills. Understanding Assembly language is a plus
- Must have experience with any RTOS – uCOS, VxWorks, Embedded Linux, etc.
- Must have experience in working on 8/16/32 bit micro controllers like PIC, ARM, Freescale, etc.
- Must have experience of developing BSP or low level microcontroller drivers
- Experience of developing or maintaining at least one product
- Must have gone through all the steps in the Software Development Life Cycle [Requirements, Design, Coding, Unit testing and System testing]
- Must have very good SDLC skills – requirement management, design, development, debug, revision control, etc.
- Must be able to work under a situation of changing requirements. Ability to quickly adapt to new feature requests from Marketing
- Must possess strong analytical and communication skills and should have worked with international clients
- Must be able to adhere to quality and design guidelines

## **Desired Skills:**

- Worked on the PIC and ARM family of processors
- Worked on programs that involve optimal usage of on-board battery. Understanding battery algorithms is an added advantage
- Working experience in any wireless protocols (BLE, Wi-Fi, etc.)