



Join a high-performing group with a purpose:
to grow a safer, cleaner, healthier future
for everyone, every day.

We are hiring for **Firmware Manager** in **Halma Company SENSIT Technologies**

Location	Business Unit	Report to
Ahmedabad	Environmental	General Manager - Engineering (India)

About us

Halma is a global group of life-saving technologies companies, driven by a clear purpose. We are an FTSE 100 company with headquarters in the UK and operations in 23 countries, including regional hubs in India, China, Brazil, and the US

Our diverse group of nearly 50 global companies specialise in market leading technologies that push the boundaries of science and technology.

For over 50 years, the combination of our purpose, strategy, people, DNA and sustainable business model has resulted in **record long-term growth in revenues and profits and an increase in dividend by $\geq 5\%$ every year**– an achievement unrivalled by any company listed on the London Stock Exchange.

Halma India fulfils the potential of the region by harnessing the diverse talents, expertise, infrastructure, and operational

We have a team of over 250 professionals representing commercial, digital and support functions across our seven offices in India, two in Bengaluru and one each in Delhi, Mumbai, Thanjavur, Vadodara, and Ahmedabad.

Halma India is a Great Place to Work® certified organisation, recognised for 3 consecutive years.

Here's why working with us is fulfilling:

We offer a safe and respectful workplace, where everyone can be who they 'REALLY' are, feel free to bring their whole selves to work and use their unique talents, knowledge, expertise, experiences, & backgrounds to create meaningful outcomes.

We nurture entrepreneurial spirits and empower them to think beyond the possibilities, to discover, shape and build their own unique stories. Our diverse businesses and operations provide fulfilling opportunities to grow as individuals and make an impact.

We are simple, humble and approachable, and we believe in leadership at all levels to bring our purpose to life. Everyone at Halma India makes an impact, and so do you when you join us!

Halma India is an equal opportunity employer, which means the base of our recruitment decisions is always on skills, competencies, attitudes, and values. We are committed to hiring from diverse backgrounds without regard to age, ethnicity, religion, marital status, disability status, sex, gender identity, or sexual orientation.



Detailed job description

About Halma company SENSIT Technologies

SENSIT Technologies has been a trusted supplier of gas leak detection solutions to the North American natural gas industry since the 1980s. Growing from a family-run venture to approximately \$40M in annual sales, SENSIT's strength lies in its commitment to quality, customer-first culture, and a robust product portfolio that protects lives, property, and the environment from hazardous gases.

Our engineering centers span Valparaiso, USA (mechanical & hardware), Bolzano, Italy (optical technology & European market products), and Ahmedabad, India (firmware & software development). The India team plays a central and growing role in new product development (NPD) and sustaining the product portfolio.

SENSIT - www.gasleaksensors.com

Position Objective (The purpose of role in current business/market scenario)

We are seeking a highly skilled, experienced, and people-oriented Firmware Manager to lead our Engineering team in Ahmedabad, India. The ideal candidate is a seasoned System Specialist who has naturally grown into leadership — someone who can roll up their sleeves and deep-dive into code when needed, while simultaneously driving team performance, architecture decisions, and cross-functional collaboration with hardware, mechanical, and software teams.

This role requires close and proactive engagement with the SENSIT USA (Valparaiso) team and the Bolzano (Italy) optical sensing team, making strong communication, time-zone flexibility, and cross-cultural collaboration skills essential. You will be the primary technical and managerial bridge between the India team and the US engineering leadership.

Responsibilities (KRAs / deliverables / job expectations)

Leadership & Team Management

- Lead, mentor, and grow a team of **10–12 engineers** across multiple product lines and embedded platforms (8/16/32-bit MCUs and embedded Linux)
- Build a culture of ownership, accountability, and continuous learning within the team.
- Develop and maintain a **technical skill matrix** for each team member; support T-Chart goal planning and performance development.
- Conduct regular 1:1s, team syncs, and performance reviews in alignment with company appraisal cycles.
- Act as the go-to escalation point for technical and delivery blockers within the team.

System Architecture & Technical Strategy

- Define and own **scalable system architecture** across the product portfolio, including HAL design, RTOS-based application frameworks, and Embedded-Linux platforms aligned with SENSIT's product roadmap and business goals.
- Make informed decisions on MCU selection, RTOS choices, toolchains, and migration strategies for legacy 8/16-bit firmware to modern 32-bit ARM Cortex-M architectures.



- Champion robust bootloader strategies – secure boot, dual-bank A/B firmware updates, OTA/FOTA pipelines, and fail-safe recovery- across the product line.
- Stay ahead of industry trends — AI-assisted development tools, DevOps practices, ARM trustzone, RISC-V, edge AI on MCUs, modern embedded toolchains – and guide AI adoption in the system design process to create business and product value.
- Lead threat modelling and secure design reviews aligned with IEC 62443, OWASP IoT Top 10, and applicable hazardous area/safety standards (Eg: ATEX, IECEx, CSA, UL).
- Coordinate vulnerability disclosure response, CVE tracking on third-party components (LwIP, mbedTLS, FreeRTOS, Linux kernel) and timely security patch releases.

Hands-On Technical Contribution

- Actively participate in architecture reviews, code reviews, debugging, and technical design sessions.
- Identify and address **technical debt** proactively; propose and implement pragmatic solutions to reduce it.
- Support integration of new technologies into existing product lines while ensuring backward compatibility and stability.

Cross-Functional & Cross-Regional Collaboration

- Serve as the **primary technical liaison between India and USA engineering teams**, ensuring alignment on product requirements, design decisions, and delivery timelines.
- Collaborate with Product Management, QA, Hardware/Firmware, Compliance and Supply Chain stakeholders across regions.
- Participate in tollgate reviews, NPD meetings, and architecture discussions with US leadership.
- Manage time zone overlaps effectively to facilitate real-time collaboration with the Valparaiso team.

Software & Firmware Quality & Delivery

- Ensure the team follows **Agile development processes**, sprint planning, and retrospective practices.
- Oversee deliverables quality — from requirements through implementation, unit-testing, and production release.
- Maintain up-to-date system architecture documentation, user manuals, and release notes.
- Drive continuous improvement in development practices, tooling, and CI/CD pipelines.

Critical Success factors (critical / high impact aspects of role)

32-Bit Microcontroller Architecture

- ARM Cortex – M0/M3/M4/M7 (STM32, TI, MSP432, ESP32)
- Bare-metal C/C++, CMSIS, HAL drivers, peripheral programming (UART, SPI, I2C, Timers, DMAs, ADC/DACs)



	RTOS & System Architecture - Free RTOS - Low-power design Bootloader & Secure Updates - Customising bootloader, secure boot, dual-bank A/B updates, OTA/FOTA frameworks, fail-safe firmware update strategies, code signing/signature verification strategies Embedded Linux Systems - Any flavour of Embedded Linux (Build root/Yocto), U-boot, Linux filesystems, device-tree knowledge, busy-box tools, cross-compilation process on RPi or NXP or TI Sitara like platforms Connectivity & Wireless Protocols - BLE, Wi-Fi, Cellular (LTE-M, NB-IoT, 2G/4G), MQTT, Modbus. Sensors & Signal Processing - Gas sensor interfacing (Electrochemical, NDIR, PID, etc.), calibration, drift compensation, and signal conditioning methods. Hardware Debugging & Tooling - Oscilloscope, Logic Analyzer, OpenOCD, GDB, Segger J-Link, Lauterbach TRACE32, KEIL MDK, GCC ARM Cloud-Edge Integration - Azure IoT/AWS IoT, device provisioning, telemetry, edge gateway processing.
Academic qualification	- Bachelor's or master's degree in Electronics/Embedded Systems Technology, Computer Science/Computer Engineering or related engineering discipline. - Demonstrated career progression from hands-on Firmware/embedded products development into technical leadership and management roles
Experience (exposure)	- Total experience: 15–18+ years in Embedded Systems design engineering - Minimum 7–10 years as a Firmware Architect or Manager role - Prior experience managing a team of 10–12 engineers for IoT/Embedded development - Hands-on experience taking at least 2-3 connected Hardware products from concept through certification and mass production. - Experience working in a global / multi-site engineering environment (India-US collaboration preferred) - Exposure to industrial, gas detection, Hazardous-area products development or Safety-certified embedded systems IoT is a strong advantage.
	Familiarity with SSDLC (Secure Software Development Lifecycle)

Halma India is an equal opportunity employer, which means the base of our recruitment decisions is always on skills, competencies, attitudes, and values. We are committed to hiring from diverse backgrounds without regard to age, ethnicity, religion, marital status, disability status, sex, gender identity, or sexual orientation.



Key attributes (critical functional competencies)	• Agile/Scrum methodology • CI/CD pipelines and DevOps practices • Static analysis & coding standards (MISRA-C, cppChecker or similar) • Version control system (SVN, GIT, AzureDevops) • AI-assisted development tools (GitHub Copilot, etc.) • Azure DevOps/Jira/Wrike (project tracking)
Competencies (fundamental skills and attitudes)	• Excellent verbal and written communication skills in English — essential for cross-regional collaboration • Strong problem-solving mindset with comfort navigating both new and legacy codebases • Coaching, mentoring, and people development abilities • Ability to influence without authority across cross-functional and cross-cultural team. • Comfortable working in a fast-paced, multi-product, safety-critical engineering environment

Halma India is an equal opportunity employer, which means the base of our recruitment decisions is always on skills, competencies, attitudes, and values. We are committed to hiring from diverse backgrounds without regard to age, ethnicity, religion, marital status, disability status, sex, gender identity, or sexual orientation.