



# Aboubacar BERMONE



## INTERNSHIP – ELECTRICAL ENGINEERING & MECHATRONICS ENGINEER

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



aboubacar.bermone@etu.toulouse-inp.fr



+33614944256



International mobility

## EDUCATION

### ENGINEERING DEGREE IN ELECTRICAL AND ELECTRONIC ENGINEERING

INP-ENSEEIH 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

OFPT, 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 & OFPT – 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.