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WE'RE HIRING!

→ Firmware [Engineer]
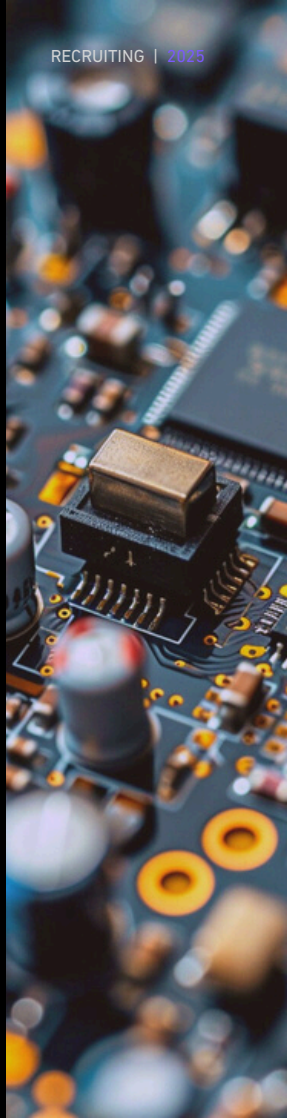
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WE ARE LOOKING FOR:

Firmware Engineer to join our team!

As a Firmware Engineer with a strong low-level and bare-metal focus, you will work at the heart of our embedded systems, bridging the gap between high-level software and hardware. You will be responsible for interpreting datasheets, configuring peripherals directly at register level and developing robust, efficient firmware that aligns perfectly with our hardware specifications.

This role is ideal for someone who enjoys working "close to the metal," understands how electronic systems behave in the real world and feels comfortable moving between microcontroller internals, embedded C code and practical electronic instrumentation. If you thrive in environments where firmware and hardware deeply interact, this is the place to make a direct impact.

Key responsabilities

- Bare-metal firmware development, creating low-level drivers and implementing functionality directly on microcontrollers.
- Interpretation of datasheets, Technical Reference Manuals and electronic schematics, ensuring firmware behavior matches hardware capabilities and constraints.
- Configuration and debugging of internal peripherals such as timers, ADC/DAC modules, GPIO, DMA engines, watchdogs and more.
- Implementation, testing and verification of communication protocols, including I^2C, SPI, UART, PWM and others used across our embedded systems.
- Configuration and use of MCU ecosystems and toolchains, such as STM32CubeIDE, MPLAB X, Code Composer Studio or similar environments.
- Hands-on debugging with laboratory tools, including oscilloscopes, logic analyzers and SWD/JTAG probes.
- Close collaboration with the Electronics team to validate hardware, identify issues and jointly solve HW/FW integration challenges.
- Integration with higher-level software, supporting HALs, internal APIs or driver layers when required.

Your team

You will be part of our **Electrical Engineering and Electronics team**, which is part of our Electric Propulsion department. This team is in charge of designing, testing, manufacturing and has the mission of continuous improvement of the electronic devices that enable thruster operation.

Qualifications & skills

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MUST HAVE:

- 3 years of proven experience in bare-metal firmware development.
- Strong ability to read and understand datasheets, block diagrams and register maps.
- Solid command of embedded C programming.
- Practical experience debugging with oscilloscopes and logic analyzers.
- Hands-on knowledge of common embedded peripherals: I^2C, SPI, UART, PWM, GPIO, etc.
- Familiarity with MCU development environments such as STM32CubeIDE, MPLAB X, Code Composer Studio, or similar.
- Basic understanding of electronic CAD tools (Altium, KiCad or equivalent) for schematic review.
- Spoken and written professional proficiency in English.

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NICE TO HAVE:

- Personal projects in electronics or firmware (GitHub repos, custom hardware, contributions).
- Knowledge of C++ in embedded environments.
- Experience using Git and good version-control practices.
- Familiarity with build systems like CMake, Makefile or others.
- Experience with FreeRTOS or another RTOS.
- Basic Linux knowledge (CLI, scripting, driver concepts or embedded Linux development).

Benefits & perks

- 🚀 **A key role in a pioneering space startup**, where you will directly impact the development of cutting-edge propulsion technology.
- 💼 **A full-time contract** of 40h per week.
- ⏰ **Flexible working hours**, allowing you to manage your schedule for better work-life balance.
- 🏠 **Hybrid work model:** work remotely up to 9 days per month.
- 🎄 **Extra holidays:** in addition to 23 vacation days, enjoy 6 additional days off during the Christmas period (from 24 December to 2 January, both included).
- 🩺 **Private health insurance**, fully covered by the company.
- 💸 **Learning & Development**: €1000 per year budget for training, courses, and professional growth.
- 💪 **Autonomy and responsibility**: your contributions will directly shape our technology and success.

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Interested candidates contact us at
careers@ienai.space with **[FIRMWARE ENGINEER]** in the subject.