



TJ UNMANNED AERIAL VEHICLE CLUB



SPONSORSHIP PACKET

2024 - 2025

ABOUT US

We are **Thomas Jefferson's High School's Unmanned Aerial Vehicle Club**. At TJUAV, we are dedicated to advancing our knowledge in **aeronautical engineering**. Each year, we design and manufacture an **Unmanned Aerial System (UAS)** to compete in the **SUAS Competition by RoboNation**, an internationally recognized event that simulates a search and rescue operation.

Through TJUAV, students can...

- Explore aviation and engineering concepts through **large-scale, hands-on projects**
- Gain hands-on experiences through:
 - Proposing ideas
 - Testing designs
 - Refining prototypes
- Develop solutions to competition challenges in a **collaborative environment**

THE COMPETITION

SUAS by RoboNation is an international, collegiate competition that has hosted **over 75 teams** in recent years. SUAS's mission is to simulate an unmanned search and rescue situation.

The competition is held at **St. Mary's County Regional Airport (2W6)** in St. Mary's County, Maryland.

More information about the competition can be found here:

<https://suas-competition.org/>

ACCOMPLISHMENTS

2019:

This year was our **first year competing** at the SUAS competition. We developed the **Razgriz**, a Skywalker X8 airframe that was modified to fit radios in the fuselage and a camera in the nose of imagery.

- We placed **23rd overall out of 75 teams** and **18th in Mission Demonstrations**.

2020 & 2021:

For 2020, we developed the **Hyperion**, a Skywalker Titan airframe that was modified to fit a UGV payload drop mechanism, radios for communication, and a camera gimbal for the imagery system.

For 2021, we constructed the **Avalon V1**, the first plane that we made **completely from scratch**.

- Due to the COVID-19 pandemic, the 2020 and 2021 SUAS competitions were cancelled.

2022:

For **Avalon Mk 2 and Mk 3.5**, we modified the Avalon Mk 1 by interchanging its foam board wings for a monokote covering and a plastic shrink wrap material.

- We placed **23rd overall out of 71 teams** and **tied 18th in Mission Demonstrations**.

2023 & 2024:

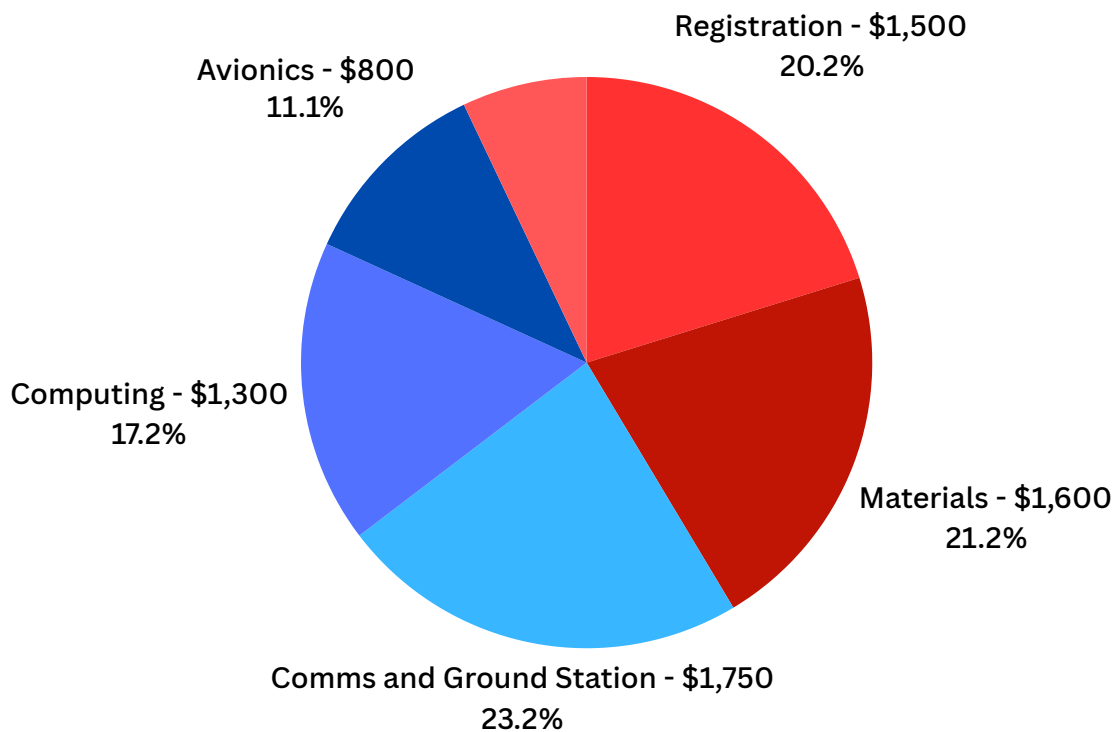
We created **Avalon Mk X and Mk XI**, we altered Avalon Mk 3.5 with 3d printed bulkheads, covered with foam panels, larger battery, and a more compact electronics bay and payload section.

Unfortunately in 2024, **Mk XI crashed** during the SUAS competition.

- In 2023, we placed **14th overall out of 72 teams** and **tied 2nd in Mission Demonstrations**
- In 2024, we placed **44th overall out of 69 teams** and **tied 4th in Mission Demonstrations**

EXPENSES

Here is our projected budget for this year. We are seeking donations of **materials, equipment, and funds** to support our participation in the **SUAS competition**. This year, our team is designing a **new aircraft from scratch** after the unfortunate crash in the 2024 SUAS competition. To achieve this, we need a variety of **materials** and **resources** that we currently lack. Your support will be essential for us to successfully compete in the **SUAS competition**.



Management

- Registration:
\$1,500

Software

- Computing:
\$1,300
- Comms and
Ground
Station:
\$1,750

Hardware

- Materials:
\$1,600
- Avionics:
\$800

Total Projected Expenses: \$7,450

SPONSORSHIP TIERS

We sincerely thank you for your sponsorship and aim to **recognize** and **promote** your organization in meaningful ways. As a sponsor, your organization will **gain visibility** through its name being showcased on our **website**, our **competition plane**, and other **team materials**. Additionally, other benefits include **social media spotlights**.

Tiers Benefits

BRONZE UNDER \$500

- Your organization's name, logo, and sponsorship displayed on our **website**
 - Your organization's name on our **Technical Design and Flight Readiness Review video**
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SILVER \$500-1000

- Includes **BRONZE** benefits, PLUS
 - Your organization's name and logo displayed on our **competition plane**
 - Your organization's name and logo displayed on our **team shirts**
-

GOLD \$1000+

- Includes **SILVER** benefits, PLUS
Your organization's name and logo displayed on **all team materials, banners, and social media accounts**

CONTACT US

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