Maxwell J. Weaver

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EDUCATION

San Diego State University, SDSU College of Engineering, San Diego, CA **May 2026**
Bachelor's in Aerospace Engineering
Selected Coursework:
Fluid Mechanics • Astrodynamics • Astrodynamics • Feedback & Flight Controls • Statics & Dynamics • Linear Algebra • Electrical Engineering • Mechanics of Materials • High and Low-Speed Aerodynamics • Mechanical Vibrations • Aircraft Propulsion Systems • Senior Design Project • Differential Equations • Aircraft Stability

ENGINEERING EXPERIENCE

Aerospace Navigation & Control Society, *(ANCS)*, *San Diego, CA* **August 2024 – present**
- Hands on design and fabrication of actuator-controlled sounding rockets
- Design and construction of control systems, robotic systems
- 3D Printing, CNC Machining, Computer Aided Design, part design and fabrication
- Systems integration, uniting electrical systems, parachutes, actuators, and censors
- Optimizing and designing control surfaces of a rocket with simulations and computational software

Autonomous VTOL Drone Competition C-UAS, SDSU, *San Diego, CA* **August 2024 – present**
- CAD & Systems Integration lead for joint Mechanical, Electrical and Aerospace Engineering Senior design project
- Demonstration of autonomous horizontal and vertical controlled flight
- Drop & Receive payloads at AI detected targets

SDSU Rocket Project, Project Icarus, *San Diego, CA* **Fall 2024 – present**
- Design and fabrication of solid stage rocket motors
- Handling of volatile and hazardous chemicals, safe laboratory practices
- Integration with various other sub-systems, teamworking and networking with various engineering disciplines
- Successful deployment of a high-altitude sounding rocket

Experimental Aerodynamic Research, San Diego State University, *San Diego, CA* **August 2024 – present**
- Analysis of experimental data of aerodynamic conditions present inside supersonic and subsonic wind tunnels
- Interior refurbishment of wind tunnel system, and experiment design
- Computational analysis of experiment versus theoretical conditions

Teaching Assistant, The California State University, *San Diego, CA* **September 2025 – present**
- Design and testing of a chassis for a motorized all-terrain vehicle, CNC milling and CAD work

NASA/California Space Grant Program, Summer Research Project, *Chula Vista, CA* **June 2023 – July 2023**
- Incorporated different systems including electronics, displays, scientific modules, radios and sensors
- Leadership role over integration of systems
- Leadership role over developing main code in Arduino IDE

Baja SAE, Chassis Design & Systems Integration, *Chula Vista, CA* **August 2023 – May 2024**
- Design and testing of a chassis for a motorized all-terrain vehicle, CNC milling and CAD work
- Oversight on various sub-systems and integration across electrical systems, steering, and safety
- Fabrication techniques, welding, metal cutting, manufacturing processes

LEADERSHIP AND AWARDS EXPERIENCE

Society of Hispanic Professional Engineers, *Recruitment Chair,* Chula Vista, CA
- Organized events, including STEM shadow day, resume workshops, career fairs, campus tours, Study hours
- Improving and benefiting local communities and strengthening Hispanic participation in STEM

Dean's List, College of Engineering, SDSU, San Diego, CA
- Achieved semester GPA of 3.56, earning recognition of SDSU's Dean's List in the Fall 2024 semester

College of Engineering Student Council Representative, College of Engineering, SDSU, San Diego, CA
- Served as a voting member on the SDSU student council for the College of Engineering

SPECIALIZED SKILLS

- MATLAB, SolidWorks, Robotics, C++, Microcontrollers, CNC Machining, CAD, Arduino IDE, Structural Testing, Fabrication techniques, Combustion Engines, Fuel Systems, Solid Boosters, Wind Tunnel, XFoil, Femap, Ansys, Python