Khaled El Madani

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EDUCATION

Lebanese American University, *B.E in Mechatronics Engineering*   *Sep 2019 – Jan 2024*

- Awarded Tomooh Merit Scholarship
- Member of the LAU AI Club

PROFESSIONAL EXPERIENCE

United Group Machinery, *Mechatronics Engineering Intern*   *Jun 2023 – Aug 2023*

- Enhanced machine automation and efficiency by developing and executing PLC programs on Delta and Allen-Bradley PLC platforms
- Assisted electrical engineering team in the selection of electrical components, ensuring the integration of high-quality parts for reliable machine operation.
- Utilized SolidWorks to design machine components, which were subsequently sent for precision machining using CNC technology.
- Successfully configured VFDs for motors and servo motors, fine-tuning performance parameters to achieve precise control and energy efficiency.

PROJECT EXPERIENCE

Klaan Mechanism Robot, *Final Year Project*   *Oct 2022 – Jul 2023*

- Designed the frame of the robot using SolidWorks and 3D printed them.
- Simulated 4DoF arm on ROS and Gazebo.
- Implemented a program on Raspberry PI using python to control the movement of the robot remotely.

Tele-operated robotic Hand, *Biomechatronics course*   *Feb 2022 – Apr 2022*

- Implemented a program utilizing computer vision on Arduino Uno to detect hand movement and mirrored this movement onto a robotic hand controlled by servo motors.
- Programmed a Rock, Paper, Scissors game using Python that could be played between a user and the robotic hand.

Color and Shape sorting system, *Mechatronics System Design*   *Oct 2021 – Dec 2022*

- Implemented a color and shape detection program using OpenCV on Raspberry PI that moves a conveyor belt and a 2 DOF arm that places the objects into pre-set locations.
- Created a program to control servo and stepper motors which were used in the conveyor belt as well as the sorting arm.

SKILLS & PERSONAL

Languages: Arabic (native), English (fluent), French (proficient)

IT: Office Package (Word, Excel, PowerPoint), SolidWorks (CSWA), AutoCAD, MATLAB/Simulink

Programming: Java, Python, SQL, XML

Interests: Scout Leader, Handball (D1 Player)