



Recommended rules for IR GT CARS 29th of June to 1st of July MADRID (Spain). V2

Prepared for: Javier García and Sergio Alonso

Prepared by: EFRA and AECAR

7th of May 2018



1. CATEGORIES

International Race is open for three categories in GT: GT Italian Rules (SGT), GT International Rules (GT IFMAR) and GT electric cars with 4s and 6s batteries racing in separate events.

2. RACE FORMAT FOR EFRA INTERNATIONAL RACE

1. Free practice for an IR is allowed from Friday preceding the Race. It will not be allowed for competitors in the event to practice for 10 days before this Friday.
2. 5 Rounds of Qualifying will be run, irrespective of the number of drivers. Qualifying will be:
 1. GT INTERNATIONAL : 7 minutes + last lap (WITHOUT REFUELLING) The starting procedure used will be **FLYING START**.
 2. GT EP 6S: 7 minutes + last lap. The starting procedure used will be **FLYING START**.
 3. SGT and GT EP 4S: 5 minutes + last lap. The starting procedure used will be **FLYING START**
3. A point system will be used to establish the qualifying result.
4. ONLY FOR IC: With everybody qualifying for Christmas Tree sub-finals other than drivers qualifying directly for the 'Main' Final. The no. 1 ranked driver after completion of the qualifying heats will move up directly to the main final and take the pole position on the starting grid. The drivers ranked 2nd to 5th will compete in a 'super-pole' final after completing the last Round of Qualifying. Each driver will drive the 'super-pole' individually on the track, for 6 consecutive laps including warm-up on controlled tires (from last round). The 'super-pole' running order will be 5, 4, 3, 2. The driver that scores the fastest lap will also move up straight to the 'Main' Final and take the second position on the starting grid. The other drivers from the 'super-pole' will start in the semifinals as per qualifying ranking.
5. The number of Rounds to count is as follows:
 - 1 Qualifying Round completed -- 1 by laps and total time.
 - 2 Qualifying Rounds completed -- 1 best by laps and total time.
 - 3 Qualifying Rounds completed -- 2 best point scores to count.
 - 4 Qualifying Rounds completed -- 2 best point scores to count.
 - 5 Qualifying Rounds completed -- 3 best point scores to count.

Any Qualifying Round has to be completed for any Heats in that Round to be awarded points that count. Fastest competitor (based on laps & time) in each Round will score zero (0) points, second place 2 points, third place 3 points, fourth place 4 points etc.

If two (or more) competitors achieve an equal time in any Round they will be awarded equal points. The next competitor not included in the tie will be awarded points corresponding to his position in the particular Round. (NOTE:



drivers not recording a time or having a time disqualified in any Round score points for last place in that Round) Overall Qualifying positions are decided by each drivers 'best' (lowest) points being added together, based on the number of Rounds to count as shown in above table. In the event of a tied position, the driver with the single highest finishing position in either of the best Rounds that counted will be awarded the tie (e.g. 1+3 = 4 beats 2+2 = 4). In the event of a continuing tie then the laps and times from the best points Round will be compared. The driver with the fastest laps and time will be awarded the tie. In the case of a continuing tie, then the times from the second best scores will be compared. Only counting Rounds will be used to decide Qualifying positions (or ties), all other Qualifying Round scores and times will be discarded. If the intended maximum number of Rounds cannot be completed, due to weather or unforeseen circumstances, the number of Rounds to count will follow the same format as the table above. **Rain procedure:** Only rounds ran under the same conditions will count. Same conditions means: no differences in average lap time by more than 20%. The Race director together with the referee will make the final decision

6. Time schedule: The time schedule should not be rigid but adapted to the number of entrants. As a guideline:

Thursday: FREE PRACTICE

Friday: Free practice in the morning and controlled timed practice with control tires in the afternoon (reseeding).

Saturday: 5 rounds qualifying, "super pole" (only for IC) and SEMIFINALS

Sunday: Finals

7. The time schedule and the number of heats can be adjusted by the race director with agreement from the EFRA representative due to weather and unforeseen conditions and the number of total drivers at the event. The heats shall contain a maximum of 12 drivers. The Controlled Timed Practice heat and qualification will be of 7 minutes duration. (GT INTERNATIONAL and GT EP 6S) and 5 minutes duration (SGT and GT EP 4S). The ranking from controlled timed practice will be used to make the heats for the qualification heats. The arrangements of the Qualifying heats and the numbering will be defined with the best result of 3 consecutive laps of the Driver, made during controlled timed practice runs.

8. General format for sub-finals and main final (ONLY FOR IC):

Lower finals: Duration for lowers finals will be 20 minutes. The best 3 in each sub-final move up to the next final.

Semi-final: the best 3 in each semi-final move up to the main final , plus the best 2 remaining drivers from the 2 semi-finals combined. When racing conditions are different in the two semi-finals, the best 4 of each semi-final move up to the main final. Starting order for the drivers who moved up to the main final is based on number of laps and time for positions 3 to 10. In different circumstances it will be number 1 from the A semi-final who gets the number 3 and the number 1 from the B semi-final who gets the number 4 etc. After the first semi-final all cars will be put in Parc Fermé in technical inspection and they will be released after completion of the technical inspection of the 2nd semi-final. This will give all drivers that proceed to the final equal time for preparation.



Final: Main final will be 45 minutes duration.

9. General format for FINALS (ONLY FOR GT ELECTRIC CARS):

9.1. The qualifying results will determine the composition for all finals with the top 10 proceeding to the "A" main final and so on down.

9.2. There will be 10 drivers in each final where possible. Finals will be organised for all competitors. The winner determined from the combined A finals will be the champion.

9.3. All finals will be run in three legs from slow to fast.

9.4. The winner in the final get 1 point, second 2 points and so on up to 10 points for 10th driver.

9.5. In the event of a tied position the driver with the single highest finishing position in either of the best 2 finals that counted will be awarded the tie. In the event of a continuing tie then the laps and times from the highest finishing position will be compared. The driver with the fastest laps and time total will be awarded the tie. In the case of a continuing tie, then the times from the second-best position will be compared.

3. TECHNICAL RULES FOR EFRA INTERNATIONAL RACE

GT ITALIAN RULES (SGT)

3.1.1.- Introduction

GT/Rally cars with IC motor, 2WD or 4WD. They run all type of chassis of GT, based on on-road and off road (not carbon fiber). All type of lead transmission, all type of engine of 3,5 cc, free body. There are a number of Italian brands for this class available and a single one outside Italy.

3.1.2.- Dimensions

Length: overall 730mm

Minimum width: 290mm

Maximum width: 310mm

Wheelbase: between 270-330mm

Maximum height: 340mm including wing with suspension fully compressed, chassis against the floor.

3.1.3.- Weight

3400 grams Minimum weight in order to run with empty tank.

3.1.4.- Transmission

The transmission can be 2 or 4-wheel drive and must be mechanical (universal joints, belts, chains, etc.) Allowed is a gearbox with maximum two speed. It is forbidden to use one-way drive axle. The cars must be equipped with front differential axle and rear differential axle, which cannot be locked.

3.1.5.- Engine

The engine of the model car will have a total capacity of up to 3.50 cm³. A maximum carburetor diameter of 9.00 mm.

3.1.6.- Mufflers

The car must be fitted with an exhaust silencer system. Only 3 chamber EFRA registered mufflers. The exhaust tailpipe must be directed towards the roadway .

3.1.7.- Brakes

Each model car must be fitted with clutch and brake system in such a way that it can be maintained stationary with the engine running. The brake must act on the transmission and must be of the mechanical type. The use of separate brakes on the wheels is not allowed.

3.1.8.- Tank

The tank can have a maximum capacity of 125.00 ml including filter and hose connection to the carburetor.

3.1.9.- Fuel

The mixture may contain only methanol, nitro methane and lubricating oil with a maximum of 25% nitro.

3.1.10.- Body

All models must be fitted with a 1/8th scale body that is similar of a car really existing with the exception of open cockpit cars. Allowed are replica's from ALMS, GT1 or GT2, SuperGT, DTM, and V8 Supercar Cars. No homologation required, but EFRA can refuse bodies which are not within the spirit of this class. The body must be fixed on the integral parts of the chassis. The bodies must be made of flexible material and painted. No part of the model can protrude from the body with the exception of the roll bar.

3.1.11.- Openings in the body

Opening for exhaust tail (pipe hole not exceeding 8 cm square cm on one side of the body). Openings for radio antenna (maximum diameter 10mm), spark plug (maximum diameter 50mm), carburetor (maximum diameter 10mm). The cooling head of the motor must remain completely inside the body. One Hole with a diameter of 50mm or oval of 40x60 maximum for refueling. It is allowed to have one opening in the front and rear with a maximum diameter of 50.0 mm each. Side window on each side can be removed. The windows cannot be folded outwards to get more air to the engine. It is also not permitted to have a system under the body for conveying air inside the body (It is possible in case of rain). All bodies must have the front and rear wheel arches removed.

3.1.12.- Wing

The wing must meet the following requirements: Must be mounted on the body. Depth: 79mm maximum, measured parallel to the inclination of the wing. Width: 315 mm maximum, measured parallel to the inclination of the wing.

3.1.13.- Bumper

All models must be equipped with bumpers made of flexible material, with no sharp edges and rounded, so as to minimize the consequences of a possible impact with the model. It should be covered with a type of soft and flexible material (foam type) it should look over minimum 1cm from the bumper in all each outline area and with a width of minimum 2 cm in that area. All models must be mounted on the front bumper a bumper that protrudes from each bumper. The complete bumper, must remain under the silhouette of the body.

3.1.14.- Wheels, tyres

The wheels, front and rear, must have a diameter of 78mm + / - 2mm. The maximum width of the tyre (rim + pneumatic) cannot be more than 43mm. The maximum diameter of a tyre will be 97 mm. The tyres of cars must be only in black colour and may have lateral writing of different colours. The tyres must be from molded rubber, the pattern is free. Inserts are allowed. Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off-road racing. The wheel must be fixed by a 17mm wheel nut, threaded on to the hex hub. Quick change mechanisms are not permitted. No tyre or rim may protrude outside the body. Tyre Rubber Only, no Foam tyres allowed.

3.1.15.- Electronics

It is not allowed to use any electronic devices with the exception of: The two radio channels of the receiver which will be used to operate steering, throttle and brakes. A battery to power the receiver with any voltage regulator and the transponder as well as cables, connectors and/or a switch.

3.1.16.- Technical Exclusions

Not more than two (2) servos. It is not allowed the use of additional electronic equipment for the Traction Control or braking (ABS). It is not allowed the use of any active telemetry system. 4-wheel brakes, or Independent controlled braking on the front wheels is not allowed. Liquid cooled engines. Hydraulic systems. The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/"G"-force sensors is strictly forbidden. No body or wheel flares extenders allowed and no Lola, wedge or open cock pit style bodies are allowed. Carbon fiber chassis are not permitted. Treatment of the tyres with additives is prohibited. IF any competitor should

be discovered by using additives, he will be disqualified of the event. No chassis mounted or Buggy/ Truggy type wings allowed.

GT INTERNATIONAL RULES / IFMAR RULES

3.2.1.- Introduction

GT/Rally cars with IC motor, 2WD or 4WD. The basic principle for this class is the use of off-road cars and/or off-road parts.

The chassis must have a minimum kick-off of 5 degrees in front. No carbon fiber chassis

Allowed. The kick-off needs to have a minimum length of 30mm and lower suspension arms must be mounted on the kick-off. Kick off must start at a reference point from the front diff, min 150mm/max 180mm).

Chassis with Kick up cannot be altered to change original manufacturers design. Stock and factory optional chassis are permitted, but it must retain all the characteristics of the standard off-road chassis on which it is based. Chassis must be identical to their off-road counterparts in all dimensions except where it is necessary to convert the chassis for on-road use

3.2.2.- Dimensions

Maximum length: 590mm

Maximum width: 310mm, including wheels

Wheel base: between 320-379mm

Maximum height: 175mm, with chassis plate on the ground

Minimum height: 155mm with chassis plate on 20mm blocks. See ANNEX 2

3.2.3.- Weight

3500 grams

Minimum weight in order to run with empty tank.

3.2.4.- Transmission

Single speed or two-speed only. Single speed configurations must include a solidly mounted spur gear to a standard bevel gear center differential or a solid spool (no one-way bearing). Any other differential types will be permitted. Two-speed transmissions must use an automatic centrifugal shifting mechanism that is not remotely adjustable or programmable. Because of the nature of the two-speed transmission design, no center differential is required, but the transmission must include a solid center shaft that doesn't allow differential action between the front and rear drive assemblies. A shaft-drive system with two gear-type open differentials are required.

No one ways (only for two speed), spools, locking "Torsion-type," or externally adjustable differentials are permitted. The gear diffs. can be tuned only with the use of silicone-based fluid. Identical F/R drive ratios are required – no F/R underdrive/overdrive permitted. A single speed mounted to a center spool, or an included two-speed transmission are permitted. The drivetrain shall be a center shaft system with ring and pinion gears driving the differentials. Shaft-drive only – belt driven cars are not permitted. The drive system must maintain the same features as used in the original off-road configuration except where noted, including the center differential/one speed transmission with separate front and rear center drive shaft's.

3.2.5.- Engine

Engines allowed will be .21 or 3.5cc engines. Maximum carburetor diameter is 7mm. The motor shall be air cooled. Conical plugs allowed. For EFRA I. R. we propose the following number of ports: A maximum of 5 inlet ports or booster ports. Any hole will be considered as one of the 5 allowed. Engines must be capable of running minimum 7 minutes on one tank of 150cc fuel to avoid excessive tuning.

3.2.6.- Clutch

The clutch shall engage by using shoes that have predominantly radial movement. The contact between clutch shoes and clutch bell may only be in a radial (outward from the crankshaft centerline) movement. A small axial movement of the shoes is allowed if this is needed to compress an axial spring.

3.2.7.- Mufflers

The car must be fitted with an exhaust silencer system. Only 3 chamber EFRA registered mufflers. The exhaust tailpipe must be directed towards the roadway or, at best, parallel to it.

3.2.8.- Brakes

Each model car must be fitted with clutch and brake system in such a way that it can be maintained stationary with the engine running. The brake must act on the transmission and must be of the mechanical type. The use of separate brakes on the wheels is not permitted. Maximum 2 brake system in Central Drive Shaft / Central braking only on crown wheel (spur gear). Only standard mechanical brakes are permitted. Up to two brake discs are permitted anywhere on the center driveshaft's. Brakes may not be located on the outboard axles.

3.2.9.- Tank

The tank can have a maximum capacity of 150.00ml, including filter and hose connection to the carburetor.

3.2.10.- Fuel

The mixture may contain only methanol, nitro methane and lubricating oil with a maximum of 25% nitro.

3.2.11.- Body

The body must be made from an existing car design, whose name must be mentioned on the request for homologation. Allowed are replicas from ALMS, GT1 or GT2, Super GT, DTM, and V8 Supercar Cars. After been approved the name of the body is free to avoid license fees etc.

Bodies must be within the GBS dimensions by IFMAR. See ANNEX1.

The body must have visible windows, body panel and trim markings, and the windows must be mostly clear. Some intrusion for creative painting purposes and tinting is permitted, but the windows must be transparent. Bodies must have headlight and grill details.

Aerodynamic aids like diffuser and flaps are not allowed. No internal body supports / stiffeners / braces allowed to avoid lightweight bodies with internal modifications and add-ons, excluding reinforcement of the wheel arches and back boot lit is allowed. The body must rest on a maximum of 5 posts. Bodies must be made from Lexan with a minimum thickness of 1mm. Bodies with vertical sides (as nitro 1/8) are prohibited.

3.2.12.- Openings in the body

Opening for exhaust tail (pipe hole not exceeding 8 cm square cm on one side of the body). Openings for radio antenna (maximum diameter 10mm), spark plug (maximum diameter 25mm), carburetor (maximum diameter 10mm). fuel tank opener (maximum 10 mm). The cooling head of the motor must remain completely inside the body. One opening may be made in the front windscreen/roof/bonnet with a maximum dimension of 70mm in any direction for refueling and engine cooling or one Hole with a diameter maximum 50mm front and one Hole with a diameter maximum 50mm for refueling. Minimum distance between holes is 5mm. Rear window and side window on each side can be removed. The windows cannot be folded outwards to get more air to the engine. It is also not permitted to have a system under the body for conveying air inside the body (It is possible in case of rain). All bodies must have the front and rear wheel arches removed. Maximum height of 75mm cut-out at rear on 20mm blocks . See ANNEX2.

3.2.13.- Wing

The wing must meet the following requirements:

- Must be mounted on the body.
- Depth: 79mm maximum, measured parallel to the inclination of the wing.
- Width: 315mm maximum, measured parallel to the inclination of the wing.
- The wing must rest on maximum 3 body posts which are not wider as 30mm each.

The wing will be allowed 10 mm above the rooftop. See ANNEX2

3.2.14.- Bumper

All models must be equipped with bumpers made of flexible material, with no sharp edges and rounded, so as to minimize the consequences of a possible impact with the model. It should be covered with a type of soft and flexible material (foam type) it should look over minimum 1cm from the bumper in all each contour area and with a width of minimum 2 cm in that.

3.2.15.- Wheels, tyres

The wheels, front and rear, must have a diameter of 78mm + / - 2mm. The maximum width of the tyre (rim + pneumatic) cannot be more than 43mm. The maximum diameter of a tyre will be 97 mm. The tyres of cars must be only of black colour and may have lateral writing of different colours. The tyres must be from molded rubber, the pattern is free. Inserts are allowed. Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off-road racing. The wheel must be fixed by a 17mm wheel nut, threaded on to the hex hub. Quick change mechanisms are not permitted. No tyre or rim may protrude outside the body. Tire Rubber Only, no Foam tires allowed

3.2.16.- Electronics

It is not allowed to use any electronic devices with the exception of: The two radio channels of the receiver which will be used to operate steering, throttle and brakes. A battery to power the receiver with any voltage regulator and the transponder as well as cables, connectors and/or a switch.

3.2.17.- Technical Exclusions

Use of one-way bearings, except for the 1st gear of a 2-speed transmission. Belts. Extra Body support struts for lightweight bodies. The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/"G"-force sensors is strictly forbidden. 4-wheel brakes. Independent controlled braking on the front wheels is not allowed. Hydraulic braking systems. More than 2-speed transmissions. Quick change wheel systems are not allowed, or the use of electric, spring or flywheel-based tools to change heels. Body extenders or wheel flares. Carbon fiber chassis are not permitted. Treatment of the tyres with additives is prohibited

GT ELECTRIC CARS

3.3.- GT ELECTRIC CARS (4S)

3.3.1.- Introduction

GTE cars. Admitted are all GT vehicles with brushless power, of a marketable 1/8 Buggy derived and based on on-road chassis. No carbon fiber chassis. This correspond in essential parts, such as wishbones, differentials, etc.

3.3.2.- Dimensions

Maximum length: 590mm

Maximum width: 310mm, including wheels

Wheel base: between 320-379mm

Height: max 175mm, with chassis plate on the ground

Minimum height: 155mm with chassis plate on 20mm blocks.

3.3.3.- Weight

3.8 kg minimum, maximum 4.4 kg

3.3.4.- Transmission

The transmission of driving force to front and rear axle is affected by cardan shafts. Belt drive is not allowed. Ball differentials and rigid through drive on the axles and freewheel front drive are prohibited, no center differential is required.

No one-way, spools, locking "Torsion-type," or externally adjustable differentials are permitted. The gear diffs. can be tuned only with the use of silicone-based fluid. Identical F/R drive ratios are required – no F/R underdrive/overdrive permitted. The drivetrain shall be a center shaft system with ring and pinion gears driving the differentials. Shaft-drive only – belt driven cars are not permitted. The drive system must maintain the same features as used in the original off-road configuration.

3.3.5.- Motor

There are brushless motors approved with the following maximum dimensions:

- Diameter: 44 mm Maximum
- Length: maximum 75 mm

There are both engines and approved without sensor. The manufacturer is optional.

3.3.6.- Batteries

Any type of battery will be allowed as long as it is commercially available. Only those of the type maximum 4s (4 elements in series) will be valid at the most, in A single pack of 14, 8v or in two packs of equal characteristics of 7, 4v. The brand, voltage, Manufacturer, etc. must be reliably in each battery, not valid those batteries that have lost the original manufacturer's instructions. Mandatory HARDCASE. The maximum voltage is 16.8 V at the start of the race. The batteries and Chargers must have an equalizer cable. The Chargers must have a program Specific for LIPO/LIFE load, i.e. CC/CV (constant current, voltage cut), with Cut according to the specifications of the EFRA regulation and the load must be made with the cable Equalizer. Charging or unloading these batteries cannot exceed 60 a peak. It is obligatory to have a fireproof bag for the batteries. It's about a safety measure for the pilot, circuit and environment

3.3.7.- Controller

The controller (ESC) is optional

3.3.8.- Body

The body must be made from an existing car design, whose name must be mentioned on the request for homologation. Allowed are replicas from ALMS, GT1 or GT2, Super GT, DTM, and V8 Supercar Cars. After been approved the name of the body is free to avoid license fees etc.

Bodies must be within the GBS dimensions by IFMAR. See ANNEX1.

The body must have visible windows, body panel and trim markings, and the windows must be mostly clear. Some intrusion for creative painting purposes and tinting is permitted, but the windows must be transparent. Bodies must have headlight and grill details.

Aerodynamic aids like diffuser and flaps are not allowed. No internal body supports / stiffeners / braces allowed to avoid lightweight bodies with internal modifications and add-ons, excluding reinforcement of the wheel arches and back boot lit is allowed. The body must rest on a maximum of 5 posts. Bodies must be made from Lexan with a minimum thickness of 1mm. Bodies with vertical sides (as nitro 1/8) are prohibited.

3.3.9.- Openings in the body

Electric cars cannot trim the front windshield. The antenna hole (10 mm) and side windows can be trimmed. A hole of 50 mm in diameter can be made in the rear windshield.

3.3.10.- Wing

The wing must meet the following requirements:

- Must be mounted on the body.
- Depth: 79mm maximum, measured parallel to the inclination of the wing.
- Width: 315mm maximum, measured parallel to the inclination of the wing.
- The wing must rest on maximum 3 body posts which are not wider as 30mm each.
- Will be allowed 10 mm above the rooftop wing. See ANNEX2

3.3.11.- Bumper

All models must be equipped with bumpers made of flexible material, with no sharp edges and rounded, so as to minimize the consequences of a possible impact with the model. It should be covered with a type of soft and flexible material (foam type) it should look over minimum 1cm from the bumper in all each contour area and with a width of minimum 2 cm in that.

3.3.12.- Wheels, tyres

The wheels, front and rear, must have a diameter of 78mm + / - 2mm. The maximum width of the tyre (rim + pneumatic) cannot be more than 43mm +/- 2mm. The maximum diameter of the tyre will be 97 mm. The tyres of cars must be only of black colour and may have lateral writing of different colours. The tyres must be from molded rubber, the pattern is free. Inserts are allowed. Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off-road racing. The wheel must be fixed by a 17mm wheel nut, threaded on to the hex hub.

Quick change mechanisms are not permitted. No tyre or rim may protrude outside the body. Tire Rubber Only, no Foam tires allowed.

3.3.13.- Electronics

The electrical / electronic equipment consists of the battery (LiPo hard case), controller (ESC) and a servo for steering. Electronic driving aids such as ESP and ABS are prohibited. Telemetry is allowed as long as they function is part of the remote control and the receiver, as well as the associated sensors. This applies also to passive devices for recording data, and video that have no device for radio transmission.

3.3.14.- Technical Exclusions

Not more than one (1) servos. It is not allowed the use of additional electronic equipment for the Traction Control or braking (ABS). Set the back Gear. It is not allowed the use of any active telemetry system. 4-wheel brakes, or Independent controlled braking on the front wheels is not allowed. Liquid cooled motor. Hydraulic systems. The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/"G"-force sensors is strictly forbidden. No body or wheel flares extenders allowed and no Lola, wedge or open cock pit style bodies are allowed. Carbon fiber chassis are not permitted. Treatment of the tyres with additives is prohibited. Competitors found using additives will be disqualified from the event.

3.4.- GT ELECTRIC CARS (6S)

3.4.1.- Introduction

GTE cars. Admitted are all GT vehicles with brushless power, of a marketable 1/8 Buggy derived and based on on-road chassis . No carbon fiber chassis. This correspond in essential parts, such as wishbones, differentials, etc.

3.4.2.- Dimensions

Maximum length: 590mm

Maximum width: 310mm, including wheels

Wheel base: between 320-379mm

Height: max 175mm, with chassis plate on the ground

Minimum height: 155mm with chassis plate on 20mm blocks. See ANNEX2

3.4.3.- Weight

3.8 kg minimum, maximum 4.4 kg

3.4.4.- Transmission

The transmission of driving force to front and rear axle is effected by cardan shafts. Belt drive is not allowed. Ball differentials and rigid through drive on the axles and freewheel front drive are prohibited, no center differential is required.

No one-way, spools, locking "Torsion-type," or externally adjustable differentials are permitted. The gear diffs. can be tuned only with the use of silicone-based fluid. Identical F/R drive ratios are required – no F/R underdrive/overdrive permitted. The drivetrain shall be a center shaft system with ring and pinion gears driving the differentials. Shaft-drive only – belt driven cars are not permitted. The drive system must maintain the same features as used in the original off-road configuration.

3.4.5.- Motor

There are brushless motors approved with the following maximum dimensions:

- Diameter: 44 mm Maximum
- Length: maximum 75 mm

There are both motor and approved without sensor. The manufacturer is optional.

3.4.6.- Batteries

Any type of battery will be allowed as long as it is commercially available. Only those of the type maximum 6s (6 elements in series). The brand, voltage, Manufacturer, etc. must be reliably in each battery, not valid those batteries that have lost the original manufacturer's instructions. **HARDCASE IS MANDATORY.** The maximum voltage is 25.2 V at the start of the race . When you load a maximum charge voltage of 4.2 V is required. The batteries and Chargers must have an equalizer cable. The Chargers must have a program Specific for LIPO/LIFE load, i.e. CC/CV (constant current,

voltage cut), with Cut according to the specifications of the EFRA regulation and the load must be made with the cable Equalizer. Charging or unloading these batteries cannot exceed 60 a peak. It is obligatory to have a fireproof bag for the batteries. It's about a safety measure for the pilot, circuit and environment

3.4.7.- Controller

The controller (ESC) is optional

3.4.8.- Body

The body must be made from an existing car design, whose name must be mentioned on the request for homologation. Allowed are replicas from ALMS, GT1 or GT2, Super GT, DTM, and V8 Supercar Cars. After been approved the name of the body is free to avoid license fees etc.

Bodies must be within the GBS dimensions by IFMAR. See ANNEX1.

The body must have visible windows, body panel and trim markings, and the windows must be mostly clear. Some intrusion for creative painting purposes and tinting is permitted, but the windows must be transparent. Bodies must have headlight and grill details.

Aerodynamic aids like diffuser and flaps are not allowed. No internal body supports / stiffeners / braces allowed to avoid lightweight bodies with internal modifications and add-ons, excluding reinforcement of the wheel arches and back boot lit is allowed. The body must rest on a maximum of 5 posts. Bodies must be made from Lexan with a minimum thickness of 1mm. Bodies with vertical sides (as nitro 1/8) are prohibited.

3.4.9.- Openings in the body

Electric cars cannot trim the front windshield. The antenna hole (10 mm) and side windows can be trimmed. A hole of 50 mm in diameter can be made in the rear windshield.

3.4.10.- Wing

The wing must meet the following requirements:

- Must be mounted on the body.
- Depth: 79mm maximum, measured parallel to the inclination of the wing.
- Width: 315mm maximum, measured parallel to the inclination of the wing.
- The wing must rest on maximum 3 body posts which are not wider as 30mm each.
- Will be allowed 10 mm above the rooftop wing. See ANNEX2

3.4.11.- Bumper

All models must be equipped with bumpers made of flexible material, with no sharp edges and rounded, so as to minimize the consequences of a possible impact with the model. It should be covered with a type of soft and flexible material (foam type) it should look over minimum 1cm from the bumper in all each contour area and with a width of minimum 2 cm in that.

3.4.12.- Wheels, tyres

The wheels, front and rear, must have a diameter of 78mm + / - 2mm. The maximum width of the tyre (rim + pneumatic) cannot be more than 43mm +/- 2mm. The maximum diameter of the tyre will be 97 mm. The tyres of cars must be only of black colour and may have lateral writing of different colours. The tyres must be from molded rubber, the pattern is free. Inserts are allowed. Wheels must use a 17mm hex hub consistent with the dimensions and function of the hubs used in 1/8 off-road racing. The wheel must be fixed by a 17mm wheel nut, threaded on to the hex hub. Quick change mechanisms are not permitted. No tyre or rim may protrude outside the body. Tire Rubber Only, no Foam tires allowed.

3.4.13.- Electronics

The electrical / electronic equipment consists of the battery (LiPo hard case), controller (ESC) and a servo for steering. Electronic driving aids such as ESP and ABS are prohibited. Telemetry is allowed as long as they function is part of the remote control and the receiver, as well as the associated sensors. This applies also to passive devices for recording data, and video that have no device for radio transmission.

3.4.14.- Technical Exclusions

Not more than one (1) servos. It is not allowed the use of additional electronic equipment for the Traction Control or braking (ABS). Set the back Gear. It is not allowed the use of any active telemetry system. 4-wheel brakes, or Independent controlled braking on the front wheels is not allowed. Liquid cooled motor. Hydraulic systems. The use of traction control devices, active suspension devices and any steering control aided by gyroscopes/"G"-force sensors is strictly forbidden. No body or wheel flares extenders allowed, and no Lola, wedge or open cock pit style bodies are

allowed. Carbon fiber chassis are not permitted. Treatment of the tyres with additives is prohibited. Competitors found using additives will be disqualified from the event.

4. CONTROL TIRE

1. General rules

1.1 Control tire will be mandatory for the event.

1.2. Any kind of additive with the aim to get more traction is not allowed during the whole meeting, included free practice and controlled timed practice.

1.3. Official tire for the meeting will be selected for the Federation together with the organizer at least 4 weeks before the International Race. They must consider to choose the official tire items like: track surface, price and other important points with the aim to get best traction as possible and best conditions for the drivers.

2. Control tire procedure during the meeting

2.1. Control tire will be mandatory for the event.

2.2.- Drivers must order quantity of tyres for the whole meeting. Those tyres must be in controlled area in the track in a personal box with driver's name and entry number. If needed, drivers can order additional tyres during the meeting to complete the event. 1 sets for Practice, 2 sets for Qualifying, 1 set extra for semi-finals, 1 set extra for main final. If additional set of tyres is needed for any reason, driver will be penalized with 2 laps in the last final or sub-final race.

2.3.- For free practice, drivers have free choice of tyres used, but no treatment is allowed. From the start of controlled timed practice (used for seeding), drivers have to use the Hand-Out tyres.

2.4.- Rain: In case of rain (decided by the Race director after consultation with the Section Chairman), any alternative tyre can be used which has not been treated in any way, with the aim to get more or less traction.

2.5.- Tyres must be used as they are supplied (no modification to the rims, except the axle hole and no shore meters can be used to select tyres) and will be given out and fitted in the controlled area. Drivers must only use tyres which they have in their respective box in the controlled area.

2.6.- When race is over and/or after technical inspection, drivers must leave the tyres in their respective box in the controlled area and they must leave the pit lane without tyres. If any tyre leaves the controlled area, they will not be used anymore during the whole event.

2.7.- Drivers who have finished their participation in the IR, can collect their tyres of the controlled area.

5. OTHER ITEMS

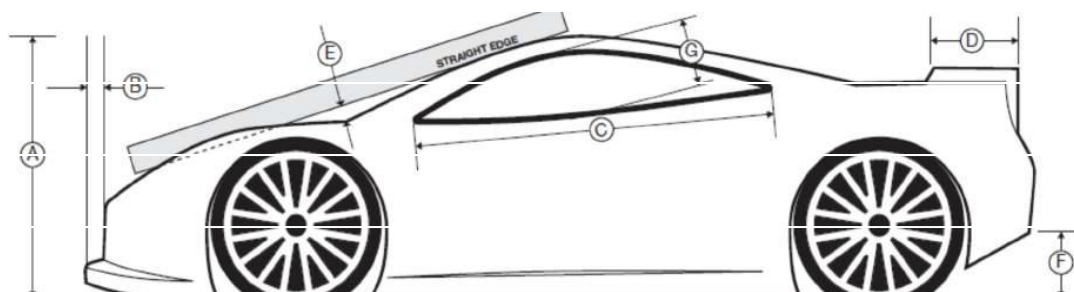
1. Others items which are not covered in this document, must follow next procedure:

- IFMAR GT Class Rules 2018 V1.0.

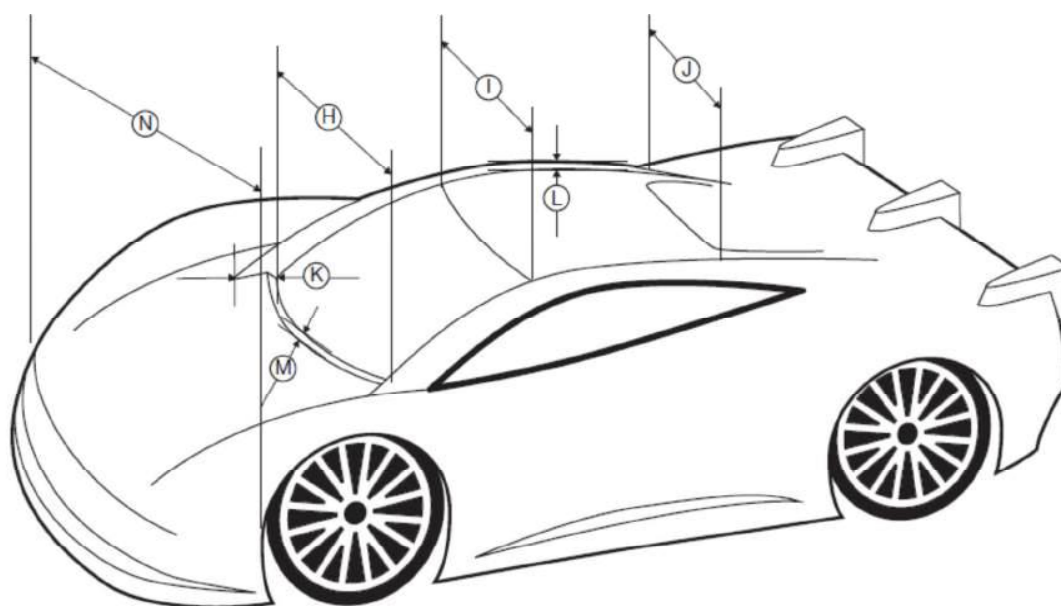
http://www.ifmar.org/html/pdf/rules/IFMAR_GT_class_rules_final_2018_V1_0.pdf

- Decision made in the team managers meeting or drivers meeting with simple majority of votes.

6 ANNEX 1 : GBS Proposal for GT Class



- A) Minimum 155mm (with chassis on 20mm blocks)
- B) Maximum 15mm depth
- C) Minimum 170mm
- D) Maximum 50mm (shape to be defined)
- E) Minimum 9mm gap between straight edge and top surface of the hood
- F) Maximum 75mm (with chassis on 20mm blocks)
- G) Minimum 47mm



- H) Minimum 200mm
- I) Minimum 145mm
- J) Minimum 130mm (top inside edge of C-pillar)
- K) Maximum 8mm depth of A-pillar above the windshield surface plane
- L) Maximum 5mm height of outer roof rail above the roof surface plane
- M) Maximum 4mm (stagger between hood and windshield)
- N) Maximum 317mm, minimum 300mm overall width

ANNEX 2

Will be allowed 10 mm above the rooftop wing

F) Maximum 75mm (with chassis on 20mm blocks)

A) Minimum 155mm (with chassis on 20mm blocks)

