

2023-2024 Sponsorship Proposal



What is Formula SAE?

Formula SAE is a global engineering competition organized by SAE International. Each team must construct a prototype car as a company, focusing on the target market of the non-professional, weekend autocross racer. In addition, each student team must demonstrate their business skills by presenting the feasibility of engineering, manufacturing, and marketing these vehicles to representatives of the automotive industry. This gathering of the world's best engineering schools represents the largest engineering competition in the world with over 500 teams from 6 continents.



Iowa State Formula SAE

Cyclone Racing currently resides in the Student Innovation Center of Iowa State University in Ames, Iowa. The organization has built 25 vehicles for the Formula SAE competition. The long time involvement in this contest has allowed Cyclone Racing to evolve as a team and improve its product. Cyclone Racing has started an electric vehicle team that will be doing research this year and creating a electric test bench, while the organization builds its final Internal combustion car.

The team continually alters its design criteria to better reflect the intention of the series, putting Cyclone Racing on a winning path. Much of this success is attributed to the generous cash, product, and service contributions from sponsors. Without sponsors, the team would not be able to compete at such a high level!

Cyclone Racing History Highlights:

Best Finishes:

- 2017 - 4th Place "CR-22"
- 2016 - 5th Place "CR-21"
- 2015 - 3rd Place "CR-20"



2023 Car CR-27



2022 Car CR-26



1994- First Car



2022 - 3rd Place for Business Team

CR-27 Specs

Performance

- Top Speed: 90 MPH (Gearing Limited)
- 0-60 mph: 2.5 sec
- 1.7 G Cornering Acceleration

Engine

- 2007 Yamaha R6
- 76 Wheel Horsepower (Intake Restricted)
- Custom Low Profile Oil Pan
- Student Designed 3D-Printed Intake
- Fuel Type: 93

Drivetrain

- Drexler Limited Slip Differential
- CNC Milled aluminum uprights
- 6-Speed Sequential Manual Transmission

Suspension

- Ohlins TTX25 MKII Dampers
- Double Wishbone Suspension Setup
- Unequal Length, Non-Parallel A-Arms
- Pull rod in front/ Push rods in rear

Data Acquisition

- strain gauged suspension assemblies
- Acceleration and yaw rate sensors
- Driver Input Logging(throttle, brakes, steering)

Dimensions

- Weight: 493 lbs.
- Track Width: 47.5" Front, 47" Rear
- Wheelbase: 60.5"
- Overall Length: 105"

Chassis

- Student Designed Hybrid Monocoque
- TIG Welded Rear Body
- Carbon Fiber Tub

Controls

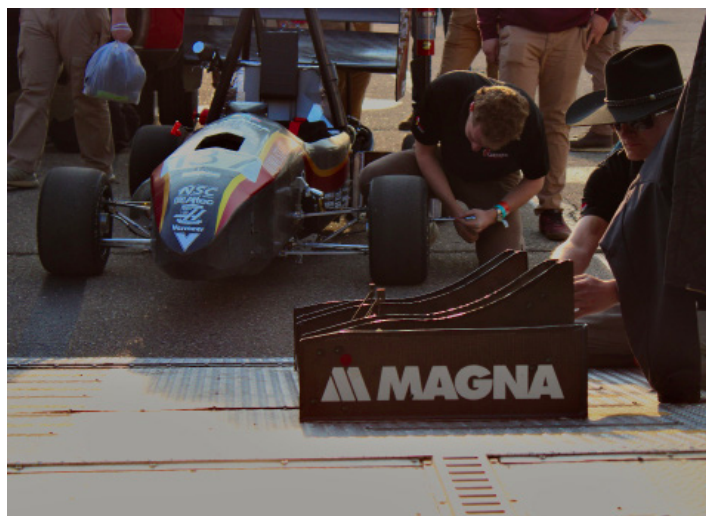
- Carbon Fiber Steering Wheel
- Paddle Shifting
- Tilton M/C's and Wilwood Calipers
- Adjustable Pedal Tray and Brake Bias
- In-house developed custom dash

Aerodynamics

- High efficiency front and rear wing assemblies
- 85lbs of downforce at 35MPH
- Tuneability for vehicle balance

CR-28 At a Glance

CR-28 is currently in the design phase. It will compete at Formula Michigan in 2024. As well as races such as The Pitt Shootout, Formula Wheat, and SCCA events. This season we will focus on optimizing things from last year, such as the hybrid monocoque chassis and Yamaha R6. The main focus will be reducing weight across all areas of the car. On top of this, the team wants an accelerated design and build schedule, meaning the car will be tested earlier than any car we have made. This allows for fine-tuning and showing up to competition with the best car. We plan on optimizing our current system, making educated and precise changes where needed to get the most out of the car. We will focus on validating our designs through real-world testing, with many significant improvements and this being the last Internal combustion car for Iowa State. We greatly appreciate everything our sponsors do for us and help our team reach our maximum engineering potential.



Project Budget

Final Drive

Drexler Differential \$3,500.00
Axles & CV Joints \$1,200.00
Hubs & Bearings \$3,300.00
Sprockets and Chain \$250.00
Hardware \$150.00
Subtotal \$8,400.00

Aero/Body

Resin \$600.00
Carbon Fiber Fabric/Fiberglass \$1,500.00
Core & Ribs \$900.00
Consumables \$2,000.00
DRS Servos & Controls \$450.00
Misc. & Hardware \$300.00
Molds \$3,000.00
Subtotal \$8,750.00

Electrical

EarthX ETX Series Battery \$350.00
Wire and Buttons/Switches \$250.00
Connectors \$800.00
Subtotal \$1,400.00

Data Acquisition

Brake Pressure Sensors \$300.00
Linear Potentiometers \$600.00
Tire Temperature Sensors \$400.00
Wheel Speed Sensors \$340.00
AiM Channel Expander \$500.00
AiM MXS \$2,300.00
Subtotal \$4,440.00

Competition Expenses

FSAE Michigan May Registration \$2,550.00
FSAE Michigan May Mileage \$2,500.00
FSAE Michigan May Hotel \$4,000.00
FSAE Michigan June Registration \$2,550.00
FSAE Michigan June Mileage \$2,500.00
FSAE North Hotel \$4,000.00
Subtotal \$18,100.00

Chassis

Carbon \$2,750.00
Core \$700.00
Molds \$2,000.00
Steel Tube & Laser Cut \$2,000.00
Impact attenuator \$200.00
Mounting Tabs \$150.00
Assembly Jig \$1,100.00
Welding Supplies \$300.00
6-Point Harness \$460.00
Subtotal \$7,210.00

Suspension

Push/ Pull Rod Front & Rear \$1,000.00
Dampers \$2,600.00
Springs \$500.00
Tires \$2,125.00
Wheels \$1,100.00
Uprights \$8,500.00
Misc. & Hardware \$750.00
Subtotal \$16,575.00

Controls

Steering Rack \$750.00
Wilwood PS-1 Calipers \$500.00
Master Cylinders (Tilton 78) \$530.00
Brake Rotors & Fittings \$350.00
Pingel Electronic Shifter \$1,140.00
Misc. & Hardware \$900.00
Subtotal \$4,170.00

Engine

Yamaha R6s engine \$3,500.00
Intake \$2,700.00
PE3 ECU \$1,500.00
Throttle Body \$200.00
Muffler \$500.00
Radiators and fan \$1,000.00
Fuel System \$1,750.00
Misc. & Hardware \$300.00
Subtotal \$11,450.00

Total \$80,455.00



Why Sponsor Us?

Cyclone Racing will provide its sponsors with a source of skilled engineers and business people. Students involved in the program gain valuable real world experience. Many companies choose to recruit our students for their experiential education programs and full-time careers including:

- 3M
- Boeing
- Continental Automotive
- Stellantis
- General Motors
- John Deere
- Ford Motor Company
- Nascar
- Caterpillar
- Polaris
- Collins Aerospace
- Rolls-Royce
- Roush Performance
- SpaceX
- Tesla
- Hendrick Motorsports
- Magna

Cyclone Racing often experiences media coverage on a local and international level. We take these opportunities to promote our sponsors. Some of our recent media coverage includes:

- Iowa State Daily
- Ten Tenths Podcast
- Ames Tribune
- KCCI 8 News
- Des Moines Register
- Automotive Engineering International Magazine

Donations
to our team
are tax
deductible.

Cyclone Racing participates in outreach events in both the Iowa State and local community. Some of these events include:

- Destination Iowa State
- Iowa State Homecoming Parade
- Iowa Corn 300



Sponsorship Packages

Diamond | \$15,000

- Significant influence on car livery
- Prominent Name*/Logo on Car
- Name/Logo on Team T-shirts
- 18" Name/Logo on Trailer

- Ability to Display Car at Business
- Framed Picture with Car & Team
- Sponsorship Plaque
- Dynamic Link To Your Website

Platinum | \$5,000

- Extra Large* Name/Logo on Car
- Name/Logo on Team T-shirts
- 12" Name/Logo on Trailer

- Framed Picture with Car & Team
- Sponsorship Plaque
- Dynamic Link to Your Website

Gold | \$2,500

- Large* Name/Logo on Car
- Name/Logo on Team T-shirts
- 8" Name/Logo on Trailer

- Framed Picture with Car & Team
- Sponsorship Plaque
- Dynamic Link to Your Website

Silver | \$1,000

- Medium* Name/Logo on Car
- Name/Logo on Team T-shirts
- 6" Name/Logo on Trailer

- Framed Picture with Car & Team
- Sponsorship Plaque
- Dynamic Link to Your Website

Bronze | \$350

- Small* Name/Logo on Car
- Name/Logo on Team T-shirts

- Framed Picture with Car & Team
- Dynamic Link to Your Website

Min. of \$100 gets your logo/
name on team banner

*Logo sizes may vary

Besides cash donations, sponsors have chosen to support us through:

- Part Donations
- Material Donations
- Design & Fabrication Services
- Software Licenses
- Manufacturing Equipment Donations
- Marketing Support
- Testing Facilities

Donations ensure the success of our program and allow a greater chance of victory at competition. Without our generous sponsors, the team would cease to exist!

Shop Tours are available upon request



Contact:

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