# **IMDRA**



Competition Rulebook January 1, 2014

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## Introduction

Welcome to International Model Drag Racing Association (IMDRA). This rulebook contains specific information set forth to help govern and maintain a structured and equal racing atmosphere for all IMDRA participants.

IMDRA currently provides 15 classes of competition that are generally based on the performance potential of specific type of cars. Factors such as care size, weight, wheel base, engine size, numbers of battery cells, body styles are included in the criteria for establishing a class.

IMDRA makes every attempt to organize and construct the best class structures possible, based on member input, participation and technological advancement of the cars.

#### Mission Statement

This organization was formed to promote and grow remote control drag racing at the local and regional club levels. IMDRA provides an environment where local and regional competition is rewarded by offering a national event system that supports and validates these efforts and truly represents the title of National event. IMDRA is here to promote all aspects of remote control drag racing. the IMDRA board is available to support your local track, club, racers and sponsors. We can assist with the development, awareness, operation and structure of clubs, tracks and events for your area. We at the board thank you for your continued support.

# I. GENERAL RULES AND SPECIFICATIONS

The rule set forth herein shall apply to all IMDRA sanctioned events.

# **IMDRA Event Preparation and Disclaimer**

Each member and/or participant agrees to familiarize themselves with the IMDRA rules and guidelines prior to competing in any IMDRA sanctioned event. Each member and/or participant expressly agrees that the act of entering an IMDRA sanctioned event shall constitute an agreement to be bound by all the rules and specifications covering the event.

IMDRA, race facility owners or operators, event sponsors or any officials shall not be held responsible or liable for loss, damage or injury resulting from competing in an IMDRA sanctioned event.

### 1. Event Officials and Authorities

## **Event Director**

The designated Event Director has the authority to render decisions regarding all aspects of safety and competition, the suitability of the track, and behavior of contestants. This authority includes the right to suspend, bar, expel or disqualify any contestant from the event. The member and/or participant agree to be bound by the decisions of the designated Event Director or their appointed representative.

## **Track Marshall**

The designated Track Marshall or appointed representative shall have the final decision in the event of a dispute of any rule, regulation or specification. The Track Marshall shall make every effort to base their decision on their knowledge as to the original intent of the item in question, and whether it renders a competitive advantage to the individual subject to the dispute.

NOTE: The contestant is responsible for contacting the Track Marshall prior to entering a vehicle in a sanctioned IMDRA event to ensure that it meets all rules and required specifications of IMDRA.

#### **Race Director**

The designated Race director or appointed representative shall be responsible for the conduct of all qualifying and elimination rounds. This includes the operation of the timing system, radio frequency separation, and posting of the competition results.

## **Event Cancellation**

Events cancelled due to weather or acts of God will not be rescheduled, nor will entry fees be refunded. This information shall be printed on all event registration forms.

# **Track Specifications**

The racing surface shall be as smooth, flat and level as possible. Tracks will be measured to and exact 132 feet. Measure and "X" pattern of equal distance to ensure square on all four corners. There are several ways of measurements to ensure a perfect square.

Example:

## **Pythagoras' Theorem**

Pythagoras Theorem asserts that for a right triangle with short sides of length a and b and long side of length c

a2+b2 = c2

# **Racing Surface**

The track grade shall not vary more than =/- 6 inches over 132 feet length of racing surface. The minimum width of each land shall be 8 feet with no maximum. the length of the racing surface shall be exactly 132 feet. The racing surface may be asphalt or concrete or like surface.

# **Staging Lanes**

Starting lane must have maximum of 2 inches rollout in order for national records to be certified. Rollout will be checked and certified before all national events.

## **Shut Down Area**

An additional 100-200 feet of clean, paved (shutdown) area shall extend beyond the end of the racing surface such that a smooth transition can be made. The deceleration area shall be clearly marked for safety purposes and impact absorbing safety devices will be added at the end of the area to help contain and preserve (catch) the vehicles.

# **Traction Compounds**

The racing surface may be treated with either a sugar/water mixture (1lb/gal) or a commercially available traction compound such as VP Lane Choice or VHT Track Bite.

# I. GENERAL SPECIFICATIONS

## **Bodies**

**Body Appearance** - the body must be neatly finished, painted and complete when initially entered. (No unfinished or clear bodies allowed).

**Body Attachment** - the body must remain affixed to the chassis at all times and as it crosses the finish line.

**Windows/Windshield** - may be painted, reflective, tinted or otherwise darkened, but must be a different color than the remainder of the body. All windows must remain intact except for the holes to promote cooling of the engine/electronics.

Exception: Dragster style bodies may have the canopy or windshield removed.

**Rear Body Cutouts** - the rear section of the body (valance/bumper panel) may be removed but must retain the original rear side quarter fenders, trunk lid and/or pickup bed.

**Body Trim Line** - the body may be trimmed above the lower body trim line.

Exception: The body must not be trimmed above the lower door line in Electric Pro Stock Class

Wheel Openings - all wheel openings must have stock appearance. Wheel openings must be as large as the wheel being used (width). covering of the wheel openings with any material is prohibited (center line of the axle must be visible).

**Extensions Beyond Body** - no portion of the chassis, wheels, tires or equipment my extend beyond the body. Tires may extend beyond the body/fenders on bodies representing early model coupes or roadsters only. Wheelie bars may extend beyond the body.

### Motors

There are **three (3)** electric motor classifications currently in use in IMDRA competition. They are as follows:

**Sportsman Racing Motors** - any ferrite magnet modified motor that is mass produced and commonly available through hobby distribution. Motor retail cost must not exceed \$95.00. Ball bearings and

adjustable timing are permitted. Re-truing of the commutator is permitted. Internal modifications to motor can, armature or magnets are not permitted. The maximum motor can dimensions are: diameter, 2.5 inches, length, 3.5 inches (end bell to end bell).

**Professional Brushed Racing Motors-** any cobalt or rare earth magnet based motor that is mass produced and commonly available through hobby distribution. The maximum motor can dimensions are: diameter, 2.5 inches, length, 3.5 inches (end bell to end bell).

Note: All classes using these motors must be equipped with a quick operating motor power disconnect devise that is easily accessible from outside the body.

**Professional Brushless Racing Motors -** any 540 cobalt or rare earth magnet based motor that is mass produced and commonly available through hobby distribution.

Note: All classes using these motors must be equipped with a quick operating motor power disconnect devise that is easily accessible from outside the body.

#### **Batteries**

All cars (see exceptions below) must use either nickel-cadmium (NiCad) or nickel metal-hydride (NiMH) batteries of (Sub-C). the individual cells may have no more than 1.2 volts nominally rated capacity of Sub-c size.

**Lithium Polymer -** (LiPo) and Lithium ion (Li-ion) batteries are allowed in transmitters and receivers in all classes and as a power source in all classes.

**Lithium Polymer -** (LiPo) and Lithium ion (Li-ion) batteries shall ONLY be charged with chargers designed and recommended by battery manufacturers and sold for this purpose.

**Links to Lithium Battery Info -** http://www.slkelectronics.com/ecalc/lithium.htm and http://en.wikipedia.org/wiki/Lithium\_ion\_battery

# **Portable Charging Units (Hot Boxes)**

Hot boxes are allowed in the staging lanes. Cars must be disconnected from the hot boxes before the car and driver enters the drivers' racing area and may not be reconnected.

# **Radio Receiver Power Switch**

All cars shall be equipped with a radio receiver power switch with clearly marked "On" and "Off" positions. The switch must be easily accessible and visible from outside the car. Drivers are cautioned to avoid starting the motor while the car is being handled.

### II. RACING RULES AND PROCEDURES

**Starting Formats** - there is one (1) starting format in general use in IMDRA competition:

**Pro Tree** - in which, following staging, three Amber lights will activate simultaneously, followed by the Green start light .400 seconds later for both lanes. All classes run Pro tree start.

# Qualifying:

All cars must self-start in order to constitute an official qualifying attempt. Contestants are permitted one car per class entered in any event. The Event Director may permit a contestant to change cars under the following conditions:

- 1.) All previous qualifying times are voided
- **2.)** The contestant must re-qualify within the time period allotted in the normal race event schedule. No changes are permitted after qualifying has been completed.
- **3.)** Once a contestant enters a class, he/she must remain in that class for the entire duration of the race.

# **Ladder Charts**

Competition paintings are based upon the established IMDRA "ladder" charts. Qualifying elapsed times determine the ladder positions. In a 16 care field, for example, the ladder chart may look like this: 1 vs. 16; 2 vs. 15; 3 vs. 14, etc. Once the pairings are established, they may not change unless the designated Race Officials determine there is sufficient justification. In situations where the field is not filled, the ladder chart type is determined by the number of contestants.

# Handicapping

Handicapping will be determined by comparing the margin between the two competitors' individual dial in times, the same system used in bracket racing competition.

## **Single Passes**

A competitor is declared the winner of a single pass once the car has staged and the Green start light is activated. If a competitor crosses a lane boundary during a single pass, the elapsed time is voided for lane choice determinations.

## **Break -Out Rules**

When competing under either Bracket format, a contestant who has an elapsed time below (quicker) his predicted dial in is disqualified. the following exceptions apply:

- **1.)** An opponent foul starts or crosses the center lane boundary, or at the discretion of the Event Director, the outside lane boundary;
- **2.)** They are on a single pass;
- **3.)** Both competitors run below their predicted dial in (in which case the competitor who runs below the dial by the least margin is declared the winner); or,
- **4.)** If both competitors run below the dial in by the same margin, the competitor crossing the finish line first is declared the winner.

# Disqualification

All instances of disqualification are subjected to the "First or Worst Infraction" test with the final determination being that of the Event Director. The following specific infractions are grounds for disqualification, suspension or expulsion:

- **1.)** Failure to report to the staging area as called.
- **2.)** Intentional delay of a run
- **3.)** Foul start (dual runs only)
- **4.)** Crossing the center lane boundary (or contact with the outside boundary at the discretion of the Event Director)
- **5.)** Contact with any track-timing fixture
- **6.)** Un-sportsman-like conduct, inappropriate or foul language or conduct determined to be disruptive to the racing environment
- **7.)** Any condition deemed unsafe, unfair or out of order is considered worse than a foul start (example; crossing center line, hitting wall, loss of car control)
- **8.)** At any time during racing, if any part of any track structure, i.e. side rails, timing reflection is touched by any part of a competitors' vehicle, it will be grounds for disqualification

# **Suspension From Competition**

Assault by any member and/or participant shall result in a suspension form IMDRA sanctioned competition for a minimum of 180 days. A longer suspension may be imposed at the discretion of the Event Director.

## **Shutdown Marshals**

Competitors must provide a pit crew member, which shall remain a minimum of 10 feet from the track edge (in the shut down area) while awaiting the arrival of their assigned car, to retrieve the car, shut off the receiver and disconnect the motor power after the completion of each race.

# **Staging and Lane Choice**

- **1.)** Competitors will have no more than **one (1)** minute to stage their cars once their opponent has staged
- 2.) No part of the car shall extend forward of the starting line when staged
- **3.)** Competitor with the lowest elapsed time in qualification will have lane choice. Ties are decided by mph.
- **4.)** Competitor with the lowest elapsed time in qualification will have radio frequency choice. Ties are decided by a coin toss. Competitors unable to change frequency shall forfeit the elimination race.
- **5.)** Competitors may not touch or assist their car in any way once it has been staged and the tree has been activated.
- **6.)** Once in position, competitors may not leave the starting line area during elimination races without the permission of the starter
- **7.)** A vehicle is considered staged when the driver or designated person releases the vehicle and returns to an upright position

# **Nitro Staging**

**Flameouts** - Competitors may restart once after initial staging. Nitro drivers are considered staged when both drivers remove their hand from the vehicle. At that point, the starter will activate the tree.

# Top Sportsman/Bracket Racing

Competition in Bracket Racing is decided as follows:

- **1.)** The competitor who reaches the finish line first and has an elapsed time closet to their dialin is declared the winner.
- **2).**The competitor who has an elapsed time under (quicker) than their dial-in automatically looses.
- **3.)** When both competitors have elapsed times under their dial-in, the competitor closest to their dial-in is declared the winner.
- **4.)** First round qualifying order will be determined by the closest to a .400 light.
- **5.)** Competitors shall notify the Race Director of their desired dial-in **BEFORE** staging for an elimination round.

# **Break Downs/No Shows**

If the winning competitor cannot return for the next round due to mechanical or electrical breakage, the losing competitor does not advance. the competitor paired with the broken competitor shall receive a bye run.

NOTE: the same rule applies in the case where an opponent does not show for any reason

# **Technical Protests**

**1.)** Any competitor that wishes to file a protest should do so in writing prior to the end of the race in question. In addition to the written protest, the fee schedule below provides the amount required to be deposited with the Race Official when the protest is submitted:

Protest Fee: \$100.00

Replacement Cost: Market value of part Multiple Item Protest \$25.00 additional

plus replacement cost per item

The competitor under protest must disassemble their car under the supervision of a Race Official. If the car is found to be Legal, the competitor under protest will receive the fees submitted with the protest. If the car is found to be ILLEGAL, the competitor under protest will be disqualified and the fees returned to the competitor who filed the protest.

Failure to present car for inspection automatically disqualifies a competitor under protest.

In the event a Race Official submits a protest, the fee requirements are waived. If the car is found to be LEGAL, the competitor under protest will receive replacement cost only.

2.) Claiming Rule A "sportsman" racing electric motor can be claimed at any time during an event but cannot be picked up until the end of that event. (Claiming is on a first come first served basis)

## **National Records**

The IMDRA National Record Program is conducted at every National racing event (Pro categories only). Each record run must occur during qualifying and/or elimination rounds and is in strict compliance with the starting, running, finishing, timing procedures of IMDRA. National records will **NOT** return to open status at the beginning of each calendar year. In addition, the following procedure apply:

- **1.)** Each car must be inspected to ensure compliance with the specifications for the class in which it enters.
- **2.)** Each record run must have a back-up performance within 1% of the record mark during the same event. If two runs by the same competitor exceed the existing record mark, but are not within 1% of each other, the lower elapsed time may serve as the back-up for the higher one which will stand as the new national record.
- 3.) Speed (mph) records must have a back up within 1% of the record.
- 4.) The contestant is responsible for notifying the Race Director that the vehicle may have set a National record. The contestant must immediately have the catch person return the vehicle to the Race Director for technical inspection following the run. IMDRA makes every attempt to track current records but the final responsibility is with the racer.
- 5.) In any combined class the national record will apply equally to all vehicles enter in the class

## **Radio Equipment**

Radio control equipment used in IMDRA competition shall conform to the applicable FCC regulations al all times, and is subject to the following additional requirements (ground frequency)

- **1.)** All competitors shall use the frequency assigned by the Race Director. There shall be no frequency changes unless approved by the Race Director
- 2.) REVERSE CRYSTALS ARE NOT ALLOWED
- **3.)** Transmitters capable of using multiple frequencies shall only display the color flag/channel number for the frequency in use
- **4.)** All transmitters may be impounded and placed under the physical control of the Race Officials. Transmitters will be released at the conclusion of the days' race. Transmitters shall not be removed from the impound area without the permission of the Race Director.
- **5.)** Competitors are responsible for notifying the Race Director if they are utilizing a Spektrum and/or Nomadio 2.4 GHz digital radio system. Due to their operating characteristics, they are not subject to impoundment.
- **6.)** The Race Director shall provide a secure and protected area for the impounding of radio equipment. Proper procedures shall be followed such that only **one (1)** transmitter on a specific frequency is allowed out of the impound area at any time (with the Race Director's permission). The Race Director shall insure that all transmitters in the impound area are in the OFF position.
- **7.)** Failure to comply with these requirements will be cause for disqualification at the discretion of the Race Director.

## I. IMDRA NATIONAL POINTS SERIES

# **General Description**

IMDRA determines individual class champions each year on the basis of points awarded through participation in a series of IMDRA sanctioned Regional and National events. The racing season general consists of **three (3)** or more National events. In 2007, the changes to the rule structure provided for a competitor's best two point race totals for national events and for Regional events a maximum of **three (3)** race total of points earned will be divided by 3 and included in the competitor's current racing season points total. This accumulation of Regional and National points will determine their position in the National Points Championship. Regional points are added to the racers National events, however, the additional races earned points are not awarded during these.

**NOTE:** No points for Regional races will be included after IMDRA World Finals event. Season competition points are awarded as shown in the following table:

# **Regional/Divisional Race Points Claiming**

A racer can race outside of his/her Region/Division, but can only claim points for a single declared Region/Division points ' series. Racers can claim their best points total which is the sum of **three (3)** Regional/Divisional races divided by 3, this dividend applies towards the racer's national points. racers without Regional/Divisional events are encouraged to travel outside of their Region/Division to attend other sanctioned IMDRA Regional/Divisional points races to improve their total towards a national championship.

# **Points System**

# **Identifier Points**

Qualifying 10 to all contestants must make one pass during official qualifying session

# Qualifying

1st	8pts
2nd	7pts
3rd	6pts
4th & 5th	5pts
6th	4pts
7th & 8th	3pts
9th through 12th	2pts
13th through 16th	1pt

# ET or Speed Record 20 Bonus Points per Record

1st Round Loser	20
2nd round Loser	40
3rd Round Loser	60

A-Side Event Runner Up	80
A-Side Event Winner*	100
<b>B-Side Event Winner</b>	50
B-Side Runner Up	40

# \*Minimum of 9 cars to award maximum points; no more than 20 points per round

IMDRA sanctions 15 competition classes, categorized as nitro and electric. the following specifications must be adhered to and any disputes and/or questions involving these specifications shall be addressed to the Technical Director or Race Director prior to the commencement of a race event.

# **VEHICLE CLASS SPECIFICATIONS AND GUIDELINES**

**General Guidelines:** Safety will be observed at **ALL** times. These rules and guidelines are set in place to provide for safe and competitive classes and everyone and equal opportunity to compete. Racers are required to adhere to all manufacturers safety specifications. All specifications are based on real car specs., as close to 1/10th and 1/4 scale as practical. All cars must be wheel driven. This means that the cars power must be directed into the tires, not thrust driven.

All coupler/shaft drive vehicles must have a protective cover over the coupler/shaft area in the event of a driveline failure. This cover must be a minimum of .030 lexan, cover 75% of the coupler/shaft and attached securely with screws. This cover must be in place whenever the vehicle is in operation. This is to mean pit area and racing surface.

Absolutely "NO" Propylene Oxide or Pure Nitro allowed on the premises. Mixing fuel at the track is not allowed. Lithium batteries allowed in transmitters, receivers and as a power source in all electric classes. Lithium batteries as a power source, maximum temperature 110 degrees Fahrenheit

Any full bodied and/or production type car having fender wells must have a fender visually lower than the front or rear axle center axis. This means that you MUST be able to see the front and rear axle on any production type or full bodied car. No tires protruding above the bodyline of the car. All cars must be painted, no clear bodies allowed to enter competition. Wheelie bars are not part of the measured chassis length. All classes are .400 pro tree including bracket classes.

A class shall consist of at least **four (4)** cars. In the event that there are not enough cars in a specific class, 2 similar classes will be combined to make a full class. (example: Top Fuel Funny Car and Top Fuel Dragster will combine if either class has less than the minimum required car field. **Four (4)** car fields will not run a B-Side, must be **six (6)** car fields in order to run a B-Side.

NOTE: A record can only be set in the specific class that car was originally entered in. If a record is set in a combined class, then only the record will pertain to the specific class that the car was intended to run in, NOT both classes of the combined entry. A National record can only happen during qualifying or eliminations and only at a national event. All records to be backed up within 1%.

## INDIVIDUAL CLASS SPECIFICATIONS

# IV. CLASS SPECIFICATIONS

# **Bracket Class**

Any vehicle and motor combination allowed Must have working brakes Drivers specify dial-in times Pro-Tree .400 light

#### 2.00 Index

Any drag type vehicle; this will include any vehicle, Monster truck, Import, on-road car or Buggy. These cars will run on a 2.00 index

## **Electric Pro Stock**

## **Brushed Motor**

Any full body coupe, roadster, sedan or sports car body allowed. Must have either a pro-style hood scoop or blower and hat. Rear spoilers and wings allowed for roadsters but no higher than 5 inches from the ground to the top of the wing. All full bodied cars will not have a spoiler any higher than the roofline of the vehicle.

18.5 inches maximum chassis length (6inch minimum chassis length)

11 inch maximum wheelbase

8 inch minimum wheelbase

10 inch maximum vehicle width

2 in diameter minimum front wheels/tires

3 sub C cell battery maximum - NiCad or NiMH cells only

34 ox. minimum weight

Any size rear wheels/tires

Any mass produced and commonly available (through a hobby distributor) ferrite magnet modified motor allowed. Ball bearings, adjustable timing and truing of the commutator are permitted. Internal modifications to the motor can, armature and magnets are not allowed. Maximum motor can dimensions are 2.5 inches in diameter and 3.4 inches in length (measured from end bell to end bell).

# **Brushless Lipo**

**Batteries:** Any 1c Lipo 6500 mah or less, with connectors (no hard soldering). Maximum voltage 4.22 volts. Maximum temperature 110 degrees Fahrenheit. Soft shell batteries allowed. Any mass produced and commonly available (through a hobby distributor) 540 based cobalt or neo brushless motor allowed. Maximum motor can dimensions are 2.5 inches in diameter and 3.5 inches in length (measured from end bell to end bell)

Motor must be equipped with a quick disconnecting motor power device that is clearly marked and accessible from outside the body.

## Combined Electric Top Alcohol Dragster and Electric Top Alcohol Funny Car

Any 1/10 scale Funny Car style body or 1/10 scale Dragster style body

**Funny Cars** Rear spoilers are allowed with no size limit and may be attached to the rear trunk area. No elevated wings allowed.

**Dragster** 10 inch maximum wing height measured from the highest point on the wing, including side dams

Funny Cars 34oz minimum weight, 14 inch maximum wheel base

Dragsters 37 oz. minimum, weight, 30 inch maximum wheelbase

**Batteries:** Any 1c Lipo 6500 mah or less, with connectors (no hard soldering). Maximum voltage 4.22 volts. Maximum temperature 110 degrees Fahrenheit. Soft shell batteries allowed. Any mass produced and commonly available (through a hobby distributor) 540 based cobalt or neo brushed or brushless motor allowed. Maximum motor can dimensions are 2.5 inches in diameter and 3.5 inches in length (measured from end bell to end bell)

Motor must be equipped with a quick disconnecting motor power device that is clearly marked and accessible from outside the body.

Class is recommended as an entry level class

## **Electric Pro Mod**

Only car and truck bodies allowed. Rear spoilers are allowed up to 2.5 inches in length, with side dams up to 1 inch in height. Wing may be attached to the real trunk lid area.

NOTE: All full bodied cars will not have a spoiler any higher than the roof line of the vehicle. Must have hood scoop or blower and injector hat assembly.

19 inch maximum chassis length

12 inch maximum wheelbase

8.5 inch minimum wheelbase

10 inch maximum vehicle width

1.5 inch minimum front wheels/tires

2 inch minimum rear wheels/tires

Any mass produced and commonly available (through a hobby distributor) 540 based cobalt or neo brushed or brushless motor allowed. Maximum motor can dimensions are 2.5 inches in diameter and 3.5 inches in length (measured from end bell to end bell)

Motor must be equipped with a quick disconnecting motor power device that is clearly marked and accessible from outside the body.

6 cell battery maximum

NiCad or NiMh Sub C cells

Any 2c Lithium battery 8.44 maximum voltage. Maximum temperature 110 degrees Fahrenheit with connectors (no hard soldering) Soft shell batteries allowed.

36 oz. minimum weight.

# **Electric Funny Car**

Any 1/10 scaled marketed body allowed. Body must retain features and shape of original full sized car. Body can be sectioned, sliced or wedged to keep up with the current Funny Car technologies.

Rear spoilers are allowed with no size limit and may be attached to the rear trunk area.

No elevated wings allowed

22 inch maximum chassis length (No minimum)

14 inch maximum wheelbase

12 inch minimum wheelbase

1.5 inch minimum front wheels/tires

2 inch minimum rear wheels/tires

Any mass produced and commonly available (through an hobby distributor) 540 cobalt or rare earth magnet based motor allowed (brushless and brushed allowed). Maximum motor can dimensions are 2.5 inches in diameter and 3.5 inches in length (measured from end bell to end bell)

Motor must be equipped with a quick disconnecting motor power device that is clearly marked and accessible from outside the body.

10 cell battery maximum

NiCad or NiMh Sub C cells

Any 3c Lithium battery 12.64 maximum voltage. Maximum temperature 110 degrees Fahrenheit with connectors (no hard soldering) Soft shell batteries allowed.

40 oz. minimum weight

# **Electric Top Fuel Dragster**

Any 1/10 scale dragster body allowed. Body must be scaled in appearance.

10 inch maximum wing height measured from the highest point on the wing, including side dams

31inch maximum chassis length

15 inch minimum chassis length

30 inch maximum wheelbase

15 inch minimum wheelbase

10 inch maximum vehicle width

.375 inch (3/8") minimum front wheels/tires

2 inch minimum rear wheels/tires

40 oz . minimum weight

Any mass produced and commonly available (through an hobby distributor) 540 cobalt or rare earth magnet based motor allowed (brushless and brushed allowed). Maximum motor can dimensions are 2.5 inches in diameter and 3.5 inches in length (measured from end bell to end bell)

Motor must be equipped with a quick disconnecting motor power device that is clearly marked and accessible from outside the body.

10 cell battery maximum NiCad or NiMh Sub C cells

Any 3c Lithium battery 12.64 maximum voltage. Maximum temperature 110 degrees Fahrenheit with connectors (no hard soldering) Soft shell batteries allowed.

# **NITRO CLASSES**

## **Nitro Pro Stock**

Any 1/10 scale door slammer body allowed. Must have pro style hood scoop

18.5 inch maximum chassis length

11 inch maximum wheelbase

8 inch minimum wheelbase

10 inch maximum vehicle width

2 inch diameter minimum front wheels/tires

34 oz . minimum weight with .12 or 36 oz min weight with .15 sized (small block) engine Engines .12 or .15 cubic inch small block engine Any Internal Modifications Allowed No .15 big block engines allowed.

Must have operating throttle return spring, constructed either of steel orthodontic quality rubber band. Exhaust must deflect upwards.

# **Top Alcohol Funny Car and Rail**

Any 1/10-scale Funny Car style body or 1/10-scale Dragster style Body

**Funny Cars:** Rear spoilers are allowed with no size limit and may be attached to the rear trunk area. No elevated wings allowed.

Dragsters: 10" maximum wing height measured from the highest point on the wing,

including side dams

Funny Cars: 34 oz minimum weight 14" maximum wheelbase

Rails: 38 oz minimum weight 30" maximum wheelbase

Engines: .12 cubic inch sized engine Any Internal Modifications Allowed

Single speed transmission only

Must have operating throttle return spring, constructed either of steel or orthodontic quality rubber band.

Exhaust must deflect upwards

Class is recommended as an entry level class

## **Pro Mod**

Only car and truck bodies allowed. Rear spoilers are allowed up to 2.5" inches in length, with side dams up to 1" inch in height. Wing may be attached to the rear trunk lid area.

Note: All full bodied cars will not have a spoiler any higher than the roof line of the vehicle. Must have hood scoop or blower & injector hat assembly.

19 inch maximum chassis length (No minimum)

12 inch maximum wheelbase

8.5 inch minimum wheelbase

10 inch maximum vehicle width

1.5 inch minimum front wheels/tires

2 inch minimum rear wheels/tires

36 oz . minimum weight

Up to a .18 cubic inch engine. Any Internal Modifications allowed.

Must have operating throttle return spring, constructed either of steel or orthodontic quality rubber band. Exhaust must deflect upwards.

# **Funny Car**

Any 1/10 scaled marketed body allowed. Body must retain features and shape of original full sized car. Body can be sectioned, sliced or wedged to keep up with current Funny Car technologies.

Rear spoilers are allowed with no size limit and may be attached to the rear trunk area.

No elevated wings allowed.

22 inch maximum chassis length (No minimum)

14 inch maximum wheelbase

12 inch minimum wheelbase

1.5 inch minimum front wheels/tires

2 inch minimum rear wheels/tires

40 oz . minimum weight

Up to a .21 cubic inch engine. Any Internal Modifications allowed.

Must have operating throttle return spring, constructed either of steel or orthodontic quality rubber band. Exhaust must deflect upwards.

# **Nitro Top Fuel Dragster**

Any 1/10-scale dragster style body allowed

10" maximum wing height measured from the highest point on the wing, including side dams

36 inch maximum chassis length

15 inch minimum chassis length

30 inch maximum wheelbase

15 inch minimum wheelbase

10 inch maximum vehicle width

.375 inch (3/8") minimum front wheels/tires

2 inch minimum rear wheels/tires

38 oz . minimum weight with up to .21 cubic inch engine Any Internal Modifications Allowed Must have operating throttle return spring, constructed either of steel or orthodontic quality rubber band. Exhaust must deflect upwards

## **EXTREME-UNLIMITED**

Any 1/10 or 1/8 scale vehicle allowed

No motor limit.

Nitro vehicles must have operating throttle return spring, constructed either of steel or orthodontic quality rubber band.

Exhaust must deflect upwards

Lithium cells maximum temperature 110 degrees Fahrenheit.

Soft shell batteries allowed.

# Quarter Scale Specifications Pro Stock/Gasser/Funny Car or Altered/Top Dragster/Top Fuel

The Quarter Scale Class competition will be contested on a 132 foot track, on a .400 pro tree and will operate as an Outlaw class or classes within the specifications provided. Depending on car count, classes may be combined as follows:

# **General Rules:**

# Safety:

At least one dry chemical fire extinguisher must be located within the pit area.

Radios must be FCC approved ground systems. Fail safe feature recommended.

Engine kill switch mandatory. Must be clearly marked and accessible from outside the vehicle or from the transmitter

Brakes: All cars must have an effective braking system.

All cars must use a centrifugal clutch.

Radio receiver and battery must be securely mounted.

Fuel system must be secure and away from heat and moving parts.

A throttle return spring must be attached at the carburetor.

A minimum weight limit of 20 pounds for all cars racing in this class.

# **Engine:**

Will be limited to one single cylinder 2 stroke, 2 cycle, ignition type engine. Any modifications accepted. Limited to a maximum of 55 cc's. No glow engines allowed.

Exhaust: Mufflers or tuned pipes accepted. Must direct exhaust away from the track surface and configured to fit within the width and length of the vehicle.

Carburetor modifications accepted. Velocity stacks and air filters accepted.

Pump gas or race fuel permitted. No alcohol, nitro, N.O.S. or propylene oxide allowed.

# **Body and Chassis:**

Chassis may be constructed as pan or tube type. Suspension is optional. Cars may utilize the recommended Top Fuel, Funny Car or Pro Stock template provided, but are not limited to such. However, vehicles must bear a strong resemblance to a drag racing vehicle. (i.e. Gasser, Altered, etc.)

# Pro Stock/Gasser

Full bodied car or truck. Hood scoop is mandatory.

Rear spoiler required. Must be to scale and no wider than the rear of the vehicle.

Wheelbase: 24" minimum, 26" maximum

Wheelie bars permitted.

Tires must fit within the body. Any compound accepted. Maximum width 5", minimum height 6", maximum height 9".

# **Pro Mod**

Full bodied car or truck. Hood scoop is mandatory.

Rear spoiler required. Must be to scale and no wider than the rear of the vehicle.

Wheelbase: 24" minimum, 29" maximum

Wheelie bars permitted.

Tires must fit within the body. Any compound accepted. Maximum width 5", minimum height 6", maximum height 9".

# Altered/Top Dragster

Car must have a strong resemblance to a real drag car. Real spoiler is optional.

Altered wheelbase: 25" minimum, 33" maximum

Top Dragster wheelbase: 42" minimum, 61" maximum

Wheelie bars are permitted.

Rear tires: Any compound accepted. Maximum with 5', minimum height 7', maximum height 9'.

# **Funny Car**

Body must be of Funny Car origin.

Rear spoiler or spill plates required, must be to scale and no wider than the rear of the body.

Wheelbase: 25" minimum, 31 1/2 " maximum

Wheelie bars permitted.

Tires must fit within the body. Any compound accepted. Maximum width 5", minimum height 7", maximum height 9"

# **Top Fuel**

Must resemble a Top Fuel Dragster.

Rear wing required

Wheelbase: 70" minimum, 75" maximum

Wheelie bars permitted.

Rear tires: Any compound accepted. Maximum width 5", minimum height 7", maximum

height 10"

# JUDGING OF CONCOURSE:

The objective of the concourse is to be as realistic in design and scaled as close as possible to a real looking car. We would like to acknowledge and honor an enthusiast who has put forth the extra effort and has shown that their hard work not only looks good but works great as well. Detail will be looked at along with realism and originality. Any type car may enter. This car MUST be entered into a class and running to participate in the concourse. The car must be drivable and functioning. It will have had made a pass down the track at some point during the event to qualify for concourse. (Actual entry into a class) **NOT PRACTICE.** (A car can only WIN once in concourse competition per body)

# V. IMDRA Divisions

There are currently 7 Divisions recognized by the IMDRA. They are as follows:

## Northeast Division 1

Connecticut; Delaware; District of Columbia; Maine; Maryland; Massachusetts; New Hampshire; New Jersey; New York; Pennsylvania; Rhode Island; Vermont; West Virginia; Maritime Provinces, Eastern Ontario, and Quebec, Canada

#### **Southeast Division 2**

Alabama; Florida; Georgia; North Carolina; South Carolina; Tennessee; Virginia; and Puerto Rico

# **North Central Division 3**

Illinois; Indiana; Kentucky; Michigan; Ohio; Wisconsin; and Western Ontario, Canada

## **South Central Division 4**

Arkansas; Louisiana; Mississippi; New Mexico; Oklahoma; Texas

## **West Central Division 5**

Colorado; Iowa; Kansas; Minnesota; Missouri; Nebraska; North Dakota; South Dakota; Wyoming; and Manitoba, Canada

# **Northwest Division 6**

Alaska; Idaho; Montana; Oregon; Washington; Alberta, British Columbia, and Saskatchewan, Canada

# **Pacific Division 7**

Arizona; California; Hawaii; Nevada; Utah; and Mexico