

CT ELECTRATHON CHALLENGE



You are cordially invited to attend Connecticut's 23rd Spring Energy Efficiency Electrathon event. Come and view the streamlined designs and engineering ideas students have incorporated into these one-of-a-kind vehicles.

WHEN: May 17th, 2024

8:00 am - 3:00 pm

WHERE: Lime Rock Park, Lakeville, CT

Major Sponsors



WORKSPACE^{CT}

CES/EdAdvance Collaborative





Please Note Address Change (Pages 3 & 16)

What to expect when arriving at Lime Rock Park

1. Sign in all students at the main gate and turn in the liability release forms.
2. Stop and pick up a parking map when turning off the main road to the Autocross Course.
3. Find a spot behind the yellow tape for your team. When you have unloaded and organized, proceed to the registration table. Teams that submit a complete registration package will be registered first.
4. When proceeding to the table, please bring the following items:
 - a. Electrathon Membership Card
 - b. 2 drivers per vehicle and an advisor.
 - c. Ballast for each driver
 - d. Competition Batteries
 - e. Arm Bands - free for new teams. For returning teams, please bring last year's armband.
 - f. Any other forms not previously mailed in.
5. The CCSU Inspection team will check the ballast, administer an expanded driver's test¹, weigh in the driver, place batteries in the holding area, and inspect your vehicle. Once inspected, they will place a sticker on your vehicle, and your team will be allowed to use the track for time trials.

¹ Reminder to all new and returning teams! CCSU will administer a drivers test on the flag system and driving tools. Each driver must pass the test receiving a minimum of six (6) correct answers out of seven (7).



Registration Form

For the 2024 season, the Entry fee will be \$75.00 per vehicle.

Registration and checks will be received no later than **April 12, 2024** Late registration will incur an additional cost of **\$35.00 per vehicle**

Please make checks payable to **CT Electrathon Challenge**

Send the form below and your check to:

Mike Grella

76 Chestnut Hill Rd

Litchfield, CT 06759

Name of School	
Name of Advisor	
Number of Electrathon Vehicles	



Class

Please place each participating vehicle number in the proper block below.

Novice	Classic (Metal & Kits)	Composite	Solar

Total amount of money enclosed:\$ _____

Enclosed in the registration Packet is a **Vehicle Inspection Form**. By having this information in advance, you are giving yourself the advantage of ensuring everything will go smoothly, allowing the vehicle inspection process to go more quickly, and addressing any potential problems in advance. **The inspection form does not need to be returned.**

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Agenda

Subject to change

8:15 am - 10:00 am	Registration
8:15 am - 10:00 am	Inspections
10:00 am - 10:30 am	Track Time
10:45 am - 11:45 am	1st Heat
11:45 am - 12:30pm	Lunch / Track Time
12:45 pm - 1:45 pm	2nd Heat
2:00 pm - 3:00 pm	3rd Heat
3:30 pm	Awards

Liability Forms

Liability release forms are needed for each student under eighteen. Students should complete both sides of the form and bring them to Lime Rock on the event day. Please send Mike Grella the exact number of forms needed and the mailing address at least four weeks before the competition. *Forms cannot be duplicated!

Number of forms _____

Name _____

Mailing Address _____

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Rules & Regulations

- ❖ Students are not to leave the track area until lunchtime.
- ❖ Students and staff are prohibited from the course's ends or the track's far side. All students, staff, and advisors must stay behind the yellow tape.
- ❖ Each team must have at least one adult responsible for each 10 students.
- ❖ The inspection team will not tolerate harassment from the team or its leaders.
 - If this happens, you will be asked to leave. Inspectors will make every effort to see that your team participates. Safety is their priority.
- ❖ Each team is required to have at least 1 volunteer (if needed) to assist the race officials.
- ❖ Teams are required to pick up after themselves. Waste receptacles will be placed near the track.
- ❖ All persons associated with an Electrathon event are expected to conduct themselves in a cordial manner. Confrontations or arguments will not be tolerated, and participants are subject to disqualification.
- ❖ Follow the grievance procedure once a decision has been rendered concerning a specific issue and your team disagrees. Don't go to another official and try to reverse the decision.
- ❖ Should your team vehicle experience trouble on the track, the driver must pull off the track to a designated work area. No competition car will be allowed back to the team area.
- ❖ The pit crew is not to cross the track!! The pit crew (maximum 3 members) may walk along the outside grass section, under the yellow flag, to make repairs. Should the vehicle experience trouble inside the track, the pit crew must wait for the yellow flag and the race steward to allow them to cross the track.

I have read the rules and regulations to my team and agree to abide by all of the above.

Signature of advisor: _____

Please return this form to the registration desk at the time of registration



House Keeping

Lime Rock Park has been generous and has allowed CT Electrathon the use of their facility; we respect and honor their rules.

- ❖ All teams participating in the spring competition must be registered with Electrathon America and hold a valid membership card.
 - This card must be presented for each vehicle during registration.
- ❖ Once your team enters the race area, NO STUDENTS can leave until lunchtime.
- ❖ You must have at least one adult responsible for 10 students.
- ❖ Should you have a dispute with officials, check the grievance procedure.
- ❖ Once you have your vehicle inspected, the time trial will be open to test your vehicle.
- ❖ There is no electricity available at the track. Bring extra batteries.
- ❖ We anticipate teams from other states to participate. We can learn a lot by making these teams feel welcome.

Updates

Limiting Number of Vehicles

The Electrathon program is gaining popularity, and we are forced to limit the number of vehicles each participating school may enter. Therefore, each school may enter a MAXIMUM of THREE VEHICLES. We must operate within the time allotted to us on the track.

Selection of Vehicle Positions

All cars must be pre-registered and are to be at the track ready to compete for the first heat. Selection of cars' positions in each heat will be completed by a lottery at 9 a.m. Cars from different classes will run in the same heat, each with a class designation placed on the car. A maximum of two vehicles from any school will compete in the same heat.

Classes

NOVICE CLASS- This class will be opened to first-time or new teams that have just completed their first vehicle. They will remain in this class for the entire season, but should they complete more than 100 laps in the spring event, they will be moved into the Classic Class.



CLASSIC CLASS- This class is designed for teams with prior experience in the Electrathon Competition. The vehicle is limited to hand-built metal cars and kit cars.

COMPOSITE CLASS- Cars constructed entirely of composite material (no frame) will compete in this class. Should the composite vehicle be your first attempt at the Electrathon series, your team will participate in this class.

TROPHIES WILL ONLY BE GIVEN IN CLASSES WITH SIX OR MORE VEHICLES.

Driver Exit Time

When changing drivers during the competition, the first driver must pull into the pit area, exit the vehicle with ALL THE BALLAST, and get weighed. The second driver is to secure THEIR Ballast and enter the vehicle. Should the two drivers be the same weight, the first driver must remove the entire ballast and get weighed while the second driver installs THEIR NEW BALLAST

NOTE: Each driver is to install their own ballast. Should a team have only one driver, they must remove the ballast, get weighed, and reinstall it before entering the vehicle. The team vehicle will be penalized one lap.

Batteries

We will remain with the 67lb rule for the 2024 season. Any commercially produced agm/gel cell battery combination will be acceptable for up to 67 lbs. NO HEATING OR CHARGING of batteries will be allowed at the track. Batteries will be subject to a temperature inspection. The competition batteries are to be placed in a holding area with the batteries from other teams. Ten minutes before your scheduled heat, your team may remove the batteries from the holding area.

Slow Vehicles

While we encourage each team to do their individual best, slow vehicles have become a safety problem. Driving a vehicle at a slow speed when the batteries are low harms the battery life and causes a potentially dangerous situation on the track. It has been decided that when a vehicle takes 60 seconds or longer to complete a lap on the course, it will be required to pit and not be allowed back onto the track.

Passing

Slow cars are to stay to the INSIDE of the track. The Race Steward will explain the proper passing procedure at the drivers' meeting. Should you have any questions, this will be the time



to ask. If drivers fail to follow the rules, they will be black-flagged immediately. **YOUR WARNING IS THE EXPLANATION AT THE DRIVERS MEETING.** We cannot sacrifice safety on the track. Any additional questions concerning the passing/no passing areas can be discussed with the race steward.

Unsafe Passing

When passing another vehicle, you must pass in the DESIGNATED AREA ONLY. Remember that the slow cars will be flagged to the inside of the track.

End of Competition Inspection

At the end of each heat, each driver must pull into the pit area and remain in the vehicle until the vehicle is inspected or you are told to take the vehicle to your team area. We will be mixing classes together, so several vehicles may need to be inspected at the end of each heat. **TEAM MEMBERS WILL NOT BE ALLOWED TO ASSIST THE DRIVER.** The Adviser will be the only person allowed to assist the driver.



Below is the Liability Release and Medical Authorization Form (3 pages). Please complete the form for EACH driver and mail in **2 copies** of each completed form.

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Liability Release/Medical Authorization

- ❖ You must read this form and sign it before participating in any CT ELECTRATHON CHALLENGE event during the year.
- ❖ To participate as a driver in the event, you and a parent or legal guardian must read and sign this form.
- ❖ To drive you must be at least 16 years old and hold a valid driver's license.

I, the undersigned, voluntarily agree to the following:

- ❖ I agree to assume all costs related to any medical treatment; I authorize my insurance company to pay benefits for the costs of such treatment; I also authorize the disclosure of medical information to my insurance for the purpose of any claim.
- ❖ I understand each parent must provide their own medical insurance; I also understand that I am responsible for any medical or other charges related to participation in the CT ELECTRATHON CHALLENGE.
- ❖ I give my consent for medical treatment and permission to event personnel to supervise or perform on-site first aid to minor injuries and to a licensed physician to hospitalize and secure proper treatment (including injections, anesthesia, surgery, or other reasonable and necessary procedures) for the participant (If you wish to limit medical treatment, draw a line through it or add your comment and initial the changes).

To facilitate a medical situation, please complete the attached medical card.

School Name (if student) _____

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Attach a copy of your driver's license or other legal photo ID here.

The participant is participating in each CT ELECTRATHON CHALLENGE EVENT under their own free will, and the parent/guardian (if the participant is under 18) approves of such participation:

- ❖ I am personally responsible for my actions, and I shall conduct myself with sportsmanship.
- ❖ I shall abide by the rules, conditions, guidelines, and decisions of Electrathon America and race/event officials; I understand that this is a non-professional program/event, and changes, delays, and/or errors may occur.
- ❖ I understand that the activities of the day involve risk; I accept the conditions under which each of the events is held; and I accept and assume all risks inherent in each of these competition events.
- ❖ I hereby release, hold harmless, and indemnify Electrathon America, Lime Rock Park, the CT Electrathon Challenge, Central Connecticut State University, WorkspaceCT, track owner(s), track employees, event sponsors, organizers, officials, volunteers, and other persons, organizations or entities associated with the event (RELEASEES) from any and all liability, whether the injury is caused by my negligence, the negligence of RELEASEES or the negligence of any third party, and agree to settle any and all disputes through established event rules and procedures.

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Liability Release/Medical Authorization

I HAVE READ THIS ENTIRE MEDICAL AUTHORIZATION, RELEASE & LIABILITY WAIVER, I FULLY UNDERSTAND IT, AND I AGREE TO BE LEGALLY BOUND BY IT.

READ CAREFULLY BEFORE SIGNING.

Name of Participant: _____

Participant signature: _____ Date: _____

(If Participant is under 18 years of age)

Name of Parent/Legal Guardian: _____

Parent/Legal Guardian Signature: _____ Date: _____



Medical Form

DRIVER 1

Name _____

School _____

Advisor Name _____

School Phone # _____

Allergies to medication

Emergency Contact _____

Emergency Contact # _____

Health Insurance Info

Carrier _____

Card # _____

Medical History

Serious Injury _____

Recent Injury _____

Head Injury _____

Neck Injury _____

Back Injury _____

Advisor Sign Off:

DRIVER 1

Name _____

School _____

Advisor Name _____

School Phone # _____

Allergies to medication

Emergency Contact _____

Emergency Contact # _____

Health Insurance Info

Carrier _____

Card # _____

Medical History

Serious Injury _____

Recent Injury _____

Head Injury _____

Neck Injury _____

Back Injury _____

Advisor Sign Off:



Vehicle Inspection Form

Team Leader Name _____

School or Team Name _____

Address _____

City _____

State _____

Zip _____

Phone Number _____

E-mail Address _____

Driver Inspection

Driver Name _____

State _____

License Number _____

Expires _____

- Long-Sleeve Shirt, Long pants, & Shoes
- Helmet (DOT approved Motorcycle style)
- Gloves (not required with full canopy)
- Eye Protection (safety glasses, goggles)

Driver Weight _____ lbs

Ballast Weight _____ lbs

TOTAL weight _____ lbs

(180 lbs minimum)

List Items used for ballast

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Vehicle Inspection

- Vehicle number correctly displayed, and easily visible (min. 6" high)
- Structure or body shell protects the driver from harm
- Bottom pan protects the driver from contact with track
- No exposed sharp edges or components
- Axle diameter is 1/2" or 12mm minimum unless supported at both ends
- Safety wire or cotter pins on all cantilevered axle nuts
- Frame and shell adequately protect driver
- No loose fittings and fasteners
- All tires pneumatic (inflated)
- Tire tread is acceptable condition
- Roll bar or bulkhead can support drivers weight
- Roll bar or bulkhead is braced forward and rearward
- Power kill switch outside the vehicle in a 4" red triangle
- Correct size fuse or circuit breaker between battery and motor
- Wiring is safely installed - terminals tight, insulation good, etc.
- Auto shut-off throttle
- Batteries are securely mounted to the frame and/or body
- Batteries are enclosed or covered

Vehicle Inspection with driver inside

- Guards (if necessary to protect the driver from moving parts)
- Ballast (if required) mounted securely
- Good visibility and field of vision
- Rear view mirrors, 8 square inches
- Top of roll bar or bulkhead is above drivers helmet
- Inside kill switch is driver accessible
- Brake inspection- the car will not roll when pushed
- Steering inspection- appears tight and stable at speed, will turn 25' radius
- Vehicle stability test
- 5-point (minimum) lap and shoulder belt hold driver securely in position
- Vehicle exit test in 20 seconds (include canopy and seat belts)

AGM | GEL CELL

System Voltage _____

Battery Quantity _____

Battery Weight _____

Battery Manufacturer _____

Brand _____

Group Size _____

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What to send in:

- ❖ Completed Registration Form (pages 3 & 4) Please include the number of your vehicle!
- ❖ Complete Liability Release Form (pages 5 & 6)
- ❖ Signed Rules and Regulations (page 6)
- ❖ 2 copies of the Completed Liability Release/Medical Authorization Form (pages 10, 11, 12)
- ❖ Payment for vehicles- make checks payable to: **CT ELectrathon Challenge**
- ❖ Send all forms and check in one envelope to:
 - **Mike Grella 76 Chestnut Hill Rd Litchfield, CT 06759**

What NOT to send in:

- ❖ Vehicle Inspection Form
 - This is for you reference to make sure your vehicle will pass inspection even before you get to the event. This will help you solve any problems ahead of time.