

LAITH ABOUHASOUN

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Education

B.S. Mechanical Engineering - San Diego State University - May 2026 – GPA 3.2

Relevant Coursework: Fluid Mechanics, CAD Design, Mechatronics, Thermodynamics, Materials Engineering, Applied Mechanics, Manufacturing Processes

Technical Skills

SolidWorks • CAD Modeling • MATLAB • ANSYS Fluent • Basic FEA & CFD Setup • Arduino • Sensors • 3D Printing • CNC Machining • G-code • Laser Cutting • Waterjet Cutting • Precision Tools

Engineering Projects

VTOL Unmanned Aerial System Project (Joint Engineering Team, Capstone Project)

- Designed mechanical and structural components for a biplane VTOL UAS, including Iris Gripper mechanism, motor mounts, connectors, and landing structures using SolidWorks
- Manufactured prototype components using PA6-CF 3D printing, hot-wire foam cutting, and fiberglass composite layups
- Performed fit checks, mechanical assembly, and integration of wings, spars, electronics mounts, and payload mounting structures
- Conducted thrust-stand testing and collected propulsion performance data to support motor selection and propulsion evaluation
- Collaborated with aerospace and electrical engineering teammates on system integration, CAD layout, and design reviews, with a focus on mechanical subsystems

UR5 Robotic Arm Simulation — MATLAB (Individual Project)

- Developed a UR5 robotic arm simulation in MATLAB including kinematic modeling, workspace validation, and motion visualization
 - Implemented collision checking and RRT-based path planning for pick-and-place task simulations
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Employment Experience

Fleet Maintenance Technician at Ali & Fahad Transportation (January 2024 – Present)

- Perform routine mechanical inspections, diagnostics, and preventative maintenance on fleet vehicles
 - Assist with troubleshooting mechanical, electrical, and hydraulic systems following established maintenance procedures
 - Replace mechanical components, apply proper torque specifications, and use precision measurement tools during repairs
 - Maintain service documentation, track parts usage, and support fleet maintenance scheduling
 - Develop hands-on experience with mechanical systems, fasteners, tools, and safety practices in a professional shop environment
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Languages

English (Fluent) • Arabic (Fluent)