

# AUTO INDIA RACING CHAMPIONSHIP

SEASON-8 | APRIL 2026 | PUNE



## INFINITY RACING

AIRC - MARCH 2024



**IC-KART / E-KART**

Associated with

[www.autoindiaracing.in](http://www.autoindiaracing.in)

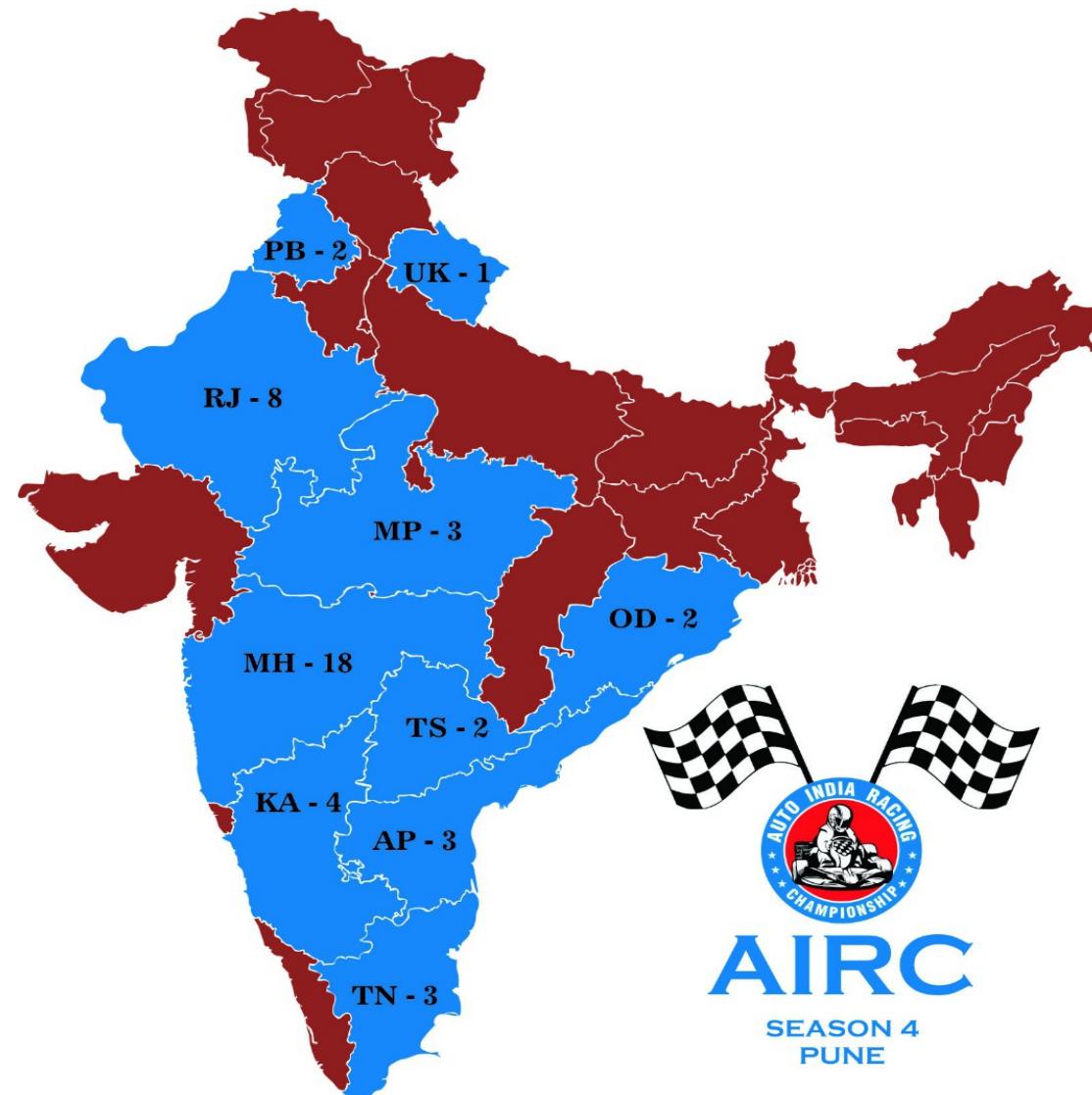
Auto India Racing Championship 2025-26 is a GO-KART racing event, where under graduate and graduate students are given opportunity to design and fabricate their four wheeled vehicle. This event is an inter collegiate design competition for engineering students. The vehicle must be highly engineered, safe and ergonomically designed. The purpose of the event is to provide an opportunity for engineering students to develop their skills and also their stepping stone in automobile sector in India and come up with some innovative designs. Students have to tackle real world engineering problems, working multidisciplinary teams, practice design for manufacturability and manage a full product development cycle of life.

The Competition includes designing, fabricating and validating a four wheeled vehicle driven by one driver. The vehicle would be capable to be driven by one driver on gasoline or Electric power. The vehicle would be evaluated for its design, performance, safety, durability and the teams compete against each other. The cumulative scores of all the events would decide the over all ranking of the teams in the event.



**AIRC**

## TEAM DISTRIBUTION



**AIRC**  
SEASON 4  
PUNE



**SEASON 8**  
**IC-KART = 60 +**  
**E-KART = 25 +**



**PRIZE MONEY**  
**5 LAKH +**  
**AWARDS**  
**80 +**

**NATIONWIDE**

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



# AIRC HISTORY

Over the last 5 years, AIRC has established itself as a player in the Go-Karting events for engineering students. In year 2015 we started a journey to revolutionize the learning methodology with the motto **“journey begins with passion”**, encouraging technical skills of the under-graduate and graduate students. Today we can say that WE are providing one of the best platforms across the nation for the TECHNICAL students to show their best technical skills of designing, manufacturing and coagulating with team to work for betterment.

2017	2018	2019	2020	2022	2023
Teams : 28	Teams : 34	Teams : 38	Teams : 54	Teams : 24	Teams : 38
Colleges : 25	Colleges : 31	Colleges : 37	Colleges : 52	Colleges : 24	Colleges : 36
Students : 1600 +	Students : 1800 +	Students : 2000 +	Students : 3500 +	Students : 2500 +	Students : 2700 +

### **Student Status**

Team members should be undergraduate or graduate students in a college or university of age 18 years or above. Team members who have graduated during the seven (9) month period prior to the last date of competition remain eligible to participate. The student must have the following.

1. I.D Card
2. Bonafide Certificate
3. Driving License (For Drivers)
4. Indemnity Bond
5. Medical Insurance (For Drivers)
6. Maximum No Member – 30

### **Additional Requirement**

Each team is supposed to have a Faculty Advisor appointed by the college/university.

The Faculty Advisor is required to accompany the team to the competition and will be considered by competition officials as the official college/university representative.

**The Team should have at most 2 and at least 1 Driver , who should have a valid Driving License issued by State Government, and should have an insurance cover of at least the Event days**

Teams with Pass out Driver/Member having a **Alumni Championship**

# Vehicle Requirement

## a. Vehicle Configuration

The vehicle must have four (4) and wheels should not be in a straight line. The vehicle must be capable of carrying one (1) person 190cm (75 in) tall weighing 113kg (250lbs).

## b. Vehicle Dimensions

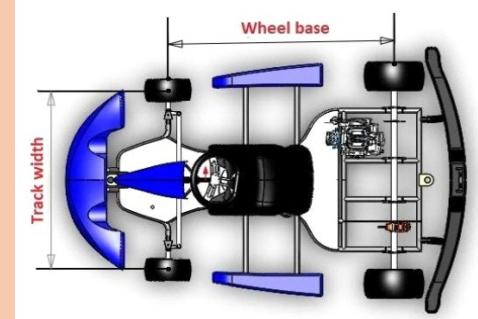
Wheel Base- 38 inches minimum to 65 inches maximum.

Track Width- 60 to 85 % of wheel base.

Weight- no restriction (keep minimum as possible)

## c. Frame Material & Cross Section Requirements (seamless pipe)

The bending strength & bending stiffness of the cross section used in frame must not be less than allowable bending strength & bending stiffness of material.



## d. Material Testing Report

A material testing report will be required at the time of event, in which material compositions and strengths etc should be clearly mentioned.

Teams may use external laboratory for material testing. Material strength testing may also be done in the institute's facility and an in-house validated report should be presented. The proof of in-house testing should be kept in form of photos, videos captured during strength testing. The certificate provided by material dealers will not be accepted.

## e. Driver Seat

Every team has to use proper Go karting Seat. The driver seat should be well cushioned and at least 1 inches away from the firewall.

The seat must support the thigh and the entire torso (full width) of the driver

## f. Bumpers (Front, Rear & Side)

Must be installed in the front, rear, left and right side of the vehicle such that they cover the tyres and protect them from any collision which may occur on the track. They may be made of steel tubes or fibers. if steel tube then ,Minimum OD 1 inch (25.4mm) and minimum wall thickness 1.65mm. Bumpers must have proper accessibility for use as towing point or where temporary rope or harness can be tied for towing purpose.

## g. Visibility Requirement

The engine compartment must be completely visible to examiners.

### · Ground Clearances

With the driver aboard there must be a minimum of 25.4 mm (1 in) of static ground clearance measured from the lowest point (except tyres) of the vehicle, under the complete vehicle.

## Fuel Tank and Its Position

The placement of fuel tank should be such that it maintains a proper distance from the engine and also it should not be above the battery. It must be securely fixed to the chassis.

# AIRC KART ENGINES



**Engine Type-** Single Cylinder, Four Stroke, Air/Liquid- cooled,  
**Type of Fuel -** Petrol/Gasoline  
**Maximum Capacity -** 150cc,  
**Maximum power -** 18bhp

Maximum Rated Power : 3KW  
Maximum RPM : ~ 3600 RPM  
Maximum Continuous Torque : 10 Nm  
Maximum Peak Torque : 30 Nm  
Maximum DC Voltage : 48V



## AIRC E-KART MOTOR

[www.autoindiaracing.in](http://www.autoindiaracing.in)

**a. Exhaust**

The teams have permission to do changes with the exhaust system of the engine. The Exhaust must be well protected with insulation. Make sure that your exhaust smoke will not be harmful for any other vehicle driver during dynamic round.

**NOTE- SMOKE FROM ENGINE, EXHAUST, BATTERY OR ANY OTHER PART OF VEHICAL WILL NOT BE ALLOWED DURING THE STATIC OR DYNAMIC EVENT.**

**b. Transmission**

Teams have flexibility to use any kind of transmission for the vehicle motion. Care should be taken that all the transmission parts are covered by sheets which can withstand the vibrations of the moving parts.

**c. Brakes**

The brake system installed must be capable of stopping the vehicle in a straight line without losing control during the brake test (minimum speed must not be less than 40 kmph in the brake test). Electronic braking systems are strictly prohibited.

In case of brake mechanism bleeding ports for disc caliper should be upside to that of piston mechanism of caliper.

There should be no leakage from the tandem master cylinder (TMC) or reservoir.

**d. Firewall**

Firewall should be made in such a manner that driver's body parts are not affected by the engine heat at any time during the dynamic/static condition. There should be min 2 inches clearance between the firewall and the engine.

**e. Steering Control**

The steering system must have positive steering stops from locking up either in RH or LH turning. The stops prevent the tires from contacting suspension, body, or frame members during the track events. Allowable total steering system free play is limited to 7 degrees, measured at the steering wheel. Steer- by-wire or electronic steering is prohibited.

**f. Push Bar**

Off track vehicles must be pushed at a normal walking pace by means of a "Push Bar"

**g. Floor Tray/Belly Pan**

The cockpit must be fitted with a belly pan over the entire length of the cockpit, so that the driver cannot contact the ground and is protected from debris while seated normally. Belly pan material must be metal, fiberglass, plastic, or similar material.

**h. Fasteners**

All fasteners used in the systems must be captive; defined as requiring NYLON locknuts, cotter nuts or safety wired bolts (in blind applications). All bolts used in the system must meet SAE grade 5 or metric grade M8.8. All threaded fasteners used in the vehicle must have at least 2 threads showing past the nut.

# Electrical Requirements

## a. Kill Switches

The electrical system must include at least two kill switches (One Brake over switch). The kill switches must deactivate the engine ignition. The kill switch must not deactivate the brake light.

a) The cockpit switch must be located in the cockpit within the easy reach of the driver.

b) The external switch must be mounted on the driver's right side of the vehicle the switch must be within easy reach of track workers, the switch must be mounted rigidly, with no sharp edges nearby.

## b. Wires & Harness

Selection of wire diameter/cross-section must be done according to the current in the circuit. All wires and harnesses must be fastened securely to the vehicle structure that prevents coming off in static and dynamic conditions.

## c. Brake Light and Light

The vehicle must be installed with a brake light red in color which is clearly visible from the rear.

Head lights must be there for night racing. (LED Allow)

## d. Battery

Any kind of battery can be used for the purpose but it should not cause harm to team mates any other individual at the time of event.

Teams have flexibility that how much battery pack they are using. Motors are not allowed.



Kill Switches



Brake Light



# Safety Requirement

## a. Driver's Equipment

The following are the minimum requirements and restrictions that will be enforced through technical inspection, at any stage of competition.

- **Driving Suit:** - A fire resistant one piece suit, made from a minimum of 1-layer that covers the body from the neck down to the ankles and the wrists.
- **Underclothing-** It is strongly recommended that all drivers wear fire resistant underclothing (long pants and long sleeve t-shirt) under their approved driving suit.
- Note:** If you do not wear fire resistant underclothing, it is strongly recommended that you wear cotton underclothing (t-shirt and long underpants) under your approved driving suit.
- **Helmet-** A well-fitting closed face certified helmet that meets certifications
- **Neck Support-** The use of neck support is mandatory.
- **Gloves-** Leather gloves with extra foam are acceptable.
- **Shoes-** Fire resistant shoes made from acceptable fire resistant material, shoes must be certified to the standard and labeled as such.

## b. Fire Extinguisher

Each team must have at least two (3) nos. of 1 kg ABC type fire extinguishers. One present at the pit at all times and one with a team representative accompanying the kart throughout the event and one mounted on the kart.

**c. Chain Guard-** Every vehicle should be equipped with proper chain guard. It should restrict accidental contact of any person standing outside. It should be mounted properly any un-usual sound is not acceptable.



Gloves



Helmet



Shoes



Neck Support



Chain Guard



Driving Suit

Fire Extinguisher

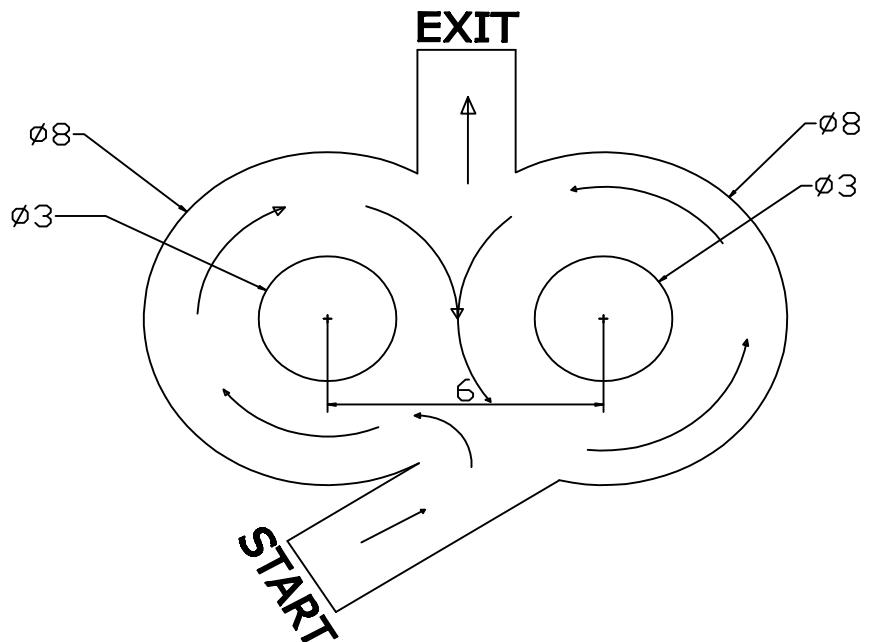
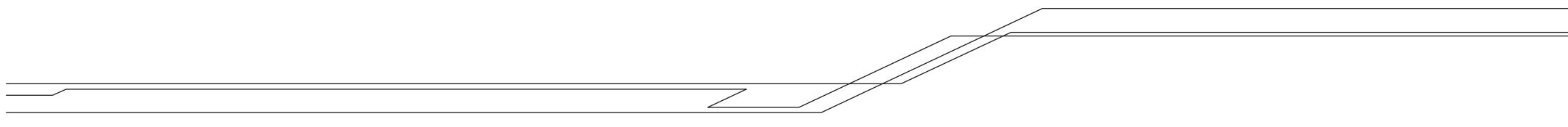


Teams must use standard go-karting tyres. Acceptable tyre size for front is 10x4.5-5(all dimensions in inches) and for rear tyre 11x7.1-5.



## Acceleration Test

The vehicle acceleration abilities would be tested in this event. There would be two lines 50m apart on a straight Track. The vehicle has to cross the Second line in minimum time. Time would be started just after the front wheel crosses the start line. 1 attempt would be given to a team.



All Dimension in meter

## Skid- Pad Patch

## Skid Pad

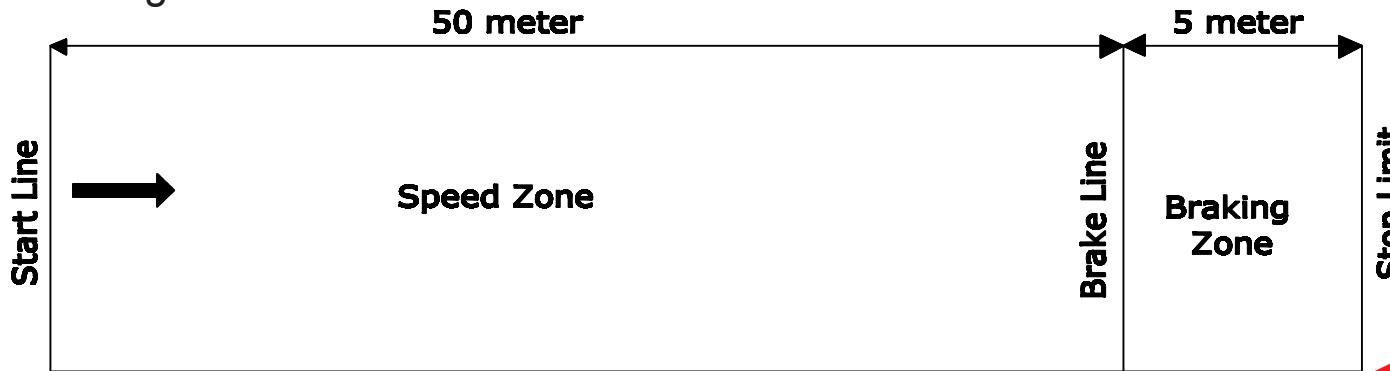
The kart has to draw the figure of '8' in this dynamic event. The kart has to start with the right turn and would have to complete lap (of figure 8) for every attempt of Skid-Pad.

# Technical Inspection

Some Standards have been set in the technical inspection sheet. Every team has to fulfill each and every Standard, failing to which the team may be disqualified. Before coming for the event make sure you fulfill all the requirements mentioned in the technical Inspection Sheet. 2 Attempts of Clearing the T.I would be given for one team. During it the team has to bring their design, CAE and cost report as the design and cost evaluation would be done during TI itself.

## Brake Test

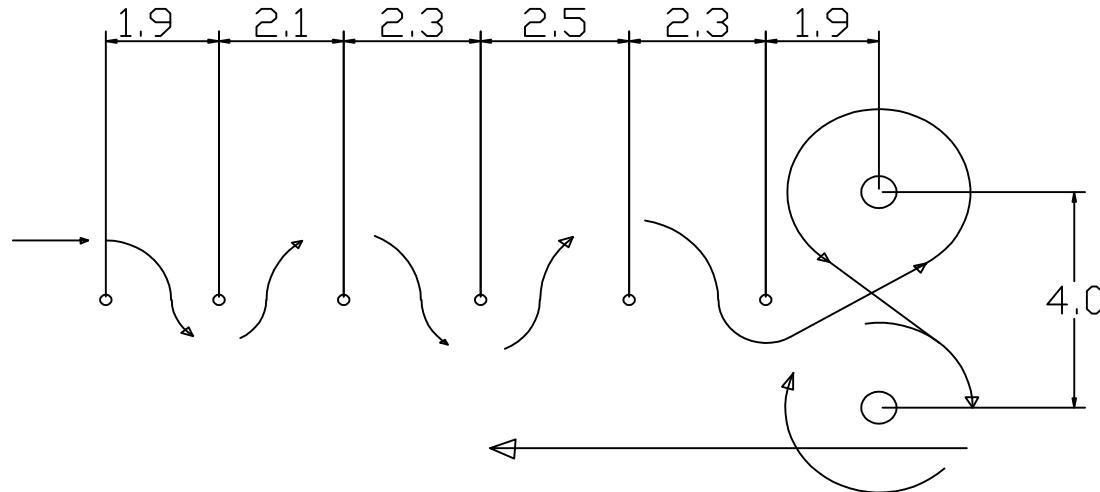
The vehicle should run on a desired speed (say 40km/hr) on a straight track. Two consecutive Lines would be made at a distance of 50m. The vehicle has to cross the second line within a desired time (say 8 seconds) and just after crossing the second line is allowed to apply brake (The Vehicle cannot decelerate in between the lines of the Runway). The vehicle in any condition should stop before the Last Line. 3 attempts to clear this Test would be given for a Team.



**Brake Test Patch**

## Auto cross

START  
EXIT



The kart has to cross the poles in zig-zag direction. The Pole Point distance from each other is shown in fig. there would be total 6 pole the first pole would be kept at the start line and the crossing would be counted from the start between first and second pole.

All Dimention in meter

## Autocross Patch

## Endurance/Night racing

The Endurance track would be showed during the event only. Each teams have to complete the 20 min in pre-endurance the team making the maximum laps in given time would be given the maximum marks. from this top team select to main endurance. The Night Racing is a tentative event if the permission of the night racing is achieved by the Government officials and would be confirmed 3 weeks before the main event date.

# AIRC MARKING & SCORING



Events	Maximum Marks
<b>A. Documentation</b>	<b>200</b>
<b>B. Static Event</b>	
Safety	500
CAD & CAE	100
Cost Evaluation	100
Bisness Plan	100
<b>Total</b>	<b>800</b>
<b>C. Dynamic Event</b>	
Acceleration Test	200
Auto-cross Test	200
Skid-Pad Test	200
Pre Endurance	300
Main Endurance	100
<b>Total</b>	<b>1000</b>
<b>Overall Total (A+B+C)</b>	<b>2000</b>



# AIRC PRIZE NATIONAL LEVEL



Championship	IC- KART	E- KART
Champions	Rs 50000	Rs 35000
1st runner up	Rs 35000	Rs 20000
2nd runner up	Rs 20000	Rs 10000
3rd runner up	Rs 10000	N.A.

## MAIN EVENTS COMBINE

EVENTS	Winner	1st runner up	2nd runner up	Winner
Safety	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Design & CAE	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Innovation	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Cost / Business Plan	Rs 5000	Rs 3000	Rs 2000	Rs 3000
		IC- KART		E- KART
	Winner	1st runner up	2nd runner up	Winner
Acceleration	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Skid pad	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Auto-Cross	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Best Driver	Rs 5000	Rs 3000	Rs 2000	Rs 3000
Other	Winner	1st runner up	2nd runner up	Winner
Girl's Team	Rs 3000	Rs 2000	Trophy	Trophy
Best Captain	Rs 3000	Rs 2000	Medal	Medal
Social Media	Rs 3000	Rs 2000	Trophy	Trophy
Dronacharya	Trophy	Trophy	Trophy	Trophy
Best Team	Team which have participate 1st time			

# AIRC PRIZE ZONAL LEVEL



Total we have 3 Zone  
Each zone separate prize distribution

Zones are as follows

- **North - Delhi / Jaipur**
- **Maharastra - Pune**
- **South - Coimbatore/Bengaluru**

Note: Minimum Team Requirement  
IC Kart 10 teams each zone  
E Kart 5 teams each zone

MAIN EVENTS COMBINE		
EVENTS	Winner	
Safety	Rs 3000	
Design & CAE	Rs 3000	
Innovation	Rs 3000	
Cost / Business Plan	Rs 3000	
IC- KART		E- KART
	Winner	Winner
Acceleration	Rs 3000	Rs 3000
Skid pad	Rs 3000	Rs 3000
Auto-Cross	Rs 3000	Rs 3000
Other	Winner	Winner
Girl's Team	Rs 3000	Rs 3000
Best Captain	Rs 3000	Rs 3000
Social Media	Rs 3000	Rs 3000
Dronacharya	Trophy	Trophy
Best Team	Team which have participate 1st time	

# AIRC RULES AND ORGANIZATION AUTHORITY



## a. Authority of Rules

The AIRC Rules are the responsibility of the Go-kart Technical Committee and are issued under the authority of AIRC.

Official announcements from the Go-kart Technical Committee shall be considered part of rules and shall have the same validity as these rules even if these not initially included in the rulebook and communicated later on.

Ambiguities or questions concerning the meaning or intent of these rules will be resolved by the Go-kart Technical Committee only.

## b. Rules for 2025-2026

Go-Kart 2025-26 is being organized as **ENDURANCE** season of AIRC Go-Kart. There are several major & minor changes in the rules and some more new rules are also introduced. Teams must consider the rules given in this document only as effective rules for **ENDURANCE** season. Teams must try to design and fabricate a vehicle with good build quality as well as efficient dynamic performance. Build quality shall be considered as an overall combination of multiple parameters including but not limited to structural quality/strength, vehicle overall configuration, ergonomic design and aesthetic presentation etc.

**DO NOT ATTEMPT to design your vehicle as per the rules of any previous season.**

## c. Penalties

Organizers have the right to modify the penalties listed in the various dynamic event descriptions 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.

## d. Right to Impound

Go-Kart Technical Committee reserves the right to impound any on-site registered vehicle at any time during the competition for inspection and examination by the organizers, officials and technical inspectors.

## e. General Authority

AIRC organizers reserve the right to revise the schedule of the competition and/or interpret or modify the competition rules at any time and in any manner that is in their sole judgment, required for the efficient and smooth operation of the event.

## Registration Fees\*

Total registration fees for AIRC 2025-2026 event will be INR 35,000/-

The registration fee will be submitted in 3 phases as below:

1. Phase-I: INR 15,000/-
2. Phase-II: INR 15,000/-
3. Phase-III: INR 5,000/-

**\*If Event is Cancel due to Gov. rules and regulation then registration fee will be refundable. Any other reasons fee will not refundable.**



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