

# Fernando Román Hidalgo | Robotics and Automation Engineer

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- 👤 fernandoromhid
- 👤 FerXxk
- 📅 22 years old

## About Me

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Engineer with professional experience in developing technological solutions, currently active and completing postgraduate 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

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### 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

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### 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

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**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

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- 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

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**Spanish:** Native

**English:** C1 Cambridge

**French:** Basic competence

## Achievements

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

## Projects

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

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