



Le génie pour l'industrie



# **PARTNERSHIP PROPOSAL 2023**

*Student Design Competition*



**BECOME A PARTNER !**

# **NANIC**





## ABOUT FORMULE ETS

For more than 35 years, Formule ETS has stood out in international engineering competitions organized by the SAE (Society of Automotive Engineers). The cars coming out of our workshop are always intricately designed. We have been recognized since 1988 as an avant-garde team that pushes the limits of engineering. In 2020, we branched off from designing and manufacturing an internal combustion vehicle to go ahead with a fully electric vehicle.

At Formule ETS, we analyze how different systems work and how they interact with each other. We develop innovative and advanced concepts and test them because we know there are no right answers in engineering; only good compromises. We seek to become experts in electrical cars and we want to promote the excellence of Canadian engineering on an international scale.



## OUR GOALS

Our team has always focused on one goal : WIN. The transition to electric is now behind us. We are starting the third and last prototype of the MANIC generation of Formule ETS. The previous cars allowed us to deepen our knowledge, while forming an experienced team. Through the experience gained from the first electric prototype, MANIC-20, we managed to design, manufacture and test a second prototype. All the more efficient, MANIC-22 has triumphed many times in competitions in the United States and Canada during the summer of 2022.

For the 2022-2023 season, our next car, MANIC-23, will be the culmination of our hard work over the past three years. It will be our first electric car to hit the legendary race tracks across Europe and compete against the best teams in the world. Simultaneously, we are starting the development of an autonomous car with a plan to implement it on MANIC-22 at first before fully integrating it in our prototype that will come out in 2024.



## VISIBILITY

We promise unparalleled visibility to our partners. Your company will be known due to the extent of our visibility which reaches the ÉTS student community, its business partners, automotive enthusiast literature, every outing that attract large crowds as well as the people who follow us on our social medias.

To ensure optimal visibility, the quality of the finish and the cleanliness of our car are always a core focus of the team, because we are proud to represent the companies that helped us to carry out this project.



## FINANCIAL SUPPORT

Carrying out a large-scale project such as Formula SAE requires a great deal of material, financial and human resources. Your support allows the realization of the next innovative prototype of our team while ensuring a succession of talented future engineers who will surpass themselves on an academic and professional level. You will find below the benefits according to the sponsorship tiers.

	 <b>SPECIAL</b>	 <b>DIAMOND</b>	 <b>GOLD</b>	 <b>SILVER</b>	 <b>BRONZE</b>
VALUE	\$ 18,000 +	\$ 12,000	\$ 7,000	\$ 2,000	UP TO \$ 2,000
LOGO ON WEBSITE AND BANNERS					
LOGO ON CAR					
VISIBILITY SIZE (IN <sup>2</sup> )	CUSTOM	1 X 33 - 2 X 18	1 X 20 - 2 X 10	2 X 6	
LOGO ON UNIFORMS					



## EVENTS

Formula SAE is not only about racing. The cars are judged in a series of static and dynamic events that allow teams to score a maximum of 1000 points. Before going on the track, the cars must go through scrutineering at the beginning of every competition in order to ensure that they respect the rules and that the vehicle is safe to drive.

### STATIC EVENTS (325 POINTS)

**Engineering Design** – Engineers from the automotive industry evaluate the team's knowledge on numerous design aspects of the car. (150 points)

**Business Presentation** – The team presents a business plan aiming at selling a large number of race cars and the judges act as potential investors. (75 points)

**Cost Analysis** – Estimation of the car's total manufacturing cost by analyzing its manufacturing processes and costs of the in-house parts manufactured vs. off-the-shelf parts. (100 points)

### DYNAMIC EVENTS (675 POINTS)

**Acceleration** – The car accelerates over a 75 m straight line from a standstill. (100 points)

**Skidpad** – Evaluates the car's cornering ability on a flat surface while travelling on a constant radius path. (75 points)

**Autocross** – The car aims to achieve the fastest lap around a defined course. (125 points)

**Endurance** – 22 km long race with a driver change half way. (275 points)

**Efficiency** – Measure the energy consumption after the endurance to quantify the car's efficiency. (100 points)

### LOOKING BACK ON 2019 (COMBUSTION)

#### FS Spain

Circuit de Barcelona-Catalunya, Spain (28 teams)

5<sup>th</sup> place overall

2<sup>nd</sup> place design

3<sup>rd</sup> place fuel efficiency

6<sup>th</sup> place endurance

6<sup>th</sup> place skidpad



#### FS Germany

Hockenheimring Baden-Württemberg, Germany (60 teams)

20<sup>th</sup> place overall

1<sup>st</sup> place skidpad

9<sup>th</sup> place autocross



### NEXT COMPETITIONS



FSAE Michigan  
(June 14th-17th, 2023)



FS Spain  
(August 13th-20th, 2023)

### LOOKING BACK ON 2022 (ELECTRIC)

#### FSAE Michigan

Michigan International Speedway, Brooklyn, MI (58 teams)

6<sup>th</sup> place overall

1<sup>st</sup> place design

6<sup>th</sup> place skidpad

6<sup>th</sup> place autocross



#### Pittsburgh shootout

Pittsburgh International Race Complex, Wampum, PA (25 teams)

1<sup>st</sup> place overall

#### Épreuve électrique de Québec

Laval university, Québec City (4 teams)

1<sup>st</sup> place overall



#### Brechin AutoX Testing

Brechin motorsport, Ontario (10 équipes)

1<sup>st</sup> place overall

## CONTACT US

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