



# **UCI DESIGN/BUILD/FLY**

## **SPONSORSHIP PACKET**

**ADVISOR: DR. JACQUELINE HUYNH**

# INTRODUCTION



## Who are we?

We are the UCI Design/Build/Fly (DBF) team, a dedicated group of students focused on designing, building, and testing a high-performance, electric-powered, radio-controlled aircraft. Each year, we take on a new mission profile set by the American Institute of Aeronautics and Astronautics (AIAA), challenging us to innovate and refine our engineering skills. Our goal is to create a balanced aircraft with excellent flight handling, practical manufacturing, and high performance, continually pushing the boundaries of aerospace technology through hands-on experience.

"Started in 1996 by the AIAA Applied Aerodynamics, Aircraft Design, Design Engineering and Flight Test Technical Committees as an opportunity for university students to apply real-world aircraft design experience by giving them the opportunity to validate their analytic studies."





# OUR MISSION

As a university design team focused on advancing aerospace engineering, UCI Design/Build/Fly:



**Empowers** students to apply theoretical knowledge through hands-on experience in designing, building, and flying a high-performance aircraft



**Connects** students with industry professionals, preparing them for careers in aerospace

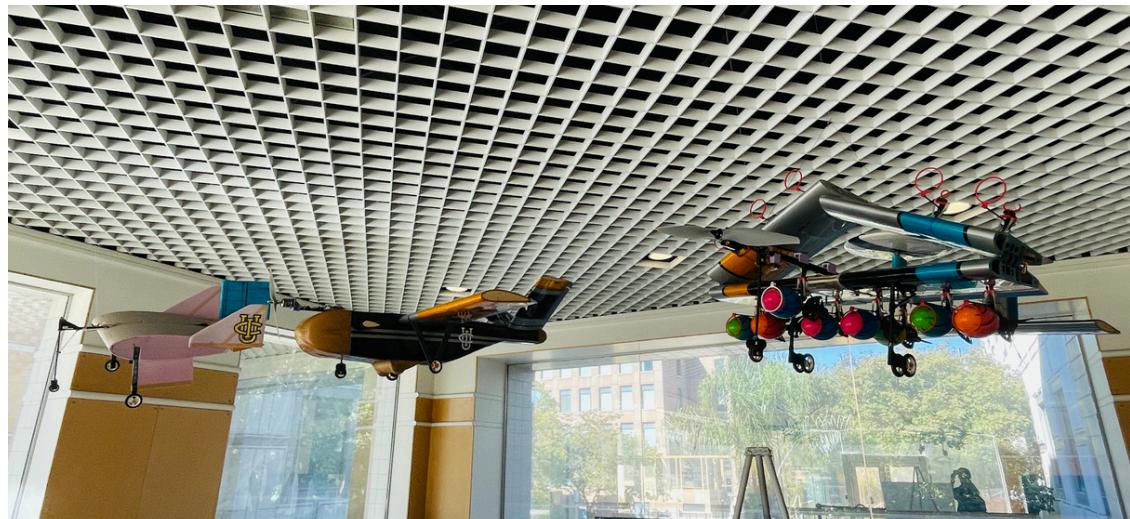


**Builds** a community of motivated future engineers who are passionate about innovation, sustainability, and excellence in aerospace design



UCI Design Build Fly Takes Ninth Place in International Competition (2022-23)

# Engineering Excellence on Display



Company logos are immortalized on each year's competition plane, winning aircraft are displayed in UCI Engineering Gateway

## Proven Success, Trophy by Trophy

Outstanding Student  
Project Award,  
OC Engineering Council,  
2015

Second Place  
April 13-15, 2012



First Place  
April 19-21, 2013

Second Place  
April 11-13, 2014

Second Place  
April 10-12, 2015

Third Place  
April 15-17, 2016



# WHY SPONSOR?

Sponsoring the UCI Design Build Fly Team offers a unique opportunity to support the growth of future aerospace innovators as they apply their engineering skills to real-world challenges. As the professional society for the field of aerospace engineering, the American Institute of Aeronautics and Astronautics started this competition as an opportunity for university students to apply real-world aircraft designs and validate their analytic studies. By becoming a sponsor, you align your organization with a highly motivated group of engineering students dedicated to advancing aerospace technology and sustainability. Sponsorship provides visibility and direct access to top talent, contributing to the growth of both your organization and the engineering profession.



## DBF at UCI Budget

Item	Units	Quantity	Budgeted Amount	Explanation and Justification for Expenses
<b>Manufacturing</b>				Materials used for manufacturing the RC aircraft and autonomous glider.
1/8" x 12" x 24" Aircraft Plywood	1 sheet	3	\$60.00	Plywood is used for critical structural points expected to sustain large loads.
1/8" x 6" x 36" Balsa Sheet	1 sheet	30	\$320.00	
1/16" x 6" x 30" Balsa Sheet	1 sheet	12	\$70.00	
1/32" x 4" x 36" Balsa Sheet	1 sheet	36	\$200.00	
1/2" x 2" x 48" Balsa Aileron	1 aileron	8	\$90.00	
0.601" x 0.77" x 84" Carbon Fiber Tube	1 tube	5	\$1,000.00	Carbon fiber provides structural support for the balsa frame, running along the span of the wings and length of the fuselage.
0.2" x 0.24" x 78" Carbon Fiber Tube	1 tube	10	\$500.00	
24" x 36" White Foam Board	1 sheet	2	\$40.00	Used for low-load components.
PLA Filament	1 kg roll	1	\$60.00	Used to create attachment points between components.
Insta-Cure Super Glue	1 oz bottle	5	\$40.00	
Epoxy	2-4.5 oz bottle	2	\$30.00	
Laser-Cutting Fees	1 hour	5	\$50.00	Required to cut the balsa to form structures.
<b>Electronics</b>				Various electronic components required for the RC aircraft and autonomous glider.
Tattu 6s 4500 mAh LiPo Battery	1 battery	3	\$350.00	Powers motor.
Phoenix Edge 100 Amp ESC	1 esc	2	\$280.00	Required to regulate power to motor.
Futaba R7206SB Receiver	1 receiver	2	\$260.00	Establishes connection between transmitter and aircraft.
Scorpion A-5025-415kv Motor	1 motor	1	\$350.00	
Futaba High-Torque Micro Servo	1 servo	24	\$600.00	Each aircraft requires 8 servos for full actuation.
19" x 10E Propeller	1 propeller	5	\$80.00	
SpeedyBee F405 WING MINI Fixed Wing Flight Controller	1 controller	2	\$80.00	Small computing device. Used to control autonomous glider.
<b>Travel</b>				
Gas (approx.)			\$600.00	Based on 3 vehicle round trip to Tucson from Irvine.
Lodging (approx.)			\$3,400.00	Based on 5 room, 20 person, 3 night stay Will be adjusted based on budget.
Food (approx.)			\$3,200.00	Based on 20 person, 4 day trip. May not be covered by project.
<b>Total</b>			<b>\$11,660.00</b>	

# SPONSORSHIP BENEFITS



Bronze  
\$500+

Silver  
\$1500+

Gold  
\$2500+

Tax Benefits



Logo & Name on Website



Social Media Spotlight



Resume Book



Logo on Team Apparel



Recruitment Event



Logo on Design/Build/Fly Airplane



Logo on Promotional Material



Logo Priority Placement



**Bronze**  
**\$500+**

## TAX BENEFITS

The UCI Foundation is a registered 501(c)(3) nonprofit, meaning that any contributions you make to support our project are tax-deductible.

## LOGO & NAME ON WEBSITE

Our website serves as our main source of information, and we prioritize promoting it through various campus events. Sponsors at this level will have their logo featured on the homepage of our website.

## SOCIAL MEDIA SPOTLIGHT

Companies and their sponsorships will be promoted on our Instagram and LinkedIn pages. To show our appreciation, you will receive an initial post highlighting our partnership, followed by an additional post showcasing the impact of your contribution, including how it was used on the airplane, if applicable.

**Silver**  
**\$1500+**

## EVERYTHING INCLUDED IN THE 'BRONZE' TIER

### RESUME BOOK

UC Irvine is recognized as one of the leading public universities in the nation. Members of Design/Build/Fly gain exceptional educational experiences focused on practical, hands-on learning. You will receive access to our annual resume book.

### LOGO ON TEAM APPAREL

Your company's logo will be prominently displayed on the team apparel worn by our members during the AIAA Design/Build/Fly competition, where we compete with teams from around the world. This offers global visibility and aligns your brand with cutting-edge engineering talent.

### RECRUITMENT EVENT

Your company will be recognized during our recruitment events geared towards UCI Engineering students. This provides direct exposure to a highly engaged audience of future engineers.

**Gold**  
**\$2500+**

## EVERYTHING INCLUDED IN THE 'SILVER' TIER

### LOGO ON AIRPLANE

Your logo will be featured on the UCI Design/Build/Fly airplane flown during the competition. This provides a unique opportunity for brand visibility on a highly technical, hands-on project that demonstrates engineering excellence.

### LOGO ON PROMOTIONAL MATERIAL

Your logo will appear in emails sent out to all UCI Engineering students during our recruitment efforts. This ensures your brand is seen by a large, targeted audience of future engineering professionals.

### LOGO PRIORITY PLACEMENT

Logo prioritization will be seen across all branding materials, including digital media and on the aircraft itself. Your company logo will have priority placement and larger sizing for maximum visibility, ensuring your support is showcased wherever UCI Design/Build/Fly goes.

# FLIGHT MISSIONS

## 2024-2025 Design/Build/Fly Competition

### Objective

### Scoring

#### Mission 1: Delivery Flight

Fly three laps within a five-minute window with no payload.

Teams earn a score of 1.0 for completing the mission with a successful landing.

#### Mission 2: Captive Carry Flight

Fly three laps carrying the X-1 test vehicle and at least two external fuel tanks within a five-minute window.

Based on the ratio of fuel weight to flight time.

#### Mission 3: Launch Flight

After a set number of laps, launch the X-1 test vehicle from the airplane at an altitude of 200-400 feet.

Based on laps flown, bonus points, and test vehicle weight.

#### Ground Mission: X-1 Flight Test Program Demonstration

Complete a timed demonstration on the ground, including assembly and verification of pylons, fuel tanks, and the X-1 test vehicle.

Based on the team's mission time.

# CONTACT US



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**DESIGN BUILD FLY**  
UC IRVINE