

Lilas Tawil

Mechatronics Engineering Student

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Education

Bachelors of Engineering in Mechatronics Engineering

Lebanese American University Lebanon, Byblos

Present Expected Graduation: 2026

Summary

Mechatronics engineering student entering fourth year, with hands-on experience in CAD design, robotics, electronics, and software development. Proficient in AutoCAD and SolidWorks for 2D and 3D modeling, alongside practical skills in system integration and technical documentation. Experienced in developing software solutions through academic projects involving robotics, solar tracking, and virtual reality applications. Currently supporting IT operations as a university library assistant. A motivated learner with strong problem-solving abilities, eager to contribute to innovative healthcare technology through software development.

Experience

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

Present

- Provided technical support for PCs and printers, minimizing downtime.
- Assisted users with IT issues, enhancing user satisfaction.

Online Bookstore Website – Data Structure

May 2025

- Built a dynamic PHP/MySQL bookstore with user-friendly UI, contact form, and book submission.
- Focused on clean design, database integration, and realistic user experience.

Color-Sorting Robotic Arm – Instrumentation Project, LAU

May 2025

- Modeled and simulated a custom robotic gripper in SolidWorks, optimized for 3D printing.
- Used Arduino, LabVIEW, and sensors to sort objects by color.
- Applied skills in automation, motor control, and embedded systems.

Interactive 360° VR Library Tour – VR Project, LAU

May 2025

- created a VR web tour with A-Frame and 360° images.
- Enabled interactive navigation between rooms and enhanced VR UI design skills.

Single-Axis Solar Tracking System – Electronics Project, LAU

April 2025

- Designed a solar panel system using LDRs, thermistors, Op-Amps, 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 rolling machine in SolidWorks featuring synchronized rollers.
- Conducted motion analysis using belt-pulley systems and gear mates.

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

- 3D printing for librarians: Bringing ideas to life- LAU (June 2025)
- AutoCAD 3D modeling- LinkedIn Learning (March 2025)
- JavaScript Essential Training (December 2024)
- Training of Trainers (TOT)-STEAM - Michel Daher Foundation (September 2024)
- Supervised Machine Learning: Regression and Classification - Coursera (August 2024)

Skills & Expertise

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