# **LMH Technical Regulations**

**Important note:** The rules regarding Automation fixture detailing (rain lights, car number, class identification, battery isolator switch etc.) would count towards the detailing rating of the car, while the rest if not followed, could disqualify your car. You are not required to include the said Automation details on your car, but they are highly recommended and will be judged.

### Article 1 Bodywork and Dimensions

#### 1.1 - Overall Dimensions

1.1.1 - Bodywork Width

Overall bodywork width must not exceed:

2100 mm

1.1.2 - Bodywork Overall Length

Overall car bodywork length must not exceed:

5200 mm

1.1.3 - Wheelbase

Wheelbase must be a maximum of:

3150 mm

# 1.2 - Bodywork / Aerodynamics

1.2.1 - General

Active aerodynamics of any kind are forbidden.

1.2.2 - Exhaust Pipe Outlets

No blown diffusers/aero, even if only visual

### 1.3 - Lighting

## 1.3.1 - Headlights

- a) At least two headlights in a symmetrical arrangement are required.
- b) The headlights must produce a white beam.

### 1.3.2 - Taillights

- a) Two red taillights and two red brake lights in a symmetrical arrangement are required.
- b) Two red rain lights, positioned symmetrically and at the highest and outermost parts of the rear (e.g. wing endplates), are required.



fig. 1.3.2: an example of the red rain lights outlined in the regulation

#### 1.3.3 - Indicators

- a) One pair of orange indicators must be installed at the front of the car, with another pair at the rear.
- b) These indicators must simultaneously flash when the speed limit for Slow Zones and Full Course Yellow conditions is in effect.

#### 1.3.4 - Position Indicators

On each side of the car, three position indicator lights arranged in a vertical or near-vertical line are required.



fig. 1.3.4: an example of position indicator light

# 1.4 - Other Required Elements

### 1.4.1 - Fuel Connectors

There must be two refueling ports, with one of each side of the car. One of them should be blocked off with a panel. This is to represent the different pit lane orientations of different circuits, as the pit crew would be on different sides of the car when it comes into the pits.

# 1.4.2 - Racing Number

- a) Three instances of the racing number (white number on a red background) are required (one on the bonnet area in a central position, and one on each side).
- b) The color of the number background should be #DA291C (Pantone 485 C) or similar.



Pantone 485C

c) Above the number background, a rectangular area is allotted for an official sponsor.

#### 1.4.3 - Class Identification

a) Three "Hyper Car" class stickers are required (one on the bonnet area excluding the fenders, and one on each side).



b) For hybrid cars, two additional "HY" stickers are required (one on each side of the upper engine cover, the vertical fin, or the roof scoop).



# Article 2 Weight

# 2.1 - Minimum Weight

The car must have a minimum weight of 1030 kg without fuel or driver.

#### Article 3 Power Unit

### 3.1 - Powertrain Performance

Peak output must not exceed: **600 kW (804.6 hp)** 

### 3.2 - Engine

### 3.2.1 - Engine Specifications

- Variable geometry devices are only allowed on rotary engines. (variable geometry turbo or variable intake are not allowed)
- Engine must not use more than two inlet and two exhaust valves per cylinder (4v/c).

## Article 4 Engine Transmission System

#### 4.1 - Transmission Type

- a) Engine can only either power the front axle or rear axle
- b) If used by your design, an ERS (Energy Recovery System) can be used on the axle that is not powered by the engine
- c) ERS must be either a capacitor/battery based electric hybrid system, or a flywheel energy recovery system (similar to the Nissan GTR-LM Nismo LMP1 race car)
- d) Gearbox device must be sequential type (automanual in Automation), with 7 forward ratios max

# 4.2 - Driving Aids

TC and ABS combo are allowed, but not as part of a full ESC system.

#### 4.3 - Differential

Only clutched and geared LSDs are allowed.

# Article 5 Suspension and Steering Systems

# 5.1 - Suspension Kinematics

Only double wishbone or pushrod type suspension are allowed.

# 5.2 - Suspension Adjustment

- 5.2.1 Active Suspension
  Active suspension components are forbidden.
- 5.3 Steering
  Hydraulic or electric power steering are allowed.

## Article 6 Brake System

### 6.1 - Brake Discs

All discs must have a maximum outside diameter of:

380 mm

#### Article 7 Wheels and Tires

#### 7.1 - Number of Wheels

The number of wheels is fixed at four.

#### 7.2 - Wheel Dimensions

- a) Complete wheel diameter must not exceed:
  - 28" (**711.2 mm**)
- b) Wheel (rim) diameter must be:
  - **18**" (457.2 mm)
- c) Tire width must be:
  - Front and rear combined to be a maximum of 650mm wide (for example, 320mm front, 330mm rear)
  - Tire sizes must be divisible by 10 (330, 340 ok, not 335)
  - The Maximum width of a single tire is 340

(Note: to easily measure the wheel size, the Automation engineering should conform to the rules above, and the advance trim setting cannot alter the size parameters by a significant amount)

#### 7.3 - Wheel Material

Alloy and Magnesium are allowed.

# Article 8 Interior and Safety

### 8.1 - Interior Equipment

- a) Only one seat for the driver is permitted during competition.
- As only absolutely necessary equipment is allowed in the cockpit, a basic interior must be fitted.

- c) Systems similar in purpose to a road vehicle's in-car entertainment system are forbidden. (No entertainment systems of any type are allowed.)
- d) Driver displays for vehicle information, telemetry, rear-view camera and other race-related functions are permitted. (For Automation design)

### 8.2 - Safety Equipment

- a) An accident data recorder is required (2020s Advanced safety only, with 0 quality).
- b) One symmetrical pair of external battery isolator/circuit breaker switches and one symmetrical pair of external fire extinguisher switches are required on the exterior of the car at the base of the windshield.
- c) All extinguisher switches should be marked with a red E within a red-edged white circle (example below).



d) All isolator switches should be marked with a jagged red arrow or lightning bolt shape within a blue triangle, above an accompanying red or blue N within a red-edged white circle (example below).



# Article 9 Fuel

# 9.1 - Fuel Blend

- a) As determined by the organizer, the fuel used will be a blend of 100% ethanol. (E100 fuel)
- b) The supplied fuel will have an octane of 129 RON.