Joe Rahi

+961 76164844 | joe.rahi01@gmail.com | Okaibe, Lebanon | linkedin.com/in/joe-rahi

CAREER OBJECTIVE

Enthusiastic Mechatronics Engineering student, actively seeking an internship opportunity within the field. The goal is to leverage a dynamic learning environment to acquire new skills, enhance career prospects, and make a positive impact on the organization while striving for continuous personal and professional development.

EDUCATION

Lebanese American University (LAU), *Bachelor's in Mechatronics Engineering*   *Sep 2020 – Jun 2025*
- ***Placed on the Dean's Honor List for Spring 2023***   *Aug 2023*

Saint Joseph School, *General Science Program*   *Sep 2019 – Jun 2020*

PROJECTS

Self-balancing Robot, *Leader* | LAU   *Nov 2022 – Dec 2022*

- Built a Self-Balancing Robot capable of effectively maintaining its balance
- Optimized the configurations of sensors and actuators to enhance the stability of the robot
- Improved the level of control and responsiveness

Tomato Gripper, *Member* | LAU   *Nov 2023 – Dec 2023*
- Developed a precise control system tailored to meet specific project requirements.
- Conducted system modeling through an extensive review of literature and products, focusing on the force controller.
- Designed two compensators, a Lead compensator and a PID, employing MATLAB and Simulink.
- Analyzed the variation of the control input to ensure the stability and efficiency of the tomato gripping mechanism.
- Identified the specific input force required for sorting tomatoes based on their freshness and softness, thereby augmenting the overall functionality of the gripper system

Mars Rover Design, *Member* | LAU   *Nov 2022 – Dec 2022*
- Engineered a Mars Robot considering the gravity conditions on Mars using SolidWorks
- Conducted motion and stress simulations
- Verified the robot's capability to operate effectively in the challenging Martian environment

Home Automation, *Member* | LAU   *Nov 2022 – Dec 2022*
- Integrated a Home Automation project, powered by LabVIEW and MyRIO
- Developed the following systems: temperature control, fire detection, garage door operation, and lighting control
- Prioritized safety and efficiency as primary objectives

Shredder Machine, *Member* | LAU   *Nov 2023 – Dec 2023*
- Formulated and designed a shredder machine, employing industry design factors in SolidWorks, and executed stress analysis to validate structural integrity
- Engineered critical components such as the shaft, gears, bearings, bolts, and screws, utilizing a meticulous design approach

SKILLS

- **Languages:**   o English   o French   o Arabic

- **Technical Skills:**   **Soft Skills:**

o Java	o SolidWorks	o Altera Quartus 2 Simulator	o Problem solving
o Data Structures	o AutoCAD	o P-spice Simulator	o Leadership
o Python-OpenCV	o G-Code	o Office Package	o Communication
o NI LabView + MyRIO	o Kinematics	(Word, Excel, PowerPoint,	o Adaptability
o Instrumentation	of Linkages	Web)	o Creativity
o MATLAB/Simulink		o Primavera	

MEMBERSHIPS

- Active member in the LebNet Tech Fellows Program   *Jan 2024 – Jun 2024*
- Active member in the LAU Robotics Club   *Sep 2022 – Sep 2023*
- Active member in the LAU Consulting Club   *Sep 2022 – Sep 2023*

CERTIFICATES

- Certified SolidWorks Professional (CSWP)   *10 Jan 2024*
- Certified SolidWorks Associate (CSWA)   *29 Oct 2022*
- Completed the Aerial Robotics Course *(Authorized by University of Pennsylvania and offered through Coursera)*   *13 Jan 2024*
- NVIDIA DLI Certificate (Completion of Getting Started with AI on Jetson Nano)   *30 Aug 2023*