

- MURAD HAIMOUR -

Mechatronics – Robotics Engineering | Digital Innovation Engineer

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Innovative and results-driven Mechatronics and Robotics Engineer with hands-on experience in developing autonomous systems, digital fabrication, and embedded hardware/software integration. Demonstrated expertise in ROS/ROS2, UAV platforms, PCB design, and rapid prototyping tools such as 3D printing, CNC, and laser cutting. Proven ability to manage multidisciplinary engineering projects from concept to deployment in fast-paced, innovation-driven environments. Passionate about solving real-world problems through robotics, AI, and automation, and eager to contribute to forward-thinking teams developing next-generation intelligent systems.

PROFESSIONAL EXPERIENCE

DI-TECH German Jordanian University, Madaba

Feb/2024 - Present

• Digital Innovation Engineer

[One-year Contract](#)

As a Mechatronics Engineer I contribute to projects and research initiatives across two key departments, Technology Transfer, Innovation and Entrepreneurship. Key contributions include:

- Led the strategic establishment and expansion of the Digital Fabrication Labs, integrating CNC, 3D Printing, Laser Cutting, and Digital Design into a cohesive innovation ecosystem.
- Launched the Orange Digital Fabrication Lab, transforming it into a hands-on, interdisciplinary space for prototyping and experimentation.
- Assigned full-time to the Global Entrepreneurship Monitor (GEM) Report project.
- Delivered hands-on training workshops on digital fabrication and 3D printing, covering 3D modeling, slicing, printer calibration, and post-processing techniques.
- Supported research-focused master's students and early-stage entrepreneurs by providing technical mentorship and access to prototyping tools.
- Participated in and supported high-impact workshops on entrepreneurship.
- Organized and coordinated multiple university-wide innovation and entrepreneurship events, ensuring logistical execution and fostering collaboration among students and faculty.

Orange FabLab, Orange Digital Village, Balqa'a

Feb/2023 – Feb/2024

• Fabrication Lab Master Engineer

[One-year Contract](#)

- Delivered hands-on training workshops on digital fabrication and 3D printing, covering 3D modeling, slicing, printer calibration, and post-processing techniques.
- Led operations and technical development at a national-level digital fabrication lab, part of Orange Jordan's Fabrication Lab initiative.
- Provided technical mentorship to students, entrepreneurs, and early-stage startups, enabling prototype development and product testing.

JORDAN DESIGN AND DEVELOPMENT BUREAU JODDB, Zarqaa

Mar/2022 - Dec/2022

• Mechatronics Aerospace Engineer

[Union-certified training program](#)

Autonomous Systems Design Engineer - gathering experience in aviation and flight mechanics. junior in electrical engineering. I worked as a printed circuit board designer, a multirotor kit fabrication, autopilot missions, UAV ground control station assembly.

NUMAN AL JUNAIDI FOOD INDUSTRIES, Amman

Aug/2021 - Dec/2021

• Technical Mechatronics Engineer

[University-required internship](#)

I joined as a trainee in Numan Al Junaidi factory as a technical Mechatronics Engineer. The training was summarized in repairing and developing the capabilities of tools and machines used in the factory, designing and training PLC panels, understanding the working mechanism of electrical, hydraulic and mechanical equipment.

EDUCATION

Bachelor of Engineering • Al Balqa Applied University, Amman, JO

2021

High Diploma Engineering • Queen Noor Civil Technical Collage, Amman, JO

2018

LANGUAGE

English - Fluent in speaking, reading, and writing.

Arabic – Native Language

PROJECTS

QUADCOTPER DRONE SIMULATION

2023

- SOLIDWORKS - ROS - GAZEBO – RVIZ

Designed a quadcopter drone using SolidWorks, employing principles of aerodynamics and mechanical engineering. Transformed the SolidWorks model into URDF format to simulate the drone's behavior in Gazebo and Rviz environments.

DESIGN, BUILT, AND TESTED PCB

2022

- TWIN BLOCKS CAMERAS & LRF

A fully manufactured board designed and tested using Altium Software. This PCB was developed as part of a sensor fusion platform for Quad Copter surveillance application. It integrates two cameras for stereo vision and two laser range finders for precise distance measurement, enabling object distance measuring and map imaging. The board was enclosed in a custom-designed case to protect components and maintain alignment for optical accuracy.

Autonomous UAS Professional Intern - Orange Foundation

2022

- AutoDesk Fusion 360 - Ardupilot – MissionPlanner - YOLO

A fully familiar with unmanned air systems UAS. it contains the design and full fabrication and development of a Hexacopter drone in simulation and manual flight. Integrated computer vision capabilities with **YOLO** object detection algorithm. And Supported the full fabrication process including assembly, wiring, and calibration of sensors, motors, and onboard electronics.

AUTONOMOUS WHEELED ROBOT USING ROS

2022

- TURTLEBOT 2 SIMULATED & DESIGNED

A Two-wheeled control system for a TurtleBot mobile robot was designed, built, and tested. The robot can move and navigate its environment under the Robotics Operating System platform. the Robot was designed by Autodesk Fusion 360 software to build the 3D model. Also, applying autonomously navigation and localization method, which was used to explore indoor environments by creating a map using simultaneous localization and mapping (SLAM) via the lidar, depth camera and motor encoders, then using path planning according to the created map.

ACHIEVMENTS

Graduation Projects Competition for the Year

2021

This competition includes the following engineering disciplines: (Civil Engineering, Mechanical Engineering, Electrical Engineering, Mining and Extractive Engineering, Chemical Engineering). Three projects can be nominated for each engineering department. The competition has been held by the association since the year 2000, and its prizes are awarded by the association. The third prize, was jointly

awarded to Al-Balqa Applied University for the project titled «Robot Navigation Using Robot Operating System (ROS), » supervised by Dr. Mohammed Mansour Al-Khawaldeh.

SKILLS

- **PCB Design & manufacture Design**

Build, and manufacturing double and single Boards.

- **Hardware Installation Robotics components**

Parts integrate

- **Embedded Systems C language**

RTOS - Microcontrollers - LightDock

- **Linux proficient Linux OS**

Qt - QML - commands

- **C++ || Python**

Good skills of implementing algorithms, autonomous navigation missions' nodes OpenCV - ML - ROS

- **ROS || ROS2 || Gazebo || Rviz**

Excellent skills in developing robotics projects, Simulation - Integration -MAVROS - ROSbridge - Rqt

- **UAV Systems || Drone Piloting**

Built, designed, and integrated quadcopter using Autodesk fusion 360 - Simulated FPV drone - fixed wing Simulation

- **CAD Design Fusion 360 - Altium - MeshMixer – 3D Slicing Software's**