

POWERCAT MOTORSPORTS

Bobcat 2015 - 2016



2016 - 2017

Sponsorship Guide

Design, Build, Compete

Sponsorship

About FSAE

Formula SAE is an international collegiate design series begun in 1979 by Mark Marshek at the University of Houston. Kansas State University joined the society in 1997 as "Powercat Motorsports." Today, it has expanded to include two competitions in the United States in Michigan and Nebraska. As an international organization, Formula SAE and has expanded to Australia, Austria, Brazil, Germany, Italy, Japan and the United Kingdom.

This packet will provide information about sponsoring our 2016-2017 car. Not only will you be supporting future engineers, but also an organization that promotes real-world engineering practices requiring more than just theories and equations. In addition, the team is a registered 501c(3), so every donation is tax deductible.

One of the greatest benefits you or your company might choose is to have your name or logo proudly displayed on our car for any donation of more than \$200. This means your gift will be recognized and your name or logo visible at every race, competition and public relations event where our organization participates.



Welding the steering column

Goals

Any team can build a reliable car, or a car that handles well, or a car with a top 10 acceleration, but to build one with all of these traits takes hard work and dedication. This year, we are striving to do all that and more.

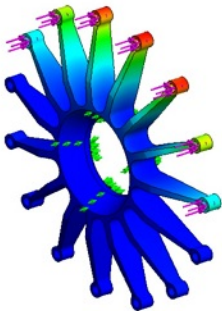
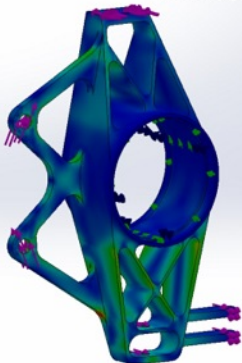
Many teams use razor thin margins of safety in order to decrease weight, but at Powercat Motorsports, we are striving to decrease weight year after year, without sacrificing any margin of safety.

This year, we will be using a larger engine to help us be competitive in acceleration, but through better design and intelligent weight savings, we are striving for the same or less total weight from last year.

Last year, we used many new data collection systems to tune and guide this year's car design. With that information, we will be implementing better systems to control the car, while increasing reliability.

This year has all the makings for one of the best in Powercat Motorsports history, and this packet has all the information you need for you, and your business, to be a part of something great while helping future engineers.

2015 - 2016 Uprights



2015 - 2016 Wheel Centers

A Brief History



Bobcat 2015 - 2016



Achievements



2016 Formula SAE Michigan

• Acceleration	83rd
• Autocross	82nd
• Endurance	DNP
• Skid-Pad	64th
• Cost	74th
• Design	39th
• Presentation	81st
• Overall	71st

2015 Formula SAE Lincoln

• Acceleration	39th
• Autocross	22nd
• Endurance	DNP
• Skid-pad	24th
• Cost	42nd
• Design	25th
• Presentation	48th
• Overall	29th

2014 Formula SAE Lincoln

• Acceleration	47th
• Autocross	47th
• Endurance	DNP
• Skid-pad	31st
• Cost	49th
• Design	41st
• Presentation	19th
• Overall	49th

2014 Formula SAE Michigan

• Acceleration	67th
• Autocross	62nd
• Endurance	DNP
• Skid-pad	36th
• Cost	61st
• Design	15th
• Presentation	42nd
• Overall	59th



Formula SAE Competition

Event Locations and Dates

FSAE Michigan

Michigan International Speedway

12626 U.S. Highway 12

May 10-13, 2017



FSAE Lincoln

Lincoln Airpark

3401 West Luke

Lincoln, NE 68524



We encourage our sponsors to watch us race. With your time, financial support, experience and materials, we will be able to manufacture and race a top-contending car in 2016 - 2017. All of this is possible through your generous donations.

Spectators are welcome at all collegiate design series competitions. Admission is free. Access to designated team paddocks is limited to registered attendees and considered a restricted area. A registered attendee is anyone 18 years of age or older, who has signed the liability waiver and been issued a wristband from the registration area. No one under 18 years of age may enter the paddocks.



Benefits



Benefits	Yearly Contribution Levels			
	Bronze (\$100-\$499.99)	Silver (\$500- \$1,499.99)	Gold (\$1,500-\$4,999.99)	Diamond (\$5,000+)
Company name on website www.k-state.edu/ powercatmotorsports	X	X	X	X
Invitation and recognition at rollout (unveiling of the new car)	X	X	X	X
Monthly newsletter	X	X	X	X
Photo of the car and team	X	X	X	X
Name on the car (\$200+)	X	X	X	X
Sponsor local visit	X	X	X	X
Logo of your business on website www.k-state.edu/ powercatmotorsports		X	X	X
Company logo on the car (\$500+)		X	X	
Company logo in a primary spot on car				X
At request, Powercat Motorsports will display the car for local company events				X

POWERCAT
MOTORSPORTS

A Letter From The Team

Powercat Motorsports, K-State's premier racing team, has a storied tradition rooted in the strong work ethic of its members. Originally begun in 1997, the team's major obstacles were finances, resources and finding dedicated members — much less constructing an entire race car. In our first competition in 1998, we placed 87th. For years the team suffered heartbreaking race finishes, including sheared-off drive shafts, running out of gas and engine failures. Despite these hardships, we believe those humble beginnings have gilded the resilient spirit of Powercat Motorsports.

Our resiliency first paid off in 2008 in Fontana, California, where the team was awarded an overall 10th-place trophy. This was followed in 2009 at Virginia International Raceway by earning the coveted 1st-place trophy in fuel economy, with an overall 5th-place finish. We built on these platforms to achieve 7th place in design in 2010, 2nd place in cost in 2011, 5th place in cost in 2012 and 10th in design in 2013. These finishes show how our work ethic is paying off.

This success has raised expectations of the team, faculty and university. We are no longer building only a race car; we are building a program at K-State. The one constant throughout the years has been design ingenuity. We were the first to debut a distinctive (and now illegal) all-aluminum frame with a side-winder engine in 2003. With this motive, heavy overhauls have been implemented into the design of all the cars since 2009.

These heavy overhauls include moving from a four-cylinder motor to a single-cylinder motor (2011), designing an aero package (2012/2013), designing an all-electric paddle-shift system (2013), launching an all-carbon fiber monocoque chassis (2013) and building an in-house dynamometer stand for our engine team (2015). This year our main focuses are on validating our designs with data, increasing reliability, and improving the engine and drivetrain platform.

Once we complete the car with these goals in mind, we will reach a new level of competitiveness by performing extensive and strenuous physical testing, along with data acquisition, before our competition. The team is already initiating procedures that include using our engine dyno, various new sensors, and telemetry equipment on the car. These tools will help perform further analysis of the raw data collected and verify our designs.

The size of our team has grown substantially with members coming from mostly mechanical engineering along with business. We are visible at the university, displaying the car at all major engineering events such as scholarship days, Kansas State Fair, homecoming, Engineering Open House, career nights, and local sponsor visits.

How to Donate

Donations can be accepted through either **Check** or **Credit Card**

Check

Checks should be made payable to **KSU Foundation** with **SAE Formula Team** in the memo line. Please send to:

KSU Foundation
1800 Kimball Ave., Ste. 200

Credit / Debit

- 1: Go to <http://www.found.ksu.edu>
- 2: Select "Give Online" on the Left-hand side
- 3: Fill out the Guest information
- 4: Click **Next**
- 5: Select donation amount in **Specify Your Amount**
- 6: Click on **Fund Options** under **Gift Information** and search for "**Society of Automotive Engineers Formula Team**" or "**I36795**"
- 7: Click **Select** next to "**Society of Automotive Engineers Formula Team**"
- 8: Select your gift type. **One - Time** or **Recurring**

Thank you for your help in providing valuable, real world experience to engineering students at Kansas State University.

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Contact Information

President

Patrick Harwell
pharwell@ksu.edu

Faculty Adviser

Kevin Wanklyn
kwanklyn@ksu.edu

Aerodynamics Lead

Brett Cook
brett12@ksu.edu

Engine Lead

Dwight Pearson
dwpearson@ksu.edu

Electronics Lead

Tyler Hinnen
thinnen@ksu.edu

Suspension Lead

Tim Spencer
taspence@ksu.edu

Chassis Lead

Aaron Gleason
ajgleason@ksu.edu

Ergonomics Lead

Brendan Gundy
bcgundy@ksu.edu

Business Manager

Zac Bair
zbair12@ksu.edu



Powercat Motorsports

Facebook

Drivetrain Lead

Trevor Duerksen
tduerksen@ksu.edu



@PwrCatMS

Twitter

Questions? Contact us at Powercatmotorsports@gmail.com



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