



UNIVERSITY OF COLORADO BOULDER AIAA DESIGN /
BUILD / FLY

INDUSTRY PARTNERSHIP PROPOSAL · 2026–2027

COLORADO DESIGN BUILD FLY



AN UNDERGRADUATE AIRCRAFT DEVELOPMENT PROGRAM

Colorado Design Build Fly is a student-run engineering team at the University of Colorado Boulder. Each season the team designs, analyses, manufactures, tests and flies a purpose-built aircraft for the AIAA Design/Build/Fly competition.

The team operates like a small aerospace firm. Students lead every stage of the programme, from requirements through flight test, working outside of class. Members come from aerospace, mechanical and many more majors, first year through graduating senior.



FIVE TECHNICAL SUB-TEAMS

Aerodynamics · Avionics · Structures · Mission · Finance

15

ACTIVE STUDENT ENGINEERS

5

TECHNICAL SUB-TEAMS

Each owning a defined part of the aircraft

3rd

BEST FINISH — 2012

Multiple top-five results since

Every

SEASON ENTERED SINCE INCEPTION

Continuous participation since the competition began

AIAA DESIGN BUILD FLY



A full aircraft development cycle compressed into one academic year. Teams submit a written proposal, publish a design report, then fly the aircraft they built against a scored mission profile that changes every year.

Students must balance aerodynamic performance, structural margin, weight, manufacturability, reliability and mission requirements — and then demonstrate the result in flight, in front of judges.

Entry is competitive at every stage. Proposals are screened, design reports are scored, and only aircraft that clear technical inspection are allowed to fly.



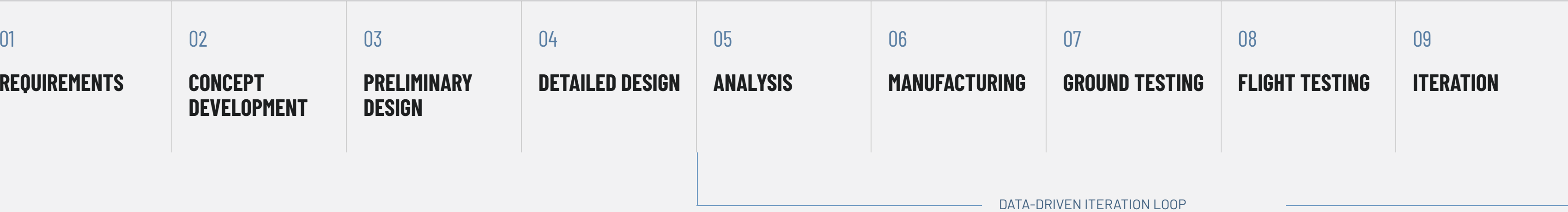
2025 mission: a banner-towing bush plane flying passenger and cargo charter runs. Host: Textron Aviation, Wichita, Kansas, 16-19 April 2026.

2026 COMPETITION — 30TH YEAR • OFFICIAL AIAA FIGURES

175	102	89	1,179	12
PROPOSALS JUDGED	INVITED TO REPORT	TEAMS AT THE FLY-OFF	STUDENTS COMPETING	COUNTRIES REPRESENTED

ONE AIRCRAFT PER SEASON, REQUIREMENTS TO FLIGHT TEST

Every stage is student-led and every stage is reviewed. Flight-test results feed back into analysis, so the aircraft that flies at competition is the product of measured iteration.



TECHNICAL ORGANISATION

AERODYNAMICS

Designs and analyses the lifting surfaces, aircraft dynamics and propulsion system to optimise overall performance.

AVIONICS

Designs systems to record flight-test data, provide real-time telemetry and operate all other aircraft components.

STRUCTURES

Designs the internal and external structure of the aircraft to optimise weight and serviceability.

MISSION

Designs the internal layout and systems specific to the competition missions. Works closely with structures.

FINANCE

Tracks program spending and manages sponsor relationships and external funding.

WORK PERFORMED BY STUDENTS

Design work, fabrication, instrumentation and flight test are carried out by the team – not observed, not simulated.



STRUCTURES & COMPOSITES

Students size the internal and external structure for weight and serviceability, then lay up carbon-fibre skins and bond the airframe themselves.



AVIONICS & INSTRUMENTATION

Onboard systems record flight-test data and return real-time telemetry. That data is reduced and applied directly to aerodynamic design decisions.



ASSEMBLY & INTEGRATION

Airframe, propulsion and mission systems are integrated and bench-checked in the shop before every test campaign and before competition.



FLIGHT TEST

Test flights are planned, flown and reviewed. Handling and performance observations drive the next revision of the aircraft.

SUPPORT HERE IS AN ENGINEERING INVESTMENT

DIRECT ACCESS TO TALENT

Partners are invited to share professional expectations, workplace tools and emerging technical needs with students while they are still choosing a path.

BRAND VISIBILITY

Company mark on the competition aircraft, team apparel and team website, with named component or livery placement available at senior levels.

NURTURING FUTURE ENGINEERS

Investing in new engineers' talent and growth strengthens the future workforce



LEVELS & ENTITLEMENTS

	STRATEGIC PARTNER	PREMIER PARTNER	SUPPORTING PARTNER	TECHNICAL PARTNER
ENTITLEMENT	\$3,000 +	\$1,500 – 2,999	\$500 – 1,499	Under \$500
Sponsor name and logo on the team website	●	●	●	●
Company logo on the competition aircraft and team apparel	●	●	●	—
Season progress and schedule updates	●	●	●	—
Recognition post on team Instagram and LinkedIn	●	●	—	—
Access to flight-test results and data	●	●	—	—
Additional recognition and custom benefits, negotiated to fit	●	—	—	—

In-kind – Materials, components, equipment, services and software licences are assessed at fair market value and placed at the corresponding partnership level.

Engagement – Mentorship, design-review participation, recruiting sessions and facility visits are available to partners at any level on request.

Multi-year – Multi-season agreements are welcome and give the program the planning horizon it needs.

PRODUCTS AND SERVICES WE NEED

MATERIALS & CONSUMABLES

Carbon-fibre fabric	\$100 – 1,000 / roll
Epoxy resin systems	\$50 – 200
3D-printing filament	\$30 – 40 / roll
Fasteners and hardware kits	\$30 – 150
Storage cabinets	\$150 – 300
Electronics and avionics components	Varies

EQUIPMENT & MANUFACTURING

Laser cutter	~ \$4,000
Large-format 3D printer	~ \$2,000
Desktop CNC mill	\$1,000 – 2,500
Portable generator	\$800 – 2,000
Engineering workstation	\$400 – 1,700
Trainer aircraft and transmitters	\$150 – 350

SERVICES & EXPERTISE

Machining and fabrication capacity
Additive manufacturing runs
CAD, CFD and FEA software licences
Test and measurement equipment
Engineering mentorship
Workspace and secure storage

ANNUAL EXPENDITURE

\$8,000

Approximate total program expense in an average season



36%

Travel to competition

64%

Manufacturing, electronics and testing — materials, manufacturing supplies, AIAA membership and program costs

EXPENSE CATEGORIES

Reimbursed travel	Electronics	Materials
Manufacturing supplies	AIAA membership	Outreach and miscellaneous

LARGEST UNMET NEED — DEDICATED WORKSPACE

The team builds at weekends, when university shops are closed, and has no dedicated storage for airframes, tooling and materials. Solving this is the single highest-leverage contribution a partner can make.

SHORT TERM

\$1,000–1,500 / mo

Rented workshop in Boulder or the surrounding area — approximately \$18,000 per year.

LONG TERM

~ \$2,100

Purchased tool-shed workshop, roughly 20 × 14 ft, sited on a donated or granted plot of about 30 × 30 ft.



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PRIMARY CONTACT

TEAM ENQUIRIES

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Funding, materials, mentorship and multi-season partnerships are all welcome.

WEB

www.coloradodbf.com

LINKEDIN

www.linkedin.com/company/colorado-dbf/

INSTAGRAM

<https://www.instagram.com/coloradodbf/>

