

# My Design Portfolio



photography by my mom

# cuair.org Webpages

cuair.org/recruitment.html



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## cuair.org/sponsors.html

**Interested in Sponsoring?**

Thank you sponsors! As an independent student organization, CUAir relies heavily on external sources for funding. Without the generous support of our sponsors, we would not be where we are today: a world-class team in the area of autonomous aircraft design and fabrication. CUAir depends on these contributions to excel and expand our efforts. With this support, we aim to continue our success at the competition this June.

Sponsorship benefits include tax deductible donations, increased recruiting presence on Cornell University's campus, direct access to the CUAir members, and national visibility on both the CUAir website and aircraft.

To learn more about the sponsorship process and the benefits of CUAir sponsors take a look at our sponsorship packet or fill out the "Contact Us" form below.

[Download our Sponsorship Packet](#)

**We Are**  
CUAir is an interdisciplinary student team that designs, builds and tests a custom search and rescue unmanned aerial system. We are the world champions of an international unmanned aerial vehicle competition.  
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“CUAir has probably been the most important Cornell opportunity I've had. Not only have I been able to grow and learn engineering practices that I could never learned in classes, but I've also surrounded myself with one of the most talented, brilliant, and interesting groups of people I've ever met. If you give your all to this team, you'll get more out of it than you ever imagined.”

— SAM FIEBEL



### Frequently Asked Questions

#### What's a project team?

Cornell Engineering Project mimic real-world engineering by bringing Cornell students, faculty, and staff together to solve complex problems in team-based settings. Breaking the rules of conventional wisdom is not foreign to Cornell's engineers and the spirit of innovation is alive and well in our state-of-the-art labs and workshops. Many project teams compete regionally, nationally, and internationally in engineering design and build competitions and/or travel the globe for service learning projects and programs.

Do I need experience to join CUAir?

As a member of the team, do I need to pay any dues or fees?

Do I need to be a mech/ece/cs major, or even an engineer to join?

What's the recruitment process like?

Can I apply to multiple project teams?

What's the time commitment?

What is CUAir's team culture like?

What is the difference between the Airframe and Mechanical subteams?

Pro tips?

### We Are

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### Site Map

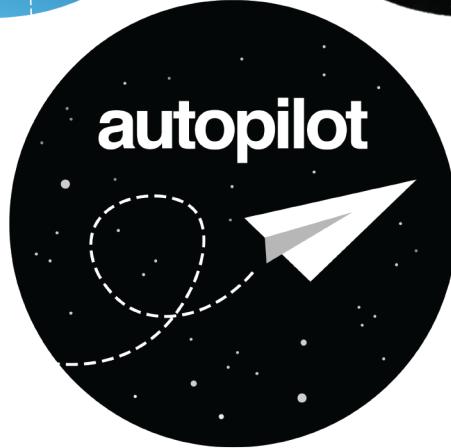
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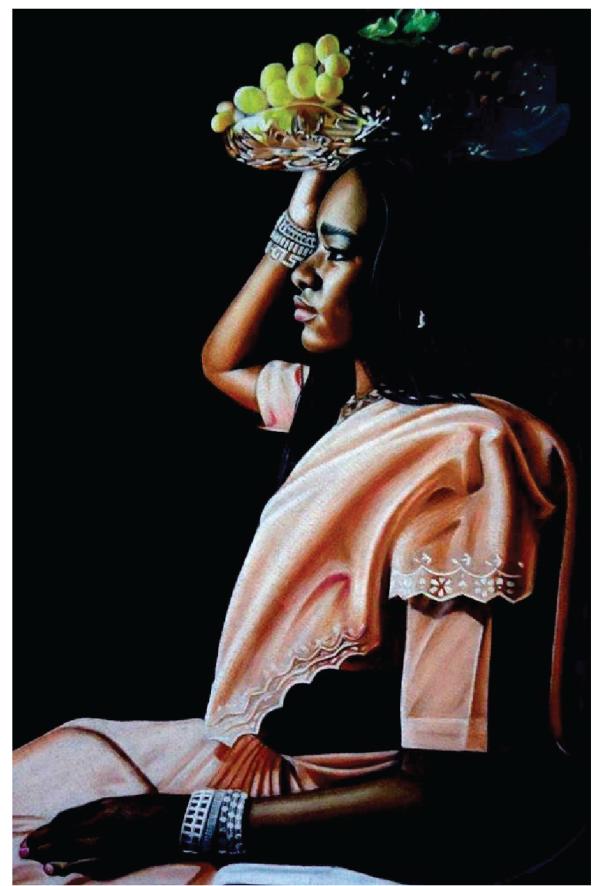
# Subteam Stickers

designed with illustrator for each subteam on CUAir



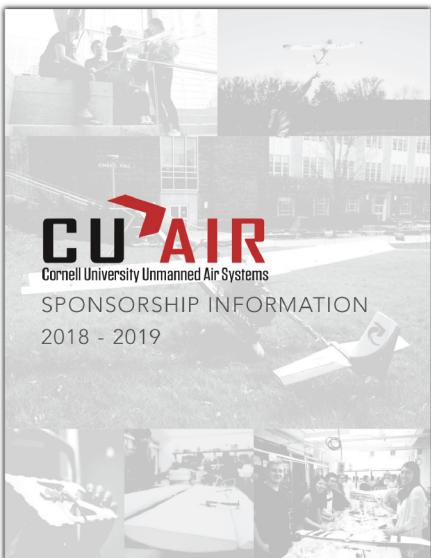
# Technical drawing skills

these are samples taken from my drawing portfolio created using prismacolor pencils



# Sponsorship Packet

samples taken from sponsorship packet designed to facilitate interacting with potential sponsors



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Thank you for your interest in CUAir

### THEIA II

CUAir's Competition UAS 2017-2018

**--Specifications**

- > Fully composite, battery powered, custom aircraft with full autonomous control
- Length 5.91 ft
- Weight 17.4 lb
- Wing Span 9.45 ft
- Min Speed 39 ft/s
- Flight Time 30 min

**--Motor**

- > AXi 5320/28 Gold Line Brushless Motor with a 120A ESC running on a 9-cell LiPo battery

**--Avionics**

- > 3DRobotics Pixhawk running modified ArduPilot 3.8 firmware; customized waypoint path following algorithm using Bézier Spline Curves

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### 2019 AIR SYSTEM

**--Specifications**

Length	6 ft
Weight	35.3 lb
Wing Span	11.9 ft
Min Speed	41 ft/s
Turning Radius	49 ft

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> Our 2019 competition plane (to be named) is a highly ambitious double-boom aircraft completely designed by CUAir. It is entirely made of carbon fiber and measures an enormous 12-foot wingspan, and is powered by two SCORPION SII-4020-540KV motors each with its own 6-cell battery.

> This is the largest most ambitious airframe in CUAir history. It is manufactured using a female molded sandwich of carbon fiber, foam core, and fiberglass. It has the highest strength to weight ratio of any previous plane. It uses a twin prop, twin boom design with an H-tail resulting in the largest payload, stability, and efficiency yet.

### WHY CONTRIBUTE?

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> By contributing you will:

- > Bring students together from across multiple departments and interests to achieve a common goal.
- > Further research and contributions to the field of autonomous unmanned systems
- > Inspire education through real world, practical endeavors outside of the classroom.

### SPONSORSHIP LEVELS

**PILOT** \$10,000+

Resume book  
Priority meeting with any members of the team  
Information session open to the greater Cornell community on behalf of your company  
Large corporate logo on the aircraft  
Large corporate logo on the competition poster  
Acknowledgement on our team website complete with corporate logo

**FIRST CLASS** \$4,000+

Resume book  
Information session open to the greater Cornell community on behalf of your company  
Medium corporate logo on the aircraft  
Medium corporate logo on the competition poster  
Acknowledgement on our team website complete with corporate logo

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### CONTACT US

For more information, please visit our website at [cuair.org](http://cuair.org), or email us at [cuaire\\_mae@cornell.edu](mailto:cuaire_mae@cornell.edu).

**MAILING ADDRESS ►►**

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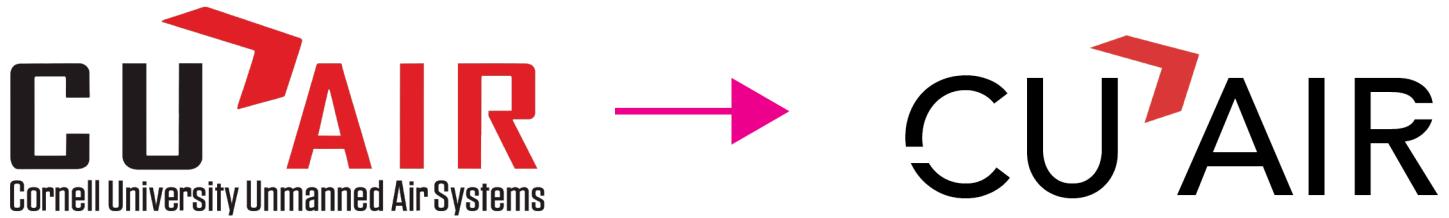
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# Logo Design

redesigned logo for our team: Cornell University Unmanned Air Systems



Error Page Concept (error 500)  
created with prismacolor pencils and photoshop

