# **FORMULA SAE**

## Velma & Raleigh Boreen





# **FORMULA SAE**

### What is SAE and Formula SAE?







Professional, educational, scientific society

Core Competencies:

- Voluntary Consensus Standards Development
- Lifelong Engineering Education



Collegiate Design Series (CDS)

- Aero Design Series
- Baja SAE Series
- Clean Snowmobile
- Formula SAE Series
- Supermileage











**<u>CONCEPT</u>** behind Formula SAE is that teams have been contracted by a fictitious manufacturing company to develop a small formula-style autocross car. The prototype is to be evaluated for its potential as a production item.

Target Market = non-professional weekend autocross competitors.



The <u>challenge</u> that the universities accept is to <u>design</u>, <u>build and test</u> their prototype based on a series of rules and events whose purpose is to ensure on-track safety and promote clever problem solving. This way they are using their engineering and marketing skills to complete a task.





#### Static Events

| <ul> <li>Cost Analysis</li> </ul> | 100 pts. |
|-----------------------------------|----------|
| • Design                          | 150 pts. |
| Sales Presentation                | 75 pts.  |

75 pts. 50 pts.

150 pts. 300 pts.

100 pts.

- Dynamic Events
  - Acceleration
  - Skid Pad
  - Autocross
  - Endurance
  - Fuel Efficiency

## There are nine events Internationally. The two largest in the world are held in the United States





# **FSAE MICHIGAN**

## Michigan International Speedway Brooklyn, MI May 11-14, 2016





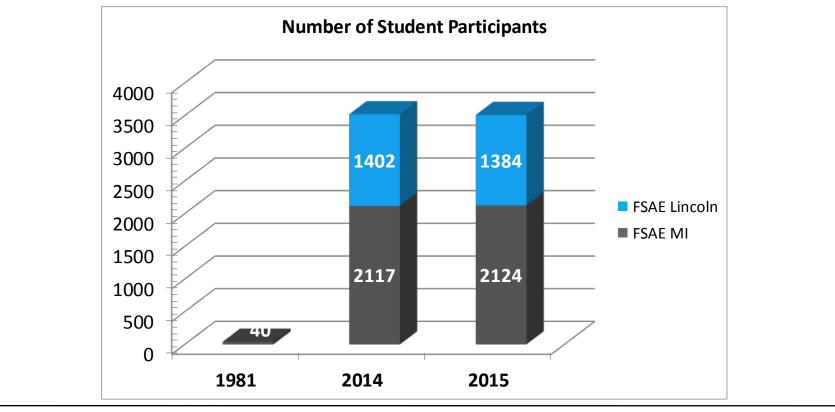
# **FSAE LINCOLN**

Lincoln Airpark Lincoln, NE June 15-18, 2016





### **FSAE**



SAE INTERNATIONAL

2016 Formula SAE Lincoln

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#### **Participation Benefits for Students and Schools**

- Practical engineering design experience
- Development of Project Management skills
- Exposure to mobility engineering industry





#### **CDS Students Graduate to Mobility Careers**

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#### **RIT Graduate Goes to CART**

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Formula SAE Success Stories - Colorado









### Why Should SCCA Be Involved?

- Fulfills the purpose of the SCCA Foundation in supporting the Motorsports
- Supports Higher Education
- Provides a professional atmosphere
- Enjoy an interesting and challenging volunteer experience



<u>Recruit New Members</u>

#### Why Should Communities Be Involved?

- 3-4,000 people get to experience your community
- Support Higher Education
- Provide a professional atmosphere
- Enjoy an interesting and challenging volunteer experience
- Volunteers get to have a great time!!



### How can SCCA get involved?

- Regions can help support the building of the car.
- Get to know the students and Faculty
- Provide VOLUNTEERS
  - Static Events Wednesday & Thursday
  - Dynamic Events Friday & Saturday



## What types of things do the volunteers do?







#### **Technical Inspection**

#### Scrutineering

•Technical inspectors will examine each vehicle to determine if it complies with the requirements and restrictions of the rules. Inspections are conducted using a technical inspection check list

#### Tilt Table Test/Fuel Station

•Tilt table volunteers will conduct tilt tests to check for fluid leaks and confirm the vehicles stability.

•Fuel station volunteers fuel all vehicles prior to tilt test and additionally during the dynamic events. For the Fuel Economy event there is a need to measure fuel quantity.

#### Noise, Master Switch and Brake Tests

•Volunteers will assist with noise test, conduct tests on each vehicles on master switches and brakes

- Sales, Cost and Design Presentations
- · Volunteers will listen and evaluate the students presentations





### **Schedule of Dynamic Events**

### <u>Friday</u>

Skid-Pad Braking Exercise Acceleration Exercise Autocross

### <u>Saturday</u>

Endurance Run



#### **Get Involved!**

Whether it is to "Give Back", "Help the Future Engineers", or just "Have Fun"...Sign up to Volunteer in 2016.

http://fsaeonline.com/

You may also contact Kaley Zundel anytime prior to competition Phone: 724-772-8533 EMAIL: <u>kaley.zundel@sae.org</u>

SAE INTERNATIONAL

## **Questions?**





# **Thank You**



