EDGELINE GO-KART CHAMPIONSHIP 2024-2025

In Association With

Ajeenkya DY Patil School of Engineering, Lohegaon, Pune

Team Name:-

College Name:-

Captain Name:-

Faculty Advisor:-

Report Author:-

Report Co-Author:-

Team logo

Abstract

Teams are suggested to provide brief description about overall kart, should include the objective, methodology, design and analysis overview, software used, future scope, etc.

Guidelines

1. Every participated team should submit the design template before deadline.
2. Once template is submitted no changes will be accepted during presentation.
3. The Team is allowed to change the format of template, but the given content should be fulfilled completely.
4. *All teams should send prepared design template in PDF format and only submitted to* *admin@wisdomaticswarms.com*
5. All content must be in format of Times New Roman.
6. Every team send their all templates, reports, presentations, etc. in ZIP file only in EC24-25_TEAM NAME
7. Team have to submit CAD files in "stp" format and analysis files

<mark>(Teams data will not be revealed/shared anywhere)</mark>

Technical Specification

Team should make the table showing the different kart parameters and respective values as mentioned in table

Sr. No.	Software Used	Version
1.	Catia	xx
2.	Ansys	Xx

Sr. No.	Parameter	Value
1.	Track Width	xx
2.	Wheelbase	xx
3.	Total weight	xx
4.	Kerb weight	xx
5.	Center of gravity	Xx

(Team should add the parameter according to their convenience)

Material Selection

Teams are advised to validate their material selection with respective alternative materials. The validation of material should be applicable for every parts used in kart except OEM parts.

Teams are suggested to represent the material selection through charts rather than theory explanation

Impact analysis & Calculation

Teams should prove their safety of vehicle by iteration of analysis and calculation. Also Factor of safety should be considered.

Teams should provide the final analysis reports for parts being used under the high stress and temperature in zip file separately

Part/Component Name:

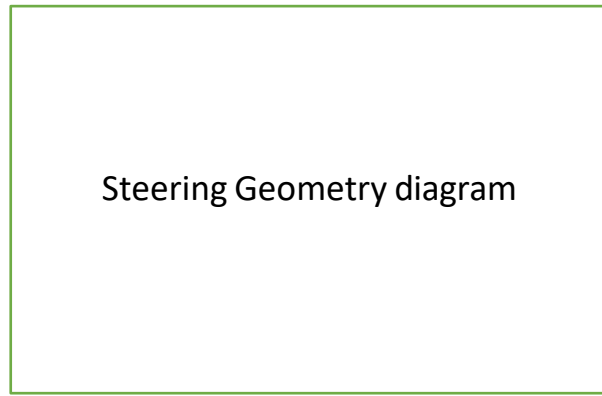|	
Part/Component Rendered Image	Part/Component Specification
Part/Component Analysis Image	Part/Component Analysis Details

Steering Geometry

Teams are advised to give different values for respective parameters used in steering geometry as mentioned in table:

<div style="border:1px solid green; text-align:center">

Steering Geometry diagram

</div>

Sr. No.	Parameter	Values
1.	Turning radius	xx
2.	Track width	xx
3.	Steering effort	xx
4.	Camber	xx
5.	Caster	xx
6.	King pin	xx

(Team should add the parameter according to their convenience)

Tractive System (TS) / Powertrain

Team should describe the following powertrain in detail and provide the designed & analysis files accordingly

    1. Engine/Motor Specification:

Sr. No.	Parameter	Value
1.	Motor type	xx
2.	Manufacturer	xx
3.	Peak & rated voltage	xx
4.	RPM	xx

Sr. No.	Parameter	Value
1.	Engine type	xx
2.	Engine Displacement	xx
3.	No of Gears	xx
4.	Power (bhp)	xx

==(Team should add the parameter according to their convenience)==

Circuit architecture
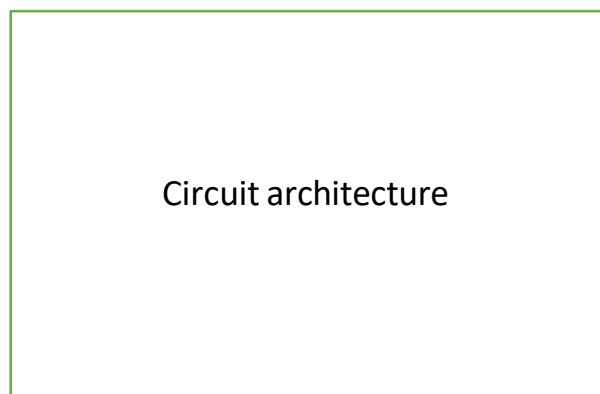
==Team should also describe the safety measures adopted for overcurrent if any==

2. Accumulator/ Battery pack

Sr. No.	Parameter	Value
1.	Accumulator/ Battery type	xx
2.	Manufacturer	xx
3.	Peak & rated voltage	xx
4.	Capacity	xx

(Team should add the parameter according to their convenience)

--------------- Details forth this are only applicable for E-kart -------------

Accumulator configuration design,

Impact analysis,

&

Thermal analysis.

(If any)

Teams should consider the factor of insulation and rain protection in battery pack to avoid hazard.

Battery Management System (BMS):

Sr. No.	Parameter	Value
1.	Manufacturer	xx
2.	Temperature sensor	xx
3.	Under voltage power cut off	xx
4.	Over voltage power cut off	xx

(Team should add the parameter according to their convenience)

BMS circuit architecture
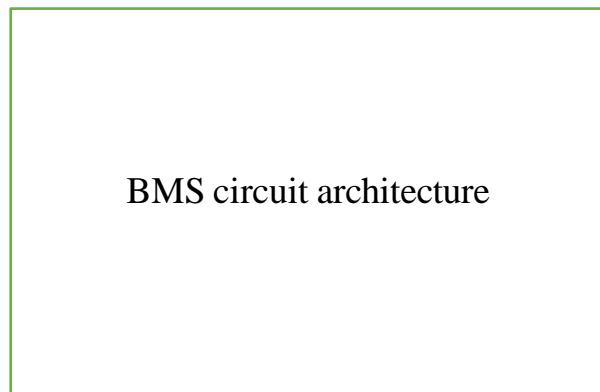
Team should note that incase of under voltage, over voltage or excessive heat generation power to motor controller should be cut off.

Thank you!