



# GHADA TURKI

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Hammamet, Nabeul, Tunisia

## Profile

Holder of a Master's degree in Mechatronics and an engineer in Electromechanical Engineering, with expertise in mechanical design, automation, and software development. Passionate about innovation and automated systems, I am looking to apply my skills in a dynamic environment through an internship for my final year project.

## Experience

MATECH	<u>Final Year Project</u>	TUNISIA, Megrine	03/2025-09/2025
<b>Designed and developed a generator emulator and mobile AR application</b>			
<ul style="list-style-type: none"><li>Used Vuforia, Unity, and C# to develop an augmented reality mobile application that allows technicians to virtually explore the components of a generator and learn about them, with an integrated quiz to test knowledge.</li><li>Designed generator components using SolidWorks and Blender.</li><li>Built the generator emulator using Arduino and electrical components.</li></ul>			
GD Tunisie	<u>Engineering Internship</u>	TUNISIA, Birbouragba	07/2025-08/2025
<b>Developed an innovative production supervision solution</b>			
<ul style="list-style-type: none"><li>Created a desktop application in Python for recording the number of cables produced by each worker, with a supervisory dashboard.</li><li>Designed a cable counting station in SolidWorks and built the electrical part, integrating an E3F-DS30C4 proximity sensor and an Arduino board, with data recording in the application.</li></ul>			
MATECH	<u>Final Year Project</u>	TUNISIA, Megrine	02/2023-06/2023
<b>Designed and developed a fault simulator for a generator</b>			
<ul style="list-style-type: none"><li>Developed a mobile application that allows users to input a fault code and display its description, using Java.</li><li>Created a generator fault simulator using a Guardrevolution controller and electrical components.</li><li>Developed manufacturing documentation and defined the requirements for the simulator, as well as created practical work for students.</li></ul>			
CSM-GIAS	<u>Technician Internship</u>	TUNISIA, Bouargoub	01/2022-02/2022
<b>Improved the Trepko Bucket Machine</b>			
<ul style="list-style-type: none"><li>Designed a machine for placing containers on a conveyor using SolidWorks and Arduino, built as a prototype.</li></ul>			
WEWIRE	<u>Introductory Internship</u>	TUNISIA, Hammamet	07/2021-07/2021
<ul style="list-style-type: none"><li>Gained insight into the company's activities and learned the cable manufacturing process, as well as applying Lean principles by helping organize workspaces.</li></ul>			

## Education

<b>Engineer's Cycle in Electromechanics – Mechatronics Specialty</b>	2024 - Present
• ESPRIT, Private Engineering and Technology School	
<b>Professional Master's Degree in Mechatronics</b>	2023 - 2025
• ISTIC, Higher Institute of Information and Communication Technologies	
<b>Applied Bachelor's Degree in Mechanical Engineering</b>	2020 - 2023
• Higher Institute of Technological Studies of Nabeul (ISETN)	

## Projects

- Designed and developed an autonomous robot for crack detection using SolidWorks, AI, and ESP32.
- Designed and built a line follower, obstacle detector, and parking system using Arduino and SolidWorks.
- Controlled a robotic arm to create patterns on wood using RT Tool Box and CATIA V5.
- Developed a dashboard in Node-RED and MQTT with ESP32 for an intelligent reservoir.

## Certifications

- SOLIDWORKS : Simulation Professional, CSWPA – Sheet Metal, CSWA – Mechanical Design, Additive Manufacturing Associate.
- NVIDIA AI for Predictive Maintenance : Using NVIDIA's AI technologies for predictive maintenance.

## Associations

- Member of the Hammamet Environmental Education Association: Participated in several projects and training.
- AIESEC – Voluntary Internship in Turkey, Izmit (06/2023 - 08/2023): International collaboration to organize community events, facilitate "Talk to Practice" sessions in English, and lead educational activities for children and adults.