

MOHAMMED ECH-CHAIBI

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PROFESSIONAL SUMMARY

Junior Automation & Mechatronics Engineer with skills in PLC programming, industrial robotics, embedded systems and computer vision. Experienced in designing automation sequences, developing HMI/PLC interfaces and producing engineering documentation (GAMP V). Strong foundation in control logic, system integration and industrial process optimization. Motivated to contribute to smart manufacturing and advanced automation projects.

WORK HISTORY

Automation engineer, 12/2025 - current

University of Limerick - Limerick

- Developing an automated hydroponic farming platform using a 6-axis Mitsubishi robot, PLC logic and embedded sensing.
- Designing custom end-effector and programming robot sequences for plant handling, calibration and safe operation.
- Implementing OpenCV-based vision algorithms for pot detection and fine alignment.

Automation engineer, 11/2025 - 12/2025

University of Limerick - Limerick

- Produced FDS and DDS documentation in alignment with GAMP V automation lifecycle.
- Structured PLC code (studio 5000) for Rubik's cube inspection machine respecting safety requirements.
- Designed HMI for operator control and system monitoring.

Intern - manufacturing engineer, 04/2025 - 09/2025

Flying Whales - Bordeaux

- Defined the helium filling sequence during the assembly of the airship.
- Participated in defining and optimizing manufacturing processes.
- Applied 3D modeling skills to support design and prototyping of industrial components.

Intern - Lean Manager, 05/2024 - 09/2024

SITI TEA - Marrakech

- Industrialization of innovative processes to ensure precision and efficiency during assembly.
- Identify bottlenecks and propose workflow optimization.

Research And Development Specialist, 10/2023 - 03/2024

INGEROP - Lille

- Conducted product lifecycle analyses to identify reuse and recycling opportunities.
- Developed practical, eco-friendly solutions to enhance resource efficiency in large civil engineering

projects.

SKILLS

- Automation & PLC: Allen-Bradley Studio 5000, Siemens TIA Portal, State machines & structured sequence design, Emergency stop logic, safety interlocks, Sensor/actuator control & wiring basics.
- Robotics: Mitsubishi RT Toolbox/Melfa Basic, Robot calibration, Robot-PLC communication, 3D Modeling.
- Software & Tools: Python, C/C++, sensor integration, MATLAB, Git, Serial TCP communication.
- Industrial engineering: Lean principles, process analysis, KPI dashboarding, workflow optimisation.
- Soft Skills: Problem-solving, Fast learning & adaptability, Analytical Thinking, Teamwork & coordination.

EDUCATION

Master of engineering: Mechatronics, 09/2025 - 08/2026

UNIVERSITY OF LIMERICK - LIMERICK

- Coursework in robotics, automation, control systems, embedded systems, and machine vision.
- Practical work with Mitsubishi industrial robots, PLCs, sensors and system integration.

Engineering Degree: Industrial Engineering, 09/2023 - 08/2025

IMT NORD EUROPE - Douai

- Focus on industrialisation, manufacturing systems, process optimisation and 3D modeling.
- Coursework in mechanical design, operations research, systems engineering and project management.
- Hands-on projects in automation, production flow analysis and prototyping.

CPGE: Engineering, 09/2021 - 09/2023

Ibn Timiya - Marrakech

- Two-year intensive preparatory programme focused on advanced mathematics, physics, and engineering fundamentals.

CERTIFICATIONS

***Lean Six Sigma Green Belt certified**, with practical experience applying process-improvement tools.

*Completed a **MOOC in Project Management**, developing skills in planning, scheduling, and risk management.

LANGUAGES

French

Fluent

English

Fluent

Spanish

Elementary

HOBBIES AND INTERESTS

- Chess / Cooking / Tennis / Traveling