

A close-up, high-angle photograph of a Formula SAE engine component, likely a carburetor or fuel injection system. The component is made of polished metal and features a central vertical shaft with a blue plastic cap. It is surrounded by various mechanical parts, including black hoses and metal brackets. The background is dark and out of focus, showing parts of the engine bay and a black wheel with a white triangle logo.

FORMULA SAE®

“Know Before You Go”

May 9, 2024 – Michigan International Speedway

Agenda

Mobility, Advanced™

- Review Overall Site Layout
- Review Daily Schedule
- Review Competition Logistics
- Review Expectations
- FSAE Mobile App Use
- Event Specifics

Daily Schedule - Tuesday

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- Early Team Registration & Paddock Opens

- 3:00 PM – 5:00 PM

- Do Not arrive prior to 3:00 PM
- Enter MIS via Gate 12
- Paddock your FSAE transporter. NO UNPACKING the trailer
- Report to Garage 1 to register with all required paperwork

**REMINDER: 5:30 PM is official closing of event with event site closed at 5:30PM.
All student teams must be offsite by 5:30 PM.**

Teams attending Early Registration and Paddock MUST drop off their FSAE transporter in their assigned paddock spot. If you plan to leave, plan to not come early.

Daily Schedule - Wednesday

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- Site Opens to Teams @ 7:30 AM
- Registration opens @ 8:00 AM
 - Bring your paperwork
- Technical Inspection opens @ 10:00 AM
 - Tech Order Numbers assigned
- Scales open @ 3:00 PM
- Invitation Reception @ Champions Club for Faculty, Sponsors and Volunteers starting at 6:30 PM
- Official closing @ 7:30 PM

**REMINDER: 7:30PM is official closing of event with event site closed at 8PM.
All Teams should be offsite before 8PM.**

Daily Schedule - Thursday

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- Site opens to Teams @ 7:30 AM
 - Driver Meetings
 - Tech dynamic events – Mandatory @ 8:00 AM
 - All dynamics – Mandatory @ 6:00PM
 - Static Events Start
 - Design Event starts @ 8:30 AM
 - Cost Event starts @ 9:00 AM
 - Business Presentation Finals start @ 9:00 AM
 - Tech Inspection opens @ 9:00 AM
 - Tilt opens @ 9:30 AM
 - Noise opens @ 10:00 AM
 - Brake opens @ 10:30 AM
 - Practice opens @ 11:00 AM
 - Panoramic Photo – staging begins @ 6PM. Photo taken after driver meeting
- REMINDER: 7:30PM is official closing of event with event site closed at 8PM.
All Teams should be offsite before 8PM.**

Daily Schedule - Friday

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- Site opens to Teams @ 7:30 AM
- Dynamic Events
 - AutoX course walk open @ 8:00 AM
 - Acceleration opens @ 10:00 AM
 - Skid Pad opens @ 10:00 AM
 - Autocross opens @ 10:30 AM
- Fuel Station opens @ 8:00 AM
- Tech Inspections Areas
 - Tilt/Noise/Brake opens @ 8:00 AM
 - Technical Inspection opens @ 9:00 AM
- Practice Track opens @ 8:00 AM
- Design Feedback opens @ 9:00 AM
- Seminars
 - Presentation @ 9:30 AM
 - Cost Feedback @ 10:30 AM
- Design Finals @ 5:30 PM

REMINDER:
7:30PM is official closing of event with event site closed at 8PM.
All Teams and team members should be offsite before 8PM.
Only exception is those teams/team members participating in design finals.

Daily Schedule - Saturday

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- Site opens to Teams @ 7:00 AM
- Endurance Course Walk starts @ 7:15 AM
- Fuel Station opens @ 7:30 AM
- Practice Track opens @ 7:30 AM
- Tech Inspection (by appt for re-tech only) opens @ 9:00 AM
- Endurance/Fuel Efficiency opens @ 9:00 AM
- Public Design Review starts @ ~6:00 PM
- Awards Ceremony starts ~8:00 PM

**REMINDER: 9:30PM is official closing of event with event site closed at 10PM.
All Teams & FSAE Transporters should be offsite by 10:00PM.**

**If you are leaving your transporter onsite, you have a small window from
9:00 – 11:00 AM Sunday morning.**

Competition Logistics – Team Arrival

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- Tuesday – 3PM
- Wednesday – Friday 7:30 AM
- Saturday – 7:00 AM

Friendly Reminder:

If you need/want to paddock next to a specific team coordinate with each other to arrive at same time.



NO MATTER THE DAY – DO NOT ARRIVE AND START QUEING BEFORE TIME PUBLISHED ON SCHEDULE.

Competition Logistics – Emergency Action Plan

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In case of an accident, SAE staff and key volunteers must be prepared to take immediate action. The nature and severity of an accident will determine the required response and the sequence in which action is taken.

- Control the Scene
- Extinguish Fires
- Call for Help
- Aid as Required
- Impound Vehicle
- Complete Incident Report



Team members can help by listening to instructions given by event officials.

Additionally, if you witness something before event officials, please tell a volunteer with clear and concise words what is the issue.

Competition Logistics – Emergency Action Plan

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In case of severe weather, volunteers and staff must be prepared to take immediate action. The nature and severity of weather will determine the required response and the sequence in which action is taken.

- SAE & MIS will make any inclement weather calls
 - Weather delay
 - Heavy rain
 - Weather evacuation
 - Lightning/Thunderstorms
 - Tornado warnings



Guests are encouraged to monitor weather very closely and take the necessary precautions to ensure their safety. Personal protection is the guest's responsibility. The American Red Cross recommends if you are caught outdoors and cannot quickly access shelter, it is best to stay in your vehicle with your seat belt on until you are able to get to the closest shelter.

Expectations – Dress Code

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This is a student engineering design competition with a focus on student-built vehicles operating on a racetrack.

Students, spectators, sponsors and volunteers should dress appropriately for the situation you are participating in.

- *Long pants are preferred but not required in most areas; when wearing shorts please be professional.*
- *Shirts are required.*
 - *Students will be supplied with a Student Competitor shirt sponsored by Solidworks*
 - *Volunteers will be provided event shirts for event visibility.*
- *Closed-toe shoes are mandatory; anything open-toe you will be asked to change or leave.*



Michigan sees all types of weather (rain, snow, sun, wind) so come prepared. Keep in mind your future employer may be onsite ;-)

Expectations - Code of Conduct

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All SAE Volunteers are expected to uphold the highest standards for professional conduct while volunteering for an SAE Program. Volunteers must treat all participants with courtesy, respect, and dignity. Volunteers are responsible for modeling professional conduct and for cultivating a respectful and inclusive program.

To foster a just and safe community unprofessional behavior, including that which is intimidating, threatening, violent, inappropriate, illegal, or dishonest, will be addressed by promoting accountability and following up with any actions necessary. Unprofessional behavior may result in the removal of volunteers from the program indefinitely.



This statement also applies to ALL PARTICIPANTS and attendees of the competition, including but not limited to student competitors, sponsors and spectators.

Expectations – Venue Dos & Don'ts

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- **DO** ask questions to volunteers if unsure/need help.
- **DO** be polite and courteous to all volunteers and participants
- **DO** follow the rules and all instructions outlined in student handbook, in addition to:
 - Keep your paddocks clean
 - Maintain the 15-mph speed limit posted inside oval and fan zone parking lots
- **DO** see me if you are having any issues onsite. I am here to help you.
- **DO** visit our sponsors
- **DO** have fun!

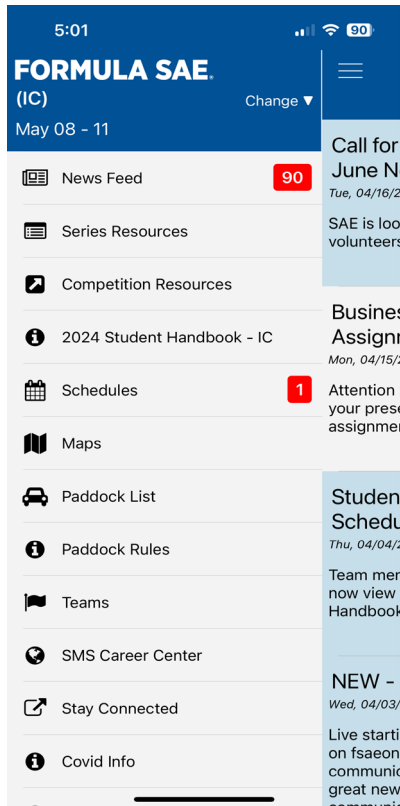
Expectations – Venue Dos & Don'ts

Mobility, Advanced™

- **DON'T** touch any event site banners.
- **DON'T** go rummaging in sponsor tents when not there.
- **DON'T** touch loudspeakers in paddocks.
- **DON'T** fly any drones onsite. This is prohibited.
- **DON'T** smoke onsite (cigarette, vape or other recreational smoking products); also, no alcohol allowed onsite.
- **DON'T** make a mess that you wouldn't want to clean yourself.
- **DON'T** leave things of value lying around in the open; event open to public.
- **DON'T** go on track for team photos outside the schedule panoramic photo or without MIS/SAE approval.

FSAE Mobile App – Staying Informed

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- News Feed
- Student Handbook
- Schedules
 - Overall Event
 - Static Events
- Site Maps
- Paddock Rules
- Live Results
- PA Announcements via Loudspeaker on 91.5 FM
 - Announcement requests can be made in G1

FSAE Mobile App – Scoring

Mobility, Advanced™

- Local Wireless Connection
- Check Results for your Team
- Leaderboards
- Problem Reports

FSAE Mobile App – Wireless Connection

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- Connect to the WiFi network "SAE-GuestsAndTeams"
- Password: welcometeams

This WiFi does NOT provide Internet Access



This information on the local WiFi network and access will be posted on signs at Michigan Speedway. Check with registration desk if any issues

FSAE Mobile App – Scoring

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Multiple ways to access the Results:

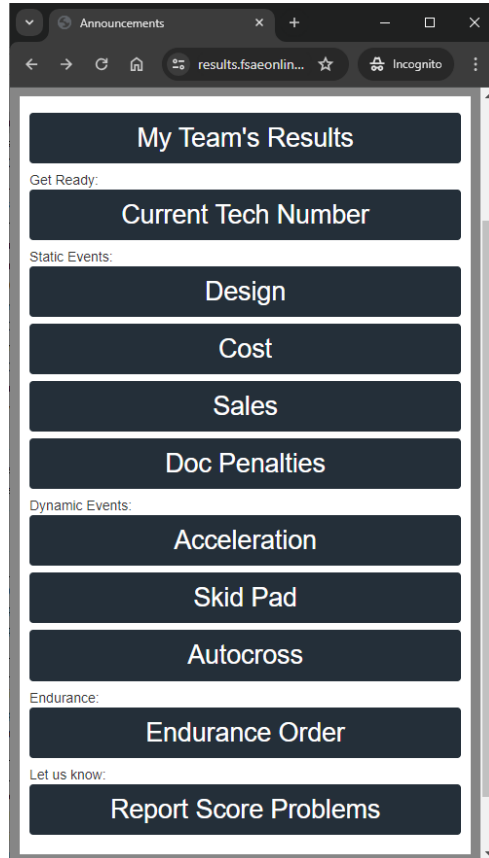
- Link from the Formula SAE App
- Point your browser to: <http://mobile.fsaeonline.com>



You can check your results and see the leaderboards both at the event site and from anywhere! Your university and supporters can see results as they happen!

FSAE Mobile App – Results

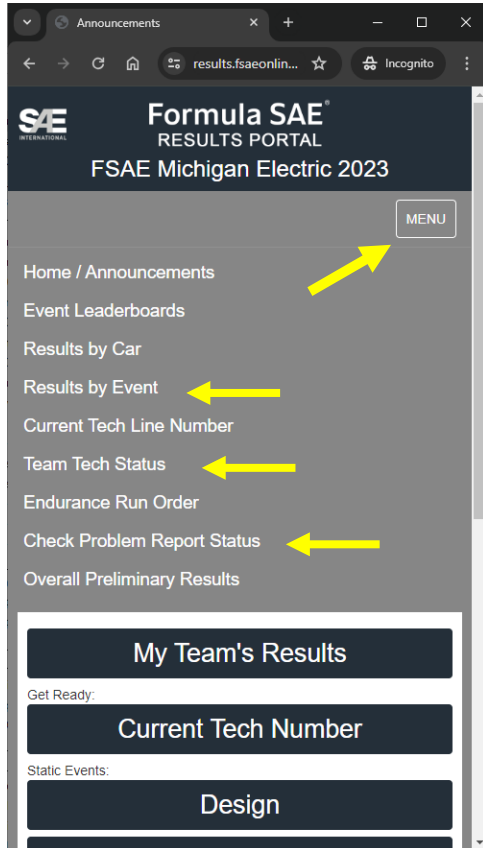
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- First Screen
- Results for your Team
- Static Events
- Dynamic Events
- Endurance Run Order
- Report Problems

FSAE Mobile App – Results

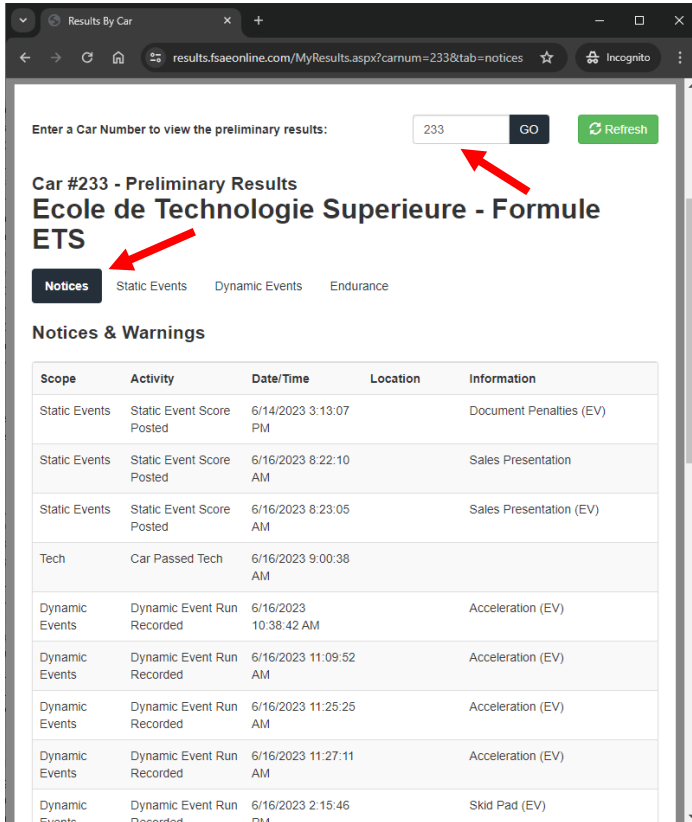
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- Click the MENU button at the upper right
- More options
- Results by Event
- Team Tech Status
- Check Problem Report Status

FSAE Mobile App – My Team's Results

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Enter a Car Number to view the preliminary results:

Car #233 - Preliminary Results
Ecole de Technologie Superieure - Formule ETS

Notices Static Events Dynamic Events Endurance

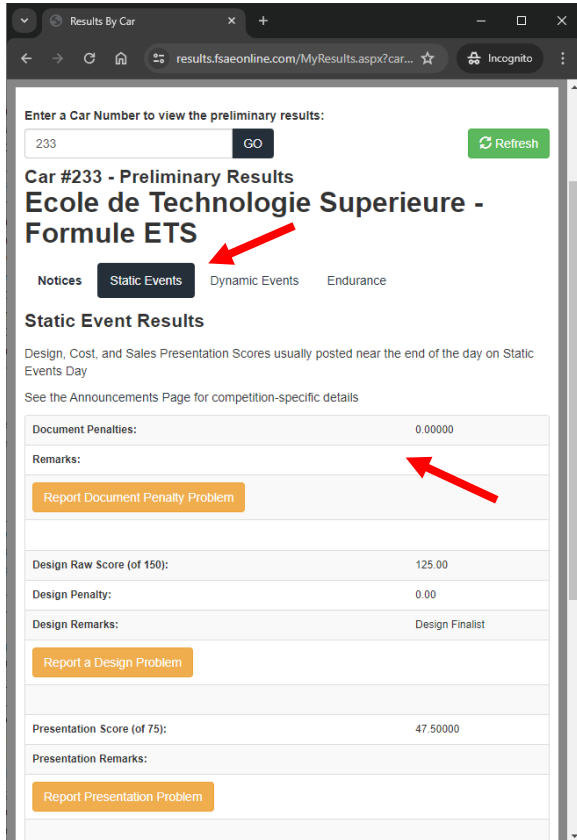
Notices & Warnings

Scope	Activity	Date/Time	Location	Information
Static Events	Static Event Score Posted	6/14/2023 3:13:07 PM		Document Penalties (EV)
Static Events	Static Event Score Posted	6/16/2023 8:22:10 AM		Sales Presentation
Static Events	Static Event Score Posted	6/16/2023 8:23:05 AM		Sales Presentation (EV)
Tech	Car Passed Tech	6/16/2023 9:00:38 AM		
Dynamic Events	Dynamic Event Run Recorded	6/16/2023 10:38:42 AM		Acceleration (EV)
Dynamic Events	Dynamic Event Run Recorded	6/16/2023 11:09:52 AM		Acceleration (EV)
Dynamic Events	Dynamic Event Run Recorded	6/16/2023 11:25:25 AM		Acceleration (EV)
Dynamic Events	Dynamic Event Run Recorded	6/16/2023 11:27:11 AM		Acceleration (EV)
Dynamic Events	Dynamic Event Run Recorded	6/16/2023 2:15:46 PM		Skid Pad (EV)

- Click on My Teams Results
- Enter Car Number (for any team) and Click "GO"
- First Screen – Notices (Click on "Notices")

FSAE Mobile App – My Team’s Results

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- Second Screen – Static Events (Click on “Static Events”)
- Any Document Penalties show under Static Events

FSAE Mobile App – My Team's Results

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Results By Car

results.fsaonline.com/MyResults.aspx?carnum=233&tab=dynamics

Notices Static Events **Dynamic Events** Endurance

Dynamic Event Results

Usually updated near-realtime during the day on Dynamic Events Day, then updated the morning of Endurance Day
See the Announcements Page for competition-specific details

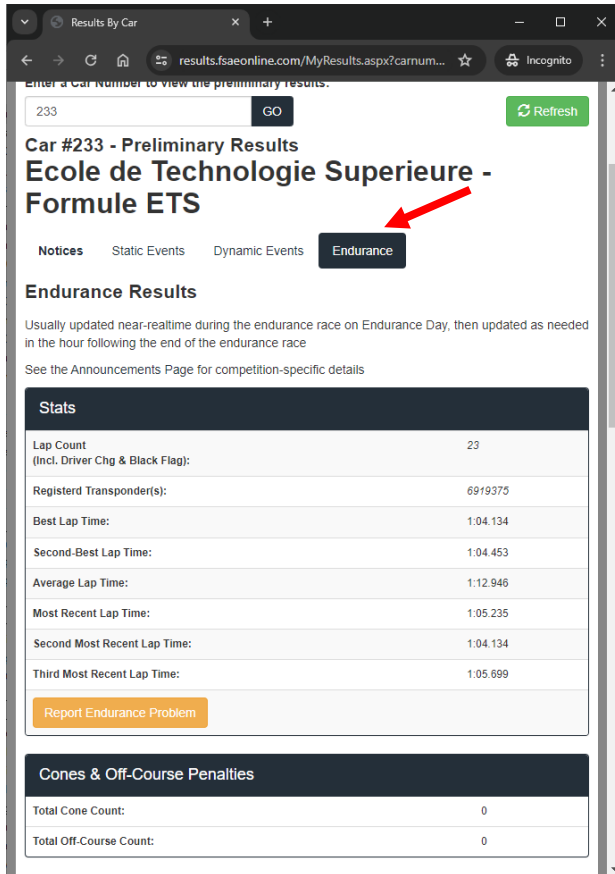
Event	Status	Position	Corrected Time	Raw Time	Off Course	Cones	
Acceleration (EV)	OK		4.38888	4.38888	0	0	Report Problem
Acceleration (EV)	OK		3.99963	3.99963	0	0	Report Problem
Acceleration (EV)	OK	2	3.81775	3.81775	0	0	Report Problem
Acceleration (EV)	OK		3.83863	3.83863	0	0	Report Problem
Autocross (EV)	OK		51.11963	51.11963	0	0	Report Problem
Autocross (EV)	OK		49.86050	49.86050	0	0	Report Problem
Autocross (EV)	OK		47.66288	47.66288	0	0	Report Problem
Autocross (EV)	OK	1	46.31888	46.31888	0	0	Report Problem
Skid Pad (EV)	OK	2	4.99950	4.99950	0	0	Report Problem
Skid Pad (EV)	OK		5.05850	5.05850	0	0	Report Problem
Skid Pad (EV)	OK		5.11850	5.11850	0	0	Report Problem
Skid Pad (EV)	OK		5.05500	5.05500	0	0	Report Problem

Missing A Result?
Report a Problem for a Result not listed here

- Third Screen – Dynamic Events (Click on “Dynamic Events”)
- Shows all Runs for the Team

FSAE Mobile App – Leaderboards

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Results By Car

results.fsaonline.com/MyResults.aspx?carnum... Incognito

Enter a car number to view the preliminary results.

233 GO Refresh

Car #233 - Preliminary Results
Ecole de Technologie Superieure - Formule ETS

Notices Static Events Dynamic Events **Endurance**

Endurance Results

Usually updated near-realtime during the endurance race on Endurance Day, then updated as needed in the hour following the end of the endurance race

See the Announcements Page for competition-specific details

Stats

Lap Count (Incl. Driver Chg & Black Flag):	23
Registered Transponder(s):	6919375
Best Lap Time:	1:04.134
Second-Best Lap Time:	1:04.453
Average Lap Time:	1:12.946
Most Recent Lap Time:	1:05.235
Second Most Recent Lap Time:	1:04.134
Third Most Recent Lap Time:	1:05.699

Report Endurance Problem

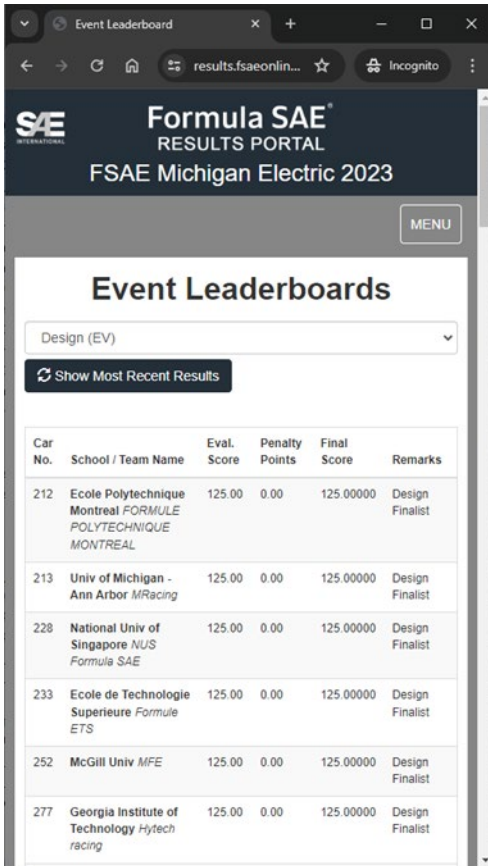
Cones & Off-Course Penalties

Total Cone Count:	0
Total Off-Course Count:	0

- Fourth Screen – Endurance (Click on “Endurance”)
- Shows Laps, Times, Cones and Off Course Penalties

FSAE Mobile App – Leaderboards

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Event Leaderboard

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SAE INTERNATIONAL
Formula SAE®
RESULTS PORTAL
FSAE Michigan Electric 2023

MENU

Event Leaderboards

Design (EV)

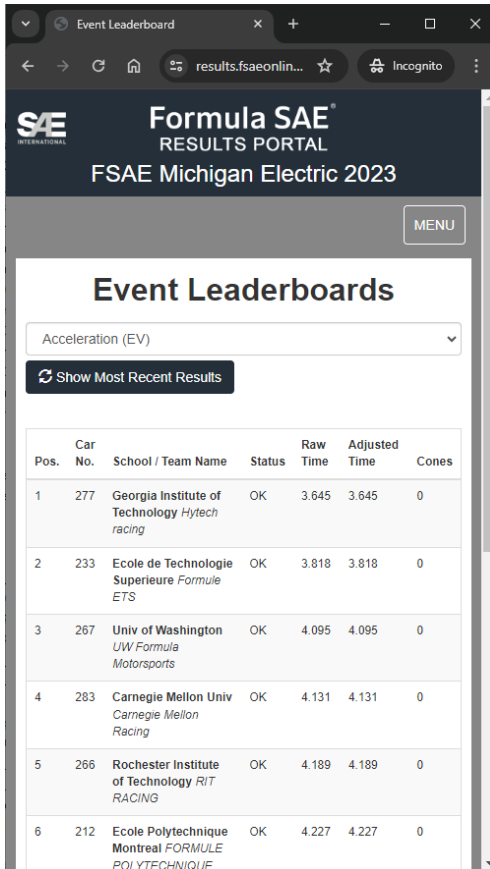
Show Most Recent Results

Car No.	School / Team Name	Eval. Score	Penalty Points	Final Score	Remarks
212	Ecole Polytechnique Montreal FORMULE POLYTECHNIQUE MONTREAL	125.00	0.00	125.00000	Design Finalist
213	Univ of Michigan - Ann Arbor MRacing	125.00	0.00	125.00000	Design Finalist
228	National Univ of Singapore NUS Formula SAE	125.00	0.00	125.00000	Design Finalist
233	Ecole de Technologie Superieure Formule ETS	125.00	0.00	125.00000	Design Finalist
252	McGill Univ MFE	125.00	0.00	125.00000	Design Finalist
277	Georgia Institute of Technology Hytech racing	125.00	0.00	125.00000	Design Finalist

- Static Events
- Click on Design, Sales (Presentation), Cost, Document Penalties
- Shows Teams in Order and with Points

FSAE Mobile App – Leaderboards

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Event Leaderboard

results.fsaonline... Incognito

SAE INTERNATIONAL
Formula SAE®
RESULTS PORTAL
FSAE Michigan Electric 2023

MENU

Event Leaderboards

Acceleration (EV)

Show Most Recent Results

Pos.	Car No.	School / Team Name	Status	Raw Time	Adjusted Time	Cones
1	277	Georgia Institute of Technology <i>Hytech racing</i>	OK	3.645	3.645	0
2	233	Ecole de Technologie Supérieure <i>Formule ETS</i>	OK	3.818	3.818	0
3	267	Univ of Washington <i>UW Formula Motorsports</i>	OK	4.095	4.095	0
4	283	Carnegie Mellon Univ <i>Carnegie Mellon Racing</i>	OK	4.131	4.131	0
5	266	Rochester Institute of Technology <i>RIT RACING</i>	OK	4.189	4.189	0
6	212	Ecole Polytechnique Montreal <i>FORMULE POLYTECHNIQUE</i>	OK	4.227	4.227	0

- Dynamic Events
- Click on Acceleration, SkidPad, Autocross
- Shows Teams in Order, with Times

FSAE Mobile App – Leaderboards

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The screenshot shows the Formula SAE Results Portal for the FSAE Michigan Electric 2023 event. The page is titled "Event Results" and displays the "Endurance (EV)" category. A "MENU" button is visible in the top right corner. Below the event title, there is a "Show Most Recent Results" button. The page also shows the "Last Data Update" as 6/17/2023 3:27:11 PM, the "Fastest Lap By" as 267 - Univ of Washington UW Formula Motorsports, and the "Fastest Lap Time" as 1:03.239. The "Endurance Results" section includes a search bar and a table with columns for Car No., School Name, # of Laps, Best Lap Time, Average Lap Time, and Total Endu Time. The table lists two entries: Car No. 212 from Ecole Polytechnique Montreal with 6 laps, and Car No. 216 from Oregon State Univ Global Formula Racing with 22 laps.

Car No.	School Name	# of Laps	Best Lap Time	Average Lap Time	Total Endu Time
212	Ecole Polytechnique Montreal FORMULE POLYTECHNIQUE MONTREAL	6	1:08.690	1:11.374	7:08.24
216	Oregon State Univ Global Formula Racing	22	1:20.811	1:32.822	34:02.8

- Endurance
- Click on MENU, Event Results, Endurance
- Results will not show here until Team Finishes or DNFs

FSAE Mobile App – Results Posting

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- Static Results are posted once available, usually on Friday
- Document Penalty should be posted soon after we get onsite
- Dynamic Results posted as they happen, almost live!
- If Dynamic results do not get posted right away, do not be concerned. We have not missed your score!

FSAE Mobile App – Problem Reports

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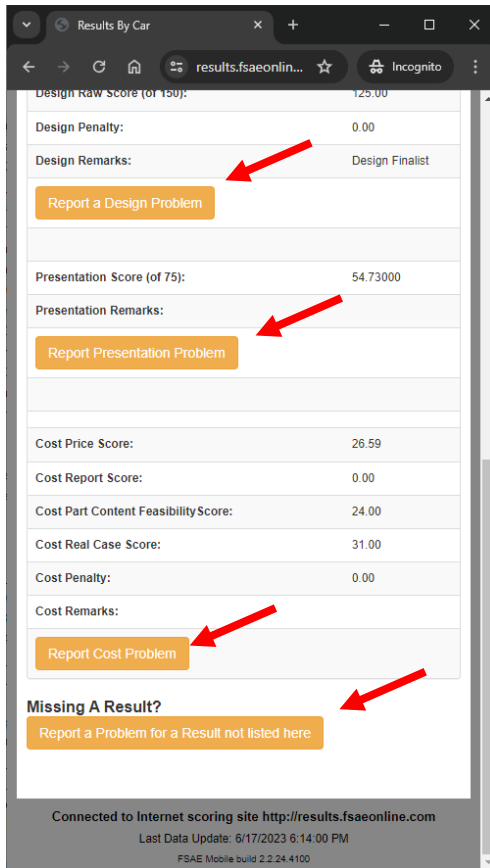
- A Problem Report is a way for you to let scorekeeping know that there is an issue with your results
 - You submit the Problem Report
 - We will check on the issue and let you know
- You may submit Problem Reports anytime before the deadline, the sooner the better!
- If you question your Design, Cost or Presentation scores, please speak directly to your judges or the Event Captain before you submit a Problem Report



Problem Reports are Different from Protests. Follow the guidance in the Formula SAE Rules if you are considering a Protest

FSAE Mobile App – Problem Reports

Mobility, Advanced™

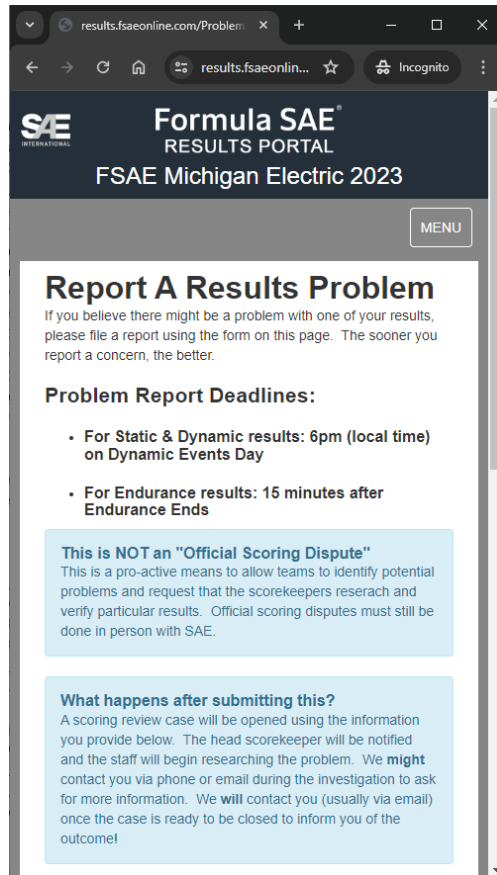


To submit a Problem Report:

- Click on one of the orange buttons in the Results
- Click on a generic "Report a Problem for a Result not listed here" if something is missing

FSAE Mobile App – Problem Reports

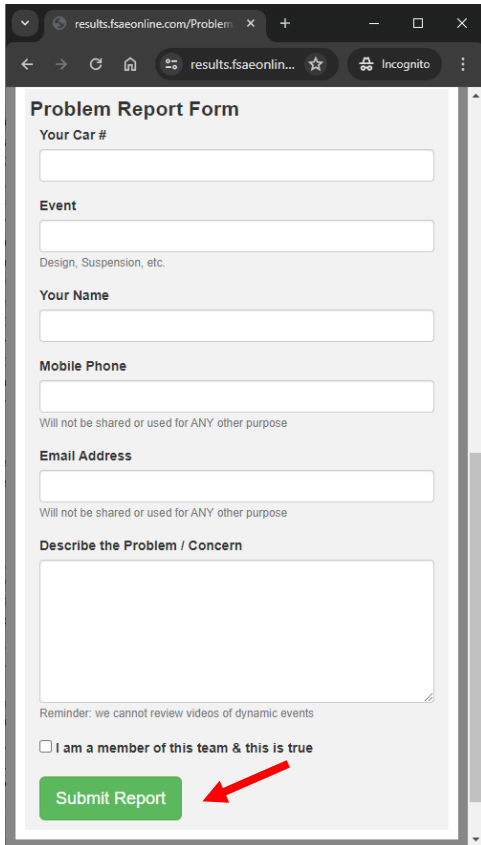
Mobility, Advanced™



- Click on the button to submit a Problem Report
- You will see information on what the Problem Report is
- Scroll Down

FSAE Mobile App – Problem Reports

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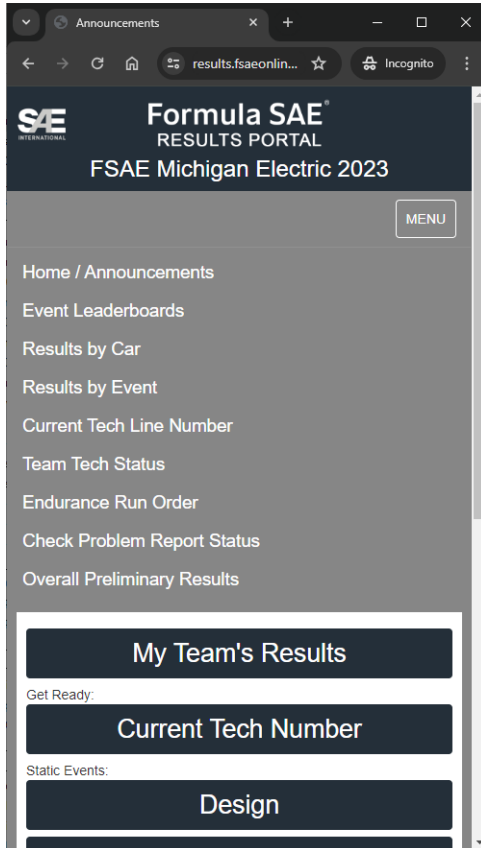
The screenshot shows a web browser window displaying the 'Problem Report Form' on the website results.fsaonline.com. The form includes the following fields and sections:

- Your Car #**: A text input field.
- Event**: A text input field with a placeholder 'Design, Suspension, etc.'
- Your Name**: A text input field.
- Mobile Phone**: A text input field with a note below it: 'Will not be shared or used for ANY other purpose'.
- Email Address**: A text input field with a note below it: 'Will not be shared or used for ANY other purpose'.
- Describe the Problem / Concern**: A large text area for describing the issue.
- Reminder**: A note stating 'Reminder: we cannot review videos of dynamic events'.
- Checkboxes**: A checkbox labeled 'I am a member of this team & this is true'.
- Submit Report**: A green button at the bottom of the form, with a red arrow pointing to it.

- Enter the requested information in the fields
- Provide enough information for us to understand the concern and why you believe the reported results are missing or in error, and what you think should be done
- Click "Submit Report"

FSAE Mobile App – Preliminary Overall

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- Saturday evening, after the awards, Preliminary Overall Results will be available
- These are not Final
- Full Final Results will be posted later, watch the newsfeed on fsaeonline.com

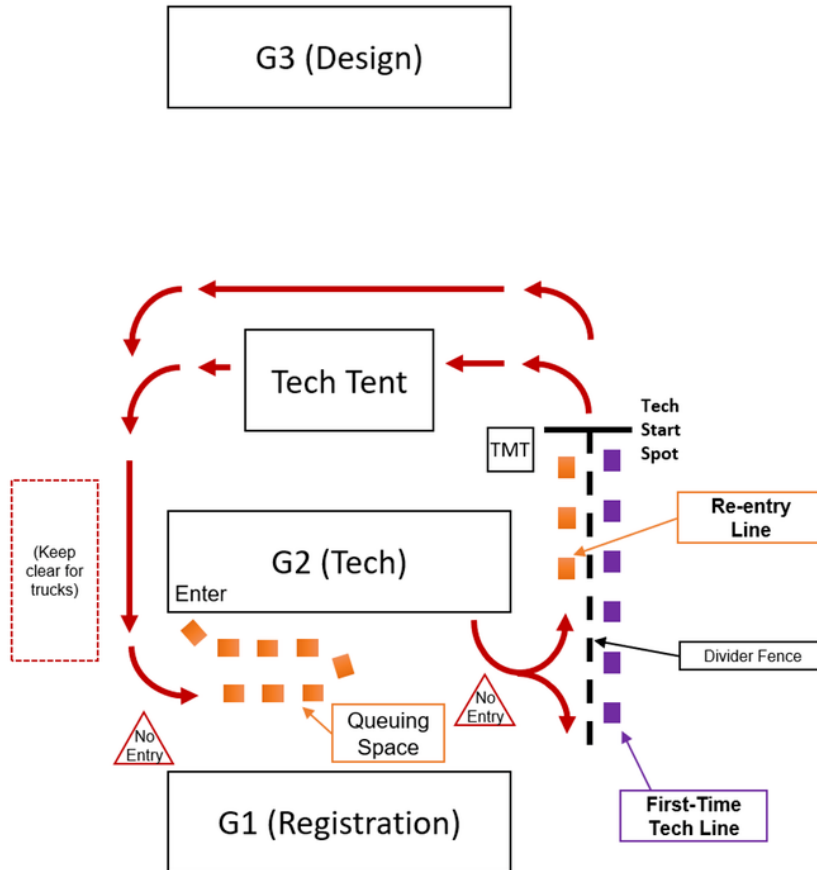
Event Specifics – Tech Inspection Workflow

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- Read Event Description (found in Student Handbook)
- 2024 Changes
 1. Tech Order Number. Pre-printed pages will be included in the REGISTRATION package. Affix this sheet to the head restraint before arriving for Vehicle Checks. Tech Order Number sequence: arrange yourselves single file or be directed by the Tech Marshal.
 2. Fire Extinguishers will be checked in Vehicle Checks area.
 3. Single Point of Entry for Vehicle checks starts at 10x10 Tech Marshal Tent NE corner of G2

Event Specifics – Tech Inspection Workflow

Mobility, Advanced™



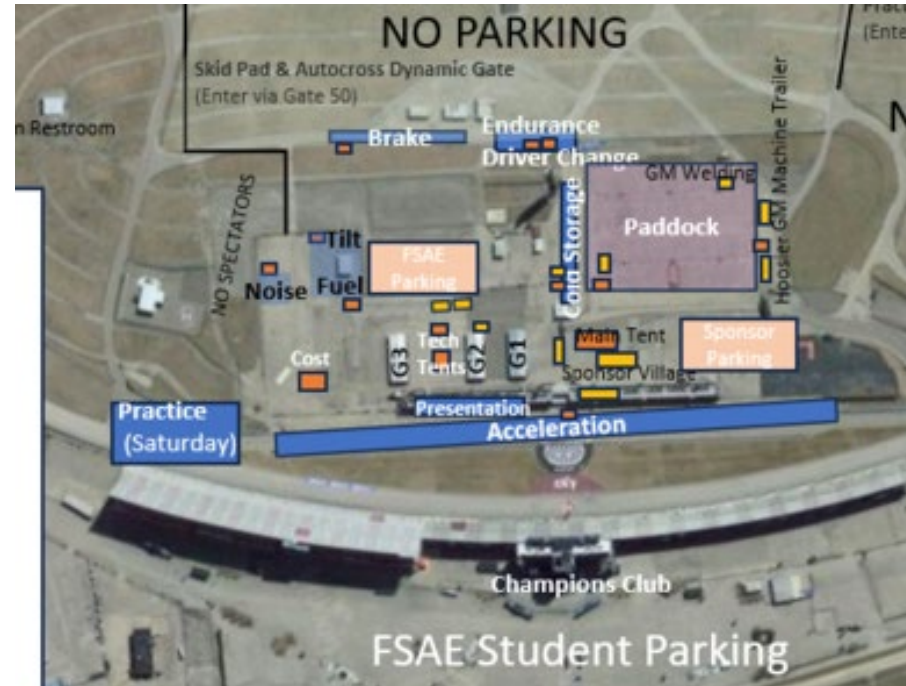
Wednesday Tech Map:

- All cars begin at the Tech Start Spot.
- First-time cars line up on the right side of the divider fence, in-sequence by Tech Number.
- Car returning to Tech for whatever reason, line up on the left side of the divider fence.
- At the Start Spot, a volunteer will instruct you where to go: either to the Tech Tent, or to G2, using the paths shown here.

Event Specifics – Cost Location

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- Cost is behind G3 (the design bays)
- Please arrive 5-10 minutes before your scheduled judging with your car and team members presenting

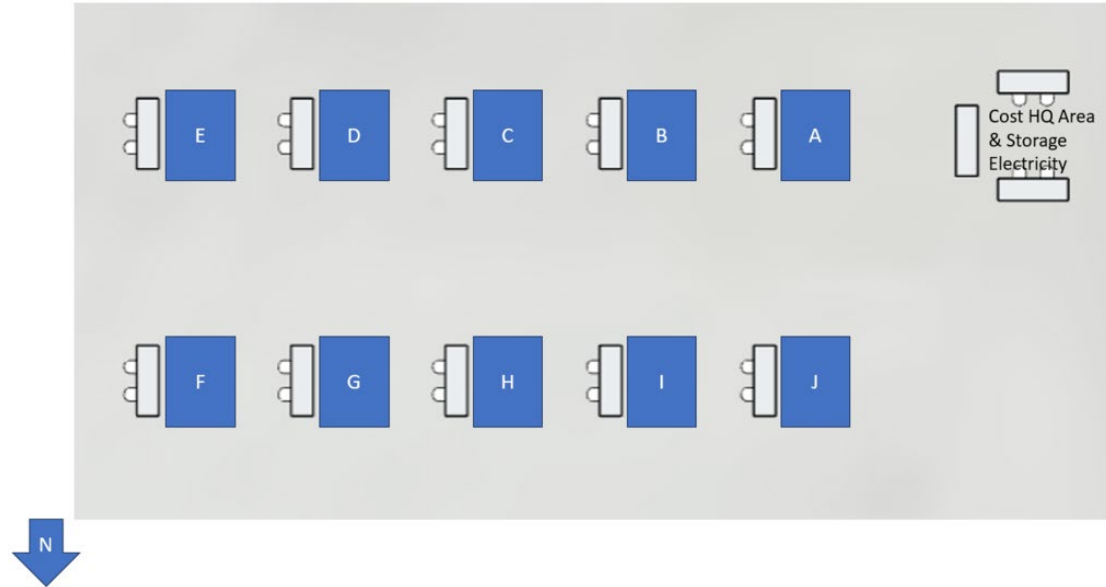


Event Specifics – Cost Layout

Mobility, Advanced™

- Cost judges will direct you where to line up and what bay to enter
- Please do not crowd the bays to allow other cars to leave when done

Cost Tent 2024 (60' x 120')



Event Specifics – Cost Addendum & Real Case

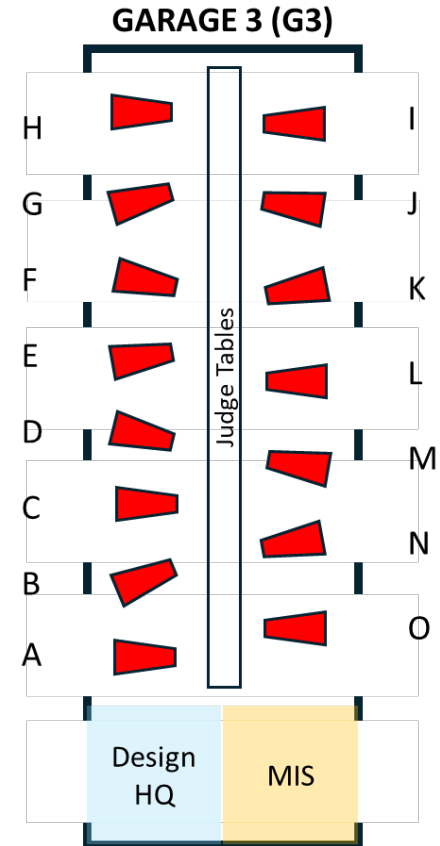
Mobility, Advanced™

- Cost Addendum
 - Please remember if you have a cost addendum it must be turned in at the time of registration!
 - If you do not submit your addendum at registration, then it will not apply for this Cost Event
 - Cost addendum is available at FSAEonline.com to fill out and bring
- Real Case
 - Please bring all supporting materials to the event and be ready to discuss

Event Specifics – Design Event

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- Located in G3
 - Enter and exit through door for your Queue
- Car must be weighed before Design Event
- Car does not need to have passed Tech
- Car should be presented in “race ready” condition
- Be prepared to remove bodywork and wheels if/when asked
- Judges will stay on schedule. Be on time!



Event Specifics – Design Event

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- Start with a ~2-minute introduction
- Judges will discuss subsystems with team members. Explain both “what” and “why”.
- Show your work: Laptops, binders, broken parts, photos, tables, plots, etc.
- Room in G3 is limited. Display boards are permitted, but large displays can get in the way.
- After 45 minutes of discussion judges will take 15 minutes to write their notes.

Event Specifics – Design Event

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- Don't expect feedback during First Round Judging
- Design Judges will give feedback on Fri/Sat – an open discussion!
- Scoresheet is a tool to determine your Design score
 - Scoresheet Points \neq Design Event Points
- ~10% of teams invited to Design Finals
- During Finals, every Design Judge visits every team
- Feel free to talk with Design Judges post-event
 - They're here to guide, mentor and support your efforts

Recorded Link

Mobility, Advanced™

[FSAE IC Know Before You Go \(youtube.com\)](https://www.youtube.com/watch?v=...)