



# SAE AERO DESIGN

## Cyclone Aero Design Sponsorship Proposal



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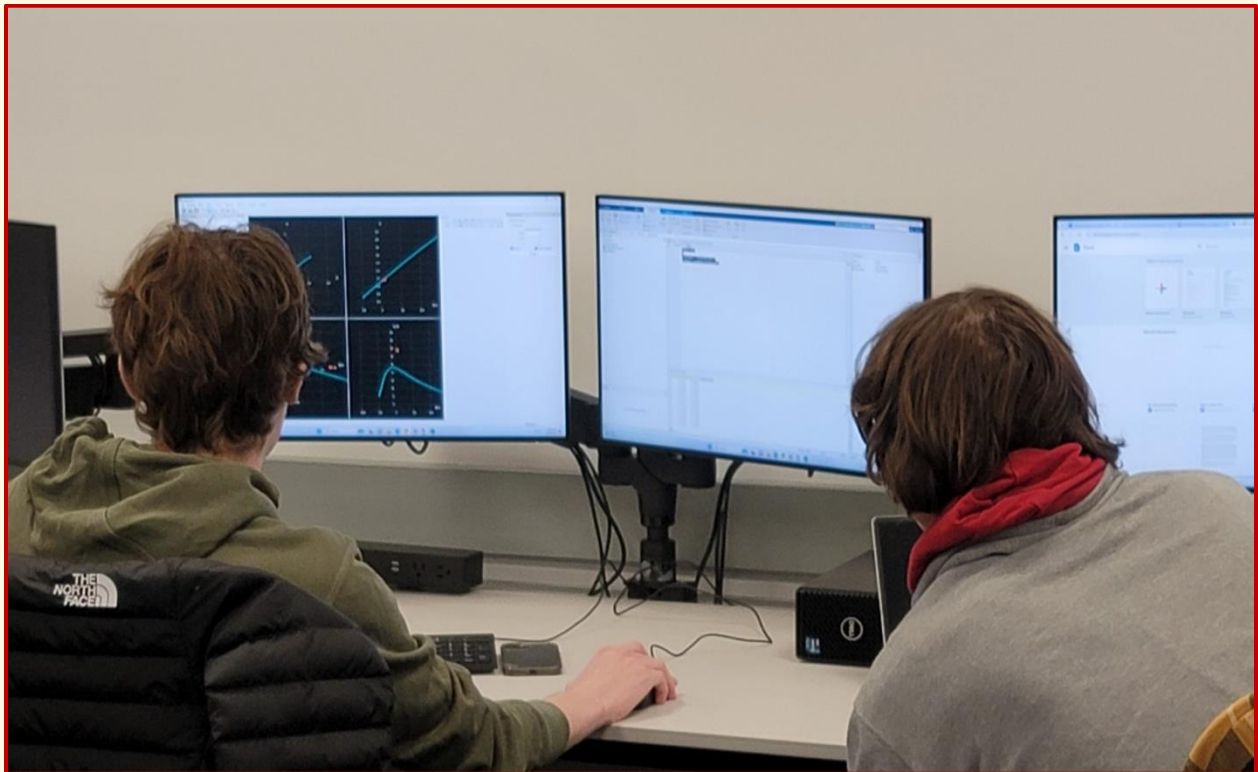
## What is SAE Aero?

Aero is a collegiate design series held by the Society of Automotive Engineers International a.k.a. SAE International. Every year SAE holds a competition that goes over the aspects of designing, building, flying and presenting an aircraft for a new challenge. The plane is presented through both a technical report and later in front of a live panel of judges. In the United States the competition is held in two divisions, east and west. With registration open to all, universities from all across the US and abroad can attend to compete with their best product.



## Cyclone Aero Design

Iowa State University's SAE Aero team (Cyclone Aero Design) has competed since 2014. The competition season of 2022-2023 marked our return to competing for the first time since 2020. Our team has been growing with eager students, and we have seen membership double since 2021. Each student comes together to participate in a competition that lets them practice and hone their skills in a real-world setting.



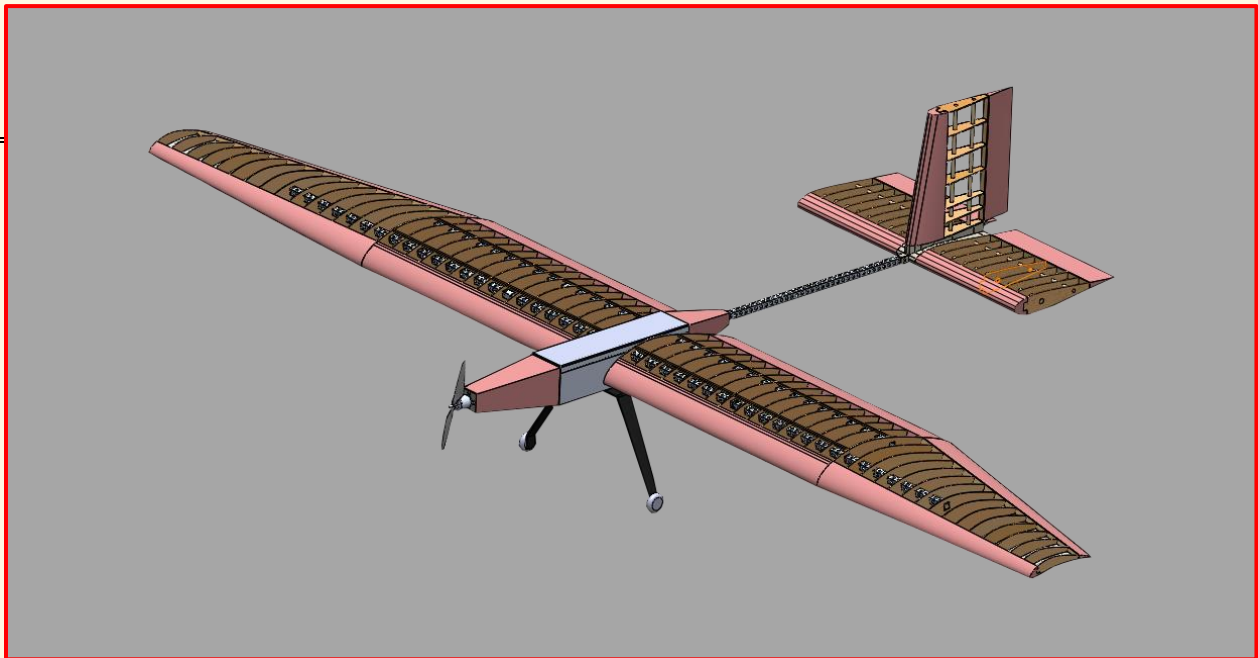
# The Project

## Challenge

The 2024-2025 season sees us tackling a challenge that combines a large wingspan to carry a weighted payload whilst capable of being assembled and disassembled into sized parts.

## What We Use

Cyclone Aero Design is hosted in Iowa State's Student Innovation Center (SIC). A building meant for every student to activate their imagination with creativity and collaboration. Working in the SIC gives us access to multiple tools and knowledgeable staff. Our first step in designing the plane is using the available computer labs. We create and build the airplane in Solidworks, a computer-aided drafting software. Then, we test and simulate it in XFLR5 and StarCCM. Next, we move into physical testing and building. We use the 3d printing lab to study the fracture tendency of parts, and we use various labs to determine what materials are best for our applications. Taking this knowledge, we can use the SIC's machining and welding labs to handcraft parts for our airplane.



## Projected Budget

<b>Structures</b>			<b>Subtotal:</b>	<b>\$750</b>
	Balsa Wood			
	ABS Plastic			
	PVC Plastic			
	Adhesive			
<b>Controls</b>			<b>Subtotal:</b>	<b>\$775</b>
	Servos			
	Battery			
	Arming Plug			
	Transmitter/Receiver			
	Landing Gear			
<b>Skin</b>			<b>Subtotal:</b>	<b>\$400</b>
	Monokote			
	Heat gun			
	Iron			
<b>Propulsion</b>			<b>Subtotal:</b>	<b>\$950</b>
	ESC			
	Motor			
	Propellor/Guard			
	Power Limiter			
	Testing Equipment			
<b>Competition</b>			<b>Subtotal:</b>	<b>\$6,000</b>
<b>Expenses</b>				
	Registration			
	Mileage			
	Lodging			
			<b>Grand Total:</b>	<b>\$8,875</b>

# How To Support

Cyclone Aero Design can be supported in many forms, each welcomed and appreciated. Common forms are discounts on materials, service donations, and general funding. With the organization's classification under 501(c)(3) of the Internal Revenue Code,

**Your donations are tax deductible.**

To say thank you, below in the table are tiers set up for the support received. These benefits are not only a way to say thanks, but are also advertising and marketing for you.

<b>Donor</b> \$1-79	<b>Cardinal</b> \$80-320	<b>Silver</b> \$321-900	<b>Gold</b> \$900+
Logo and link on team Website	Dynamic Link to your website on Team Website	Dynamic Link to your website on Team Website	Dynamic Link to your website on Team Website
	3x4 inch sticker spot for every 80 dollars donated.	3x4 inch sticker spot for every 60 dollars donated.	3x4 inch sticker spot for every 60 dollars donated.
			Pick spot of sponsor sticker
			Picture of Team and plane at end of season





## Contact Information

If you have any questions, feel free to contact any of the following.

Project Director:  
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