

# RULE BOOK



# MEGA KARTING CHAMPIONSHIP

APRIL  
2025

**FMSCI**  
Affiliated

*Sponsored By*



**Autosports**  
INDIA



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# ABOUT AUTOSPORTS INDIA

## INTRODUCTION

Autosports India is a pioneering organization dedicated to nurturing and promoting motorsports in India. With over a decade of experience in organizing high-octane events and providing world-class platforms for aspiring engineers and motorsports enthusiasts, Autosports India has established itself as a cornerstone in the Indian motorsports landscape.

## MISSION

Our mission is to foster a culture of innovation, teamwork, and technical excellence among engineering students and motorsports enthusiasts. We aim to provide them with the necessary skills and exposure to thrive in the competitive world of motorsports.

## VISION

We envision a future where India stands tall as a global powerhouse in motorsports, with our homegrown talent leading the charge in international competitions.

**Ajit Pandey**  
*CEO, Autosports India*

## MECHIES AUTOSPORTS INDIA PRIVATE LIMITED

Reg. Off-Rajvatika Complex, Patia, Infocity, Bhubaneswar-024  
Corporate Off-Takali, Dasak, Jail Road, Nashik, Maharashtra-101  
Site Off-Madhlawada, Querim, Pernem, North Goa- 115  
CIN-U50404OR2015PTC018953  
Toll Free No: +91-8069641124

## MAJOR EVENTS

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### MEGA KARTING CHAMPIONSHIP

The Mega Karting Championship is designed for go-kart enthusiasts, providing an exciting arena for students to demonstrate their technical prowess and racing skills. This event serves as a breeding ground for future professional racers.

### MEGA E-BIKE CHAMPIONSHIP

Launched to promote sustainable innovation, the Mega E-Bike Championship is a unique event focusing on the design and development of electric bikes. This competition aims to drive the future of eco-friendly transportation solutions in India.

### MEGA ATV CHAMPIONSHIP

The Mega ATV Championship is our flagship event, renowned for its rigorous challenges and high standards. It attracts teams from top engineering colleges across the country, offering them a platform to showcase their skills in designing and building All-Terrain Vehicles (ATVs). It includes ATV Quad-Bike and ATV Buggy.

# PROFESSIONAL RACES

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## OVERLANDER OFF-ROAD CHAMPIONSHIP

The Overlander Off-Road Championship is an extreme off-road racing event designed for professional racers. This championship features challenging terrains and rigorous obstacles, pushing participants and their vehicles to the limits. It is a true test of skill, endurance, and technical expertise.

## DESERT RALLY CHAMPIONSHIP 1000 CC

The 1000 CC Desert Rally Championship is a prestigious rally event for professional racers competing in the 1000 cc category. Participants navigate through a series of challenging stages, demonstrating their driving prowess and the capabilities of their vehicles. This event is a highlight in the professional racing calendar, attracting top talent from across the country.

## MOTOCROSS CHAMPIONSHIP

The Motocross Championship is a high-octane motorbike racing event for professional riders. This championship features a challenging motocross track with jumps, sharp turns, and varied terrains, providing a thrilling experience for both riders and spectators. It is a showcase of speed, skill, and precision in the world of professional motocross racing.

# RACE TRAINING SERVICES

Autosports India offers comprehensive race training services for beginners to advanced drivers. Our training programs cover everything from basic driving skills to advanced racing techniques, ensuring that participants receive hands-on experience and personalized coaching. We provide training in various classes, catering to the needs of aspiring racers at different levels of proficiency.

## IMPACT ON SOCIETY AND FUTURE OF MOTORSPORTS IN INDIA

### EDUCATIONAL IMPACT

Our events have a profound impact on the participating students, equipping them with hands-on experience in engineering, project management, and teamwork. The skills gained through our competitions are invaluable for their academic and professional careers.

### SOCIAL IMPACT

By fostering a community of passionate engineers and motorsports enthusiasts, we contribute to the development of a vibrant motorsports culture in India. Our events promote innovation, sustainability, and safety in motorsports.

### FUTURE OF MOTORSPORTS

Autosports India is at the forefront of the motorsports revolution in India. We are committed to making motorsports accessible to all, fostering talent, and ensuring that India becomes a global hub for motorsports excellence.

## TRACK DETAILS

# OFF-ROAD RACE TRACK-2 GOA

Our Off-Road Race Track-2 in Goa is the largest in-house off-road race track in India. It is designed to meet international standards and provides a challenging terrain for testing and competitions. We also offer consultancy services for track design and construction for various companies and racing events.

## MEDIA COVERAGE

### NATIONAL AND INTERNATIONAL PRESENCE

Autosports India has garnered extensive media coverage from prestigious national and international newspapers, TV channels, and digital media platforms. Our events have been featured in renowned publications such as The Hindu, Times of India, Telegraph, and international news agencies like PTI and ANI. We have also been covered by major TV channels including Zee News, Doordarshan, and many more.

### WIKIPEDIA AND ONLINE PRESENCE

Our flagship event, the Mega ATV Championship, has its own Wikipedia page, reflecting its significance and impact. Our online presence is further bolstered by regular updates and features in Google News and other digital platforms.

### AWARDS, AFFILIATIONS, AND CERTIFICATIONS

Autosports India has been recognized with numerous awards and certifications for our contribution to motorsports. We have affiliations with leading organizations and are acknowledged by government bodies for our efforts in promoting motorsports as a professional sport.

# PARTICIPATION BENEFITS

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## BENEFITS FOR COLLEGES AND TEAMS

Participating in our events offers significant benefits to colleges and individual team members. It enhances their profiles, provides exposure to real-world challenges, and opens up opportunities for scholarships, internships, and jobs in the automotive and engineering sectors.

## GOVERNMENT RECOGNITION

Participating in our events offers significant benefits to colleges and individual team members. It enhances their profiles, provides exposure to real-world challenges, and opens up opportunities for scholarships, internships, and jobs in the automotive and engineering sectors.

## SPONSORS AND ASSOCIATES

We are proud to have partnered with leading brands such as Red Bull, DLF, Hindustan Petroleum, OYO, ITC Hotels, Audi, KTM, Force Motors, Ford Motors, and many more. Our events are also supported by prominent news channels and media houses, ensuring wide coverage and visibility.

## SECTION-1

# ADMINISTRATIVE REGULATIONS

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### MEGA KARTING CHAMPIONSHIP OVERVIEW

The most thrilling and electrifying event of the year is here – the ***Mega Karting Championship*** and ***Mega E-Karting Championship***! After the roaring success of the past nine seasons, we are gearing up for an even bigger and better competition. The competition will be organized by ***Autosports India*** in association with ***Fmsci (Federation of motorsports clubs of India)***

### OBJECTIVE

***Mega Karting Championship*** is an intercollegiate engineering design competition for undergraduate students. The objective of the competition is to promote the culture of “LEARN WITH FUN “. Each team is expected to learn the different aspect of automobile while designing the vehicle and have fun while testing the self-made vehicle in different adventure tracks prepared especially for this type of vehicle. This competition also aims to contribute in automobile sector by creating designing expert and racing sector by encouraging the student to build their career of being professional racers. This competition also improves the soft skill of participating students.

### DESIGN OBJECTIVE

Each team's goal is to design and build an Go-Kart sporting vehicle whose structure contains the driver. The vehicle must be built in such a way that it can handle all kinds of different challenges thrown to it. The vehicle will be tested for its reliability, maintainability, ergonomics, and endurance. The vehicle performance will be measured by success in the dynamic events which are described in the website, and are subject to event-site weather and course conditions.

# ADMINISTRATIVE REGULATIONS

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## **GOOD ENGINEERING PRACTICES**

Vehicles entered into Mega Karting Championship are expected to be designed and fabricated in accordance with good engineering practices.

## **OFFICIAL ANNOUNCEMENTS AND COMPETITION INFORMATION**

Teams are required to read the articles posted on the website homepage as well as in the dashboard of registered students. It is the responsibilities of student read and follow all the announcements published by organizing team and *MEGA KARTING CHAMPIONSHIP* rules committee.

## **OFFICIAL LANGUAGES**

The official language of the Mega Karting Championship is English. Document submissions, presentations and discussions must be in English.

## **RULES COMPLIANCE**

By entering in Mega Karting Championship competition, the team members, faculty advisors and other personnel of the entering university agree to comply with, and be bound by, the rules and all rules interpretations or procedures issued or announced by MEGA KARTING CHAMPIONSHIP, the MEGA KARTING CHAMPIONSHIP rules' committee and other organizing bodies. All team members, faculty advisors and other university representatives are required to cooperate with, and follow all instructions from competition organizers, officials and judges.

# ADMINISTRATIVE REGULATIONS

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## **UNDERSTANDING THE RULES**

Teams are responsible for reading and understanding the rules in their entirety for the competition in which they are participating. The section and paragraph headings in these rules are provided to facilitate reading: they do not fully explain all the paragraph contents.

## **LOOPHOLES**

It is virtually impossible for a set of rules to be so comprehensive that it covers all possible questions about the vehicle's design parameters or the conduct of the competition. Please keep in mind that safety remains paramount during Mega Karting Championship, so any perceived loopholes should be resolved in the direction of increased safety/ concept of the competition. And student is encouraged to notify any loopholes to the Mega Karting Championship rule committee to avoid dispute during events.

## **PARTICIPATING IN THE COMPETITION**

Teams, team members as individuals, faculty advisors and other representatives of a registered university or racing club/society who are present on-site at a competition are considered to be "participating in the competition" from the time they arrive at the event site until they depart the site at the conclusion of the competition or earlier by withdrawing.

# ADMINISTRATIVE REGULATIONS

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## **RIGHT TO IMPOUND**

*Mega Karting Championship* and the other competition organizing bodies reserve the right to impound any on-site registered vehicle at any time during a competition for inspection and examination by the organizers, officials and technical inspectors.

## **GENERAL AUTHORITY**

Mega Karting Championship and the other competition organizing bodies reserve the right to impound any on-site registered vehicle at any time during a competition for inspection and examination by the organizers, officials and technical inspectors.

## **PENALTIES**

Organizers have the right to modify the penalties listed in the various dynamic event to better reflect the design of their event courses, the course lengths or any special conditions unique to the site. The standard dynamic event penalties in these rules are default values that will be applied unless there is a change by the organizer.



## SECTION-2

# INDIVIDUAL PARTICIPATION REQUIREMENTS

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### ELIGIBILITY LIMITS

Eligibility is limited to undergraduate students (BE, B.Tech, ITI, Diploma) to ensure this is an engineering competition and a race. Individual members of teams participating in this competition must satisfy the following requirements.

### STUDENT STATUS

Team members must be enrolled as degree seeking undergraduate student (BE, B.Tech, ITI, Diploma) in a college or university. **Team members who have graduated in 2024 remain eligible to participate.**

### AGE

Team members must be at least eighteen (18) years of age at the time of the competition.

### DRIVER'S LICENSE

Team members who will drive a competition vehicle at any time during a competition must hold a valid, government issued civil driver's license.

### LIABILITY WAIVER

All on-site participants and faculty are required to sign a liability waiver upon registering on-site.

### INSURANCE

Individual medical and accident insurance coverage is not required, but driver's insurance is must. Drivers can also apply for FMSCI license which also covers medical insurance.

# FACULTY ADVISOR

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## **FACULTY ADVISOR STATUS**

Each team is expected to have a Faculty Advisor/coach appointed by the university/club/society. The faculty advisor is expected to accompany the team to the competition and will be considered by competition officials to be the official university representative. On-site presence of faculty advisor is not mandatory.

## **RESPONSIBILITIES**

Faculty Advisors/team coach are expected to advise their teams on general engineering and engineering project management theory.

## **LIMITATIONS**

Faculty advisors/team coach may not design any part of the vehicle nor directly participate in the development of any documentation or presentation. Faculty Advisors/team coach may neither fabricate nor assemble any components nor assist in the preparation, maintenance, testing or operation of the vehicle.

Faculty Advisors/team coach are not allowed to participate during technical inspection, innovation design presentations. The team captain or other designated members of the team must do all the presenting although Faculty Advisors may silently observe.

In brief – Faculty Advisors may not design, build or repair any part of the vehicle.

# ELIGIBILITY VEHICLES

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## **STUDENT CREATED**

The vehicle and associated documentation must be conceived, designed and fabricated by the team members without direct involvement from the professional engineers, faculty or professionals in racing communities.

## **PROFESSIONAL FABRICATION LIMITS**

Vehicles which have been professionally fabricated may be disqualified from the competition. If a team does not have access to machine shop / workshop facilities, the frame can be professionally fabricated without penalty. Lack of access must be documented. (Letter from the faculty advisor copy of policies which prohibit machine shop/ workshop access, etc.).

**NOTE- EXCEPTIONS WILL BE CONSIDERED FOR RETROFITTED CLASS CATEGORY.**

## **PREFABRICATED SUBASSEMBLIES**

These rules do not exclude the use of prefabricated or modified sub-assemblies.

## **PROTESTS**

It is recognized that hundreds of hours of work have gone into fielding a vehicle. In the heat of competition, emotions peak and disputes can arise. The organizers and Mega Karting Championship staff will make every effort to fully review all questions and resolve problems quickly and efficiently.

# ELIGIBILITY VEHICLES

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## PRELIMINARY REVIEW – REQUIRED

If a team has a question about scoring, judging, policies or any official action it must be brought to the organizer's or Mega Karting Championship staff's attention for an informal preliminary review before a protest can be filed.

## CAUSE FOR PROTEST

A team may protest any rule interpretation, score or official action (unless specifically excluded from protest) which they feel has caused some actual, non-trivial harm to their team, or has had a substantive effect on their score. Teams may not protest rule interpretations or actions that have not caused them any substantive damage.

## PROTEST FORMAT AND FORFEIT

All protest must be filed in writing and presented to the organizer or Mega Karting Championship Staff by the team captain or a designated student team member. In order to have a protest considered, a team must post a **TWO RANK PENALTY** protest bond which will be forfeited if the protest is rejected.

## PROTEST PERIOD

Protests concerning any aspect of the competition must be filed within half hour (30 minutes) of the end of the event to which the protest relates.

## DECISION

The decision regarding any protest is final.



# SECTION-3

## REGISTRATION REQUIREMENTS

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### REGISTRATION REQUIREMENTS

More than one team from same institution/college/university/club/society are eligible to participate. If multiple teams participating from same institution/college/university/club/society, teams must have different: Team name, team logo, color of the vehicle, team captain and other members, team jerseys/uniforms.

### TEAM SIZE

Team must have minimum of 10 members and maximum of 30 members and maximum of 2 faculty advisors/team coach are allowed per team.

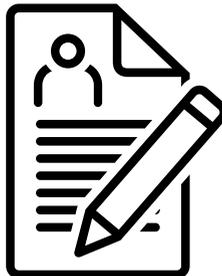
As there will be **Day and Night** event so each Team must have at least two drivers.

The teams are advised to have team captain, strategist, driver, technical crew, team manager, navigator (Who can communicate with drivers during the events).

### REGISTRATION FEES

Go-kart (Electric & Combustion) - ₹30,000/- (Rupees Thirty thousand only).

**Additional GST of 18% will be applicable.**



## SPECIAL BENEFITS

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### FMSCI DRIVING LICENSE

Free for all drivers as our 10th-anniversary gift. Club Membership- Automatically granted to registered colleges and universities free of cost.

The Government of India now recognizes motorsports as a primary sports category, making teams eligible for sports quota in government jobs. Don't miss out on this golden opportunity!



Registration is limited to the first 100 teams on a first-come, first-served basis. Ensure you have a high-speed internet connection for a smooth registration process. Teams can edit their team members until 31st March 2025 through their dashboard.

**EVENT DATES**  
**11-13 APRIL 2025**

**VENUE**  
**COIMBATORE, TAMIL NADU**

To register click on the link- <https://karting.autosportsindia.com/>

## SECTION-4

# TECHNICAL REQUIREMENTS VEHICLE CONFIGURATION

### VEHICLE CONFIGURATION

The vehicle must have four (4) or more wheels not in a straight line.

The vehicle may only use any engine (within 160 CC) and specified required electric tractive system of a model & specifications specified below. The vehicle must be capable of carrying one (1) person 190cm (75 in) tall weighing 113kg (250 lbs).

### MAXIMUM VEHICLE DIMENSIONS

The maximum overall length of the vehicle should not exceed 2030 mm (80 in) . The overall width of the kart must not exceed by 1524 mm (60 in). The ratio of the wheelbase to the trackwidth can be optimized between 0.75 to 0.80.

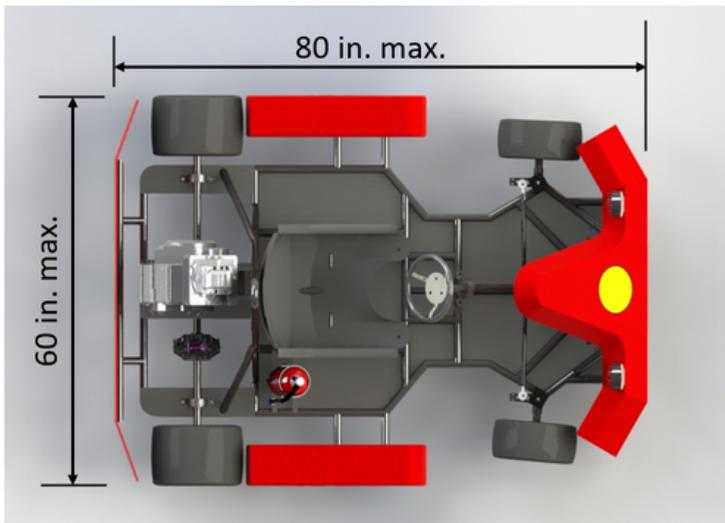


Figure-1

# TECHNICAL REQUIREMENTS VEHICLE CONFIGURATION

## RUNNING CAPABILITY

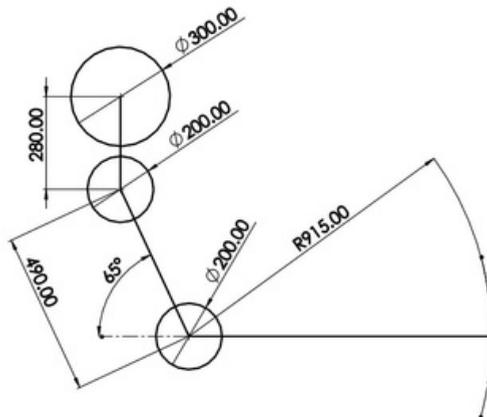
The vehicle must have adequate ground clearance and traction and should sustain any lateral forces while cornering.

## VEHICLE ERGONOMIC CAPACITY

As a prototype of a commercial product, the design intent should be to accommodate drivers of all sizes from the 95th percentile male (in the country in which the competition is held) to the 5th percentile female.

The largest driver must be able to meet the requirements, and fit into a comfortable driving position, while wearing the entire required driver's equipment.

The smallest driver must be able to comfortably reach all of the vehicle's controls.



**This figure represents the dimensions of the 95th percentile male**

Figure-2

## SECTION-5

# REQUIRED ENGINE FOR COMBUSTION ENGINE EVENT

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Any engine within **160 CC** of team's comfort and choice, however Briggs & Stratton Engines are recommended.

### EXHAUST SYSTEM

#### MUFFLER RELOCATION

If the vehicle design requires an exhaust system reconfiguration to keep it from impinging on part of the vehicle, the re-routing must be done using tubing. Any remote mounted exhaust system must use the original muffler and must be securely mounted so that it does not vibrate loose during the competition.

#### MUFFLER NOISE

Muffler should not produce unwanted and irradiating sound. Muffler/ exhaust system must be used in original condition and should produce original sound as engine manufacturer.

#### MUFFLER SUPPORT

Support of the exhaust pipe and muffler are strongly recommended.

#### EXHAUST PIPE AND PIPE LENGTH

Exhaust pipe may not protrude inside of the exhaust port, so as to alter port configuration. Any exhaust pipe length is allowed; however, pipe length may not be adjustable. No extra holes or tubes are allowed in the exhaust pipe. No extra holes or tubes are allowed in the exhaust pipe.

# REQUIRED ENGINE FOR COMBUSTION ENGINE EVENT

## **EXHAUST SYSTEM DURABILITY REQUIRED**

The exhaust pipe and muffler must be completely intact and operational throughout the competition. Any vehicle found to have a loose or leaking exhaust system will be removed from competition until the issue can be corrected. Engines shall not be placed in a way such that the exhaust is facing the firewall directly, if so, then the team should ensure the clearance between exhaust and firewall minimum of 100 mm after rerouting exhaust and which will be validated by engine manufacturer at the main event.

The team may be subjected to routing if it's not meeting the requirements of Engine manufacturer.

The complete exhaust system shall be located such that its extremities lie at least 100 mm within the perimeter of the vehicle i.e. the perimeter of the vehicle stands for the envelope formed by the plans of the chassis members.

## **ALTERNATOR**

The engine may be fitted with an alternator to generate electrical energy. The only alternators which may be used are those which engine manufacturer specifies for the engine model.

## **FUEL SYSTEM**

All vehicles shall have a fuel system comprising of a fuel tank, fuel hose and fittings, and splash shields. The fuel system shall function to safely contain and control fuel and to safely convey fuel to the engine carburetor. The entire engine is considered to be part of the fuel system.

## REQUIRED ENGINE FOR COMBUSTION ENGINE EVENT

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### **FUEL TYPE**

The only fuels permitted for Mega Karting Championship competition is grades of automotive gasoline consisting of hydrocarbon compounds. The fuel may contain antioxidants, metal deactivators, or corrosion inhibitors.

### **PROHIBITED ADDITIVES**

The addition of nitrogen-bearing additives or additives designed to liberate oxygen is explicitly prohibited.

### **LOCATION**

The entire fuel system, including carburetor, air cleaner cover, splash shield, and engine (excluding intake air hoses) must be located within the envelope of the vehicle's roll cage. The envelope shall be tested using a straight edge in contact with any two points on the outside of the vehicle frame. The fuel tank mountings must be designed to resist sustained vibration and shock.

### **FUEL CAP AND FUEL TANK**

A standard gas cap with a built-in check valve is required. One fuel tank is permitted on the vehicle. Fuel tanks shall be unmodified and free from injurious defects. All fuel tanks shall be remote mounted, and not affixed to the engine. Fuel tank mounting shall be fixed. Removable tanks are explicitly prohibited.



## REQUIRED ENGINE FOR COMBUSTION ENGINE EVENT

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### **MOUNTING**

Fuel tanks shall be mounted to a tube or tubes meeting the requirements of at least a secondary member. Tubes shall be supported at both ends. Cantilevered mounting is explicitly prohibited.

### **FUEL LINES AND FILTER**

- All fuel lines shall be located away from sharp edges, and hot engine components and be protected from chafing or abrasion.
- A grommet is required where the lines pass through any member of the vehicle. Fuel lines are prohibited in the cockpit.
- Fuel lines shall have sufficient slack to not be held in tension. Fuel lines shall be secured to fittings with adjustable metal clamps OEM metal clamp
- Any breaks (leakage) in the fuel line, including those for fuel fittings such as filters, sensors, or cut-out valves shall be located above the spill pan.

### **SPLASH SHIELD**

Splash shield is the one who protects fuel directly pouring on the engine in case of the remote fuel tank mounting. It should be of metallic material having thickness more than or equal to 5mm. Splash shields shall be mounted so they are engaged and effective at all times and are not adjustable. The splash shield must be mounted lower than the structural member supporting the fuel tank.

# REQUIRED ENGINE FOR COMBUSTION ENGINE EVENT

## SPLASH SHIELD

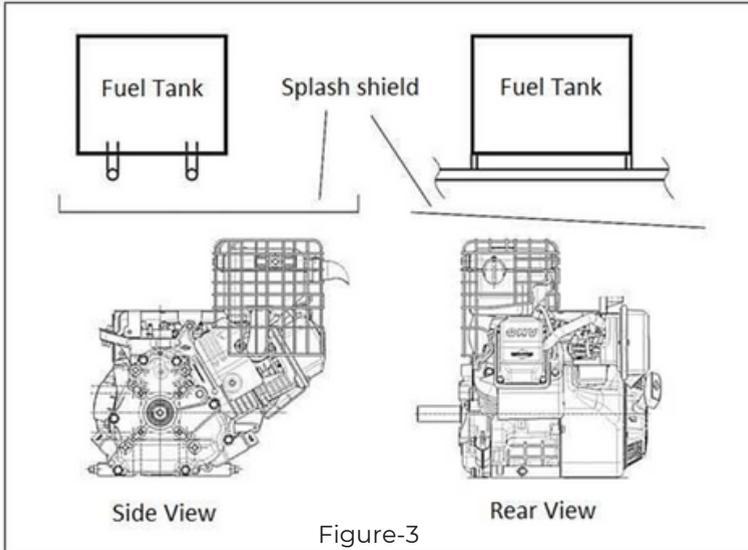


Figure-3

## DRIP PAN

A drip pan mounting comprises only of fastening to the fuel tank filter neck is insufficient and is not allowed. Drip pans must be graded or inclined such that all spilled fuel drains from the drip pan, and fuel must not pool anywhere in the pan.

Fuel must drain from the drip pan through a drain line composed of pipe or tubing that carries fuel to the bottom of the vehicle and releases it under the vehicle. The tubing shall be rated for fuel use, robust and mechanically fastened to the drip pan through the threaded connection of by the hose band or hose clamp, or a combination of two. Adhesive connections are strictly prohibited.

## SECTION-6

# TRACTIVE SYSTEM RULES FOR ELECTRIC VEHICLE EVENT

### VISION & MISSION

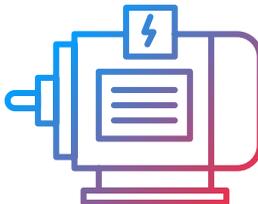
“To accelerate the automobile transition towards electric culture through sustainable energy. The focus on sustainability indicates the compliance of the AUTOSPORTS INDIA with global demands of electric vehicle that align with calls for green energy.

### DEFINITIONS

- A. High Voltage System (Traction System):  
Operation Voltage  $\geq 48V$
- B. Low Voltage: Operation Voltage  $< 48V$ .
- C. E-kit: the complete electric setup including battery, motor, controller, accumulator, etc.
- D. Tractive System Accumulator: battery cells storing electric energy (used by tractive system).

### TERMINOLOGY

- A. HVS/TS: High Voltage System/Traction System
- B. LVS/GLVS: Low Voltage System/ Ground Low Voltage System
- C. BMS: Battery Management System
- D. AIR: Accumulator Isolation Relays
- E. TSAL: Traction system Active Light



# GENERAL REQUIREMENTS

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## **BASIC REQUIREMENTS & COMPONENT SPECIFICATIONS**

- A. BATTERY: 48V, 30Ah (Max), Li-ion
- B. MOTOR: 1.5-2 KW (max)
- C. TSAL: 2-5Hz, Red
- D. CHARGER: 48V
- E. FUSE: Required
- F. ACCUMULATOR CONTAINER: IP67
- G. AUXILLARY BATTERY: SAME SPECIFICATIONS AND DIMENSIONS AS PRIMARY BATTERY

## **TRACTIVE SYSTEM**

Direct connection between motor and accumulator is prohibited. There should be a controller device in between motor and accumulator. Direct contact between the chassis (or any other conducting part) must be avoided. All the components in the TS must be rated for maximum TS voltage. All the components must be rated for maximum possible temperature which may occur during operating condition.

## **ACCELERATOR PEDAL**

Right footed accelerator pedal is mandatory, through which motor controller must be actuated.

## **NOTE: The pedals must not enter the impact zone**

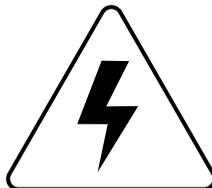
Positive stoppers must mount at the start and end of travel of pedal and the pedal must return to its initial rearmost position when released.

# GENERAL REQUIREMENTS

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## TRACTIVE SYSTEM ENERGY STORAGE

- All cells which store the TS energy must be enclosed in accumulator container.
- It must be possible to open the TS accumulator container for technical inspection so that the voltage can be measured.
- The Tractive System Accumulator pack shall include at least one AIR and one Fuse which will open the circuit and disconnect the energy flow from accumulator to the remaining tractive system whenever a fault is detected.
- The tractive system accumulator container must be made from an insulating material and if made from electrically conductive material, the insulation barrier must be adequately protected against conductive penetrations.
- Every wire used in an accumulator container, no matter whether it is part of the GLV or tractive system, must be rated to the maximum tractive system voltage.
- All TS accumulator container must lie within and be attached to the primary structure and should not lose its position during event. Any type of fastener can be used meet the general rules regarding fasteners.
- All accumulators must be mechanically robust and the container material must be fire resistant. These must be protected from side or rear impact collision.



# GENERAL REQUIREMENTS

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## ASSEMBLY

- The complete tractive system, batteries, to be rigidly mounted in the envelope provided in back of the firewall with sound engineering practice, any movement of the system to be restricted.
- No any part of the tractive system (batteries, motor, wires, terminals, cables, controller unit) to be outside of the envelope and must protect the system from any impact and damage at an event of roll over, collision, accident.
- All systems must be mechanically fastened with the roll cage in mounting points. Use of belt, wire, glue, tape, plastic tags to mount the system is strictly prohibited.
- Battery container must be of metal insulated from inside to avoid any short circuit, holes can be done for passing/routing of wires/cables.
- Cooling system-cooling system may be designed like exhaust fans, cross ventilation vents, can be made which do not allow water or debris to enter inside the system.
- System should not be installed in driver cockpit.

## PRECAUTIONS

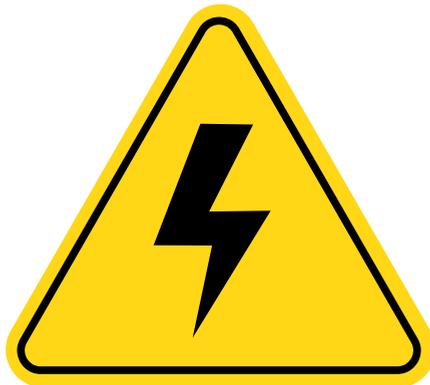
- A caution mark in form of sticker or paint to be pasted in the accumulator container. The sticker should be at least 500 sq. mm and must of yellow color stating (CAUTION HIGH VOLTAGE) to be written.
- All teams must take proper precautions during handling of the system and its components like batteries motor and other energized parts.

# GENERAL REQUIREMENTS

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## PRECAUTIONS

- All wires/cables must be protected and of proper color as specified and marked.
- Charging of the accumulator system can be done in ready condition in the vehicle on site and separately accumulator system with container may also be charged on site. However the handling/transport of the accumulator system to be done by a trolley which can carry the batteries/accumulator properly.
- All electric vehicles must use a warning system like sound and an indicator light to be used if the vehicle is in ready to move condition for spectators and other peoples other than the driver. No annoying sound animal sound to be used. We strongly recommend to use pre-recorded engine sound for this.
- Fire extinguisher(s) as specified in the rule book must be mounted properly inside the vehicle.

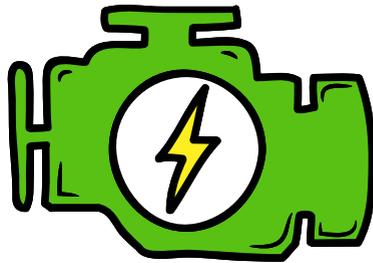


# GENERAL REQUIREMENTS

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## LIMITATIONS

- Batteries used must be of a reputed manufacturer any alteration, tempering, modification in the original batteries are strictly prohibited.
- The above rules are given to the tractive system for electric vehicles only. However all vehicles must meet the other rules given in the rule book.
- The tractive system batteries cannot be used for other components like lamps, alarm, buzzer brake light and other similar components used in the vehicle.
- A separate battery to be used for these purposes, keeping all rules related to this in mind.



## SECTION-7

# VEHICLE CONSTRUCTION

---

The vehicle is to contain the driver safely within the enclosed area and support other components of the vehicle, other components like engine, Transmission system, wheel assembly to hold and provide mounting support, it behaves both as chassis as well as body of the buggy. It should be designed like that it provides proper space and capable of carrying a driver of average size, weight comfortably and protect the driver completely in event of roll over collision and similar type of accidents.

Teams are advised to build new chassis every year.

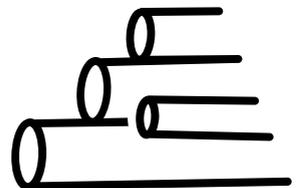
Specified material to be used by the teams to construct the frame is:

Steel circular tube, of AISI, ASTM or similar grade seamless.

### DIMENSION/SPECIFICATION

Outside diameter 25mm and wall thickness, 3mm, carbon content 0.18% for primary members. In special case material composition equivalent strength of material may be considered.

For secondary members 25 mm outside diameter and 0.89 mm wall thickness if other than circular cross section is used, wall thickness of the material must be minimum 0.89 mm. In special case material composition equivalent strength of material may be considered.



# VEHICLE CONSTRUCTION

---

## **ADDITIONAL SUPPORT**

Additional support members for bent or straight members that exceed the maximum allowable length, additional support members may be added. For straight members, a single secondary member should connect from the mid-point. For bent members, a single secondary member should connect from between the tangents of the bend to a named point. At no time may a bent member have a bend greater than 30.

## **REAR ROLL HOOP (RRH)**

The RRH is a planar structure behind the driver's back, and defines the boundary between the front half (fore) and rear-half (aft) of the roll cage. The driver and seat must be entirely forward of this panel. The RRH is substantially vertical, but may incline by up to 20 deg. from vertical. The vertical members of the RRH may be straight or bent, and are defined as beginning and ending where they intersect the top and bottom horizontal planes. The vertical members must be continuous tubes (i.e. not multiple segments joined by welding). The RRH should be at least 6 in above the surface of the driver's helmet.

## **UNDER SEAT MEMBER (USM)**

The USM must be positioned in such a way to prevent the driver from passing through the plane of the LFS in the event of seat failure. The USM may also serve as the mounting location for the seat.

# VEHICLE CONSTRUCTION

## SHARP EDGES

The entire vehicle, including the roll cage shall have no exposed sharp edges which may hurt during handling of the vehicle and may cause injury to the driver during entry and exit of the driver or may cause major injury if the vehicle meets any accident.

## FIREWALL

- A vehicle shall have firewall separating cockpit and engine compartment.
- Material used for firewall shall be metal/carbon fiber only having at least 0.5 mm thickness.
- Firewall shall be mounted on the plan provided by the RRH (must be a single piece metal sheet with no joints and connections). Firewall shall be mounted using metal fasteners only.
- Large cut-outs for ventilation and other similar purposes are prohibited. The distance between the firewall and engine should be at least 7 in.
- Cut-out for drive-train components are permitted.

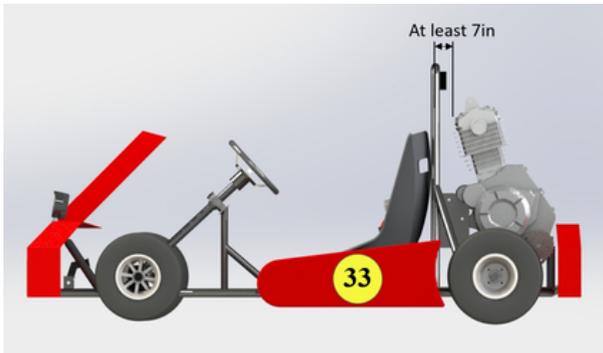


Figure-4

# VEHICLE CONSTRUCTION

## BODY PANELS

The kart shall have body panels to protect driver from foreign particles like stones, dirt, and mud.

Material for panels can be fiberglass, metal and plastic (puncture-resistant material).

Mounting of the panels should be done using proper engineering practices. Zip tags, loop cabling and hooks are prohibited.

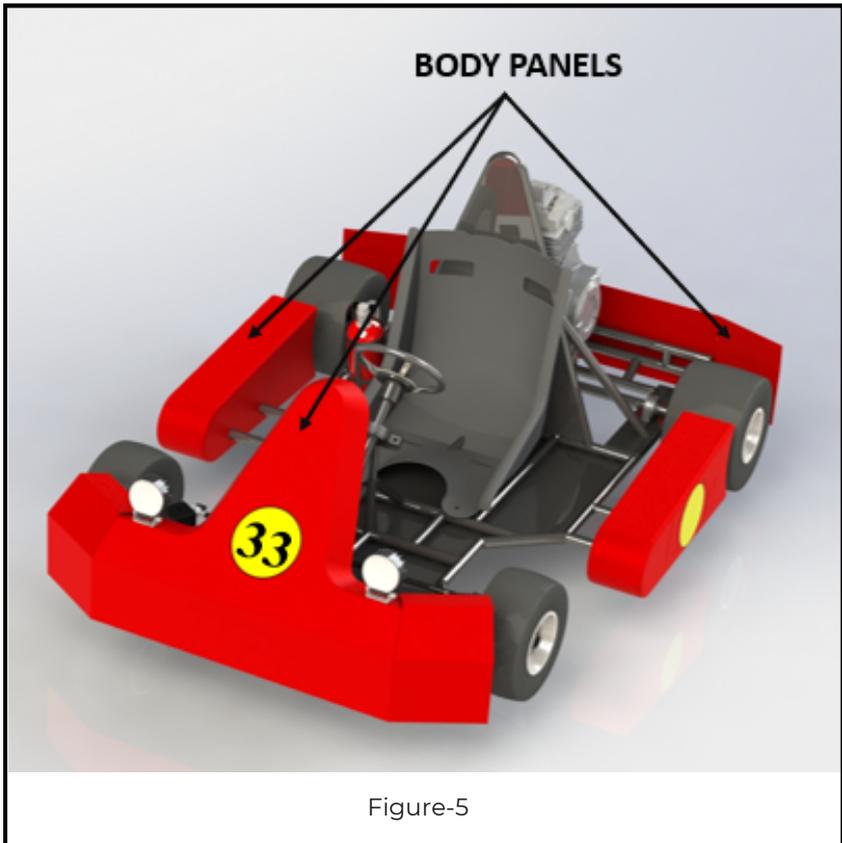


Figure-5

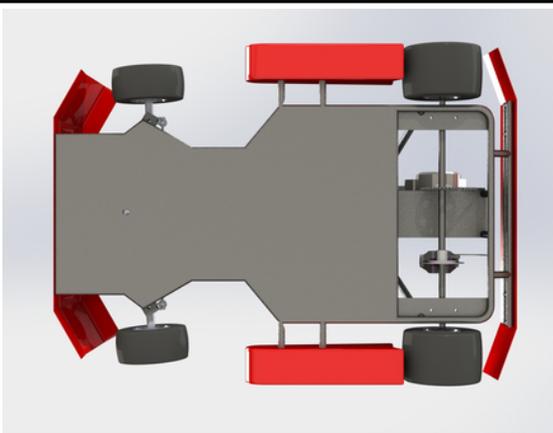
# VEHICLE CONSTRUCTION

## BELLY PAN

Belly pan shall cover entire cockpit and engine compartment as well so that it protects the driver and the drive-train components from foreign objects.

Material for the belly pan can be

1. Steel having thickness at least 1.5 mm.
2. Aluminium having thickness at least 3 mm.
3. Fiberglass or equivalent plastic having thickness at least 5 mm.



The above image shows the bottom view of the kart representing the coverage of the belly pan

Figure-6

**NOTE: BELLY PAN SHOULD ENDURE THE LOAD OF THE DRIVER IN ANY CONDITION.**

# VEHICLE CONSTRUCTION

---

## FIRE EXTINGUISHER

Team shall be equipped with two fully charged and functional fire extinguishers and all the team members shall have adequate knowledge of operating the fire extinguisher. One of the fire extinguishers shall be installed in the car to the specific position.

Fire extinguisher shall have minimum UL rating of 5BC and shall have manufacturer installed dial pressure gauge.

Each fire extinguisher shall be labeled with team name and car number.



Figure-7

# VEHICLE CONSTRUCTION

## MOUNTING

Fire extinguisher holding bracket shall be mounted on the cockpit with provided with additional tubular member having thickness of 3 mm. the position of the mounting shall be decided such that the fire extinguishers half of the fire extinguisher remains above the SIM. Fire extinguisher shall be easily accessible to the track marshals.

Teams can use brackets given below or can fabricate by their selves.

Drake FIREX-MNT-DOR

Drake FIREX-MNT-S-DOR

Drake FIREX-MNT-DAG

Drake FIREX-MNT-S-DAG

**NOTE: TEAMS CAN FABRICATE THE MOUNTING BY THEMSELVES.**



# SECTION-8

## DRIVER

## RESTRAINTS

---

### DRIVER'S EQUIPMENT

All drivers must wear safety gear as per the instructions given below.

Safety suit. (Only SFI or FIA approved fire resistant safety suit is allowed)

Helmet approved by ISI, Snell, DOT, SFI

Neck rest. (Must be ISI, SFI, FIA approved)

Hand gloves. (Must be ISI, SFI, FIA approved)

Safety shoes. (Must be ISI, SFI, FIA approved)

Knee guards. (Must be ISI, SFI, FIA approved)

**NOTE: JERSEYS, GLOVES, SOCKS OR OTHER GARMENTS MADE FROM NYLON OR ANY OTHER SYNTHETIC MATERIAL WHICH WILL MELT WHEN EXPOSED TO HIGH HEAT, HENCE ARE PROHIBITED. ALL MATERIAL MUST BE IN OVERALL GOOD CONDITION AND SHOW NO SIGNS OF WEAR, NO CUTS CHAFFING OR WEAR.**



# DRIVER RESTRAINTS



# DRIVER RESTRAINTS

---

## DRIVER SAFETY RULE

### PURPOSE

To ensure the safety of all drivers and prevent potential injuries during racing events, the following items are strictly prohibited while driving:

### PROHIBITED ITEMS DURING RACE

Hair Accessories like Hair pins, Hair clips, Jewelry like, Taabiz (amulet), Locketts, Chains, Bracelets, Rings, Anklets, Accessories like, Belts (unless they are part of the racing gear), Wrist watches, Long nails

### RATIONALE

These items can pose significant safety risks, including Physical Damage. In the event of an accident, these items can cause lacerations, bruises, or other injuries. Internal Injuries, items like rings, chains, and belts can cause internal injuries if the driver experiences a high-impact collision. Obstruction Hair accessories and long nails can impede the driver's ability to control the vehicle effectively.



# DRIVER RESTRAINTS

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## **SPECIAL CONSIDERATION**

As organizers, we respect and acknowledge the religious faith and beliefs of all participants. We understand that some prohibited items may hold religious or sentimental significance. However, the safety of our drivers is our utmost priority. Therefore, all drivers must comply with these rules for their protection during the race.

We appreciate your understanding and cooperation in adhering to these safety measures. Ensuring a safe racing environment is essential for the well-being of all participants.

## **MESSAGE FROM THE ORGANIZERS**

While we deeply respect the religious sentiments and beliefs of our participants, the safety of our drivers takes precedence. We kindly request all teams and drivers to adhere to these safety rules to prevent any injuries during the race. Thank you for your understanding and cooperation.

By following these guidelines, we aim to create a safer racing environment for everyone involved.

## **SEAT BELTS**

All vehicles must have a minimum 3-point or more harness driver restraint which can be capable of holding the driver inside the cockpit as per the FIA motorsports rules for installation and certification.

All belts must have a metal to metal quick release mechanism through a single link.

# DRIVER RESTRAINTS

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## SHOULDER BELTS

The shoulder harness shall be of the over-the-shoulder type. Only separate shoulder straps are permitted with the safety harness. Lap belts may not be mounted by wrapping around tube of primary and secondary member.

**NOTE: ALL BELTS MUST BE WRAPPED/MOUNTED IN THE PRIMARY OR SECONDARY MEMBERS OR EQUIVALENT MATERIAL THROUGH SOUND ENGINEERING PRACTICES NO BELTS TO BE MOUNTED IN BODY PANELS OR THROUGH HOLE IN MEMBERS OR TUBES.**

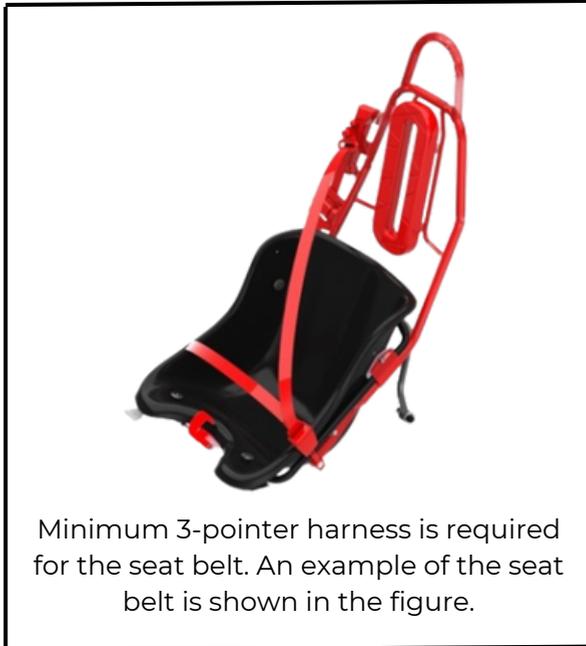


Figure-10

# DRIVER RESTRAINTS

## DRIVER'S SEAT

The seat shall work in concert with the safety harness to secure the driver within the envelope of the roll cage. Seats may be of conventional or suspension (sling) design or Bucket seat. All seats shall be designed for the upright seating position. The upright seating position is defined by the angle of the driver's back to a horizontal line. The back angle for an upright seating position is **more than 65 degrees**.

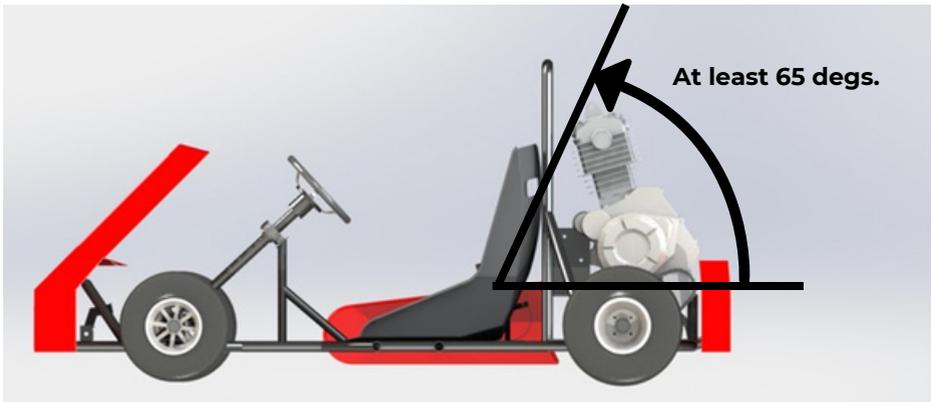


Figure-11

## SECTION-9

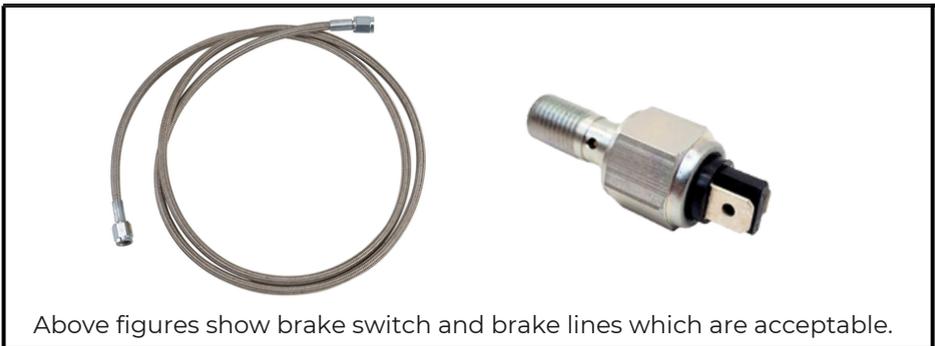
# BRAKING SYSTEM

All vehicles must have a single foot operated hydraulic independent braking system, which is capable of stopping all the wheels at a time in full speed condition within the stopping distance. Mechanical/wire operated brake systems are not acceptable. Braking system must have at least two independent braking lines with brake oil reservoir.

Brake lines must be metal and all joints and fasteners must be of metal other than the reservoir. Brake lines should be installed and arranged with sound engineering practices. Brake lines should not pass through below the members of cockpit and must be protected to avoid failure and should not come in contact with debris and rock present in track during its movement.

### BRAKE SWITCH

A hydraulic operated brake switch to be installed in the each independent brake lines which must activate the brake light on application of brake. Manual/ spring operated/mechanically operated brake switches are not acceptable.



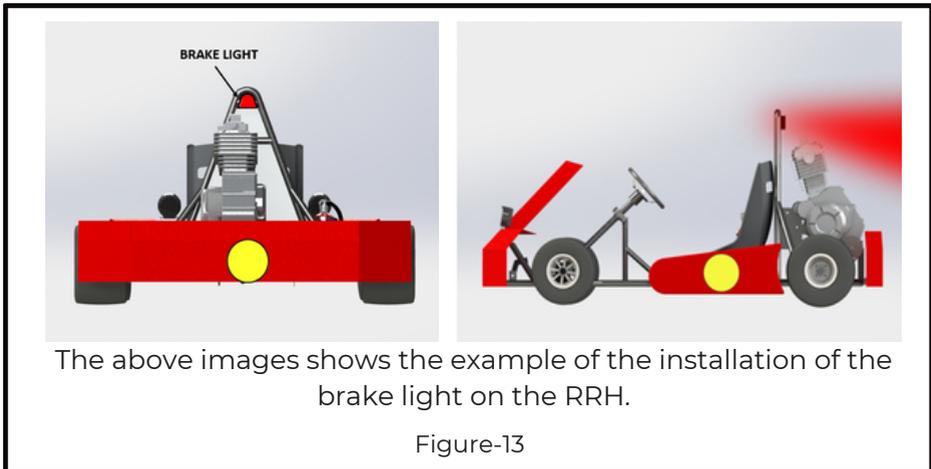
Above figures show brake switch and brake lines which are acceptable.

Figure-12

# BRAKING SYSTEM

## BRAKE LIGHT

A brake light of red color to be installed in the rear end of the vehicle, mounting of brake light in RRH is also acceptable, light should be projected parallel to the ground it should be clearly visible to the drivers approaching drivers from rear of the vehicle during driving. Light to be used of OEM at least meet ISI standards and should be visible in bright day light.



## THROTTLE SYSTEM

The throttle system should be capable of making engine full throttle by using accelerator pedal only and return it to the idle when released. Throttle shall remain in the as inspected condition for the duration of the event. If any change needs to be done or required then team should contact the Engine Inspection team to re-inspect the system. Team can use electronic throttle control as well but team has to have proper documentation of the system.

# BRAKING SYSTEM

## ACCELERATOR PEDAL

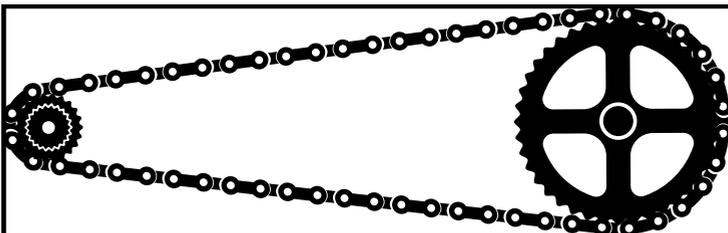
Only mechanical, pedal throttle control is allowed. Accelerator pedal should be right foot operated only. Pedal must have stoppers at its extreme positions (maximum throttle position and idle throttle position).



Figure-14

## GUARDS

All rotating parts must be properly covered rigidly and must be capable of protecting spectators or co-workers in case of failure of any rotating part like chain, belt nut bolts or any other object. Rotating parts must be covered in such a way that it should not allow entry of fingers of any co-workers during working and also protect clothes to come in contact and may not pull inside.



## SECTION-10

# ELECTRICAL REQUIREMENTS

(FOR ELECTRIC AND COMBUSTION EVENTS)

---

### GENERAL REQUIREMENTS

As there will be day and night events, participants need to run their vehicle in Pitch dark so each vehicle must have equipped with proper lighting one battery must be used to give power to all the electrical system like head lamp, fog lamp, brake light, reverse light, horn, and alarm only.

There should be minimum 2 head lamps pointing forward in the forward direction of the vehicle. For reverse there must be white reverse light of proper intensity and ensure a good visibility.

Participants have to make sure the battery used for these purpose must have backup of at least 4 hours i.e. battery must be capable of operating these components properly for 4 hours. However, in day time there is no need of fog and head lamp so small battery which is capable to operate alarm, brake light, horn, reverse light only can be installed replacing the heavy battery.

It is highly recommended that each team must carry backup batteries for this purpose in fully charged condition. Organizers' will not provide any charging device at the venue. Any team whose lights and electrical components are not working will not be allowed for the night events.

If it is found that any electrical component and lights are not working during the event the vehicle will be called for immediate repair.

Batteries must be mounted with good engineering practice. Perfectly sealed dry battery must be used so that there must not any spill or exit of the battery in case of roll over or sharp tilting.

# ELECTRICAL REQUIREMENTS

## (FOR ELECTRIC AND COMBUSTION EVENTS)

### GENERAL REQUIREMENTS CONT.

The wires used for these electrical connections must be of copper wire of minimum 1.5 mm or above of good quality ISI marked brand.

All wires must be covered with fire resistant pipe or cover to avoid fire in case of short circuit. There must be switch for operating alarm, Horn, and head and fog lamps.

The switches used must be used for DC operation and must be rated above 5 Amps. Switches used for AC operation and electronic switches like DPDT are not allowed.

**NOTE: TEAM IS FREE TO CHOOSE THE TYPE OF LIGHTS (LED OR BULB) AND NUMBER OF LIGHTS. ABOVE RULES ABOUT LIGHTS ARE RECOMMENDED BUT NOT COMPULSORY. THE NECESSARY CONDITION IS THAT THE TRACK SHOULD BE VISIBLE TO THE DRIVER DURING THE NIGHT EVENT.**

### BACKING PANEL

Each number on the vehicle shall have a highly contrasting LED Light/radium numbers of specified dimensions or above size and location as given in the figure, to facilitate easy reading in pitch dark from adequate distance without help of any external light source. Numbers may be outlined to provide enhanced contrast. Number backing panels must be securely fastened to the vehicle frame.



# ELECTRICAL REQUIREMENTS (FOR ELECTRIC AND COMBUSTION EVENTS)

## VEHICLE VISIBILITY

The vehicle must be equipped with ribbed along the vehicle with radium.

Paper/film or with LED strips which should glow itself or must reflects on exposure of light during night.

Vehicle must have at least two lights of green color mounted properly on the rear side of the vehicle, which must glow all the time. **The lights must be visible from at least a distance of 50 Meters.**



The image represents the light visibility during night endurance

Figure-15

# ELECTRICAL REQUIREMENTS

## (FOR ELECTRIC AND COMBUSTION EVENTS)

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### **KILL SWITCH -LOCATION AND ORIENTATION**

#### **KILL SWITCHES**

Each vehicle must be equipped with two (2) easily accessible kill switches turning off the ignition. The Kill switch must not de-energize other headlight, brake light, number light and LED strips on the chassis members.

#### **COCKPIT SWITCH**

The cockpit switch must be located in the front of the cockpit within easy reach of the driver with the safety harness tight. The switch may not be mounted on a removable steering wheel assembly.

The switches must be mounted on alternate sides of the vehicle (left and right) if cockpit switch is mounted in left side then the external switch to be mounted in right sided of the vehicle with reference to the driver's sitting position.

For example, if the driver is right-handed then cockpit kill switch to be mounted in such a way that it is accessible to the driver easily with it right hand and mounted on the right side with reference to the steering wheel anywhere in the cockpit and the external switch to be mounted on the left side in the engine compartment. It will easily help the co-workers and track volunteer to find out in case of roll-over.

# KILL SWITCH -LOCATION AND ORIENTATION

## SWITCH BACKGROUND COLOR

The background of the kill switch mounting should be colored with yellow for easy identification by the co-workers and track volunteers, with an instruction **“PUSH TO KILL”** to be written near the switch. The surrounding background of the kill switch mounting should be at least 1.5 inches wide and may be circular or square shape. Teams please keep in mind that only the surrounding to be made no alteration in the original kill switch to be done. Stickers, Tape, plastic color is allowed for this job. Kill switch electric circuit- Both the kill switch must be capable to kill the engine simultaneously and must be a separate circuit other than other electric components. The kill switch should not de-energized other equipment's like brake light reverse alarm head lamps etc.

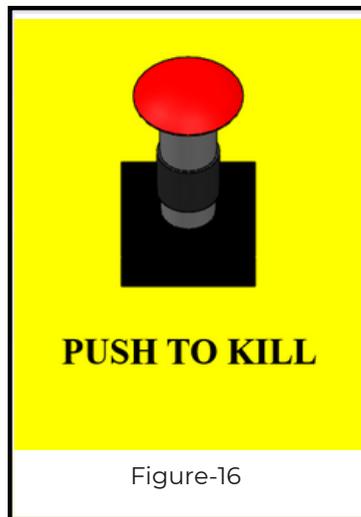


Figure-16

## SECTION-11

# VEHICLE IDENTIFICATION

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Vehicle numbers are used by the organizers and officials to positively identify team vehicles. Teams must design numbers to be visible in all race conditions or keep them clean and conspicuous.

**NOTE: NUMBERS THAT ARE NOT EASILY READ MAY BE BLACK FLAGGED AND MIGHT NOT BE SCORED DURING THE ENDURANCE EVENT.**

Three primary numbers in block style numerals are required to securely affix in the car. The vehicle's number shall be radially visible from left side, right side and front side of the vehicle. See rules for number installation below.

### **SIDE NUMBERS**

Mounted to the left and the right sides of the vehicle, shall be mounted above the SIM and aft of the plane of the RRH.

### **FRONT NUMBER**

The angle of the plane of the front-facing numbers, when affixed to the vehicle above the SIM, shall be less than or equal to 45 deg. from vertical.

### **NUMBER SIZE**

The primary cutout numbers must be at least 203 mm (8.0 in) high. The primary cutout numbers shall have a minimum line width of 25 mm (1.0 in.) and a minimum character width of 102 mm (4.0 in). The primary cutout numbers shall be mounted such that the projecting face is a minimum of 13 mm (0.5 in) from the background panel.

# VEHICLE IDENTIFICATION

**NOTE: AVOID SHARP EDGES OR POINTS ON THE INNER AND OUTER EDGES OF THE CUTOUT NUMBERS.**

The following images represent the sticker position on the kart

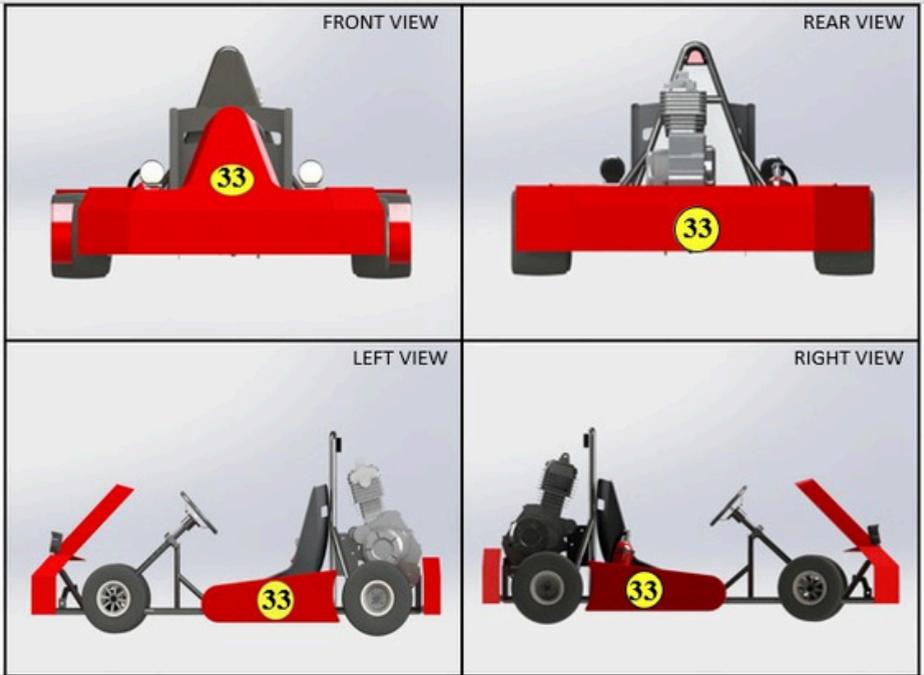


Figure-17

## SECTION-12

### MISCELLANEOUS

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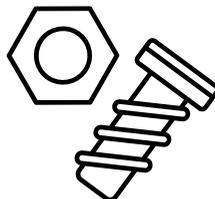
#### FUEL SYSTEM AND FUEL

- Only petrol used as available in Indian petroleum distribution system will be provided, teams must design a spill prevention measure in the fuel tank with sound engineering practice without any sharp edges.
- To avoid spill of excess fuel during refuelling, if excess fuel is given and overflow occurs the spill prevention system must be capable of draining the excess fuel directly to the ground without touching any parts of the vehicle.
- Teams may use self-constructed spill prevention system or may buy it from manufacturers if available.
- In case of fuel tank relocation all components used such as fuel pipes, valves, fasteners etc. must be provided by engine manufacturer or may be OEM with proper certification, ordinary spare parts are strictly prohibited.

#### FASTENERS

All fasteners such as screw, nuts & bolts, used must be of proper quality and of a reputed manufacturer. Ordinary fasteners used may lead to rejection, we strongly recommend use of lock nuts in maximum places. All fasteners must meet the specification matrix

8.8 grade, MS/AN specification, SAE grade 5.



# SECTION-13

## TECHNICAL INSPECTION

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### INSPECTION PROCESS

Each vehicle will be inspected to determine if it complies with the requirements and restrictions of the Mega Karting Championship rules. This inspection will include an examination of the driver's equipment including helmet and arm restraints, a test of driver exit time and to ensure that all drivers meet the requirements of the rules.

Kill switch and dynamic brake testing both the external and cockpit kill switches will be tested for functionality. If both switches pass the test, then the vehicle will be dynamically brake tested. Each vehicle must demonstrate its ability to lock all four wheels and come to rest in an approximately straight line after acceleration run specified by the inspectors. If a vehicle fails to pass any part of the inspection, it must be corrected/modified and brought into compliance with the rules before it is permitted to operate.

### FULL VEHICLE INSPECTION

- The vehicle will be inspected to ensure that the vehicle meets the rules given in the rule book or not.
- The vehicle must not have any sharp edges.
- There should not be any Un-welded, incomplete welding or weak welding, (There must not be any crack or holes visible on the welding).
- All body panels and other components which is not a part of roll cage must be fastened by sound engineering practice and should not be loosen.

# TECHNICAL INSPECTION

---

## FULL VEHICLE INSPECTION CONT.

- Fastening the body panels by wire or zip tags or adhesive are strictly prohibited.
- All fasteners, Screws must have at least 3 full threads out of the nut.
- All rotating parts in the drive train must be covered or properly shielded by metal.
- Two fire extinguishers must be there of specification given in the rule book. One mounted at the vehicle and one at the hand of pit workers.
- Dimension of the vehicle must not exceed given as per the rule book.

## EQUIPMENTS CHECK

All drivers must wear the safety equipment's given as per the rules of **Mega Karting Championship**. All equipment's must be present with their purchasing certificate at the time of technical inspection.

(Kindly refer to section-8)

## CO-WORKERS

As per the Mega Karting Championship Rules the vehicle is not allowed to start anywhere out of the event track or without any permission of the concerned authority/Inspector. The vehicles must be marched at walking speed without starting the engine all the time.

Four members from each team must be around the vehicle one keeping the fire extinguisher.

# TECHNICAL INSPECTION

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## CO-WORKERS

These crews/ Co-workers must wear industrial safety jacket of orange color. Indicating team name and vehicle no at back and front side (Letters must be at least 1-inch-long) with black color.

Only these crews can come to the track or nearby (On call) the vehicle during the dynamic events.

The inspection will determine if the vehicle satisfies the requirements and restrictions of the general motorsports rules for the safety of driver and the audience.

If vehicles are not ready for technical inspection when they arrive at the inspection site, they will be sent away.

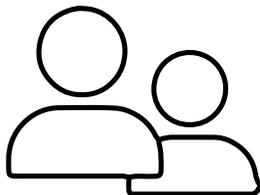
Any vehicle may be re-inspected at any time during the competition and correction of any non-compliance will be required.

The team which doesn't clear this level will not be allowed to advance in next level.

After the technical inspection each team will be issued with the pass to advance in next level.

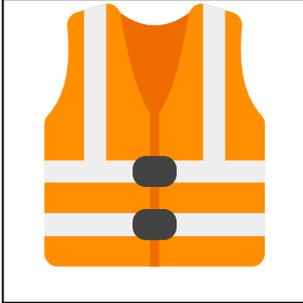
The team is advised to check the safety rules continuously while fabricating the vehicle so that they don't face elimination.

This level doesn't reward any point but without this level the team will not be able to gain any point.



# TECHNICAL INSPECTION

## CO-WORKERS



The above images represent the safety jackets that are acceptable



The above image represents the safety jackets that are not acceptable

Figure-18

## SECTION-14

### CHECK LIST

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#### **CHECKLIST FOR THE TEAMS BEFORE COMING TO EVENT**

##### **DOCUMENTS**

Teams need to check that all documents as given in the mail are available or not and must be arranged in the sequence in the documents file as instructed.

##### **INSPECTION SHEET**

Teams must bring the inspection sheet checking all the points as suggested in inspection sheet and rule book duly signed by the faculty advisor/team coach.

##### **ORIGINAL ID CARDS**

Teams must bring all ID cards as given in the documents section in original at the event site.

##### **TOOLS**

We strongly recommend to bring tools and equipment's with you which are to be used for repairing and maintenance of the vehicles on site.

##### **SPARES**

We strongly recommend the bring the necessary spare parts like clutch plates, cables, spare bulbs, spare batteries, gear and differential oil, engine oil, brake oil, nut and bolts, screws and fasteners, battery charger etc.

## CHECK LIST

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### **ANNEXURE FORMS AND DECLARATION**

Teams must bring their Annexure forms with them and declaration in stamp paper in their documents file. Do not forget to give the forms for transportation of the vehicle to the vehicle transporter/ transport company.

### **SAFETY JACKETS TO TEAMS**

Do not forget to bring the safety jackets for each team member as specified.

### **SAFETY SUIT AND KIT FOR DRIVER**

Check all safety equipment's along with the seat belt for the driver as specified and mounted properly.

### **FIRE EXTINGUISHERS**

Check all fire extinguisher and make sure that they are not expired and the date of filling and expiry/re-filling is mentioned in the extinguisher.

### **PENALTY SYSTEM**

Teams may be penalized on violation of any rules as given by the event organizers. Organizers reserves the right to penalize the teams on violation in any rules. Penalty may be imposed as score penalty, Declaration of DNF, Disqualification of team and vehicle, blacklist the team/ any of the team member(s), certificates, monetary fine and rank penalty.

## SECTION-15

### EVENT FORMAT AND RULES

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#### TECHNICAL INSPECTION (STATIC EVENT)

##### GENERAL RULES

Teams need to check their vehicle before bringing to event site that the vehicle is manufactured as per the rules suggested for Mega Karting Championship. Teams need to check all points given in the inspection sheet provided. The vehicles of the teams will be inspected on site by the event technical inspectors and will be allowed to run only if the vehicle pass the on-site inspections. Technical inspection includes electrical system, electrical power system/tractive system, engine test, Brake test, driver's safety suit and kit inspection, and whole vehicle inspection as per the given rule book.

##### VEHICLE CONSTRUCTION

The vehicles must be constructed as per the rule book only. The vehicle must meet all construction rules of the rule book.

##### BRAKE TEST

In brake test the vehicle need to run in a nearly straight and flat road for a distance of around 50 Meters. The vehicle should go on full throttle and apply the brake at the indication given. The vehicle must stop at the given area and after stopping the vehicle must stop in nearly straight line position. The brakes must apply on each of the wheels. If any vehicle does not pass the brake test in first attempt they will be given second and third attempt to pass respectively. After failing third attempt team will be declared as **NOT PASSED** and eliminated.

# EVENT FORMAT AND RULES

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## **LIMITATIONS ON ATTEMPTS**

The attempts will be given only in the specified time i.e. in the mentioned schedule the technical inspection will start at 11:00 Hrs. and continue till 18:00 Hrs. All vehicles must complete their all attempts in the specified time. No vehicles will be allowed to take an attempt after the mentioned schedule.

## **ENGINE/ ELECTRIC POWER SYSTEM CHECK**

All engines will be inspected. Teams need to keep their engine and exhaust as specified in the rule book. The engine will be checked and given an OK signal to teams and will be sealed. Teams are strictly instructed not to make any changes to the engine and governor setting after engine inspection. Organizers may check the engine any time during the event. For electrical power system all power system must meet the specifications power and voltage limits as suggested in rule book.

## **DRIVER SAFETY TEST**

Teams need to produce safety suit and kit for driver, in good condition and specified rating as per rule book. Teams need to produce the invoice for each individual equipment's related to driver's safety if required for verification in case of any dispute. All equipment's must be in good condition, not in damaged condition in any manner. Damaged or torn equipment's will not be accepted. Driver's equipment's must be as specified in the rule book and must cover full body of the driver, no jackets or half jackets will be allowed.

**Exceptions-Driver shoes may be ordinary or general sports shoes may be allowed in some cases.**

# EVENT FORMAT AND RULES

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**(TEAMS CANNOT GIVE EXAMPLES OF OTHER SIMILAR EVENTS ORGANISED BY OTHER ORGANISATIONS)**

**NOTE: AS SAFETY FOR THE DRIVERS AND FELLOW PARTICIPANTS ARE THE FIRST PRIORITY SO THERE WILL BE NO COMPROMISE IN THE ANY OF THE SAFETY RULES. TEAMS MUST CONFIRM THAT THEY HAVE PROPER SAFETY EQUIPMENT'S OF SPECIFIED RATING AND QUALITY LIKE SEAT BELT, SAFETY SUIT, BALACLAVA, HELMET, SHOES ETC.**

## **TEAM MEMBER SAFETY JACKETS**

All team members must have safety jacket of orange color only (Other color are not accepted) as specified in the rule book which will be inspected at the time of technical inspection. If any team fails to produce the team member's safety jackets are not allowed and will not be allowed to move in the event area.

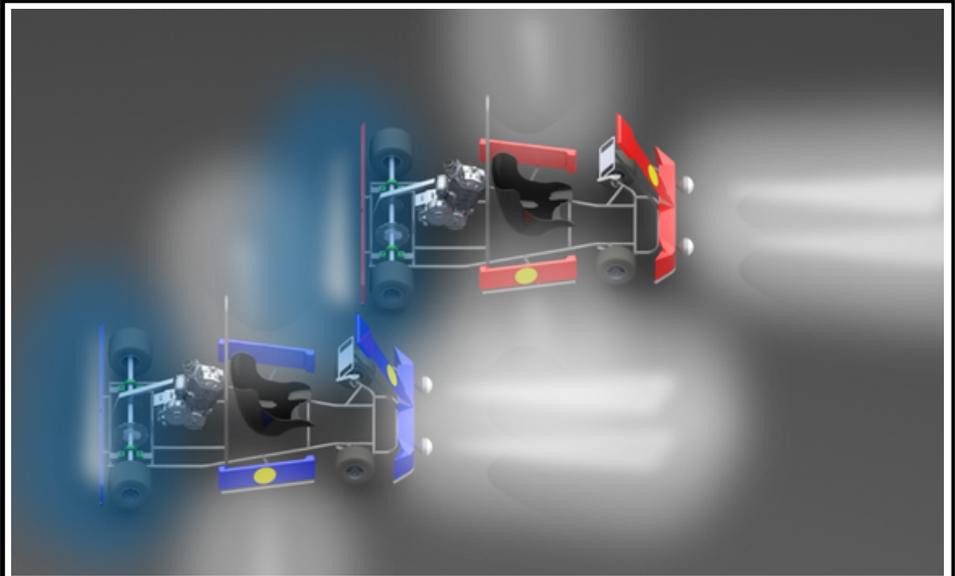
## **LIGHTS**

Teams must have lights mounted properly in the vehicles which will be inspected during the technical inspection and before the night endurance event. If lights are not working properly the vehicle will not be allowed to participate in night endurance/black out event.

## **BACK UP AND EMERGENCY LIGHTS**

It is strongly recommended to teams that teams should make a mounting for emergency lights/torches (High quality battery operated torches), in case the lights are not working /in case of light failure teams can continue their race with emergency backup lights.

## EVENT FORMAT AND RULES



This is a representation of the headlights required for the night endurance event. Minimum two headlights are mandatory and teams are suggested to have emergency backup light in case of light failure.

Figure-19

### **BRAKE LIGHTS**

Teams must have brake lights which must operate on application of brake at all time, and mounted properly as given in the rule book. Brake test will not be passed if brake lights are not working.

**NOTE: BRAKE LIGHTS MUST BE OPERATED BY HYDRAULIC PRESSURE SWITCH. NO MANUAL/MECHANICAL BRAKE SWITCH IS PERMITTED.**

# EVENT FORMAT AND RULES

---

## **REVERSE LIGHT AND ALARM**

Teams must have reverse light and reverse alarm on application of reverse gear. If any vehicle is not having reverse gear, they do not require reverse light and alarm

## **BATTERY MOUNTING**

All batteries must be mounted in the specified place only and secure position as said in rule book. No batteries are allowed in the driver cockpit and driver's seat.

## **EGRESSION TEST**

The egression of the driver will be tested, driver must wear all safety equipment's and sit in driving position by keeping both hands-on steering wheels, in static position of the vehicle. And the instruction will be given by the technical inspector to come out. The driver must come out within the five seconds form when the instruction given by the technical inspector to when driver's both the feet are at ground. Maximum three attempts for this will be given.

## **LIGHT AND VEHICLE VISIBILITY TEST**

The vehicles will tested in dark after sunset for the head lamps, brake lights, number plates, complete vehicle visibility as given in the rule book. Teams please keep in mind your complete vehicle and it's all dimensions must be visible if your vehicle is kept in dark from all sides. It is necessary to put tape lights/radium lights in all exposed members must be illuminated all the time during night endurance race.

# EVENT FORMAT AND RULES

---

## **TILT TEST**

There must not be any leakage of oil in the tilt position of the vehicle at 45 degree angle from both sides of the vehicle and from the front also. There must not be leakage in any fuel, engine oil.

## **VEHICLE INSPECTION GO-NO-GO**

The maximum size/dimensions of the vehicle is restricted as per the rule book, and the tracks are designed as per the maximum dimensions of the vehicles. We will check the maximum size of the vehicle and GO-NO-GO devices will be installed to check the vehicle size. Oversized vehicles are not allowed to participate in the event. Hence they will be rejected during the technical inspection.

## **FIRE EXTINGUISHER**

Teams must have fire extinguishers as specified in the rule book and must be properly mounted in the vehicle of specified size. And one backup fire extinguisher to be with the team members. Spray and other rated or oversized extinguisher should not be mounted in the vehicle.

## **CAR NUMBER**

The vehicles must contain car numbers as specified in the rule book. No cars will be allowed to participate without having car nos. or wrongly installed car nos. Car no. must be written by strip/tape lights/acrylic LED lights only in given letter format in rule book.

# EVENT FORMAT AND RULES

## FASTENERS

All fasteners/nut bolts used in the vehicles must be properly tightened and must use lock nuts where nuts are used. Nut and bolts where nuts are used bolts length must be chosen in such a way that at least two threads are out in fully tighten position of nut and bolts.

## SHARP EDGES

There must not be any sharp edges which can harm anyone in touching of the vehicle and must not be cause of penetration of drivers body in case of the vehicle meets any accident or during the escape of the driver from the vehicle.

## USE OF RADIO

If any team using radio signals in any communication devices they must have approved frequency license to use the radio devices at the event site.



## LOOPHOLES

As there may be loopholes in the rules and exceptional cases may arise, organizer will take decisions in such cases which will be favorable to all teams, event, and safety and favorable to the participants.

## EVENT FORMAT AND RULES

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### **MILEAGE OF THE VEHICLE**

It is seen in our previous events driver come to refuel/changing of batteries their vehicles during the race without checking the fuel level in the tank and in charging level, either they are already having fuel or they are fully empty in some place, which is unnecessary killing of time. We strongly recommend to check the mileage of the vehicle that will help the team drivers to develop strategy during running their vehicle in the race, and they will be able to decide the actual time for re-fueling/replacement of batteries to avoid unnecessary refueling /replacement of batteries of the vehicle.



# EVENT FORMAT AND RULES

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## **DRAG RACE (DYNAMIC EVENT)**

**(10:00 Hrs.-12:30 Hrs.), Patch no.-3, 60 Mts.**

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### **GENERAL RULE**

In this race two vehicles will be running simultaneously for a length of around 60 meters. Drivers need to accelerate their vehicle as much as possible to get the best result. Here acceleration of the vehicle will be recorded and vehicle ranking on the basis of fastest vehicle will be done, which will be used during the lineup of the next consecutive events. Score will be awarded on the basis of time taken to complete the distance by each vehicle. Vehicle which completes the track in minimum time will be declared as winner among all the vehicles. Only one chance for each vehicle will be given in this particular event no second chance or repeat chance will be given to any vehicle. After crossing the finish line vehicle needs to decelerate and stop the vehicle only in the specified region.

### **TRACK DESCRIPTION**

In this event almost flat and nearly straight path of around 60 Meters will be there.

### **ENGINE SHUT DOWN DURING THE EVENT**

In this event if engine shut down/power or tractive system failure takes place,

## EVENT FORMAT AND RULES

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### **ENGINE SHUT DOWN DURING THE EVENT CONT.**

**Case-1**, within 15 meters from the starting line, vehicle will be allowed to take second chance and will be called back to the starting line and start the race with other vehicle in next slot without imposing any penalty, if again engine shuts down one member of the team may come and re-start the engine/power or tractive system, and continue the race no third chance will be given.

**Case -2**, if the engine shut down/power or tractive system failure takes place after 15 meters of the starting line one team member of the same vehicle may come and start the engine/tractive system and continue the race, without any penalty, no second chance will be given in this case.

### **REPAIRING**

Vehicles meets permanent or temporary failures will be termed as DNF, no repairing or second chance will be given in case of repairing.

### **DNF (DID NOT FINISH)**

Vehicles which are awarded as DNF will be awarded zero score for this particular event.

### **FUELING/CHARGING/REPLACEMENT OF BATTERIES**

Fueling/charging/replacement of batteries are not allowed during the event to any vehicle for this particular event.

# EVENT FORMAT AND RULES

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## **PENALTY**

Vehicle going out of the track during running of the vehicle will be termed as DNF for this particular event. If the vehicle does not stop in the specified region after completing the race will be awarded one rank penalty.

## **AUTOCROSS EVENT**

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### **GENERAL RULE**

The autocross event tests the kart's handling, maneuverability, and the driver's skill in navigating a course marked by cones or other obstacles. Each kart will have only one runs on the course. Time penalties will be added for hitting cones or going off-course. Karts must pass a technical inspection to ensure they meet safety and technical requirements.

### **TRACK DESCRIPTION**

The course will be to challenge the driver's skills with a variety of turns, including tight corners, chicanes, slaloms, and sweepers. The track will be a minimum of 400 meters and a maximum of 800 meters long. Safety barriers or cones will line the course to guide the karts and ensure safety.

# EVENT FORMAT AND RULES

## AUTO-CROSS TRACK

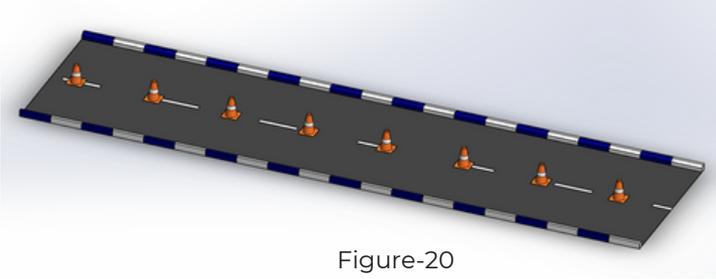


Figure-20

### REPAIRING

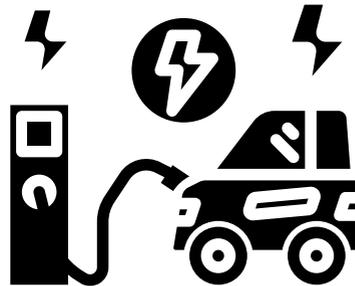
Vehicles meets permanent or temporary failures will be termed as DNF, no repairing or second chance will be given in case of repairing.

### DNF (DID NOT FINISH)

Vehicles which are awarded as DNF will be awarded zero score for this particular event.

### FUELING/CHARGING/REPLACEMENT OF BATTERIES

Fueling/charging/replacement of batteries are not allowed during the event to any vehicle for this particular event.



# EVENT FORMAT AND RULES

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## **PENALTY**

Vehicle going out of the track during running of the vehicle will be termed as DNF for this particular event. Vehicle do not stop in the specified region after completing the race will be awarded one rank penalty. The fastest time wins, with time penalties added for course infractions, +2 seconds for each cone knocked down, +5 seconds for going off-course.

If a kart fails to complete the course, the slowest time of the day plus 10 seconds will be recorded for that run.

## **MANEUVERABILITY EVENT**

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### **GENERAL RULE**

The maneuverability event focuses on the kart's ability to navigate through tight spaces and around obstacles, testing the precision of control. Each kart will have only one attempt to complete the course, with the fastest time counting towards the final score. The event will be timed, and precision will be crucial as penalties are imposed for hitting obstacles. Drivers will start from a standstill and must complete the course as quickly and accurately as possible.

### **TRACK DESCRIPTION**

The course will be a tight, technical layout with numerous short straights and a variety of corner types. The course length should be between 400 and 800 meters. Obstacles such as slaloms, hairpin turns, and decreasing radius turns will be included. Cones or barriers will define the track limits and obstacles.

## EVENT FORMAT AND RULES

### REPAIRING

Vehicles meets permanent or temporary failures will be termed as DNF, no repairing or second chance will be given in case of repairing.

### DNF (DID NOT FINISH)

Vehicles which are awarded as DNF will be awarded zero score for this particular event.

### SCORING/PENALTY

The fastest time wins, with penalties added for errors. +2 seconds for each cone or barrier hit. +5 seconds for going off the course. Failure to complete the course results in a DNF (Did Not Finish) and the slowest time of the day plus 10 seconds.



# EVENT FORMAT AND RULES

## SKID PAD TEST

### GENERAL RULE

The skid pad test measures the lateral grip and handling of the kart by driving in tight circular paths. Each kart will make a series of timed laps around the concentric circles. Drivers will start at the entry point, complete two laps in the clockwise direction, then transition to two laps in the counterclockwise direction. The best lap time from each direction will be recorded. Time penalties will be added for hitting cones or going off the designated path.

### TRACK DESCRIPTION

The course consists of two pairs of concentric circles, each circle will have a radius of 15 meters with a gap of 5 meters between the inner and outer circles. Cones would be used to mark the circles clearly. The surface would be smooth and consistent to ensure fair testing conditions.

#### SKID-PAD TRACK

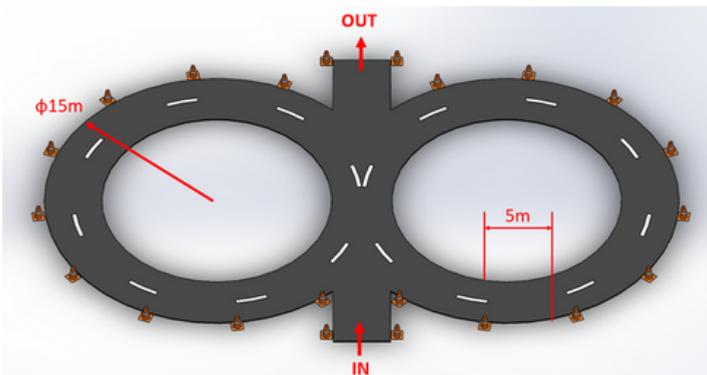


Figure-21

# EVENT FORMAT AND RULES

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## REPAIRING

Vehicles meets permanent or temporary failures will be termed as DNF, no repairing or second chance will be given in case of repairing.

## DNF (DID NOT FINISH)

Vehicles which are awarded as DNF will be awarded zero score for this particular event.

## PENALTY

The combined best lap times from both directions will determine the final score. +2 seconds for each cone knocked down. +5 seconds for going off-course.

# HILL CLIMB TEST RULES

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## GENERAL RULE

The hill climb test evaluates the kart's engine power and torque by measuring the time taken to ascend an inclined course. Each kart will make a timed run from the start to the finish line. Drivers will have only one attempt, and the time will be recorded. Time penalties will be added for going off-course or hitting barriers.

## TRACK DESCRIPTION

The course will have a steep incline with a gradient between 10% and 15%. The length of the course will be between 50 and 100 meters.

# EVENT FORMAT AND RULES

## SCORING

The fastest time determines the winner. +5 seconds for going off-course. +2 seconds for hitting a barrier.

## REPARING

Vehicles meets permanent or temporary failures will be termed as DNF, no repairing or second chance will be given in case of repairing.

## DNF (DID NOT FINISH)

Vehicles which are awarded as DNF will be awarded zero score for this particular event.



# DAY NIGHT BLACK OUT ENDURANCE RACE

(DYNAMIC EVENT)

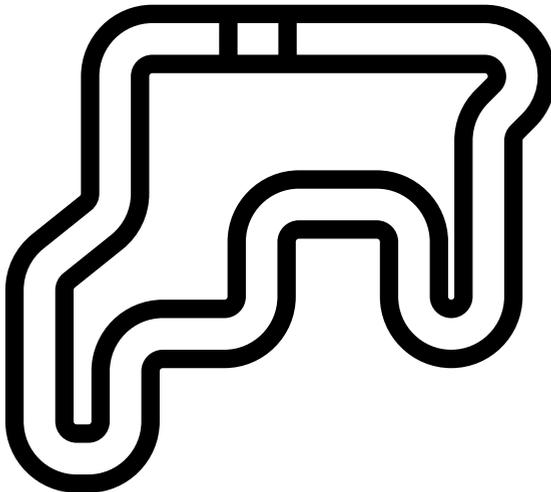
**(17:00 Hrs.-21:00 Hrs.), Main Track.**

## GENERAL RULE

This is the endurance racing of the vehicles participating in the event. All vehicles who have passed technical inspection and their lights are working properly. In this event, the vehicles will be running at a time of around four hour's non-stop, where durability of the vehicle and the capability of the drivers will be tested. This event will occur in the main track of the event which is a long closed loop. The vehicles will be moving in the closed loop and score will be given on the basis of maximum no of laps covered by each vehicle in the specified time i.e. maximum distance travelled by a vehicle in the specified given time. Vehicle who will cover maximum distance in the given time will be declared as winner.

## TRACK DESCRIPTION

In this event, the track will be the main track.



# DAY NIGHT BLACK OUT ENDURANCE RACE (DYNAMIC EVENT)

## **DNF (DID NOT FINISH)**

Vehicles which are awarded as DNF will be awarded zero score for this particular event.

## **ENGINE/TRACTIVE SYSTEM SHUT DOWN DURING THE EVENT**

In case of engine/tractive system shut down driver may ask any track volunteer to re-start the engine (for combustion). In case no volunteer or persons are available nearby, driver may start the engine or tractive system and lock the safety belt properly and run the vehicle, if the driver did not put/lock the belt properly the vehicle will be penalized as DNF.

## **LIGHT FAILURE**

As per rule book lights are mandatory to install in the vehicle. At the starting line-up before the race starts all lights will be checked/inspected of each vehicle whether they are working or not. But during the running of the vehicle, in the race at least any two lights in horizontal directions. In case of light failure/not working all lights at a time, driver should stop the vehicle immediately and take the vehicle out of track and repair it and then continue the race or (Driver can continue race with Backup/emergency lights). In case lights are not working and vehicles are continuously running we will stop the transponder reading /receiver and impose the penalty if required at that moment and vehicle will not allowed to further continue the race until the lights starts working.

It is very clear instruction from the event organizer that we will not give any type of warning to any vehicle if the lights are not working and vehicle is still moving it is the prime duty of the driver to stop and repair.

# DAY NIGHT BLACK OUT ENDURANCE RACE (DYNAMIC EVENT)

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## **REPAIRING**

In case of any temporary failure during the event teams may take their vehicle out of the track and sort out the problem in their respective pits and again take the vehicle into the race track, teams need to continue the race from the same place where engine was shut down/brake down occur, any shortcut or passing the tracks out of specified path will be penalized and the LAP will not counted for the particular lap.

## **PENALTY**

Vehicles need to run in the specified path only any trespasses or short-cut taken, LAP will not counted for that particular lap. Vehicles may be imposed penalty of demotion of one Rank, or may lead to disqualification in case of serious safety rule violation.

## **FUELING**

There will be one fueling station for re-fueling of the vehicles in the race track. Teams need to re-fuel their vehicles when needed during the race. As this is the most precious and dangerous place so the violation of any safety rules in the fuel area may lead to disqualification of the team. Some of the rules are:-

## **MAINTANANCE BAY/ PEDDOCK STOPPAGE**

Drivers who needs any type of interaction/discussion with their team member or things like running inspection of vehicle/changing of driver/drinking water/soft drinks/refreshments/checking of fuel level/inspection of fasteners to be done at maintenance bay only.

# DAY NIGHT BLACK OUT ENDURANCE RACE (DYNAMIC EVENT)

## FUELING AREA

- The vehicle should come for re-fueling at a speed less than 10 Kmph. Any rash driving near the fuel area will be counted as violation of safety rules.
- Re-fueling of the vehicles will be done by the event organizers crew members only. No team members are allowed in the fuel area.
- Teams are not allowed to do any type of interaction/discussion with the driver at the fueling area. Things like running inspection of vehicle/changing of driver/drinking water/taking eatables are strictly prohibited in the fuel area. Doing these act at the fueling area will be counted as serious safety violation.
- Drivers are instructed to keep their vehicle slow as much as possible while entering into fuel area and during exit from the fuel area. Drivers need to kill the engine at the fuel area and re-fuel the vehicle. Fuel will not be given if the engine is in start position/running.
- During the exit of the vehicle after re-fueling and entering into track will be escorted by volunteer/Crew member present over there. Driver need to follow the instruction of the crew while entering into track and maintain marching speed or speed less than 10Kmph.



# DAY NIGHT BLACK OUT ENDURANCE RACE (DYNAMIC EVENT)

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## **ALCOHOL**

Consumption of any alcoholic beverages, narcotics drugs etc. is completely banned. No team member or driver should be under the influence of any drug or alcohol. Organizers reserves the right to do medical test any time during the event and post event.

## **SAFETY JACKETS**

All safety jackets must be of orange color and team name and car no must be printed or sticker may be pasted of size at least 4" (Inches) in back side and 2" (Inches) in front left chest.

## **TOEING**

Considering safety, toeing of the vehicles will be given only after completion of the event. No toeing support will be given during the event.

## **GENERAL REGULATIONS**

Teams are requested to keep in mind that the maintaining the dignity, discipline and safety of the fellow participants during the event should be their first priority. Running their vehicle out of the specified area and time and doing some other irrelevant activity will be counted as serious safety violation. If any team or its member found doing any such act may be charged as per the rules and regulation of the event. Organizers reserves the right to take any action in such cases. Teams may be penalized or may ask to leave the event area immediately.

# SECTION-16

## EVENT SCHEDULE

DAY	ACTIVITIES	TIME
DAY-1	REGISTRATION, TECHNICAL, INSPECTION, DRIVER BRIEFING & TRACK WALK	0:9:00-19:00 HRS
DAY-2	PRACTICE SESSIONS & DYNAMIC EVENTS	0:9:00-19:00 HRS
DAY-2	DYNAMIC EVENTS, NIGHT ENDURANCE RACE & VALEDICTORY CEREMONY	0:9:00-00:00 HRS

## PRIZE STRUCTURE

PRIZE	AMOUNT	REMARKS
TOTAL PRIZE MONEY	5 LAKH RUPEES 5 LAKH ONLY	DISTRIBUTED CASH
CASH PRIZES	3 LAKH RUPEES 5 LAKH ONLY	DISTRIBUTED CASH
OTHER BENEFITS AND GIFTS	2 LAKH RUPEES 5 LAKH ONLY	DISTRIBUTED CASH
SPECIAL AWARDS FOR FACULTIES & COACHES	DR. APJ ABDUL KALAM AWARD FOR BEST FACULTY/COACH	<b>3 AWARDEE</b> NON-CASH 3-DAY, 4-NIGHT TOUR PACKAGE TO GOA, IN AUTOSPORTS INDIA'S FACILITY

ALL AMOUNT SAID AND AWARDED TO THE TEAMS WILL BE DISBURSED TO THEM WITHIN 30 DAYS OF THE COMPLETION OF THE EVENT.

# EVALUATION SYSTEM FOR DR. APJ ABDUL KALAM AWARD FOR BEST FACULTY

## 1. CRITERIA

Active involvement in team preparation and participation.  
Innovative approaches in teaching and guiding the team.  
Contribution to the overall performance and success of the team.

Feedback from team members and peers.

## 2. EVALUATION PROCESS

A panel of judges will review the performance and contributions of the faculties/coaches.

Scores will be based on a combination of team feedback, peer review, and judges' assessment.

The faculty/coach with the highest cumulative score will receive the award.

## 3. AWARD

The winner will be awarded the Dr. APJ Abdul Kalam Award for Best Faculty/Coach.

The award includes a 3-day, 4-night tour package to Goa, Hosted at Autosports India's Facility.



## SECTION-17

# VIRTUAL EVENT

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### INTRODUCTION

The virtual event for the **Mega Karting Championship** competition is designed to evaluate teams on their vehicle design and development process. This event is independent of the dynamic events and will not impact the final on-site event results. It provides an opportunity for teams to showcase their planning, design, and analytical skills through various reports and presentations. The virtual event has a total score of 1000 points.

## CRITERIA FOR VIRTUAL EVENT

### 1.PRESENTATION (PPT)

Teams must prepare a virtual PowerPoint presentation that provides an overview of their **Go-kart** project. The presentation should include

- Introduction to the team and their roles.
- Project objectives and goals.
- Key design features and innovations.
- Challenges faced and solutions implemented.
- Summary of the project timeline and milestones.

### Example

Slide 1: Team Introduction

Slide 2: Project Objectives

Slide 3: Key Design Features

Slide 4: Challenges and Solutions

Slide 5: Project Timeline and Milestones

# VIRTUAL EVENT

## 2. DESIGN REPORT

The design report should detail the technical aspects of the Go-kart design. It must include:

- Detailed design drawings and schematics.
- Explanation of material selection and engineering calculations.
- Justification for design choices and trade-offs.
- Safety features and considerations.

### Example

Section 1: Design Drawings

Section 2: Material Selection

Section 3: Engineering Calculations

Section 4: Design Justification

Section 5: Safety Features



## 3. COST REPORT

The cost report should provide a detailed breakdown of the expenses involved in the Go-kart project. It must include:

- Itemized list of components and materials with costs.
- Labor costs and other expenses.
- Total project cost.

### Example

Section 1: Components and Materials

Section 2: Labor Costs

Section 3: Other Expenses

Section 4: Total Project Cost



# VIRTUAL EVENT

## 4. SALES REPORT

The sales report should outline the marketing and sales strategy for the Go-kart. It must include:

- Target market analysis.
- Unique selling points (USPs) of the go-kart.
- Sales projections and pricing strategy.



### Example

Section 1: Market Analysis

Section 2: Unique Selling Points

Section 3: Sales Projections

Section 4: Pricing Strategy

## 5. MARKET ANALYSIS

The market analysis should assess the potential market for the Go-kart. It must include:

- Analysis of the current market trends.
- Competitor analysis.
- SWOT analysis (Strengths, Weaknesses, Opportunities, Threats).

### Example

Section 1: Market Trends

Section 2: Competitor Analysis

Section 3: SWOT Analysis



## 6. INNOVATION

Innovation in sector of automobile which can be demonstrated practically on the vehicle.

# SCORING SYSTEM



SL. NO.	CRITERIA	POINTS
1	PRESENTATION (PPT)	200
2	DESIGN REPORT	200
3	COST REPORT	100
4	SALES REPORT	100
5	MARKET ANALYSIS	100
6	INNOVATION	300

\*THE VIRTUAL EVENT WILL BE EVALUATED SEPARATELY AND WILL NOT AFFECT THE FINAL ON-SITE DYNAMIC EVENT RESULTS. THE SCORING IS PURELY BASED ON THE QUALITY AND COMPREHENSIVENESS OF THE SUBMITTED REPORTS AND PRESENTATIONS. EVALUATION AND AWARDS

The virtual event will be judged by a panel of experts in the field of automotive engineering and business. The top three teams will receive special awards and recognition.

## 1. WINNER

Award-Certificate of Excellence

***The complete cost of the vehicle will be sponsored by Autosports India as per the budget in the cost report, subject to valuation by experts.***

## 2. RUNNER-UP

Award-Certificate of Achievement

## 3. 2ND RUNNER-UP

Award-Certificate of Merit

## FINAL ON-SITE EVENT

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The final on-site event will consist solely of dynamic events and will be evaluated based on the performance of the teams in these events. The virtual event scores will not have any impact on the final on-site event results. Teams must focus on their dynamic performance to secure their positions in the final rankings.



## SECTION-18

# AUTOSPORTS INDIA POLICY STATEMENT

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### NON-ENDORSEMENT AND INDEPENDENCE POLICY

#### 1. INDEPENDENCE FROM AGENTS AND SUPPLIERS

Autosports India does not promote or endorse any specific agent, agency, spare part supplier, or accommodation provider. Our organization maintains a strict policy of independence to ensure fair competition and transparency.

#### 2. FREEDOM TO PROCURE SUPPLIES

Participating teams are free to procure their necessary spare parts, gears, and other equipment from any source in the open market. There are no mandatory suppliers or brands required by Autosports India.

#### 3. FRAUD AWARENESS

We advise all participating teams to be vigilant and aware of potential fraudsters. Autosports India is not responsible for any fraudulent activities by third parties falsely claiming association with our organization.

#### 4. NO PRODUCT SALES OR ASSOCIATIONS

Autosports India has a consistent policy from the very beginning of our operations: we do not sell, distribute, or associate with any products related to race equipment. If any company claims such an association, it is fake, and we do not have any relationship with them.

# AUTOSPORTS INDIA POLICY STATEMENT

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## 5. DISCOUNT AND NEGOTIATION IN REGISTRATION FEES

Autosports India does not offer any discounts or negotiate the registration fees under any circumstances. This policy applies equally to all teams, including all-girls teams. We request that participants do not approach us with requests for discounts or negotiations.

## 6. REFUND OF REGISTRATION FEES

Registration fees are non-refundable under any circumstances. However, in the event of a clash between the competition dates and academic exams, teams will be eligible to carry forward their registration to the next season of the event or make adjustments for participation in another event organized by **Autosports India**.

## 7. SUPERVISION AND COMPLIANCE

All of our competitions are supervised by the **Federation of Motor Sports Clubs of India (FMSCI)**. No manual entry or stopwatch is used; all timing and scoring are conducted with advanced electronic systems. The rules and regulations approved by **FMSCI** and the **Fédération Internationale de l'Automobile (FIA)** will be applicable throughout the event.

# AUTOSPORTS INDIA POLICY STATEMENT

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## 8. JUDGES AND RESULTS PROTOCOL

Judges, inspectors, and stewards will be appointed by **FMSCI**, ensuring impartiality and adherence to international standards. All results and regulations will be issued following standard protocol. Teams must familiarize themselves with and adhere to all rules and regulations, as no exceptions will be made for rule violations.

## 9. REPORTING FRAUD

If participants encounter any entities falsely claiming to be endorsed by or associated with Autosports India, they should report these instances to our official communication channels immediately for further investigation and action.

**\*THIS POLICY ENSURES THAT ALL PARTICIPATING TEAMS HAVE EQUAL OPPORTUNITIES AND CAN COMPETE IN A FAIR AND TRANSPARENT ENVIRONMENT. AUTOSPORTS INDIA REMAINS COMMITTED TO MAINTAINING THE INTEGRITY AND INDEPENDENCE OF OUR EVENTS.**



## SECTION-19

# RULES OF CONDUCT

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All **Mega Karting Championship** participants can be proud of the excellent sportsmanship and cooperation among teams that are two of the hallmarks of the series. Good conduct and compliance with the rules and the official instructions are expectations and requirements for every team member.

An incident of unsportsmanlike conduct, the organizer is authorized to impose an appropriate penalty.

Unsportsmanlike conduct can include arguments with officials, disobedience of official instructions and the use of abusive or threatening language to any official or other participant. Depending on the seriousness of the infraction the penalty for such actions can range from a **deduction of up to fifty percent (50%) of the team's points** to expulsion of the entire team. Penalties of this type will only be imposed after a complete review of the incident by the organizer.

Alcohol and Illegal Material Alcoholic beverages, firearms, weapons of any type and illegal materials are prohibited at **Mega Karting Championship** site during the competition. The penalty for violation of this rule is the immediate expulsion of the entire team, not just the individual(s) involved. This rule applies to team members, advisors and any individuals working with the team on-site.

### **SMOKING - PROHIBITED**

Smoking is prohibited in all competition areas.

# RULES OF CONDUCT

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## **PARTIES**

Disruptive parties either on or off-site must be prevented by the faculty advisor or team captain.

## **TRASH CLEAN-UP**

Clean-up of trash and debris is the responsibility of the teams. Please make an effort to keep your paddock area clean and uncluttered. At the end of the day, each team must clean their work area.

## **SITE CONDITION**

Please help the organizers keep the site clean. The sites used for Mega Karting Championship is generally private property and should be treated as such. Competitors are reminded that they are guests of the owners. All trash should be placed in the receptacles provided. Glass is not allowed on the grounds. Failure to clean the premises will result in an unsportsmanlike conduct penalty. Competitors are encouraged to police their areas after meals.

## **MOTORCYCLES, BICYCLES, ROLLERBLADES - PROHIBITED**

The use of motorcycles, quads, bicycles, scooters, skateboards, rollerblades or similar person-carrying or motor driven devices by team members and spectators in any part of the competition area, including the paddocks is prohibited.

# RULES OF CONDUCT

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## SPECTATOR RULES

### GENERAL

The organizers typically do not have a direct line of communication with spectators other than on-the-spot at the competition; thus, the competitors, faculty and volunteers are expected to help inform the spectators of the safety rules and help restrict spectators to the spectator areas.

### ALCOHOLIC BEVERAGES

Spectators may not drink or possess alcoholic beverages at any competition location.

### ACCESS RESTRICTIONS

Spectators must keep a specified distance back decided by the organizers, from any area where vehicles are operating under power. Motor vehicle competitions are potentially dangerous and safety rules will be strictly enforced.

### CHILDREN

A competition site is not a safe place for children and unsupervised young people. Spectators who fail to strictly control their children will be asked to leave the site.

### REMOVAL OF SPECTATORS

The course officials and organizers have the absolute right to restrict spectator access to any parts of the site and to eject anyone who violates safety rules or ignores the instructions of officials.

# RULES OF CONDUCT

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## **UNSAFE PRACTICES AND CONDUCT**

All participants are required to exercise safe practices and avoid unsafe activities at all times during the competition. The event organizer has the discretionary authority to impose a just penalty for any conduct deemed unsafe. All team members will be held to this responsible.



## SECTION-20

### DISCLAIMER

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#### DRIVER EQUIPMENT

Drivers must wear all of the equipment specified in "Driver Equipment Requirements" and a properly fastened restraint system at all times when the vehicle is running in any event or on the practice track. Drivers not wearing the proper equipment will not be permitted to drive, and may have their competition driver's privileges revoked.

#### TEAM RESPONSIBILITY

Driver equipment rules for water events may be adjusted by the organizer.

#### SAFETY

Safety is the primary consideration in the design of **Mega Karting Championship** vehicles and the conduct of the competitions.

Teams need to include safety considerations in all parts of their program.

At all performance events, it is the responsibility of the team to ensure both the vehicle and driver meet and follow all the requirements and restrictions of the rules.



# MEGA KARTING CHAMPIONSHIP

## EVENT REGISTRATION

### 2024

Register your team for Autosports India events easily through our official website:

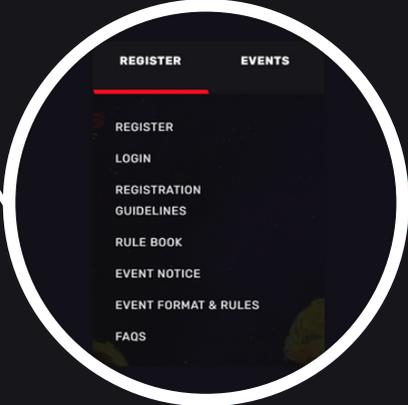
[www.autosportsindia.com](http://www.autosportsindia.com)

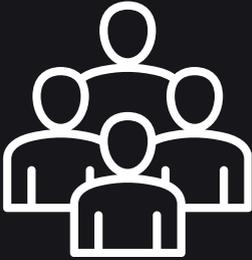


# 1 CREATE AN ACCOUNT

Visit the website and click on Register. Provide basic details like your Name, Phone Number, Email, College Name, and Address.

Once your account is created, you can manage your team and profile through the Dashboard.





## MANAGE TEAM MEMBERS AND PROFILE

2

After registration, you can add and edit team member details at any time.

The team member information and other details can be updated up to 1 month before the event date through the dashboard.

3

## CAR NUMBER SELECTION & PROFILE

Car numbers and pit positions can only be selected after completing the payment process.

The portal for car number and pit position selection will open 3 months before the event, and teams will receive a notification.



## PAYMENT OPTIONS

Payment can be made through various methods available in the Dashboard.

To ease the financial burden, we've introduced a new EMI option, which can be selected during payment.

Teams opting for the EMI option must have a credit card to complete the transaction through this flexible plan.

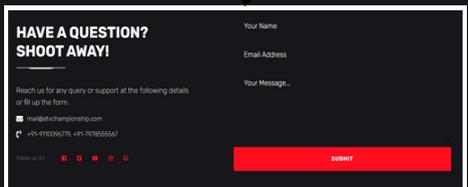
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## STAY UPDATED

For any queries or assistance, communication is to be done through our official website contact page.



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CIN-U50404OR2015PTC018953

TOLL FREE No: +91-8069641124

MAIL@AUTOSPORTSINDIA.COM

[WWW.AUTOSPORTSINDIA.COM](http://WWW.AUTOSPORTSINDIA.COM)