

# Texas A&M SAE Formula Electric Team

# SPONSOR HANDBOOK 2021-2022

**Developing World-Class Engineers** 

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A&M RACING | TAMUSAE.ORG/ABOUTFORMULAE

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**TEXAS A&M FORMULA E** 



### EXECUTIVE SUMMARY

The Texas A&M Formula Electric Racing team, Formula E, is a collegiate, co-ed, student run engineering design team. The Formula SAE competition, hosted by the Society of Automotive Engineers (SAE), brings together more than 500 university teams from around the world to design, build and develop formula-style race cars. With each of our members hand picked from Texas A&M's engineering programs, one of the largest in the country, we empower our students to become world-class engineers.

Texas A&M Racing is excited to introduce our first-ever formula electric team that is designed to give more students an extracurricular engineering experience and better align with industry trends. Like our 7x National Champion Formula Internal Combustion team, we offer partnership opportunities for businesses looking to recruit talented and well-rounded engineers as well as market their products to future engineers who may specify these products in their careers.

Our organization is structured like a professional small business, with real-world building and design constraints with limitations imposed by time and budget. This realism, coupled with our commitment to professionalism and engineering excellence, has propelled us year after year to highly successful designs and decorated teams. The skills that students utilize as a part of their work on the team — and the skills they develop during that work — prepare them for success in the industry like no other undergraduate experience. Texas A&M's formula teams are more than a competition team: it is an incubator for future engineering professionals.

Texas A&M Formula Electric challenges students to not only apply skills from their core curriculum, but also to learn and develop skills outside the scope of the curriculum such as leadership and teamwork. We aim to be at the forefront of electric vehicle racing technology in the near future. Your support will ensure the success of Texas A&M Formula Electric, aid in the development of our determined students, and provide an opportunity to showcase your company to our students.

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# ABOUT A&M

### RANKING



In U.S. News & World Report's annual rankings, The College of Engineering is consistently among the nation's top public undergraduate and graduate engineering programs.

### #7 IN BEST UNDERGRADUATE ENGINEERING PROGRAM

SOURCE: U.S. NEWS & WORLD REPORT'S "BEST COLLEGES 2021" RANKINGS (ANNOUNCED SEPT. 14, 2020). RANKINGS REFLECTED ARE AMONG PUBLIC INSTITUTIONS IN THE U.S.

### <u>STUDENTS</u>

The College of Engineering is the largest college on the Texas A&M campus and one of the largest in the country, with more than 20,000 engineering students enrolled in our 15 departments. Texas A&M is highly ranked in the number of National Merit Scholars -- first in Texas and third nationally among public institutions. Of the university's National Merit Scholars, 68.3% are engineering students.

Our engineering graduates are among the most highly recruited in the country. They typically receive two or more job offers with higher-than-average salaries at graduation.



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#### WHAT IS FORMULA SAE?

#### FORMULA E

Formula SAE (FSAE) is a Collegiate Design Series put on by the Society of Automotive Engineers (SAE) in which more than 500 teams of university students from around the world design, build, develop, and compete with small, formula-style race cars. In the multiple events held worldwide, there are classes for internal combustion, electric, and hybrid vehicles.

Texas A&M formula electric is the first annual team and the newest addition to the society of automotive engineers (SAE) design teams. Texas A&M SAE empowers its students to become world-class engineers through hosting teams that design, build, test, and compete on a global stage. Members of the organization can participate in Baja SAE, SAE Aero, Formula SAE Internal Combustion and now Formula SAE Electric. We also have SAE development and 12th man garage support programs specifically for underclassmen to develop the basic skills to be successful in our design teams.

#### COMPETITION CATEGORIES

Presentation 75

Cost 100

Acceleration 100

Design 150

SAE competitions are broken down into two categories: static and dynamic events. The scores from each event are weighted according to the pie chart below. Teams are awarded for their performance in individual events as well as their overall performance at competition.

Endurance 275

Efficiency 100

#### STATIC EVENTS

- DESIGN
- PRESENTATION
- COST

#### DYNAMIC EVENTS

- ENDURANCE
- EFFICIENCY
- AUTOCROSS
- SKID PAD
- ACCELERATION

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T A M U S A E . O R G

Autocross 125



Skid Pad 75

# **Our SAE Chapter** A History of Excellence

• 7x National Champions

1999 Rookie of the Year

2021 2nd Place

2004, 2014

2000, 2006, 2009 - Hybrid, 2011- Hybrid, 2017, 2018,

Mechanical ENGR Senior Design Project



#### **Baja SAE Off-Road**

1978, 2017-Present

- 8th Overall (2021)
- 10th Overall (1978)
- 4th Sled Pull (2021)
- 7th Maneuverability (2018)
- Amphibious Requirement (1978)
- Pioneered Manual Trans/4wd system (2021)
- Multi- Major, Multi-Class Project





#### **SAE** Aero

2012-Present

- 3x Overall Champions 2014, 2020, 2021
- 2nd Overall 2015, 2017
- Must Carry Max Payloads in Competition
- Multiple Planes Built each Year

# WHO ARE WE?

The 2021-2022 season will mark the 1st year of the Texas A&M University Formula Electric team. The 2021 team is committed to designing and building a winning car this year. To ensure success, the team has strictly defined their design philosophy, as we believe the key to a winning car is designing and building it with one common goal in mind. To do this, we have nailed down the following team need statement:

# WITH TESTING"MAJORRACIAL DIVERSITYGenderMMET<br/>9.2%5.2%5.1%9%

"DESIGN A CAR THAT IS RELIABLE, AGILE, AND ADAPTABLE



Asian

Hispanic/Lati 21.2%

MEEN

56.3%

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MXET 6.2% BUSN 3 1%

IDIS 9.4%

AFRO

6.2%

Electrical

12.5%

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Caucasiar

# **OUR PROCESS** 1. DESIGNING

We use team goals to define our system level requirements. Components are designed with a focus on simplicity, efficiency, and full-vehicle understandiNG

## 3. MANUFACTURING

We build our car in-house from the ground up. Team members machine precision components in A&M'S Thompson Hall and Fischer Engineering Design Center (FEDC) Center facilities, enabling them to experience the relationship between innovation & practicality firsthand.

## 5. FUNDRAISING

Texas A&M Formula E encourages all members to research and reach out to potential sponsors, giving them valuable chances to practice their "soft skills." Additionally, building relationships with corporate sponsors and alumni alike helps members make contacts outside of their immediate academic sphere.

## 2. DESIGN REVIEWS

Throughout the design process, structured design reviews offer a formal opportunity for input on a current design from other team members and team alumni. These reviews help keep vehicle design on track and double as an opportunity for newer members to learn about the vehicle

### 4. TESTING

We aim to spend just as much time on testing as we do on design. In order to build a robust and reliable electric vehicle, we go on weekly testing trips throughout the year, honing in our vehicle's performance and training our drivers.

# WHY SUPPORT US





**ADVERTISING OPPORTUNITIES:** YOUR LOGOS WILL APPEAR ON OUR WEBSITE, APPAREL, AND RACING CAR.

**OPPORTUNITY TO RECRUIT** EXPERIENCED AND SKILLFUL STUDENTS FROM OUR TEAM.

ASIDE FROM INCREASING BRAND AWARENESS WITH PRODUCT PLACEMENT AND ADVERTISING. SPONSORING PUTS YOU AND YOUR BRINGING TOGETHER TALENTED A&M COMPANY IN DIRECT CONTACT WITH MOTIVATED AND TALENTED INDIVIDUALS, PROVIDING SUPERIOR RECRUITMENT **OPPORTUNITIES FOR YOUR** COMPANY

### OUR MISSION

**BY EMPHASIZING RIGOROUS** ENGINEERING, TECHNICAL **EXPERTISE, AND EFFECTIVE** MANAGEMENT, TEXAS A&M SAE **EMPOWERS STUDENTS TO** BECOME ENGINEERING LEADERS.

### OUR GOAL

STUDENTS ACROSS A VARIETY OF ENGINEERING BACKGROUNDS AND GIVING THEM THE SKILLS, TOOLS, AND CAPITAL TO DO THEIR BEST WORK.

PLANT THE SEED FOR THE **YOUNGER GENERATIONS TO GROW AND DEVELOP.** 

# 2021-2022 BUDGET PROJECTION



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#### SPONSORSHIP OPPORTUNITIES



# INVEST IN THE NEXT GENERATION

#### **VIA CHECK**

PAYABLE TO: TEXAS A&M FSAE ELECTRIC MAIL TO: ATTENTION DR.SARIPALLI 3123 TAMU COLLEGE STATION, TX 77843 VIA CREDIT OR DEBIT CARD PAYMENT, USE THE FOLLOWING LINK:

HTTPS://WWW.TXAMFOUNDATION.COM/GIVE.A SPX

UNDER THE "I WOULD LIKE TO GIVE TO" DROP DOWN MENU, SELECT UNLISTED ACCOUNT. IN THE GIVING ACCOUNT NAME OR NUMBER BOX, TYPE 02-511361-60000 FILL IN THE REMAINING

# SPONSOR TIERS

OUR COMMITMENT TO YOU	BRONZE	SILVER	GOLD		title \$20K+
TAX DEDUCTIBLE Invitation to unveiling event	\$1-\$1.5K	\$1.5K-5K	\$3K-7.5K	\$7.5KT	
HONORED ON OUR WEBSITE Logo on t-shirt	<b>S</b> MALL	SMALL	MED	LARGE	X-LARGE
FEATURED ON SOCIAL MEDIA		1X	2X	2X	ЗХ
LUGU UN CAR Drive vehicle		SMALL	MED	LARGE	X-LARGE
ACCESS TO TEAM RESUME BOOK Choice of vehicle color schem Saf dinner event	E			~	$\sim$

### TECHNICAL SPONSORSHIP

TECHNOLOGY - TOOLS - SOFTWARE - WELDER MACHINERY - SAFETY EQUIPMENT - LUBRICANTS CLEANING PRODUCTS - TRAVEL - FOOD

VIA TECHNICAL PARTNERSHIP EMAIL US AT: TAMUFORMULAELECTRIC @GMAIL.COM