

# **GMS** GATOR MOTORSPORTS 2023 - 2024 SEASON



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# ABOUT US

Gator Motorsports, the University of Florida's Society of Automotive Engineers (UFSAE) student chapter, is an organization of interdisciplinary students dedicated to building a high-performance vehicle for an international collegiate design competition. Over the span of a year, members design, test, and manufacture nine different systems essential to a functioning Electric Formula-style racecar. By integrating the aerodynamics, suspension, chassis, brakes, drivetrain, cockpit, electrical hardware, firmware, and accumulator; students strive to maximize the performance, reliability, and safety of the vehicle with a cost-effective strategy.

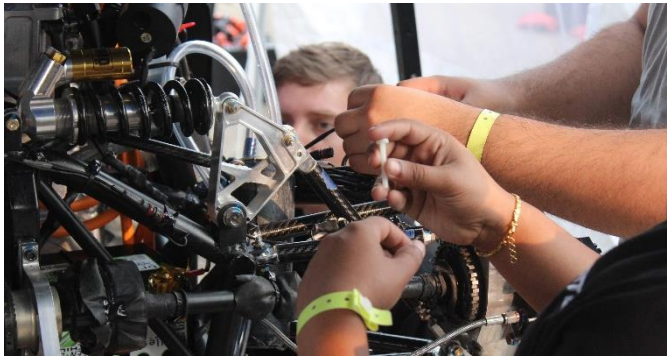
In June 2023, the hard work and perseverance of Gator Motorsports led the team to compete at the Formula Society of Automotive Engineers' (FSAE) collegiate design competition. This year marked the first year that Gator Motorsports competed in the FSAE Electric competition. The competition hosted at the Michigan International Speedway, gathers teams from across the globe to manufacture a reliable, high-performance vehicle that doubles as a marketable product. Student involvement is required from design to competition. These skills translate concepts from coursework to real-life applications, along with the strict regulations and deadlines they will encounter in their careers. As the project moves from concept to design, to manufacturing and assembly, then to testing to racing, each member learns the technical, synergetic, and management skills necessary for positions in industry.





## SEASON GOALS

In the 2022–2023 season, the team underwent the difficult challenge of transitioning to an electric powertrain and tractive system. The past season the team competed in the FSAE Electric competition for the first time. Although the car did not compete in any dynamic events, the team earned 25<sup>th</sup> place out of 68 teams in the competition as well as 13<sup>th</sup> in the design aspect.



The team's goals for this year are to achieve a top 10 finish in the competition, reach design finals and to effectively transfer knowledge to future team leaders. The team must follow specific design constraints and rules while producing a safe and powerful vehicle that is able to accomplish a top spot in the competition. We believe that setting realistic goals and understanding the strengths and available resources of our team is key on our path to a successful and rewarding season. As we work towards accomplishing these goals, Gator Motorsports will continue to fortify the network of knowledge between our members, hone our techniques, and improve our efficiency as a whole.



## ***LEGACY 1991-2023***

Gator Motorsports is proud of our team's recent accomplishments, which is why we will never forget our humble beginnings as a few students in a storage unit. It is the lasting impression that team members leave behind each and every year that allows us to improve. Their successes and failures prove to be invaluable assets in our endless pursuit of performance.

Since our founding, designs have been conceptualized, tested, and refined to create what our vehicle is today. Every season, we spend countless hours working to bring our ideas to life. Surrounded by lifelong friends, our team holds true to the principles that brought us together in 1991: dedication, ingenuity, and perseverance.

# FORMULA SAE ELECTRIC

Every year, teams from universities around the world compete in the FSAE Electric collegiate design competition at the Michigan International Speedway in Brooklyn, Michigan. This competition is comprised of two types of events: static and dynamic. Static events include in-depth analysis of the vehicle's design and cost, as well as a formal business presentation to a panel of potential product investors. Dynamic events assess the performance, reliability, and efficiency of the vehicle.

## Static Events

Engineering Design	150 points
Cost Analysis	100 points
Business Presentation	75 points

## Dynamic Events

Endurance	275 points
Autocross	125 points
Efficiency	100 points
Acceleration	100 points
Skid-pad	75 points

<b>Total</b>	<b>1000 points</b>
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## THE JOURNEY

At Gator Motorsports, our engineering students work hard to make sure the car they make is of the highest quality. Most members come into the shop daily to work on a host of projects such as check-listing the car for a test session, making solid models and running simulations on them, or manufacturing new metallic or composite components.

Countless hours are poured into research, design and development, manufacturing, and maintenance to make sure the car performs at the highest level. We do not see this as a sacrifice, but as a necessary

action to uphold our heritage of engineering excellence. Our dedication and determination are the heart and soul of our team. Unfortunately, this dream comes at a high price. Our team relies heavily on sponsors and alumni to cover the costs of developing a competition-grade vehicle.



We hope you value and support our mission of student development and share the same passion we have for motorsports. Any support, both fiscal and physical, is indispensable help as we reach for greater heights. We greatly appreciate each and every bit of help we receive.

# ***2023-2024 BUDGET BREAKDOWN***

## **Vehicle Manufacturing**

Suspension	5,286
Cockpit	1,654
Aerodynamics	3,470
Chassis	11,742
Electrical	4,834
Brakes	3,468
Drivetrain	5,726
Accumulator	22,750
Controls	527
Shop Tools	112
Motor	5,595
<b>Total</b>	<b>\$65,164</b>

## **Vehicle Testing and Developing**

Dynamometer Testing	200
Charging	1,847
Track Equipment	545
<b>Total</b>	<b>\$3,787</b>

## **Administrative Expenses**

Competition Registration	2,350
Shop Maintenance and Expenses	112
Competition Expenses	1,200
<b>Total</b>	<b>\$3,662</b>

**Total**

**\$72,613**

# 2023-2024 SPONSOR BENEFITS

*Elite*  
\$10,000+

Platinum sponsor benefits  
Premier-size logo on vehicle  
Premier-size logo on sponsor board shown at vehicle and team events  
Complimentary team apparel

*Platinum*  
\$5,000-\$9,999

Gold sponsor benefits  
Large logo (24 in<sup>2</sup>) on prominent location on formula car  
Custom Gator Motorsports photo album with season content

*Gold*  
\$2,500-\$4,999

Silver sponsor benefits  
Medium logo (18 in<sup>2</sup>) featured on formula car  
Custom Gator Motorsports mug

*Silver*  
\$1,000-\$2,499

Bronze sponsor benefits  
Medium logo (18 in<sup>2</sup>) featured on formula car  
Informational/recruitment/networking session hosted upon request

*Bronze*  
\$500-\$999

Valued sponsor benefits  
Company logo (6 in<sup>2</sup>) featured on formula car  
Framed team photograph

*Valued*  
Up to \$499

Company name (6 in<sup>2</sup>) featured on formula car  
Company logo and hyperlink on team webpage  
Invitations to Gator Motorsports events  
Team e-newsletter



We gladly accept material contributions. We are always in need of resources such as **raw materials** (steel, aluminum, titanium, etc.); **manufacturing consumables** (drills, endmills, lathe inserts, etc.); **composites materials** (fiberglass, carbon, resin, body filler, high density foams, sandpaper, PPE, etc.); **hardware** (hand tools, fasteners, measuring instruments, bearings, safety equipment); electrical supplies; computer peripherals; printer services; food for team events; traveling and lodging accommodations, etc.



# ***CONTACT US***

Without sponsors, alumni, and supporters; our team would not be able to exist or compete at its current level. Devoting the year designing and assembling a Formula-style racecar is the most fulfilling at the end of a season when we reflect on how far we have come. It humbles us to realize how many individuals influence our program and give us the ability to bring a car to competition.

The ideas and resources our supporters provide enable us to create new learning opportunities as we work as a team to design, manufacture, test, and present a formula racecar. The opportunities and possibilities this environment help us to create are endless and we are excited for what the future holds.

Sponsoring Gator Motorsports allows you to become a part of FSAE, an internationally recognized collegiate design series, while advancing the education and professional development of its members. Your support allows us to build relationships that help place skilled and experienced students in the appropriate positions in industry. The team offers many benefits to recognize our sponsors including greater company outreach via exposure on our team's social media platforms as well as website.

We would like to thank you in advance for your time and consideration. We encourage you to contact us if you would like more information or if you have specific questions about sponsorship. Even if you are not able to assist our team directly, we ask that you consider helping a local SAE student program. Without the support of sponsors, educational programs like ours could not exist.

Warmest Regards,

Dylan Balkaran



President  
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Rachael Carlin



Vice President  
uffsae@gmail.com

Sean Niemi



Faculty Advisor  
srn@mae.ufl.edu

# ***DONATION FORM***

Please provide the requested information and send your tax-deductible donation to the following address:

Mail to:                                      ATTN: UFSAE  
  237 MAE-B  
  University of Florida  
  Gainesville, FL 32611

Make checks payable to:              "University of Florida Foundation"  
  Memo: "UF SAE Fund #008537"

\*Online donations are also accepted at [https://www.uff.ufl.edu/give-now/?fund\\_id=008537](https://www.uff.ufl.edu/give-now/?fund_id=008537)

Contact Name: \_\_\_\_\_

Contact Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Donation and Value: \_\_\_\_\_

Team Member Name: \_\_\_\_\_

Sponsor name as it should appear on advertisement/website:  
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Brief company background or individual profile:  
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