

Lilas Tawil

Mechatronics Engineering Student

Address: Beirut, Lebanon | Phone: +961 81822134

Email: lilas.n.tawil@gmail.com | Nationality: Lebanese | LinkedIn: [Lilas Tawil](#)

Education

Bachelors of Engineering in Mechatronics Engineering

Lebanese American University Lebanon, Byblos

Present Expected Graduation: 2026

Summary

Mechatronics engineering student with hands-on experience in CAD design, robotics, electronics, and automation. Proficient in AutoCAD and SolidWorks for 2D and 3D modeling. Skilled in technical documentation, system integration, and collaborative problem-solving. Completed academic projects in solar tracking, robotic systems, and virtual reality, demonstrating strong adaptability and a practical, solutions-oriented mindset. Currently working as an IT assistant at the university library, supporting technology operations and user assistance.

Experience

IT Library Assistant (Part-Time, 20 hrs/week) – Lebanese American University

Present

- Maintained and troubleshoot PCs and printers to ensure smooth operation and minimize downtime.
- Assisted users with technical issues, improving overall user experience.
- Performed regular system updates and coordinated with IT for complex problems.

Color-Sorting Robotic Arm – Instrumentation Project, LAU

May 2025

- Designed the robotic gripper in SolidWorks, creating a detailed 3D model for the arm.
- Fabricated the gripper using a 3D printer, ensuring structural compatibility and precision.
- Built and programmed a robotic arm to detect and sort objects by color using sensors, LabVIEW, and Arduino.
- Gained practical experience in automation, embedded systems, motor control, and rapid prototyping.

Interactive 360° VR Library Tour – VR Project, LAU

May 2025

- Developed a web-based VR tour using A-Frame and 360° images with interactive room-to-room navigation.
- Improved skills in web VR, spatial interaction, and user interface design.

Single-Axis Solar Tracking System – Electronics Project, LAU

April 2025

- Designed a solar panel system using LDRs, thermistors, Op-Amps, and MOSFETs to track sunlight direction.
- Applied analog electronics to drive a DC motor for optimized solar alignment.

Mechanical Rolling Machine Simulation – CAD Project, LAU

Dec 2024

- Designed and simulated a belt-driven rolling machine with synchronized rollers using SolidWorks.
- Performed motion analysis and applied gear mates and belt-pulley constraints to ensure accurate kinematics.
- Developed hands-on skills in mechanical design, motion simulation, and system validation.

Car Transmission System Design – Digital Logic Project, LAU

Sept 2024

- Simulated a digital car transmission using logic gates, K-maps, and timing diagrams.
- Modeled real-world gear shifts through combinational and sequential circuit design.

Certificates & Courses

- AutoCAD 3D modeling- LinkedIn Learning (March 2025)
- Javascript Essential Training (December 2024)
- Learning LabVIEW - LinkedIn (December 2024)
- Training of Trainers (TOT)-STEAM - Michel Daher Foundation (September 2024)
- Supervised Machine Learning: Regression and Classification - Coursera (August 2024)
- Java for Beginners - AmigosCode (August 2024)
- Cybersecurity for Everyone - Coursera (June 2024)
- Programming using Python - Coursera (May 2024)

Skills & Expertise

- **CAD & Technical Design:** AutoCAD, SolidWorks (2D/3D modeling)
- **Programming Languages:** Python, Java, JavaScript, HTML, CSS
- **Software & Tools:** Arduino, LabVIEW, Thunkable, Pictoblox, Scratch
- **Languages:** Arabic (Native), English (Proficient), French (Intermediate)