

# CLAUDIO PINO

+41 44 586 50 52 | [claudio.pino@pincloud.io](mailto:claudio.pino@pincloud.io) | [LinkedIn](#) Vacallo, CH

Senior Embedded Hardware and Firmware Engineer & designer of embedded systems with experience in the industrial, military and space sectors. PCB layout developer with experience in EMC critical design and RF applications. Experience in 3D design of electronic boards and their mechanical integration in the final product.



## LANGUAGES

English

Italian (Native)

## COMPETENCES

Hardware Design & 3D engineering modelling:

Altium Designer, Autodesk Fusion 360 Eagle

### Software

OS Linux, FreeRTOS, uCOS-II, C, C++, Java, Python

Multitasking & real-time Programming

Eclipse CDT

Git

GCC, IAR, STM32CubeIDE, Atmel Studio, NXP

MCUXpresso

### Technologies

MCUs: STM32 / Arm, Microchip SAMA5 /SAM Dx

Protocol Bus (I2C, UART, SPI, PROFIBUS, CANBUS,

Ethernet, RS232/422/485, M-Bus)

### RF

ZigBee, Thread, BLE/BLE Mesh, Wi-Fi, SmartMesh

IP, LoRa/LoRaWan, Sigfox, 6LowPAN, NB-IoT, 2G,

LTE Cat-M, 5G

## PROFESSIONAL EXPERIENCE

**Senior Embedded HW Designer** 7/2023 – ongoing

**ETH Zürich – ERDW Institut für Geophysik**

Zürich, CH

- Member of AEIL (Aerospace Electronics and Instruments Lab), part of the Seismology and Geodynamics at the Institute of Geophysics, ETH Zürich. Involved in aerospace project LISA, in charge of the Gravitational Reference Sensor Front-End Electronics for the Laser Interferometer Space Antenna.

**Senior Embedded HW & FW Engineer** 2/2020 – ongoing

**BlackIoT Sagl (co-owner)**

Vacallo, CH

- Design of a pico satellite payload
- Design of sub-giga RF modules in cooperation with STMicroelectronics
- Design of IoT development kits for Telit Cinterion
- Design of M-Bus protocol converter for Belimo AG
- Design of test equipments for manufacturing
- Design of wearable IoT devices

**Senior Embedded HW & FW Engineer** 9/2016 – 2/2020

**IOTEAM Srl (co-owner)**

Seregno, Italy

- Design of the SmartEverything IoT development boards for Arrow Electronics
- Design of SmartMesh IP modules in cooperation with Linear Technology / Analog Devices
- Design of an electrical motor fault detection system for Analog Devices
- Design of a VOC USB Key for Bosch Sensortec
- Design of IoT devices

**Senior Embedded HW & FW Engineer** 5/2015 – 12/2016

**Arduino SA**

Chiasso, CH

- Definition of new MKR Arduino form factor
- Design of MKR Arduino boards
- Supervision of the European Arduino production

## SENIOR DESIGNER WITH EXPERIENCE IN VARIOUS ROLES IN EMBEDDED DESIGN:

- Schematic design
- PCB Layout
- 3D modelling
- Firmware development
- Test equipment development
- Conduction of certification

## MENTION OF PROJECTS:

- Power sub-systems of Giotto and Tethered satellites
- Grifo: combat fighter radar, DSP programming
- Central unit and display of radiology mobile stations
- Continuous belt weighing systems
- Makers boards: MKR1000, MKR Fox 1200, MKR Zero for Arduino
- Development boards: SmartEverything family for Arrow Electronics
- Cellular Development kits: Bravo, Bravo 2.0, Charlie for Telit Cinterion
- VOC USB Key for Bosch Sensortec
- RF modules in cooperation with STMicroelectronics
- Wearable tracking devices
- Wireless temperature detector for a supermarket chain
- MP-Bus to M-Bus protocol converter for a Swiss Company that is a global market leader in heating, ventilation and air conditioning systems.

### SW & FW Engineer

11/2000 – 10/2011

Cisco Photonics Italy (Cisco Systems)

Monza, Italy

- Fiber-optic WDM Management software
- Cisco 3000 and 6000 routers firmware
- Cisco DSLAM firmware
- FPGA programming (Verilog)

### HW & FW Engineer

6/1990 – 11/2000

Freelance Technical Consultant

Milan area, Italy

- Custom Embedded HW & FW systems design:
  - Alcatel (ex F.A.C.E. Standard)
  - FIAR Avionica (now Galileo Avionica)
  - Laben (now Thales Alenia Space)

### Head of the electronic laboratory

5/1987 – 6/1990

SAES Getters Spa

Milan, Italy

- Design of an industrial data collection system from production machines

### Firmware Engineer

6/1986 – 5/1987

Boselli Sistemi Spa (a Pirelli – IBM Company)

Settimo Milanese, Italy

- Building management Systems – Z80 programming

### Laboratory Technician

8/1982 – 6/1986

Fiar Spa, Space Division (now Officine Galileo B.U. Spazio)

Milan, Italy

- Satellite power sub-systems (Giotto, Tethered)
- Satellite test equipment design (Giotto, Tethered)

### Junior Laboratory Technician

5/1980 – 8/1982

Sistema Srl

Milan, Italy

## EDUCATION

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### IX ITIS

1975 – 1980

Milan, Italy