

THE DIGITAL SLOT CAR ASSOCIATION WEC GENERIC SPORTING REGULATIONS version 2.1

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Preamble

This document serves as a generic ruleset for independent race organisers to run endurance races of six hours in length in accordance with DiSCA standards and procedures. Race lengths may be adapted to suit organiser's preferences but would typically apply to races between three (3) and twelve (12) hours in length. In the interest of application, some specifics of organising, such as logistical elements, are omitted from this document and must be clarified by the race organiser.

1. Officials

- 1.1. Race control will be staffed by an official referee
 - 1.1.1. 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
- 1.2. The responsibilities of race control include, but are not limited to;
 - 1.2.1. Drivers signing in/out
 - 1.2.2. Monitoring the status of the race or practice session
 - 1.2.3. Making the decision if the race should be stopped or run under caution for any reason
 - 1.2.4. Timing and scoring
 - 1.2.5. Issuing penalties
 - 1.2.6. Acting custodians of hand-out motors and tyres
- 1.3. Final authority on resolving any issue remains the reserve of the organiser

2. Teams

- 2.1. Teams must have a minimum of three (3) drivers
- 2.2. Teams may have a maximum of six (6) drivers

- 2.3. Non-driving team members are allowed
- 2.4. All team members must be present for the driver's briefing
- 2.5. All teams must have a designated team captain. The responsibilities of team captains include, but are not limited to;
 - 2.5.1. General control and conduct of team members
 - 2.5.2. Reporting any issues or indiscretions to race control
 - 2.5.3. All driver's responsibilities
- 2.6. The responsibilities of drivers, when driving, include, but are not limited to;
 - 2.6.1. Driving the car in a safe and considerate manner
 - 2.6.2. Reporting any issues or indiscretions to their team captain only
 - 2.6.3. All non-driving team members responsibilities
- 2.7. The responsibilities on non-driving team members include, but are not limited to;
 - 2.7.1.1. Build and/or maintenance of car
 - 2.7.1.2. Communicating scoring information to other members of their team
 - 2.7.1.3. Reporting issues or indiscretions to their team captain only
 - 2.7.1.4. Communicating signals or penalties awarded to their team to other team members
- 2.8. The event will be marshalled at all times by team members.
 - 2.8.1. All team members must take turns to marshal the race, practice session or qualifying session
 - 2.8.2. Marshal posts are identified by numbers and arrows on laminated cards
 - 2.8.3. At the start of the race, teams will occupy the marshal position equal to their qualifying position
 - 2.8.4. Marshals will rotate around the circuit every hour in the clockwise direction
 - 2.8.5. The responsibilities of the marshal include, but are not limited to;
 - 2.8.5.1. Clearing the circuit of crashed cars
 - 2.8.5.2. Clearing the circuit of other impediments
 - 2.8.5.3. Replacing crashed cars onto the circuit only when it is safe and clear to do so
 - 2.8.5.3.1. 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
 - 2.8.5.4. Removing broken-down or malfunctioning cars from the circuit
 - 2.8.5.5. 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
 - 2.8.5.6. Reporting any issues or indiscretions to race control
 - 2.8.6. The responsibilities of marshals does not include;
 - 2.8.6.1. Repairing broken-down or malfunctioning cars
 - 2.8.6.2. Delivering broken-down or malfunctioning cars to the pit lane
 - 2.8.6.3. Delivering broken-down or malfunctioning cars to a team member
 - 2.8.6.4. Repairing damaged or malfunctioning pieces of the circuit

3. Hand-out parts

- 3.1. Motors are handed out to teams before Official Qualifying 1.
 - 3.1.1. Teams will be given one (1) motor of which type may be chosen from those below;
 - 3.1.1.1. MIN09ch "Flat 6" 22,000 rpm
 - 3.1.1.2. MX16 "V12/4" 23,000 rpm
 - 3.1.2. Teams may not choose specific motors from those available
- 3.2. Rear tyres are supplied by the organization. Tyre allocation is as follows;
 - 3.2.1. PT1171 G25, of which quantity to be decided based on race length

- 3.3.** Rear tyres are kept by race control
 - 3.3.1.** Teams may request a single pair of tyres to be supplied to them by race control as and when they are required
 - 3.3.2.** Used tyres will be kept by race control, and may be re-used if required
- 3.4.** Teams may supply their own tyres for use in free practice sessions
- 3.5.** Hand-out tyres must be used from the moment they are issued. Teams' own tyres are not permitted after handout materials are issued.

4. Spare chassis and body

- 4.1.** 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
- 4.2.** If necessitated, the chassis may be swapped once only. The original chassis will be held by race control until the end of the race
- 4.3.** All superficial damage to original bodies must be repaired.
 - 4.3.1.** The repair of bodies using "SCOTCH MAGIC" brand tape only, is allowed
 - 4.3.2.** Heavy duty tape, a.k.a. "DUCK TAPE" is not acceptable for body repairs
 - 4.3.3.** Windows must not be covered by an opaque film
- 4.4.** 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;
 - 4.4.1.** Lighting kit failure on original body
 - 4.4.2.** Total destruction of original body and/or mounting posts
- 4.5.** If necessitated, the body may be swapped once only. The original body will be held by race control until the end of the race
- 4.6.** In all cases, repair of original body is encouraged
- 4.7.** Spare chassis may not be pre-assembled with any of the components that define the chassis as an individual component. Explicitly;
 - 4.7.1.** Motor
 - 4.7.2.** Axels
 - 4.7.3.** Guide flag

5. T-cars

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

6. General equipment

- 6.1.** The use of an unmodified Slot.it SCP-1, SCP-2, or SCP-3 hand controller with oXigen wireless cartridge is mandatory.
 - 6.1.1.** Modifications to hand controller cables and connections are illegal
- 6.2.** Hand controllers with power cables must be plugged into the loom on the drivers rostrum. The loom delivers 12.0V DC.
 - 6.2.1.** Hand controllers using battery power must be operated from corresponding rostrum space.
 - 6.2.2.** The organisation accepts no responsibility or liability regarding battery powered hand controllers

- 6.3. All tools and consumables must be supplied by the entrants. Tools will not be supplied by the organizers.
- 6.4. Hot pit will feature the following services;
 - 6.4.1. Standard electrical socket
 - 6.4.2. Low-powered lighting
 - 6.4.3. Live track and hand controller power (12.0V DC)

7. The Circuit

- 7.1. Power to the circuit is direct current (DC – regulated). Rails are live at all times.
 - 7.1.1. Circuit amperage must accommodate for at least 2.0a per car
 - 7.1.2. Voltage will be set at a fixed value, determined by the organisation, between 11.0v and 14.0v
 - 7.1.3. Maximum power available to the motor may be restricted by race control via the RMS.
- 7.2. The circuit must feature a working pit lane.
 - 7.2.1. All cars must enter the circuit from the pit lane
 - 7.2.2. The only work allowed at the side of the track is cleaning of braids and tyres
 - 7.2.3. In addition;
 - 7.2.3.1. Body screws may be adjusted, but not removed
 - 7.2.3.2. Body repairs that do not require the removal of any component may be carried out at the side of the track
 - 7.2.4. The use of compressed air at the side of the track is illegal
 - 7.2.5. All cars re-joining the circuit must do so from the pit lane
 - 7.2.5.1. 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
 - 7.2.6. Entering or re-entering the circuit in any way other than from the pit lane is illegal
- 7.3. The circuit will have feature marshal posts marked by number
 - 7.3.1. Any seating provided should be utilised with driver visibility in mind

8. Qualifying

- 8.1. All drivers must participate in the official qualifying session in order to take part in the race
- 8.2. 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
- 8.3. Cars may be called in for technical inspection at any time during a qualifying session
- 8.4. All qualifying lap times set in any session count. Only the best time for each car counts.
 - 8.4.1. All lap times set by a car later found to be illegal will be erased
- 8.5. The fastest qualifying lap time set by each car will determine;
 - 8.5.1. The order of the starting grid
 - 8.5.2. First choice of positioning on the driver's rostrum
- 8.6. Only cars that have posted a qualifying time can start the race
- 8.7. Drivers may only participate in the race by driving a car that they have qualified

9. The race

- 9.1.** Race length is to be specified by the organisation, of between three (3) and twelve (12) hours.
 - 9.1.1.** If the race is red flagged for any reason, the downtime will not be made up after the duration is completed
 - 9.1.2.** Any pit work or other maintenance on any racing equipment is prohibited during red flag periods
- 9.2.** The race will begin with cars paired together on the central lanes, as dictated by the result of official qualifying.
 - 9.2.1.** A limited number of warm-up laps may be completed under caution conditions
 - 9.2.2.** Caution conditions will be terminated as soon as it is deemed suitable by race control
 - 9.2.3.** All laps count as part of timing and scoring
- 9.3.** Any inspection or maintenance of the car must be done after the car has stopped in the pit lane.
 - 9.3.1.** Any work that does not require removal of any component may be done on the pit lane. For example – cleaning tyres
 - 9.3.2.** 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;
 - 9.3.2.1.** Changing braid
 - 9.3.2.2.** Removal of body shell or body screws
 - 9.3.2.3.** Changing tyres and/or wheels
- 9.4.** Driver changes can only take place when the car is either;
 - 9.4.1.** Stationary in the pit lane
 - 9.4.2.** Removed from the circuit for maintenance
- 9.5.** Any one driver is limited to a maximum of two (2) consecutive hours driving the car
- 9.6.** Any one driver is limited to a maximum of four (4) hours driving, in total, during the race
- 9.7.** The race may be run under caution, at the discretion of race control, in the following instances;
 - 9.7.1.** Isolated loss of circuit power
 - 9.7.2.** Faulty lane changing mechanism on the circuit
 - 9.7.3.** Debris blocking the circuit
 - 9.7.4.** Other isolated circuit malfunction
- 9.8.** The race may be paused (red flag), at the discretion of race control, in the following instances;
 - 9.8.1.** Total loss of circuit power
 - 9.8.2.** Total loss of power supply for hand controllers
 - 9.8.3.** Faulty lane changing mechanism in the pit lane
 - 9.8.4.** Circuit becomes totally blocked
 - 9.8.5.** Other power or system failure in the venue
 - 9.8.6.** Loss of timing and scoring system
 - 9.8.7.** Fire alarm sounds
- 9.9.** The status of the race will not change in the following instances;
 - 9.9.1.** Car or component mechanical failure
 - 9.9.2.** Malfunctioning hand controller
 - 9.9.3.** Isolated loss of power supply for hand controller(s)
 - 9.9.4.** Cars and/or components are misplaced by team members

- 9.10.** Lap scores may be altered under the following circumstances at the total discretion of race control;
 - 9.10.1.** Car has missed control line on start / finish straight due to accident
 - 9.10.2.** Car has missed control line on pit exit due to accident
 - 9.10.3.** Error in software awards laps incorrectly

- 9.11.** Lap scores will not be altered under any of the following circumstances;
 - 9.11.1.** Technical fault with car
 - 9.11.2.** Technical fault with hand controller
 - 9.11.3.** Direct appeal

- 9.12.** The winner will be the car that has covered the greatest distance, measured in complete laps, during the specified race length.
 - 9.12.1.** All lap scores count in totality and are final and valid, subject to judgement by race control, once the duration of the race has been completed.
 - 9.12.2.** 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.
 - 9.12.3.** In the case of a tie, any car in the pit lane or otherwise removed from the circuit through accident or malfunction will be demoted to become the lowest placing car by default.

10. Pit stops

- 10.1.** Cars requiring service must enter the pit lane and be fully stopped before being removed from the track
- 10.2.** 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 then it must be taken to the pit table

- 10.3.** Any work that requires any part of the car to be changed or removed must be done at a pit table
- 10.4.** Any work that requires the body to be removed must be done at a pit table

- 10.5.** Pit service must not be performed at race control

11. Judicial

- 11.1.** Any indiscretion against regulations stated in this document are punishable by a penalty

- 11.2.** Any car on the circuit must be legal at all times

- 11.3.** 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.
 - 11.3.1.** Intentionally blocking of a faster car when lapping is illegal
 - 11.3.2.** Intentionally blocking a car fighting for position on the same lap is allowed

- 11.4.** 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;
 - 11.4.1.** Intentional or excessive contact with another car
 - 11.4.2.** De-slotting another car by driving into the back of it
 - 11.4.3.** Intentionally stopping on the circuit
 - 11.4.4.** Excessive blocking by changing lanes when being lapped

- 11.5.** 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

- 11.6.** Cars may be requested to pit for attention under the following circumstances;
 - 11.6.1.** Any functional or mechanical part of the car has become completely detached from the car

- 11.6.2.**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
- 11.6.3.**The required number of headlights/taillights are not working
- 11.6.4.**A car is otherwise causing a hazard that may damage the circuit or other cars on the circuit

- 11.7.**If any session is under pace-car conditions, the following restrictions apply;
 - 11.7.1.**Circuit power will be limited by race control
 - 11.7.2.**Lane changing will be disabled
 - 11.7.3.**The pit lane will not be accessible under caution
 - 11.7.4.**Cars may receive force-change signals by race control

- 11.8.**If any session is paused (red flagged), the following restrictions apply;
 - 11.8.1.**Cars must not be removed from the track, where they have come to stop
 - 11.8.2.**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
 - 11.8.3.**Drivers may leave the rostrum only under the direction by race control

- 11.9.**During Parc Ferme conditions, cars may only be worked on under the supervision on an official referee.

- 11.10.**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. Penalties

- 12.1.**The standard penalty for indiscretion will be a stop-and-go penalty for ten (10) seconds
- 12.2.**Penalties awarded for illegal contact will be awarded on an incremental basis;
 - 12.2.1.**The first penalty will be a stop and go penalty for ten (10) seconds
 - 12.2.2.**The second penalty will be a stop and go penalty for thirty (30) seconds
 - 12.2.3.**The third penalty will be a stop and go penalty for one (1) minute
 - 12.2.4.**Any further penalty will be determined by race control

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

- 12.4.**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.
 - 12.4.1.**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

- 12.5.**Any team eligible to serve a penalty will be notified by race control.
 - 12.5.1.**The team has five (5) laps grace to return to the pit and serve the penalty
 - 12.5.2.**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
 - 12.5.3.**In the case that a car that is forced to the pit under the control of the RMS, the stop-go penalty will be extended by an extra one (1) full minute

- 12.6.**Race control reserves the right to override control of any car due to some exceptional circumstance

13. General

13.1. The grid size and registration process will be determined by the organisation

13.2. Fees and payments will be determined by the organisation

13.3. In the case of an overnight Parc Ferme being enforced, the built-up chassis of the race car and all motors and tyres must remain in Parc Ferme. The race body, T-car, and any spare chassis or body may be retained by the team captain.

13.4. If the race event has a Concours d'Elgance event, all cars must participate.

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