

SIDAD DE PUER

INTERNATIONAL TO

FORMULA SAE_®

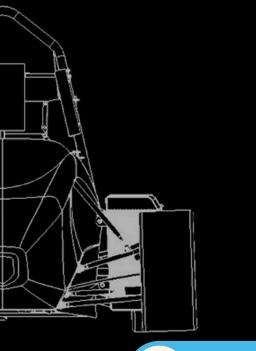


Table of CONTENT

- 03 Ignition
- 04 UPRM Heritage
- 05 Our Experience
- 07 Vehicle Specs
- 08 Fueling Our Dream
- 15 Partner Benefits
- 16 Sponsorship Tiers
- 19 Holding the Trophy
- 20 Contacts
- 21 LinkTree QR

IGNITION

Colegio Racing Engineering is a dynamic team of 50 undergraduate students from UPRM, hailing from diverse fields like engineering and business administration. We channel our passion and expertise into designing and competing with our cutting-edge automotive prototypes at the prestigious Formula SAE Michigan competition, held annually at the Michigan International Speedway. With over 100 universities participating from around the world, we proudly represent Puerto Rico as we strive to build the Caribbean's fastest and most advanced Formula SAE vehicle.

We're not just competing—we're breaking ground. Our upcoming prototype, CC-EVO, will be the **first-ever electric Formula vehicle** designed and built by engineering students in the Caribbean. Over a rigorous 290-day timeline, encompassing **60** days of design, **78** days of manufacturing, and **93** days of testing and validation, we aim to redefine the standards of engineering excellence in the region. Throughout the design phase, our team placed a strong emphasis on fluid dynamics and aesthetics to enhance both performance and visual appeal in every dynamic event, while simultaneously guaranteeing that our design met EV and METECH requirements. This vehicle is more than a prototype—it's a **testament to the ingenuity, determination, and innovative spirit** of our team.

Building the Caribbean's first electric race car comes with its own set of challenges, but we see these as opportunities to push our boundaries. Despite limited access to advanced facilities, we maximize the resources at our disposal, utilizing personal equipment and traditional machinery, supported by sponsor-based financial initiatives. Our transition from internal combustion engines (IC) to electric vehicles (EV) represents our commitment to sustainable technology and a cleaner future.

We owe much of our progress to the unwavering support of our sponsors. Their contributions allow us to achieve our ambitious goals and showcase the capabilities of **Puerto Rican engineering** on the global stage. Partnering with Colegio Racing Engineering means investing in a team that embodies innovation, excellence, and a pioneering spirit, determined to leave a lasting mark in Formula SAE and the future of automotive technology.

Sincerely, Kenneth G. Figueroa Rosado Captain



OUR HERITAGE



2023: CC-5



2021: CC-4

The University of Puerto Rico at Mayagüez has proudly represented Formula SAE competitions for over 29 years through Colegio Racing Engineering (CRE).

Year after year, this team has elevated its position, forging a legacy that remains deeply rooted in our university's history. Every achievement fuels our ambition, driving us to aim even higher and continuously raise the bar.

Colegio Racing Engineering (CRE) stands as a pioneer in Puerto Rico and the Caribbean, being the first team from the region to compete at the prestigious Michigan Formula SAE events. Over the years, CRE has been repeatedly recognized for its innovative approach to cost-effective construction and problem-solving techniques.

A milestone in this legacy was achieved in 2017, when the team secured 39th of 120 place in the Design Event and was awarded for Innovation, underscoring our commitment to advancing engineering creativity and excellence on an international stage.

What sets us apart is our relentless pursuit of excellence and consistently redefining what once seemed unattainable and surpassing those benchmarks with remarkable results.

Michigan Achievements

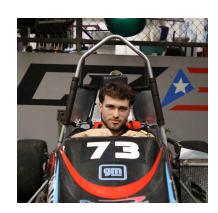


Our Experience



Kenneth G. Figueroa

Team CaptainElectrical Engineering student Time participating in the team: 2 years



Ricardo Muñíz Abreu

Team Co-captain Mechanical Engineering student Time participating in the team: 1 year and 6 months Internship Experience at Honeywell, Inc



Leonardo Vallejo

Electronics Leader Computer Science Student Time participating in the team: 2 years



Cristian Díaz

Circuit Architecutre Leader Computer Science Student Time participating in the team: 1 year



Yabdiel Cruz

Electric Powertrain Leader Mechanical Engineering Student Time participating in the team: 1 year

Our Experience



Ariana N Nazario

Body and Chassis Leader Mechanical Engineering student Time participating in team: 1 year and 6 months



Héctor Rosado

Aerodynamics Leader Mechanical Engineering Student Time participating in team: 1 year



Diego López

Vehicle Dynamics Leader Mechanical Engineering student Time participating in the team: 2 years



Patria S Morales

Project Management Leader Political Science student Time participating in the team: 1 year



Carolina A Vázquez

Business and Marketing Leader

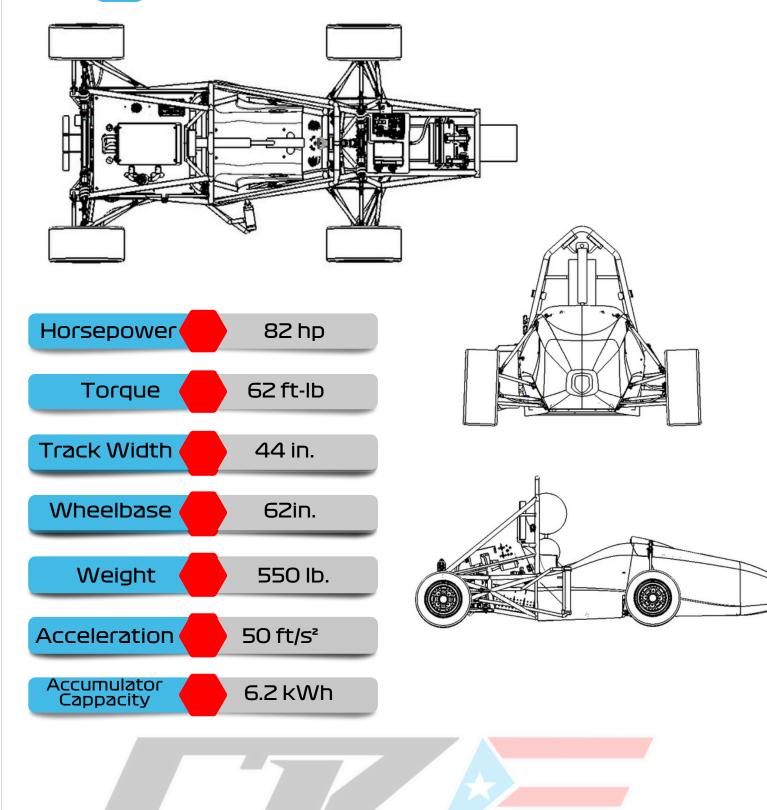
Industrial Engineering student Time participating in the team: 1 year and 6 months

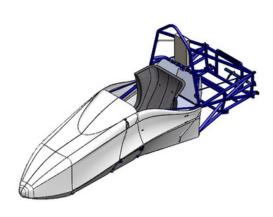


Kiefer Colón Rivera

Vehicle Architect Leader Mechanical Engineering student Time participating in the team: 1 year

Vehicle Specs

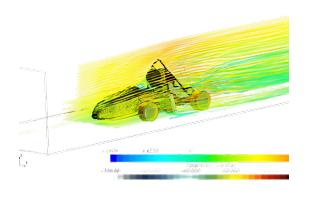




Body & Chassis

Is the foundation of our prototype where the members oversee the driver protection, interface, and ergonomics. Also responsible for the vehicle's rigidity and aerodynamic performance.

Body and Chassis Parts	Cost
Tubular Frame Body	\$8,000.00
Body	\$2,260.00
Pedal Box	\$1,670.00
Firewall	\$162.00
Seat and Harness	\$900.00
Cockpit Controls	\$650.00
Accumulator Cart	\$250.00
Total	\$13,892.00

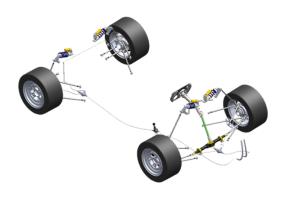


Aerodynamics

Utilize fluid dynamic principles to design components based on CFD Analisis. Requiring advanced manufacturing processes in other to test and validate this prototype designs.

Aerodynamics Parts	Cost
Rear Wing	\$1,300.00
Front Wing	\$2,000.00
Undertray	\$2,500.00
Sidepods	\$800.00
Computational Resources	\$300.00
Total	\$7,100.00

Vehicle Dynamics



Consists of all wheel internal components such as hubs, brake system, rims, tires, all the way through the suspension. Intends to maximize tire capacity usage and vehicle acceleration capacity.

Vehicle Dynamics Parts	Cost
Wheels/Tires	\$3,500.00
Brake System	\$4,500.00
Suspension	\$4,000.00
Hubs	\$3,000.00
Steering System	\$2,400.00
Total	\$17,400.00



Electric Powertrain

Responsible for all electronics above 60V, which act as the car's tractive system. This includes the car's motor respective controllers. This division also works closely with the drivetrain for cooling and mounting.

Powertrain Parts	Cost
Drivetrain	\$7,000.00
Accumulator	\$12,000.00
Motor	\$5,000.00
Inverter	\$5,000.00
Charging System	\$500.00
Cooling System	\$500.00
Total	\$30,000.00



Electronics

In charge of all electrical components below 60V. Desings all controls and safety features such as driver controls, shutdown circuit, wiring harness and data logging.

Electronics Parts	Cost
ECU and Components	\$4,500.00
PCB (Circuit Architecture)	\$1,185.00
Wiring/Power Distribution	\$1,300.00
Data Acquisition	\$2,500.00
Total	\$9,485.00

External Expenses

There are other external expenses we must consider, these include safety, testing/logistics, and event expenses.

Safety		Cost		
Driver Suit, Gloves and Shoes		\$2,060.00		
Driver Helmets		\$500.00		
Fireproof Underwear		\$130.00		
EV Safety Certification		\$500.00		
Total		\$3,190.00		
Event Expenses	Cost	Testing & Logistics	Cost	
Fire Extinguisher	\$200.00	Gasoline	\$500.00	
Team Uniforms	\$2,150.00	Oil	\$100.00	
Spare Tools	\$1,000.00	Brake Fluid	\$260.00	
Truck/Van Rentals	\$2,755.00	Hard Copies	\$100.00	
Lodging	\$10,000	Proposals	\$225.00	
Inscription	\$2,850.00	Banners	\$200.00	
Racecar Shipping	\$10,000	Office and Cleaning	\$500.00	
Airfare	\$12,000.00	Miscellaneous	\$1,000.00	
Total	\$40,955	Total	\$2,885.00	

FUELING OUR DREAMS



Total Expenses

Sum of all divisions' components and necessary budgets the team needs to accomplish the manufacturing and testing phases of the project.

All Expenses	Cost
Body and Chassis	\$13,892.00
Aerodynamics	\$7,100.00
Vehicle Dynamics	\$17,400.00
Electric Powertrain	\$30,000.00
Electronics	\$9,485.00
Event Expenses	\$40,955
Testing and Logistics	\$2,885.00
Safety	\$3,190.00
Final Cost	\$124,907

All prices listed are approximate and subject to change based on availability, market fluctuations, and project requirements.

Benefits for Sponsors

Supporting the Colegio Racing Engineering team offers sponsors valuable exposure, exclusive access to top talent, and the unique opportunity to feature their brand on the first Caribbean electric race car made by college students. Partnering with us highlights your commitment to innovation and the future of engineering.

Exposure

The sponsor's brand will gain visibility through the team's participation in a variety of STEM Outreach events both on and off campus, such as the UPRM Open House, UPRM Freshman Week, Science Fairs, Puerto Rico Racing Expo, and more. This exposure is further amplified through media coverage and partnerships with news channels, ensuring the sponsor reaches a diverse audience of students, educators, and professionals in the STEM fields and gain wider community.

Exclusive Access

Get behind-the-scenes access to the team's journey and accomplishments with constant updates on our progress. As a sponsor, you also receive access to the team's exclusive Resume Book, featuring the profiles of our highly talented team members, providing you with a direct link to top engineering and business talent.

Sponsor's Name on CC-EVO

Showcase your company's logo on both the CC-Evo car and the driver's suit, highlighting your support for the first Caribbean electric race car developed by college students. This prime placement enhances your brand's association with cutting-edge technology and innovation in sustainable automotive engineering.

Sponsorship Tiers

BENEFITS	BRONZE	SILVER	GOLD	PLATINUM
Price	\$1000-\$2,499	\$2,500-\$4,499	\$5,500-\$8,999	\$9,000
Name on Car Side Panel	•			
Decal on Car		⊘	⊘	②
Size (area):		11.5 cm^2	25.4cm^2	53.34 cm^2
Social Media Post	•	•		
Video and Post on Social Media			•	<
Decal on team banners & outreach events		•	⊘	•
Company hashtags in CC- EVO post				•
Decal on team polos				•
Podium Care Package: Thank you T-shirts, Keychains (3), Stickers (5)			⊘	⊘
Workshop Visit	✓	•	✓	⊘

Sponsorship Tiers

\$1,000-\$2,499

Bronze

- Name on Car Side Panel
- Social Media Post
- Workshop Visit

\$2,500-\$4,499

Silver

- ✓ Decal on Car: 11.5 cm²
- Social Media Post
- Decal on team banners & outreach events
- Workshop Visit

\$5,500-**\$8,999**

Gold

- ✓ Decal on Car: 25.4cm^2
- Video and Post on Social Media
- Decal on team banners & outreach events
- Workshop Visit
 - Podium Care Package.
- Thank you T-shirts,Keychains (3), Stickers (5)

\$9,000+

Platinum

- ✓ Decal on Car: 54.3cm^2
- Video and Post on Social Media
- Decal on team banners & outreach events
- Company hashtags in CC- EVO post
- Decal on team's polos
- Workshop Visit

Podium Care Package.

Thank you T-shirts, Keychains (3), Stickers (5)

SPONSORSHIP TIERS Livery

Sponsorship **exclusivity** will be awarded to the sponsor that provides the highest monetary contribution, with the exception of certain categories already covered by existing agreements. However, we also offer partial exclusivity, allowing sponsors to secure a more prominent position by contributing more than other companies, granting them increased visibility and branding placement on the vehicle.

This exclusivity will be showcased prominently on the vehicle's livery, making the main sponsor the most visually dominant presence. The company securing the top position will have its colors and logo featured as the focal point of the vehicle's design.

Key areas of the vehicle, such as the sides, hood, and rear, will be reserved for the primary sponsor's branding, ensuring maximum visibility. The sponsor's colors will be seamlessly integrated into the overall design, enhancing brand recognition while maintaining a sleek, professional look. Logos and branding elements will be adjusted to complement the vehicle's appearance, creating a visually striking and impactful design.

In the image below, we present an example logo, which illustrates how the sponsor's colors—red and blue in this case—are applied. This color scheme represents the exclusive sponsorship arrangement, where partial exclusivity offers the possibility of enhanced visibility in exchange for a higher contribution, while respecting pre-existing agreements in certain categories.



SPONSORSHIP TIERS Logo Locations

- You have the flexibility to choose from any of the decal locations listed below, or select an alternative that better aligns with your brand's needs.
- The colors of the logo can be customized upon request to match your branding.
- The size of the decal will vary depending on the sponsorship tier you select, ensuring that your contribution is reflected in the visibility and prominence of your brand on the vehicle.

Final CAD -Prototype CC-EVO





Sponsorship Tiers

- - Platinum
 - Gold
 - Silver

Sponsor Zone Top



- **Bronze Decal**
- Not allowed



HOLDING THE TROPHY

By agreeing to be a part of our family, your company will be directly impacting a group of aspiring engineers and business students who are willing to go above and beyond to achieve success and transpose it to our supporters. At Colegio Racing Engineering we believe you can be a great partner for our team's track ahead. CRE still has a lot to achieve; we fully believe that having you as a sponsor can help us get there.

We thank you for having the time and interest of reading our sponsorship proposal. We are looking forward to having you as a sponsor for our next competition at Formula SAE Michigan 2023. Please, feel free to contact us for any additional information or if any changes are required to better suit your company's needs.

Hope to hear from you soon,



Please note that, although the team strives to meet all deadlines, there are external factors that may affect the car's release. These include, but are not limited to, port delays, internal university procedures, and logistical issues beyond our control.





Contact Us

Website	www.fsae14.wixsite.com/colegioracing
■ E-mail	fszel4auprm.edu
Facebook	www.facebook.com/fsae.uprm
Instagram	fsae_uprm



Linktree QR Code

