



Aboubacar BERMONE



INTERNSHIP – ELECTRICAL ENGINEERING & MECHATRONICS ENGINEER

Second-year Engineering student at INP-ENSEEIHT Toulouse (N7), majoring in Electrical Engineering with a specialization in Mechatronic Systems.
Available for a 3-month internship starting June 2026.



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International mobility

EDUCATION

ENGINEERING DEGREE IN ELECTRICAL AND ELECTRONIC ENGINEERING

INP-ENSEEIHT Toulouse (N7), France
2025 – 2027

BACHELOR'S DEGREE IN MECHATRONICS

University of Strasbourg, France
2024 – 2025

ELECTRICAL ENGINEERING PROGRAM

École Polytechnique d'Agadir, Morocco
2023 – 2024

ADVANCED TECHNICIAN DIPLOMA (BTS) IN MECHATRONICS

OFPPT, Oujda, Morocco
2021 – 2023

TECHNICAL SKILLS

- Automation & Industrial Control Systems:** Siemens Step7, TIA Portal, WinCC, PLCs S7-300/1200, FPGA (VHDL), ROS, CIROS..
- AI & Control Engineering:** MATLAB (Automation, AI applications), PID control, signal processing.
- CAD & Electronics:** Autodesk Inventor (mechanical design), Proteus (schematics & PCB simulation), SEE Electrical (electrical diagrams).
- Renewable Energy:** PVsyst (solar energy, system sizing).
- Automation Engineering:** Field commissioning, troubleshooting, PID tuning, instrumentation.

SOFT SKILLS

Teamwork & technical communication
Autonomy and problem-solving
Adaptability to new technologies

LANGUAGES

French: Native
English: Professional working proficiency

PROFESSIONAL EXPERIENCE

RESEARCH INTERNSHIP – INSA & ICUBE LABORATORY (FRANCE)

June – August 2025

- Testing and programming of an embedded electronic board integrating gas and particle sensors for drone-based pollution detection.
- Experimental study, calibration, and validation of gas sensors in collaboration with CNRS and particle specialists.
- Development of a temperature-controlled heating system (Proportional-Integral control) with integrated safety shutdown.

TECHNICAL INTERNSHIP – COLAIMO (AGRI-FOOD INDUSTRY, MOROCCO)

February – April 2023

- Development of an automated cooling loop for stirred yogurt using TIA Portal and supervision through WinCC.
- PLC programming and commissioning of Siemens automation systems.
- Electrical wiring and setup of a backup power supply system using a generator.

ACADEMIC PROJECTS

UNIVERSITY OF STRASBOURG – ENGINEERING PROJECT

2024-2025

- Complete design of a rescue drone (dimensioning, embedded electronics, flight control).
- Development of signal-processing tools in MATLAB for reference-signal comparison and clustering.
- Implementation of AI-based algorithms for autonomous detection and signal interpretation.

ÉCOLE POLYTECHNIQUE D'AGADIR & OFPPT – APPLIED PROJECTS

2021-2024

- Development of a solar tracker and an automated public-lighting control system.
- Microcontroller programming with MikroC and PCB testing.
- Programming of a Mitsubishi RV-2SDB (FESTO) industrial robot arm in C, including task scheduling and workspace management for industrial operations.