

Mariem DRIDI

Electronics and Automation Student

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Profile

Motivated electronics and automation student specializing in **embedded systems and industrial automation**. Passionate about **microcontrollers, IoT, and real-time systems**, with strong technical, teamwork, and leadership skills developed through hands-on projects and active participation in student organizations.

Technical Skills

- **Programming:** C/C++, Java, Python, MATLAB/Simulink, Ladder Logic, LabVIEW, **Assembly (ARM, AVR)**
- **Microcontrollers & MCUs:** Arduino, STM32, ESP32, Raspberry Pi, **PIC**
- **Wireless & IoT:** MQTT, LoRa, Node-RED, Wi-Fi, Bluetooth
- **RTOS & Concepts:** FreeRTOS (basics), Embedded Systems, Sensor Interfacing, Automation Control, Real-Time Systems
- **Software & Tools:** AutoCAD, Proteus, VScode, Arduino IDE, STM32CubeIDE, SCADA, TIA Portal (STEP 7)

Academic Projects

Smart Greenhouse Automation

July 2025

Automatic control of temperature, humidity, and watering in a greenhouse.

Tools: STM32CubeIDE, Proteus, MATLAB

Technologies: STM32, DHT11, Soil Moisture Sensor, Relay Modules

Skills: Embedded control, IoT integration, sensor calibration, system design

ESP32 IoT Weather Station

June 2025

IoT system to monitor and transmit weather data to a cloud dashboard.

Tools: ESP32, Arduino IDE, Wokwi Simulator, MQTT

Technologies: ESP32, DHT11/DHT22 Sensor, IoT Communication, Cloud Integration

Skills: Embedded programming, cloud dashboard setup, sensor interfacing

Arduino Smart Home Simulation

May 2024

Simulated smart home system for lighting, temperature, and motion automation.

Tools: Arduino IDE, Wokwi Simulator

Technologies: Arduino, Motion Sensor, Temperature Sensor, Light Sensor

Skills: Embedded programming, automation logic, virtual hardware simulation

Education

University of Carthage – Faculty of Sciences of Bizerte

2023 – Present

Bachelor's Degree in Electronics — Specialization: **Industrial Computing and Automation**

Organizations

Vice President – Cyber Processing Unit (Robotics Club)
Faculty of Sciences of Bizerte

Sept 2024 – Oct 2025

Member – Enactus FSB
Faculty of Sciences of Bizerte

Sept 2024 – Present

Languages

- **Arabic:** Native
- **French:** Intermediate
- **English:** Fluent