

Fernando Román Hidalgo | Robotics and Automation Engineer

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- 👤 fernandoromhid
- 👤 FerXxk
- 📅 22 years old

About Me

Engineer with professional experience in developing technological solutions, currently active and completing post-graduate studies. My objective is to consolidate an ambitious career plan, with a special interest in automation and embedded software, while remaining open to participating in various projects that pose technical and professional challenges. I am motivated to be part of dynamic, innovative, and collaborative environments where I can continue expanding my competencies and provide real value to the team and organization through continuous improvement.

Experience

Airtificial Aerospace & Defense

Software Engineer

April 2025 – Present

- Project management for the development of a process automation application for a major aerospace company.
- Extensive experience in the aerospace sector with solid technical knowledge.
- Direct customer interaction for requirements definition and specification.
- Fullstack development, applying coding best practices, efficiency, and organization.
- Development of a digital twin for a composite material production plant, oriented towards simulation, analysis, and optimization of complex industrial processes.
- Design and implementation of the plant's production digital twin.
- Software integration and deployment using Docker containers.
- Acquisition and interpretation of data from industrial sensors.
- Automation and orchestration of tasks and workflows with Apache Airflow.
- Development of AI models for early failure detection in production.
- Implementation of a production scheduling algorithm based on CP-SAT.

Education

University of Seville

Seville

Master's Degree in Electronic Engineering, Robotics and Automation

2025 – 2026

University of Seville

Seville

Bachelor's Degree in Electronic Engineering, Robotics and Mechatronics, GPA: 7.5/10

2021 – 2025

IES Heliche

Technological Baccalaureate, Honors distinction

2019 – 2021

Idexa

Advanced Python Course

2025

Technical Skills

Programming: C, C++, Python, MATLAB, Simulink, ROS, JavaScript, VBA, HTML, CSS, SQL

Electronics: Digital/Analog electronics, microcontrollers (MSP430, ESP32, Arduino), FPGA, automation and control

Simulation: System modeling and simulation, PID control design, embedded systems integration

DevOps: Docker, Linux, version control with Git (merges, pull requests)

Networking: TCP/IP, MQTT, CAN bus

3D Design: Fusion 360, FreeCAD

Productivity: Technical documentation, Google Workspace, project management

Soft Skills

- Technical leadership and multidisciplinary teamwork
- Effective communication with technical and non-technical profiles
- Problem solving and analytical thinking
- Organization, adaptability, and fast learning
- Creativity and innovation applied to technical solutions

Languages

Spanish: Native

English: C1 Cambridge

French: Basic competence

Achievements

2024: Winner of the National Competitive Robotics League (LNRC) - Minisumo Category

Projects

GitHub: <https://github.com/FerXxk>

Check my GitHub projects for examples of my work in robotics, automation, embedded systems, and software development.