| Position Title | Firmware Developer |
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## Why should you join Komatsu Pakistan Soft?

Komatsu Pakistan Soft is a fully owned subsidiary of Komatsu Limited Japan, and we are a part of Komatsu Group of Companies. Komatsu Pakistan Soft (Pvt.) Limited is into operation since 1999. We excel in providing enterprise software application solutions, IT consultancy and outsourcing services. Our vision, utter commitment, sheer dedication, unmatched teamwork and customer-centric approach have helped us evolve into a forerunner of innovation and ingenuity within Komatsu group as well as across the global IT industry.

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| **Industry** | Information Technology |
| **Employment Type** | This is a full-time on-site 6 – Month contractual role, 5 days a week |
| **Job Level** | This is a Mid-Senior Level Role with 04 - 05 years of experience |
| **Education** | BS Electrical Engineering / Computer Engineering / Embedded Systems |
| **Location** | G-8, Islamabad |

## About Your Role:

We are seeking an experienced Firmware Developer to join our team for a 6-month contract term. The selected candidate will be responsible for designing, developing, and optimizing embedded systems and firmware solutions. He will work closely with cross-functional teams, including hardware engineers, validation labs, and application engineers, to ensure seamless software-hardware integration. This role requires strong technical expertise in firmware development, debugging, and system performance optimization.

## Your Impactful Goals Will Include:

- Serve as a technical resource for both team members and management.
- Develop, test, and optimize firmware for embedded systems, ensuring high performance and reliability.
- Collaborate with hardware engineers to enhance system performance and troubleshoot hardware-software interactions.
- Support planning and execution of development activities, including technical design and code reviews.
- Investigate and resolve firmware defects to maintain system stability.

- Work with validation labs for engineering validation test code and product testing.
- Support integration of software for CCS products, collaborating directly with application engineers and customers.
- Maintain and improve existing designs and source code, ensuring modularity and scalability.
- Collaborate with global engineering teams to drive consistency across software platforms.
- Design and develop RFID credential readers, electronic locking systems, access control, and security solutions for residential and commercial markets

## Functional Skills Requirement:

- Must have 4 ~ 5 years of experience in firmware development for embedded systems.
- Must be proficient in C/C++ programming and familiar with low-level and real-time operating systems (experience with Zephyr RTOS is a plus).
- Should be able to work with wireless protocols, including BLE, for sensor and device integration.
- Familiarity with hardware debugging tools, simulation software, and version control (e.g., GIT).
- Ability to develop, test, and debug efficient and maintainable firmware.
- Expertise in low-power design and optimization strategies.
- Understanding of communication protocols including I2C, SPI, UART and CAN.
- Must have ability to communicate in English language for discussions and collaboration.
- Good to have:
  - Experience with Python for scripting or test automation, as well as familiarity with FPGA design, SOC architectures, and NAND flash.
  - Experience in Nordic NRF series microcontrollers and development kits.
- Team player with strong communication skills and a positive attitude toward work.
- Good problem-solving skills with proactive involvement in troubleshooting and system optimization.
- Experience in unit and integration testing with familiarity to testing frameworks.
- Experience collaborating with engineers and supporting design reviews and product testing.