




# MANUEL RODRÍGUEZ VICENTE

## Robotics & Embedded Systems Engineer

Robotics and embedded systems engineer with hands-on experience in accelerator facilities, industrial automation, PCB design and competitive robotics. Specialized in hardware prototyping, embedded systems and autonomous robots.

 659274142

 manuelrodriguezvicent@gmail.com

 [oprobots.org](http://oprobots.org)

### EDUCATION

#### Higher FP in Industrial automation and robotics

Colegio Hogar - Vigo  
2015 - 2017

#### Higher FP Electrotechnical and automated systems

IES politecnico de Vigo - Vigo  
2013 - 2015

### TECHNICAL SKILLS

- PCB Design: KiCad (+30 PCBs)
- Embedded Systems: ESP32, STM32, Arduino
- High-precision soldering (THT/SMD)
- CAD: Onshape, SolidWorks, SketchUp
- Manufacturing: 3D printing, soldering, assembly
- Programming: C, C++, Python, Arduino
- Industrial Automation: PLCs, electrical schematics

### COURSES

- CAS (Cern Accelerator School) 2023  
Introduction to accelerator physics
- SolidWorks (30h)

### LANGUAGES

- Spanish
- English

### WORK EXPERIENCE

09/2021

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Today

#### Synchrotron ALBA

Particle accelerator operator

- Working in the Control Room operating the accelerator.
- Collaborated with the Magnets and Front-End Systems group.
- Development of a robotic inspection system for radiation-controlled areas.

08/2020

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08/2021

#### iNSTER - CPS

Electronic laboratory technician

- Assembly and testing of RF PCBs.
- Manufacturing RF and communication cables.
- Very precise electronic welding work.

02/2019

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08/2020

#### Ledisson A&T

Assistive robot developer in I+D Group

- Hardware development team leader of [netaBot](#).
- 3D printing manager.
- PCB design and assembly.

04/2017

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02/2019

#### Drakar Soluciones de control

PLC programmer

- PLC programming and start-ups.
- Design of electrical and wiring diagrams.
- Electrical work and field assembly.

### PERSONAL PROJECTS

#### OPRobots

- Cofounder of a competitive robotic team.
- More than [30 robots developed](#).
- The [fastest micromouse](#) robot of Europe.
- We compete internationally:  
Romania, Mexico, EEUU and Japan.

#### Maker projects

- Design and manufacturing two 3D printers.
- Designed and manufactured custom [electrical motors](#).