Aidan Green

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KEY QUALIFICATIONS

- Mechanical Design: Parametric part and assembly modeling, tolerance stack-ups, interface definition
- Design for Manufacturing: CNC and weldment-aware design, drawing creation, GD&T fundamentals
- Engineering Analysis: FEA, MATLAB, thermal, structural, and fluid flow analysis
- Systems Integration: Avionics layouts, electromechanical packaging, design iteration

Experience

SolidWorks Designer / Mechanical Design Consultant **2024 - Present**

Sandrail Suspension Arm (Offroad Vehicle) **November 2025**

- Designed a rear suspension arm fabricated from **4130 Chromoly Steel** using **reverse engineering** of existing components and field measurements.
- Built fully parametric SolidWorks models and applied DFM principles for CNC machining and weldment fabrication.
- Refined geometry to improve load paths, manufacturability, and serviceability while maintaining Interface compatibility.
- Produced manufacturing-ready drawings to support fabrication and fit-up.

Cessna 182 Instrumentation Panel Redesign **October 2025**

- Reconfigured instrument placement and mounting geometry, including design of an L-bracket for Molex USB Type-A/C integration and compass repositioning to mitigate magnetic interference.
- Removed redundant analog systems (VSI, altimeter) and integrated iPad based Garmin Flight Instruments to modernize navigation and flight data visualization.
- Improved cockpit ergonomics, reliability, and situational awareness by optimizing gauge layout and upgrading engine monitoring with a JPI 730 Piston Advisory system.

Limit Switch Bracket for Experimental Long-EZ Aircraft **March 2024**

- Designed and manufactured a custom aircraft component using **CNC milling techniques**.
- Applied precision tolerancing to ensure compatibility with existing landing gear systems.
- Created **CAM** files and verified fit through iterative prototyping.

Design and Manufacture of Award **April 2024**

- Designed and fabricated a precision-machined award using CNC milling.
- Programmed and optimized **toolpaths** to ensure efficiency and superior surface finish.
- Created manufacturing drawings and generated machine code using **CAD/CAM** software.

EDUCATION

B.S. in Mechanical Engineering - University of Nevada, Reno December 2025

M.S. in Aerospace Engineering - University of Nevada, Reno May 2027

PUBLICATIONS

Green, A. (2026). *Carbon Fiber Reinforced Polymer Matrix Composites: Processing, Properties, and Applications*. Fibers, Published.

ACCOMPLISHMENTS

Winter Sports Club – Officer

- Organized key events, including collaboration with Protect Our Winters (POW) as part of their College Film Festival, successfully hosting the CEO, Jeremy Jones, and industry professionals.

Private Pilot License (In Progress)

- Currently training for a Private Pilot License, gaining hands-on experience in aviation, navigation, and flight safety protocols. Gaining knowledge and conducting analysis on flight instrumentation.

Competitive Snowboarding

- USASA National Snowboarding Finals Competitor, 2018, 2017, 2016
- Rev Tour, Snowboarding Halfpipe, 2018, 2017