



LE MANS 24 HOURS 4th–5th April 2020

Henley Sports Centre
Stratford Road
Henley–In–Arden
Warwickshire B95 6AB
United Kingdom

SPORTING REGULATIONS version 1.0

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Preamble



The DiSCA Le Mans 24 hours is a twenty-four hour endurance race for 1/32 scale slot racing cars, organised by The Digital Slot Car Association. The race is run using the wireless digital slot racing system, Slot.it oxigen. The event takes place at the Henley Sports Centre, Henley-In-Arden, UK during the weekend 4th-5th April 2020.



Race weekend includes practice and qualifying on the preceding Friday, with further sessions on Saturday morning. The race will begin at 15:00 GMT on Saturday afternoon.



The circuit layout is a replica of Circuit La Sarthe, Le Mans, France. It is built from Ninco track pieces and lane change sections, which have been modified using Slot.it oxigen LC drivers. The circuit features four lanes and a working pit lane.

Some parts of the circuit are decorated with scenery. During night-time running, the circuit will operate with the hall lights switched off. Some parts of the circuit will feature decorative lighting.



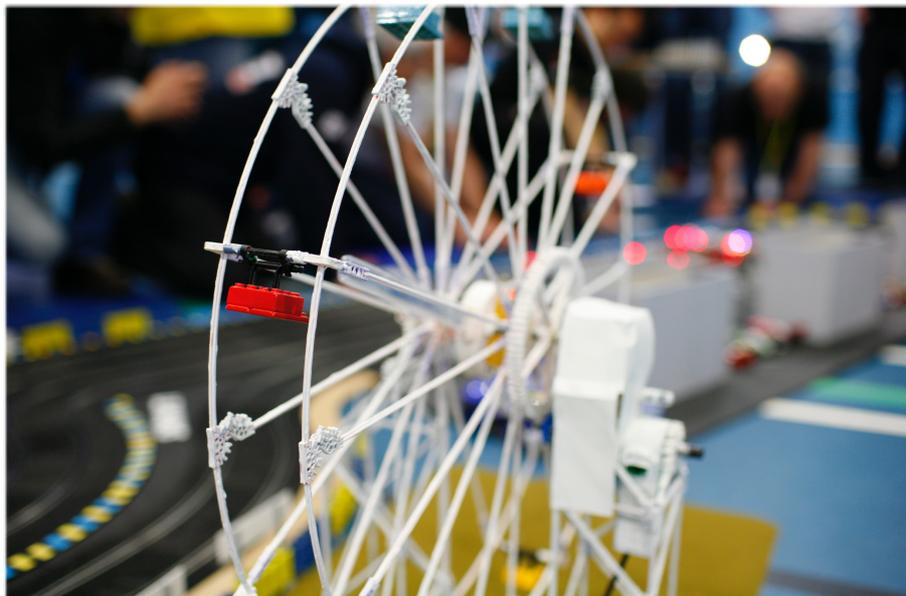
The race itself lasts for 24 hours, and the eligible cars will be split into multiple categories based on their type.



All models built must be accurate representations of Le Mans racing cars constructed in the spirit of a 1/32 scale replica.

Awards will be given for;

- Winner of the Concours d'Elegance as judged by team captains
- The fastest single lap time posted during official qualifying (pole position)
- The top three finishing positions in each category, and the winner of the race overall
- The Spirit of Le Mans award, given at the discretion of the organizers



1. Categories

- 1.1. The race is open to 1/32 scale slot racing models of cars that raced at Le Mans in the years according to the following category groupings;
 - 1.1.1. Le Mans Prototypes 2010–2019
 - 1.1.2. Le Mans Grand Tourisme 2015–2019
 - 1.1.3. The website [RacingSportscars.com](https://www.racingsportscars.com) will be used as the official source of reference
- 1.2. Cars will be grouped by category based on their type. The categories are as follows:
 - 1.2.1. Le Mans Prototype “P1”
 - 1.2.2. Le Mans Prototype “P2”
 - 1.2.3. Grand Tourisme “GT”
- 1.3. The technical specifications for each category are illustrated in the document “DiSCA Le Mans Endurance Sports Cars Technical Regulations, Appendix A”

2. Officials

- 2.1. Official referees will wear a red lanyard and ID badge
- 2.2. Race control will be staffed by an official referee
 - 2.2.1. Team members may be designated to become temporary officials at any time, where it is not possible for a member of the organisation to occupy race control
- 2.3. The responsibilities of race control include, but are not limited to;
 - 2.3.1. Drivers signing in/out
 - 2.3.2. Monitoring the status of the race or practice session
 - 2.3.3. Making the decision if the race should be stopped or run under caution for any reason
 - 2.3.4. Timing and scoring
 - 2.3.5. Issuing penalties
 - 2.3.6. Acting custodians of hand-out motors and tyres
- 2.4. Final authority on resolving any issue remains the reserve of the organizers;
 - 2.4.1. Gary Skipp
 - 2.4.2. Alex Jones

3. Teams

- 3.1. All teams must have a designated team captain.
 - 3.1.1. Team captains will wear a yellow lanyard and ID badge
- 3.2. Teams must have a minimum of three (3) drivers
- 3.3. Teams may have a maximum of six (6) drivers
- 3.4. Non-driving team members are allowed
- 3.5. All team members other than the captain will wear a blue lanyard and ID badge
- 3.6. All team members must sign-on with race control when arriving at the sports hall
- 3.7. All team members must be present for the driver's briefing (race day) on Saturday
- 3.8. All team members must be present for the presentation ceremony following the race on Sunday
- 3.9. The responsibilities of team captains include, but are not limited to;
 - 3.9.1. General control and conduct of team members
 - 3.9.2. Reporting any issues or indiscretions to race control
 - 3.9.3. All driver's responsibilities

- 3.10.** The responsibilities of drivers, when driving, include, but are not limited to;
 - 3.10.1.** Driving the car in a safe and considerate manner
 - 3.10.2.** Reporting any issues or indiscretions to their team captain only
 - 3.10.3.** All non-driving team members responsibilities
- 3.11.** The responsibilities on non-driving team members include, but are not limited to;
 - 3.11.1.1.** Build and/or maintenance of car
 - 3.11.1.2.** Communicating scoring information to other members of their team
 - 3.11.1.3.** Reporting issues or indiscretions to their team captain only
 - 3.11.1.4.** Communicating signals or penalties awarded to their team to other team members
- 3.12.** The event will be marshalled at all times by team members.
 - 3.12.1.** All team members must take turns to marshal the race, practice session or qualifying session
 - 3.12.1.1.** During practice sessions, any team with a car on the circuit must provide at least one marshal.
 - 3.12.1.2.** During qualifying and race sessions, all teams must supply at least one marshal at all times for the duration of the session.
 - 3.12.2.** Marshal posts are identified by numbers and arrows on laminated cards
 - 3.12.3.** At the start of the race, teams will occupy the marshal position equal to their qualifying position
 - 3.12.4.** Marshals will rotate around the circuit every hour in the clockwise direction
 - 3.12.5.** The responsibilities of the marshal include, but are not limited to;
 - 3.12.5.1.** Clearing the circuit of crashed cars
 - 3.12.5.2.** Clearing the circuit of other impediments
 - 3.12.5.3.** Replacing crashed cars onto the circuit only when it is safe and clear to do so
 - 3.12.5.3.1.** Marshals must check for on-coming traffic when replacing crashed cars. Non-compliance by the marshal may result in a penalty for the marshal's team
 - 3.12.5.4.** Removing broken-down or malfunctioning cars from the circuit
 - 3.12.5.5.** Repairing to the best of their ability, any damaged or displaced scenery, so that no obstruction remains to any car within the limits of the circuit
 - 3.12.5.6.** Reporting any issues or indiscretions to race control
 - 3.12.6.** The responsibilities of marshals does not include;
 - 3.12.6.1.** Repairing broken-down or malfunctioning cars
 - 3.12.6.2.** Delivering broken-down or malfunctioning cars to the pit lane
 - 3.12.6.3.** Delivering broken-down or malfunctioning cars to a team member
 - 3.12.6.4.** Repairing damaged or malfunctioning pieces of the circuit

4. Hand-out parts

- 4.1.** Motors are handed out to teams before Official Qualifying 1.
 - 4.1.1.** Teams will be given two (2) motors, of the same type, of their choice
 - 4.1.2.** Available motors are;
 - 4.1.2.1.** MIN09ch "Flat 6" 22,000 rpm
 - 4.1.2.2.** MX16 "V12/4" 23,000 rpm
 - 4.1.3.** Teams may not choose specific motors from those available
- 4.2.** Rear tyres are supplied by the organization. Tyre allocation is as follows;
 - 4.2.1.** PT1207N18 x 16
 - 4.2.2.** PT1207F22 x 4
- 4.3.** Rear tyres are kept by race control.
 - 4.3.1.** Teams may request a single pair of tyres to be supplied to them by race control as and when they are required
 - 4.3.2.** Used tyres will be kept by race control, and may be re-used if required

- 4.4. Hand-out tyres must be used during all official qualifying sessions and free practice session (3)
- 4.5. Teams may supply their own tyres for use in free practice sessions (1) and (2), but they must be the same specification as the supplied tyres stated above in 5.2, and fully compliant with section 5 of the Technical Regulations.

5. Spare chassis and body

- 5.1. A single identical spare chassis may be submitted to race control to be kept under Parc Ferme conditions, until it is needed due to exceptional circumstance
- 5.2. If necessitated, the chassis may be swapped once only. The original chassis will be held by race control until the end of the race
- 5.3. All superficial damage to original bodies must be repaired.
 - 5.3.1. The repair of bodies using “SCOTCH MAGIC” brand tape only, is allowed
 - 5.3.2. Heavy duty tape, a.k.a. “DUCK TAPE” is not acceptable for body repairs
 - 5.3.3. Windows must not be covered by an opaque film
- 5.4. A single identical spare body shell may be submitted to race control to be kept under parc ferme conditions. It is allowed to be used in the following circumstances only;
 - 5.4.1. Lighting kit failure on original body
 - 5.4.2. Total destruction of original body and/or mounting posts
- 5.5. If necessitated, the body may be swapped once only. The original body will be held by race control until the end of the race
- 5.6. In all cases, repair of original body is encouraged
- 5.7. Spare chassis may not be pre-assembled with any of the components that define the chassis as an individual component. Explicitly;
 - 5.7.1. Motor
 - 5.7.2. Axels
 - 5.7.3. Guide flag

6. T-cars

- 6.1. Teams are allowed one (1) race car and one (1) T-car only.
- 6.2. T-cars must be fully legal and are allowed on the track in free practice sessions (1) and (2) only
- 6.3. T-cars must have an identical body shell to the registered car. Alternative decoration is permitted.
- 6.4. T-cars will be assigned the same digital ID as the registered car

7. General equipment

- 7.1. The use of the Slot.it SCP-1 or SCP-2 hand controller with oXigen wireless cartridge is mandatory
- 7.2. All hand controllers must be plugged into the loom on the drivers rostrum. The loom delivers 12.0V DC.
- 7.3. Dedicated pit service tables are provided by the organisation and will feature the following services;
 - 7.3.1. Standard UK 240V electrical sockets. European adapters available from race control.
 - 7.3.2. Low-powered lighting
 - 7.3.3. Live track and hand controller power (12.0V DC)
- 7.4. All tools and consumables must be supplied by the entrants. Tools will not be supplied by the organisation

- 7.5. Teams will be allocated a dedicated 'base-camp' table
 - 7.5.1. Team 'base-camp' tables are allowed one low-powered light only
- 7.6. Standard UK 240V electric sockets are available around the hall. European adapters are available from race control
- 7.7. Wi-Fi wireless internet connection is available inside the hall
- 7.8. Playing music or streaming other forms of media is discouraged
- 7.9. Two-way radio is allowed

8. The circuit

- 8.1. Power to the circuit is direct current (DC – regulated). Rails are live at all times.
 - 8.1.1. Maximum current available is 40a
 - 8.1.2. Voltage will be set at a fixed value, determined by the organisation, between 11.0v and 14.0v
 - 8.1.3. Maximum power available to the motor may be restricted by race control via the RMS.
- 8.2. Alongside the start/finish straight is a working pit lane.
 - 8.2.1. All cars must enter the circuit from the pit lane
 - 8.2.2. The pit lane features sensors that limit the speed of the cars that use it
 - 8.2.3. Entering or re-entering the circuit in any way other than from the pit lane is illegal. All cars joining or re-joining the circuit must do so from the pit lane
 - 8.2.4. It is the responsibility of the driver to check for oncoming traffic when exiting the pit lane. Failure to do so that results in a collision will be punishable by penalty
- 8.3. The circuit will have a maximum of sixteen (16) marshal posts.
 - 8.3.1. Marshal posts are indicated by laminated card with a number (1–16) and arrow
 - 8.3.2. Marshal posts may be accompanied by seating or mats provided by the organisation. These should not be moved or swapped as they are arranged with driver visibility in mind
 - 8.3.3. Some marshal posts may be accompanied with 'grabbers' for assistance with retrieving crashed cars
- 8.4. The circuit infield is out of bounds at all times.
 - 8.4.1. In the event it is necessary to retrieve a crashed car from the infield, marshals should cross the circuit at a point that will cause least obstruction to the drivers. Marshals on the infield should crouch or keep as low as possible until it is appropriate to cross back to the outside of the circuit
- 8.5. Stepping onto the circuit at any time during the event is strictly prohibited

9. Qualifying

- 9.1. Prior to participating in Official Qualifying 1 (Q1) on Friday, drivers must attend the driver's briefing (qualifying briefing)
- 9.2. All drivers must sign on at racing control before taking control of the car during an official qualifying session
- 9.3. Driver position on the rostrum for the qualifying session will be chosen at random by race control. Positions will be posted in advance of each qualifying session
- 9.4. All drivers must complete three (3) 'flying' laps of an official qualifying session in order to take part in the race
- 9.5. Cars may be called in for technical inspection at any time during a qualifying session
- 9.6. All qualifying lap times set in any session count. Only the best time for each car counts.

- 9.6.1. All lap times set by a car later found to be illegal will be erased
- 9.7. The fastest qualifying lap time set by each car will determine;
 - 9.7.1. The order of the starting grid
 - 9.7.2. Priority choice of position on the driver's rostrum
- 9.8. Only cars that have posted a qualifying time can start the race
- 9.9. Drivers may only participate in the race by driving a car that they have qualified

10. The race

- 10.1. The race will have a total duration of 24 hours.
 - 10.1.1. If the race is red flagged for any reason, the downtime will not be made up after 24 hours is completed
 - 10.1.2. Any pit work or other maintenance on any racing equipment is prohibited during red flag periods
- 10.2. The race will begin with cars paired together on the central lanes, as dictated by the result of official qualifying.
 - 10.2.1. A limited number of warm-up laps may be completed under caution conditions
 - 10.2.2. Caution conditions will be terminated as soon as it is deemed suitable by race control
 - 10.2.3. All laps count as part of timing and scoring
- 10.3. Driver changes can only take place when the car is either;
 - 10.3.1. Stationary in the pit lane
 - 10.3.2. Removed from the circuit for maintenance
- 10.4. Any one driver is limited to a maximum of four (4) consecutive hours driving the car
- 10.5. Any one driver is limited to a maximum of fourteen (14) hours driving, in total, during the race
- 10.6. The race may be run under caution, at the discretion of race control, in the following instances;
 - 10.6.1. Isolated loss of circuit power
 - 10.6.2. Faulty lane changing mechanism on the circuit
 - 10.6.3. Excessive debris blocking the circuit
 - 10.6.4. Other isolated circuit malfunction
- 10.7. The race may be paused (red flag), at the discretion of race control, in the following instances;
 - 10.7.1. Total loss of circuit power
 - 10.7.2. Total loss of 12V supply for hand controllers
 - 10.7.3. Faulty lane changing mechanism in the pit lane
 - 10.7.4. Circuit becomes blocked
 - 10.7.5. Other power or system failure in the venue
 - 10.7.6. Loss of timing and scoring system
 - 10.7.7. Fire alarm sounds
- 10.8. The status of the race will not change in the following instances;
 - 10.8.1. Car or component mechanical failure
 - 10.8.2. Malfunctioning hand controller
 - 10.8.3. Isolated loss of 12V supply for hand controller(s)
 - 10.8.4. Cars and/or components are misplaced by team members
- 10.9. Lap scores may be altered under the following circumstances at the total discretion of race control;
 - 10.9.1. Car has missed control line on start / finish straight due to accident
 - 10.9.2. Car has missed control line on pit exit due to accident

10.9.3. Error in software awards laps incorrectly

10.10. Lap scores will not be altered under any of the following circumstances;

10.10.1. Technical fault with car

10.10.2. Technical fault with hand controller

10.10.3. Direct appeal by teams

10.11. The winner will be the car that has covered the greatest distance, measured in complete laps, in the 24 hour period.

10.11.1. In the case that two or more cars have completed the same number of laps, the final finishing position of each car on the track will determine which car has covered the greatest distance

10.11.2. Any car in the pit, crashed from the circuit or removed from the pit will automatically forfeit track position in respect of 10.12.1 or in any other case where this kind of judgement is deemed necessary

11. Pit Stops

11.1. Any inspection or maintenance of the car must be done after the car has stopped in the pit lane.

11.1.1. The only work allowed at the side of the track is cleaning of braids and tyres. In addition;

11.1.1.1. Body screws may be adjusted, but not removed

11.1.1.2. Body repairs that do not require the removal of any component may be carried out at the side of the track

11.1.1.3. The use of compressed air at the side of the track is illegal

11.1.2. Any work that requires the removal of any component from the car must be done at a designated pit table, after the car has stopped in the pit lane. Examples of such work include, but are not limited to;

11.1.2.1. Changing braid

11.1.2.2. Removal of body shell or body screws

11.1.2.3. Changing tyres and/or wheels

11.2. Only one (1) team member (mechanic) is permitted at the side of the track. If more than one team member is required to give service to the car, it must be taken to the pit table

11.3. Pit service must not be performed at race control

12. Judicial

12.1. Any indiscretion against regulations stated in this document are punishable by a penalty

12.2. Any car on the circuit must be legal at all times

12.3. When lapping a slower car, it is the responsibility of the faster car to change lanes and perform an overtake. Lapped cars should remain in their current lane until the faster car has passed.

12.3.1. Intentionally blocking of a faster car when lapping is illegal

12.3.2. Intentionally blocking a car fighting for position on the same lap is allowed

12.4. Contact from cars racing on the same lane, in proximity, is to be expected. Intentional or excessive contact is not allowed. Penalties will be issued in the following circumstances;

12.4.1. Intentional or excessive contact with another car

12.4.2. De-slotting another car by driving into the back of it

12.4.3. Intentionally stopping on the circuit

12.4.4. Excessive blocking by changing lanes when being lapped

12.5. Illegal contact may be reported to race control by any team member. Any three cumulative reports of illegal conduct will result in mandatory penalty for the offending team

12.6. Cars may be requested to pit for attention under the following circumstances;

12.6.1. Any functional or mechanical part of the car has become completely detached from the car

12.6.2. A wing or spoiler becomes broken, completely detached from the body, or it is clear to the official at race control that when viewing the car from his/her normal position, that it is damaged

12.6.3. The required number of headlights/taillights are not working

12.6.4. A car is otherwise causing a hazard that may damage the circuit or other cars on the circuit

12.7. If any session is under pace-car conditions, the following restrictions apply;

12.7.1. Circuit power will be limited by race control

12.7.2. Lane changing will be disabled

12.7.3. The pit lane will not be accessible under caution

12.7.4. Cars may be 'forced' onto specific lanes by race control

12.8. If any session is paused (red flagged), the following restrictions apply;

12.8.1. Cars must not be removed from the track, where they have come to stop

12.8.2. Any car in the pit at the time of the red flag must have no further work completed on it until the session is resumed

12.8.3. Drivers may leave the rostrum only under the direction by race control

12.9. During Parc Ferme conditions, cars may only be worked on under the supervision of an official referee.

12.10. Slow or malfunctioning cars should move to the inside lane and pit as soon as possible. Race control should be notified that there is a slow car on circuit so other drivers may be warned

12.11. The live display screen may be used to show warning flags to drivers. Examples of warning flags include;

12.11.1. Green flag. Normal racing conditions

12.11.2. Yellow flag. Race under caution conditions

12.11.3. Red flag. Race is stopped / paused

12.11.4. White flag. Slow car on circuit – move to outer lanes

12.11.5. Black flag with official racing number. Car (ID) has been issued with a penalty and must report to the pit within 5 laps

12.11.6. Black and orange flag with official racing number. Car (ID) is required to pit for repairs

13. Penalties

13.1.The standard penalty for indiscretion will be a stop-and-go penalty for ten (10) seconds

13.2.Penalties awarded for illegal contact will be awarded on an incremental basis;

13.2.1.The first penalty will be a stop and go penalty for ten (10) seconds

13.2.2.The second penalty will be a stop and go penalty for thirty (30) seconds

13.2.3.The third penalty will be a stop and go penalty for one (1) minute

13.2.4.Any further penalty will be determined by race control

13.3.Race control reserve the right to disqualify any team which have amassed five (5) or more penalties

13.4.Cars which require repairs to address a technical infringement, such as in the case of a broken wing or incorrect number or working lights, must to return to the pit and resolve the issue. No other penalty will be awarded.

13.4.1.In the event that a technical infringement cannot be resolved by practical repair, the team captain may instead choose the option to forfeit one hundred (100) laps from their total recorded distance. The deduction will be applied at the end of the race

13.5.Any team eligible to serve a penalty will be notified over the PA system.

13.5.1.The team has five (5) laps grace to return to the pit and serve the penalty

13.5.2.Failure to return to the pit within five laps will result in race control sending a 'force pit' signal to the car. It will return to the pit lane under control of the RMS

13.5.3.In the case that a car that is forced to the pit on under the control of the RMS, the stop-go penalty will be extended by an extra one (1) full minute

13.6.Race control reserves the right to override control of any car due to some exceptional circumstance

14. Registration

14.1.The grid is limited to sixteen (16) cars

14.1.1.A maximum of nine (9) cars are permitted to register in each of the categories

14.2.The first sixteen (16) teams to register a car will be entered into the race

14.3.Up to four (4) additional teams will added to a reserve list

14.4.In the event that a registered team does not process payment in full by 31st January, the first reserve will be invited to take their place. Non-competing reserve teams will have deposits refunded in full fourteen (14) days before the race

14.5.The entry form is accessible online by [clicking here](#)

14.6.Registration is considered official upon;

14.6.1.Receipt of the entry form

14.6.2.Receipt of deposit in full

14.7.Official racing numbers will be assigned to the team following registration

14.7.1.The official racing number will match the oXigen digital car ID

15. General

15.1. During overnight Parc Ferme (Friday/Saturday), the built-up chassis of the race car must remain in Parc Ferme. The race body, T-car, and any spare chassis or body may be retained by the team captain.

15.2. All cars must participate in Concours d'Elegance.

15.2.1. Scores awarded to ready-to-run (RTR) bodies entered in Concours will not be counted

16. Fees

16.1. The entry fee is £225.00 GBP per car due on 31st January 2020

16.2. The deposit required for registration is £25.00. Deposits are non-refundable

16.2.1. The final balance after deposit may be paid in any number of instalments, of any amount, subject to prior agreement with the organisation

16.3. Any team who has not completed payment in full by the deadline given in 16.1 will be subject to a late payment penalty charge of £25.00 in addition to the total amount

17. Cancellations

17.1. Any team which withdraws their entry from the event will forfeit their deposit.

17.2. Any team which withdraws their entry from the event after the final payment deadline in 16.1 will be refunded the balance of the entry fee on a pro-rata basis, calculated by the number of days left before the event.

18. Financial information

18.1. Payments may be made using the following methods;

18.1.1. Bank Transfer. Account details are as follows;

Account number	49008068
Sort Code	30-96-12
SWIFT code	LOYDGB2L
IBAN no.	GB91LOYD30961249008068
BIC	LOYDGB21372

18.1.2. PayPal officialdisca@gmail.com

18.1.3. Cheque in GBP only payable to "The Digital Slot Car Association" sent to;

Mr. Alex Jones
76 Redlands Road
Solihull, B91 2LT
United Kingdom

Schedule

Timings given are approximate and may be subject to change. The start and end of night-time conditions is not defined by the schedule.

Friday

1200	Sports Hall open for teams. Teams sign-on.
1300–1500	Free practice session (1)
1500–1600	Track closed. Firmware updates for teams.
1600–1800	Free practice session (2)
1800	Track closed. Hand-out motors and tyres are issued. Firmware updates for teams.
1850	Driver's Briefing (Qualifying)
1900–2030	Official Qualifying (1)
2030	Rotate Driver and Marshal positions
2030–2200	Official Qualifying (2)
2200	Track closed. All cars to Parc Ferme with BODIES OFF
2210	Sports Hall closed

Saturday

0930	Sports Hall open for teams. Teams sign-on.
1000	Driver's Briefing (Race Day) MANDATORY ATTENDANCE
1025	Cars released from Parc Ferme
1030–1200	Official Qualifying (3)
1200	Track closed. All cars to Parc Ferme BODIES OFF
1200–1300	Technical Inspection ALL CARS / Lunch Break
1320	Qualifying result announced.
1320–1400	Parade des Pilots – Team Photographs and National Anthems for drivers
1400–1420	Concours d'Elegance ALL CARS
1420–1445	Grid and photos
1445	Starting drivers to the rostrum
1450–1458	Track open for sighting laps
1458	Pit lane closed
1459	Cars leave the grid behind pace car
1500	Green flag

Sunday

1500	Chequered flag
1530	Presentation ceremony
1600	Dis-assembly of track