

Aidan Boyer

Mechanical Design Engineer

Approaches detail work with a systems mindset. Excels at generating innovative mechanical solutions, with the expertise to transform first principles brainstorming into functional hardware. Background in robotics, 3D printing, and automotive engineering.

Contact

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(973) 524-0215
Denver, CO

Education

B.S. MECHANICAL ENGINEERING, ENGINEERING MANAGEMENT MINOR

University of Colorado,
Boulder
August 2020 – March 2024

Skills

CAD: 5000+ hours.
Parametric top-down
approach. CAD best-
practices instructor. Self-
taught in middle school.

Tolerancing: DFMA, GD&T,
Monte Carlo analysis,
assembly stacks, and NC
mitigation.

Structural Analysis: Modal,
random, quasi-static,
buckling, fatigue, and
NASA 5020 bolted joint
analysis.

Rapid Development: 3D
printing, electronics
integration, harnessing,
TCS, and AI&T experience.

SMS Project Management:
IMS/release tracking, MELs,
budgets, and design
delegation.

Experience

MECHANICAL ENGINEER 2 | SIERRA SPACE

March 2026 – June 2026 (Current)

End to end ownership of program of record primary and secondary flight structures and assemblies.

Highly collaborative roll, efficiently resolving requirements conflicts between Stress, Thermal, AI&T, Harnessing, COMMs, GN&C, M&P, EPS, and C&DH.

Develops SMS design guidance covering drawing notes, metallic tolerancing, and design best practices. Heavily focused on design intent.

Close contact with the production floor, closing NC's and receiving valuable design feedback.

MECHANICAL ENGINEER 1 | SIERRA SPACE

June 2024 – March 2026

SMS (Structures and Mechanical Systems) Satellite design engineer.

Designed, drafted, analyzed, and released 150+ metallic structures supporting critical DoD spacecraft.

LEAD INSTRUCTOR | ROBOT REVOLUTION

May 2019 – August 2021

Taught fusion 360 to high school students. Encouraged holistic design – developing the entire system instead of compartmentalizing components into subsystems. Explained fundamental mechanical concepts such as friction, gear boxes, linkages, and lifts.