

# EAHORC RULES AND PROCEDURES SEASON 2014 – 2015

## REVISION 1.1

### CONTENTS

1	FEES
2	FORMAT
3	CLASSES
4	CONTROLLERS
5	MAINTAINANCE
6	MARSHALLING
7	CONDUCT
8	CORE RULES
9	OPEN WHEEL RULE SPECIFICS
10	NASCAR SPECIFICS
11	LMP SPECFICS
12	CHASSIS AND CLASS GUIDE
13	PRO MODIFIED RULES (TO BE REVISED JAN 2015)

UPDATE RECORD	
JUNE 2014	<ul style="list-style-type: none"><li>• Updated into printable format.</li><li>• Added marshalling and Conduct (6&amp;7)</li><li>• Pro Modified can be run as segmented standalone races. Racers may race in pro mod and any one afternoon class.</li><li>• ISU pins no longer required (supply issues)</li><li>• OW must use stock guide pin</li><li>• Bodys limited to Panoz and others as stated in sections 9 and 12</li><li>• Chassis width and body width updated (section 8.1)</li><li>• Nascar body artwork updated to allow original paint schemes</li><li>• Crown gears and bosses may be glued.</li><li>• Resin and 3D printed bodys ruling (section 9.3 &amp; 9.4)</li><li>• Controllers updated.</li><li>• Gen 5/6 Nascar sub class incorporated into NASCAR</li><li>• Dead and live starts detailed.</li></ul>
REV 1.1	<ul style="list-style-type: none"><li>• Points updated.</li><li>• Track voltage and Amperage reworded.</li></ul>

	<ul style="list-style-type: none"> <li>• Conduct 7.2 added re personal listening devices.</li> <li>• Removed Tomy Turbo banked tracks</li> <li>• References to MK3 MG removed.</li> <li>• Pinion disparity removed.</li> <li>• Membership details updated.</li> <li>• Track calls updated.</li> <li>• OW MG Front Wings may be reduced in width.</li> </ul>
--	---

## 1. FEES

- 1.1. Adult members pay £5 for both sessions, or £2.50 for one
- 1.2. Adult Non-members pay £6.50 for both sessions, or £3.25 for one
- 1.3. Juniors (9-16 years old or still in full-time education) pay £2.50 for both sessions, or £1.25 for one
- 1.4. All racers under 9 years of age participate for free.
- 1.5. Membership runs from September to September. Members receive discounted race fees and £1 off every car (chassis with body) ordered in AFX group purchases made by EAHORC
  - Standard Membership is for 12 months and costs £10
  - Silver Membership is for 24 months and costs £19
  - Gold Membership is for 12 months, costs £48, with no race fees levied during the period

## 2. FORMAT

- 2.1. Meetings start at 10:00am with free practice 45-60 minutes beforehand. The 'afternoon' sessions will start 30-60 mins after the end of the morning session, unless unusual circumstances intervene.
- 2.2. You must book in to race at least 10 minutes before racing commences. If you are unable to do so in person you must text race control at least 15 minutes before hand. (Contact details will be made available before race day)
- 2.3. The racing will be made up of Open-Wheel cars in the morning and closed-wheel cars in the afternoon, unless otherwise specified.
- 2.4. Tracks will be made from Tomy AFX track pieces, Lupico 18" curves, Autoworld track pieces, BSTS pieces and Bowman routed sections. Use of any other manufacturer's pieces will only be allowed by special dispensation from EAHORC. Three inch Tomy hairpins must not be used. Tracks should be at least 4 lane with lap timing and counting on each lane. Power supplied should be typically 18v providing at least 1.0Amp per lane (typically 1.2-1.5Amp). Power control may be Mains controlled or via lap counting interfaces. Start lines may be 'Dead' or 'Live'. Where live starts are used, a penalty will be given to those who 'Jump' the start. The penalty amount will be announced before racing commences. Tracks should be 'bordered' to prevent cars leaving the tracks mounting surface.

- 2.5. Open Wheel and Closed Wheel Races will be of 3 minute duration unless race control should decide otherwise, or rules specify it.
- 2.6. There will be four heats per session (six when a six lane track is used), with the best three (five when a six lane track is used) counting as each competitors qualifying score. Heats will be followed by step up finals, the winner of the previous final will take the step-up. When a six lane track is used the competitors finishing first and second in the previous final will take the step ups in OW class, only the winner in all other classes.
- 2.7. When heats are conducted in blocks of two or three with the same four/six competitors in rotation, drivers are not permitted to leave the driver station area and return, either during racing or during the rotation period, other than to move their car to the next lane and change lane stickers/markings. Therefore all tools that competitors will require for maintaining their cars should be on their person or placed on a pit tray. Any competitor leaving the area in violation of this rule may have 5 laps deducted from their next score.
- 2.8. Practice before heats will be at race controls discretion. A maximum 2 laps should be taken before the heat. Race control will announce how much practice is permissible at the beginning of the session.
- 2.9. Competitors are allowed to bring a maximum of two cars to the driver's station during heats, paired heats, and finals. They may only use cars brought to the driver's station. As per 2.7 they may not leave the area to change cars during paired heats or finals. They may only change from one car to the other if the first one has mechanical problems, and they will not be allowed to switch back again.
- 2.10. Races where 3 cars (5 for a six-lane track) de-slot in a mutual accident within the first lap may be re-started at race control's discretion. Those drivers able to continue should do so at racing speed until race control makes a judgement. Marshals should continue to re-slot cars as normal.
- 2.11. The winner of Open Wheel class will receive a trophy. The winners of at least the 3 most popular afternoon classes will receive medals or trophies. There will be no guaranteed separate award for the highest place Main grade driver in Open Wheel.
- 2.12. Winners of championships may be presented with Cups or other large trophies. These will only be kept by the winner for 11 months, and may be accompanied by a small 'keeper' trophy that does not have to be returned. Failure to return trophies in the specified time frame may result in disqualification from that championship.
- 2.13. Championship points for each class are awarded as follows: 160-130-110-90-70-50-40-30-20-10-5, except Open Wheel class where the points are awarded as follows: 170-135-115-100-80-70-60-50-40-35-30-25-20-18-16-14-12-10-8-6-4-2-1
- 2.14. Points scored in the closed wheel classes will be weighted. For example if a class has 7 entrants each will score 7 points on top of those listed in 2.13
- 2.15. If a competitor is unable to participate in the final they have qualified for, everyone else will move up one qualifying position. The absent competitor will be classified as in last place with 'did not start' as their score. They will still score points in F1, but not in any of the closed wheel classes, should this occur.

- 2.16. Points accrued will also be transferred to the main EAHORC championship, the EAHORC cup (E-Cup for Short), allowing drivers who target one championship to compete with those who do not.
- 2.17. Competitors lowest single score over the championship season in each class will be dropped. A missed event will score 0 points. Six scores or less will count towards a 'Minor' Championship, best five actual scores (no missed events) to count.
- 2.18. The Champion at the end of each season will be the competitor with the most points after dropping of scores. In the case of a tie, the competitor with the most 1st place finishes will be declared the champion. In the case of further ties, lower finish positions will be taken into account, starting with 2nd place.

### 3. CLASSES

AM: Open Wheel

PM: LMP1, CW, Nascar

PM2: Pro-Modified. All Racers may enter this and One PM class.

Note: A.F.X refers to the Racemasters chassis, Aurora and AFX the older Aurora chassis.

- 3.1. No class will take place unless there are at least three competitors.
- 3.2. Pro-Modified does not count towards EAHORC Cup points.

### 4. CONTROLLERS

- 4.1. Controllers must terminate with a 3-pin, 2 amp plug, brake wire connected to the top pin, unless a hosting club provides additional alternative connection methods, in which case adaptors may be used.
- 4.2. EAHORC tracks are wired to the worldwide HO standard, with +ve left rail.
- 4.3. Due to the 18v track power, Controllers should not be used without consultation with the manufacturer, in all events racers use such controllers entirely at their own risk and EAHORC accepts no responsibility for any damage caused.
- 4.4. Controllers should be wired up Positively (+VE) as per BSCRA Standards.

### 5. MAINTENANCE

- 5.1. Tyres may only be cleaned with tape or by washing in water.
- 5.2. NO spray oils/lubricants or cleaners to be used indoors. Use of Lighter fluid or any form of tyre treatments are not allowed. The organisers reserve the right to request competitors to use less lubricants if they feel it interferes with others or the condition of the track.

### 6. MARSHALLING

- 6.1. Each competitor is to make themselves PROMPTLY available to marshal or run race control whenever requested to do so by the organisers.

- 6.2. Drivers are expected to marshal after the heat/race in which they took part in.
- 6.3. When heats are conducted in blocks of two or three with the same four/six competitors in rotation, marshals must stay in their location for all heats in that block, and during the rotation period. Any marshal leaving their location in violation of this rule may have 5 laps deducted from their best score.
- 6.4. Track calls to pause racing will be used at some race meets. Track calls can be made by Marshals, Drivers or Race control, with an audible call of 'TRACK' or 'RIDER'. Race Control has the overriding decision to uphold a track call.
- 6.5. Track calls, where used, will be used as follows:
  - A car is 'riding' or has 'crashed' on another lane and / or cannot be retrieved. The power will be turned on as soon as the obstruction has been removed.
  - The track or its constituent parts is broken and needs repairing.
  - A power issue on one or more lanes prevents a driver from competing competitively for any length of time. Any calls for adjustment to laps due to track power issues made after the heat/race will be dismissed.
  - A car has crashed in such a position that a marshal post will be unmanned during its retrieval.

## 7. CONDUCT

- 7.1. No food or drink should be brought near the track, both hands should be free at all times. Tablets, phones etc should not be used. Cameras may only be used when it does not interfere with marshalling duties. Race control will designate 'photographers'.
- 7.2. Personal listening devices such as walkmans, mp3 players etc are not to be used during marshalling duties. If used during racing, they must not disturb other racers.
- 7.3. Swearing, shouting and poor conduct will not be tolerated. Any racer caught doing so will be warned of their behaviour, and may be asked to leave if their behaviour is sufficiently serious or they ignore repeated warnings.
- 7.4. Any unacceptable behaviour must be reported to the race controller immediately.
- 7.5. Should an individual wish to complain against poor conduct, they must contact the race organiser as soon as possible so that the correct action may be taken

## 8. CORE RULES

**Applies to all cars running in Open wheel, Nascar, LMP1 and CW\* classes**

**Open Wheel specific rules are highlighted in BOLD**

- 8.1. All entered cars chassis must fit through an EAHORC metal 34mm width gauge and be 17mm from centreline to sides, unless specifically exempted. Bodywork in all closed wheel classes must not exceed width of 34.5mm at the widest part.

- 8.2. Cars must start all races with the body properly attached, and four wheels and tyres as defined by the current rules and all items of the car that can be considered it's parts to be present and intact, unless expressly exempted. Where pick-up shoes are part of a chassis design these must be fitted. There must be no sharp edges on the cars. Race control reserve the right to ignore any laps completed by cars that do not comply.
- 8.3. Bodies may be ballasted, but ballast must be glued firmly in place with permanent glue. In In all classes bar OW and LMP, Bodies may be lowered, lightened, and otherwise worked on to improve clearances and durability, but must maintain the outward integrity of the original. Chassis may not be ballasted. **OW bodies may have minimum material removed to improve body rock and clearance around moving parts. OW bodies which were modified to reduce front end width (EAHRC rules 2011-14) may be used under the discretion of Race Control for the 2014/15 season.**
- 8.4. **Mega G Panoz DP01 OW bodies may have their front wing reduced to a minimum width of 20mm. Front wing endplates should be present.**
- 8.5. Bodies must be constructed entirely of cast resin or plastics. They must not be glued or bonded to the chassis, although the use of [booger glue](#) is permitted. Lexan Vac forms are not permitted.  
  
Note: Body clips are not considered chassis components. These may therefore be glued to bodies, but must not be glued to chassis. Wings (including posts, and endplates where present) must be intact at the start of all races, unless fitted to club car or otherwise exempted, this applies to all classes.
- 8.6. Repaints of open wheel cars must feature a separately painted and/or decorated driver.
- 8.7. Bodies must feature an accurate or at least prototypical race car colour schemes (race numbers, sponsors etc). 'Fantasy' repaints and re-decorations are permitted.
- 8.8. Any method of body fitment is permitted with any chassis. Devices designated as clips are not considered a chassis part and must not be glued to chassis; they can but do not have to be glued to bodies.
- 8.9. Armatures must be stock and therefore not be 'worked up' in any way (examples: commutator tied-off, windings or comm epoxied, windings removed, commutator cut or diamond-trueed, solder on tabs beyond factory-applied).
- 8.10. Armatures with balance marks or material removed from rotors by any means are not permitted.
- 8.11. Armature timing may not be altered, except via legal devices fitted as part of chassis.
- 8.12. [Rolling-element](#) bearings are not permitted.
- 8.13. Any make of pick-up shoe and spring (not [spring plate](#)) is permitted. Shunts are not permitted. Parts may be reshaped but no material may be added or removed.
- 8.14. Dust guards, lights, and axle retainers may be removed.

- 8.15. Any make of gears (crown or pinion) are permitted, but they may not be altered from their factory specification in any way other than as a result of the usual 'lapping in' procedures. Lightning or sanding/boring to improve fitment is expressly forbidden. **OW Must use the original crown gear and pinion.**
- 8.16. Pinions and gears must be stock ratios. CW and Pro mod are free choice
- 8.17. Crown gears and gear bosses may be glued to the axle. Pinions may be glued.
- 8.18. Any make of gear boss and axle spacers are permitted.
- 8.19. Pinions with 1.5mm holes may be sleeved to fit the standard Life-Like motor fitted to the T chassis. The sleeve and pinion may be glued to the shaft.
- 8.20. For chassis with barrel brush systems, any make of brush and brush spring is permitted in all chassis. Barrels however must be stock and unaltered unless expressly permitted.
- 8.21. For chassis with endbell brush systems, in all chassis all parts must be stock, and unmodified, unless changes are expressly permitted. Endbell tabs may be reshaped but no material removed or added.
- 8.22. Tyres must be single compound and black in colour. Sidewall writing and detailing based on real tyres is permitted (must be class-correct and body-correct).
- 8.23. O-rings or 'thinnies' may be used as front tyres, all permitted tyre types may be reshaped or reduced in diameter and width.
- 8.24. Any make of wheels and solid axle is permitted, unless expressly prohibited, no sharp edges will be permitted. Independent Front ends are not permitted.
- 8.25. Wheels may be built up with tape to aid tyre retention.
- 8.26. Any make of commercially available guide pin is permitted, one per car, but it must only have one protuberance The protuberance must have a consistent outside diameter (no blades etc), unless other designs are expressly permitted. It is permitted to reduce width or length of the protuberance. **OW Mega G must use only Stock guide Pin.**
- 8.27. Completely or predominantly clear bodies are not permitted in any class.
- 8.28. No part of the chassis may be cut, sanded, drilled or otherwise interfered with. All wear must be by natural means only, no components other than pinions may be glued in place.
- 8.29. All magnets fitted must be stock to the chassis, no material added or taken away, and fitted in the stock position. Regular shaped traction magnets may be turned over in the chassis so long as they do not sit lower as a result
9. **OPEN WHEEL RULES SPECIFIC**
- 9.1. OW Mega G must use Stock guide Pin.
- 9.2. OW bodies may have minimum material removed to improve body rock and clearance around moving parts.

- 9.3. OW Mega G's may run Resin and 3D printed bodies, but they must not exceed the dimensions of the Stock AFX Panoz DP01, and must not be lighter than the Panoz DP01 (3.6grammes +/-0.3grammes).
- 9.4. Resin and 3D printed bodies must be accurate representations of F1, Indy, Champcar from the year 1990 onwards.
- 9.5. Bodies must feature an accurate or at least prototypical race car colour schemes (race numbers, sponsors etc). 'Fantasy' repaints and re-decorations are permitted, cars must start all races with front wings and down posts. The exception is the Tyco [Chaparral 2K](#) body  
Open Wheel Mega G's height of rear tyres/wheels combined must not be less than 11.506mm (0.453").
- 9.6. When running Tyco F1 Chassis, only standard Tyco (3.5 and 6 ohm)armatures with red windings are permitted.

## 10. NASCAR SPECIFIC

- 10.1. Nascar Bodies must be of a shape & colour scheme passed by race control to be an acceptable 'real' Nascar. These must be as featured in the Grand National series, and all proceeding 'top-tier' series during the naming rights era (1971 to present day), the current 'second tier' American series (Nationwide), from the NCATS/CASCAR series, the Australian Nascar series or Racecar Euro Series. Bodies must be from 1968-present day and featured in a race (as opposed to being fantasy schemes, or only used in non-race sessions). The exception to this rule is original manufactures body artwork.

## 11. LMP SPECIFIC

- 11.1. Only completely unaltered LMP1 bodies manufactured by A.F.X are permitted. 'Fantasy' repaints and re-decorations are permitted. Any make of guide pin (as per the core rules) may be used.
- 11.2. Only the MKII and MKIII Mega G Chassis are permitted

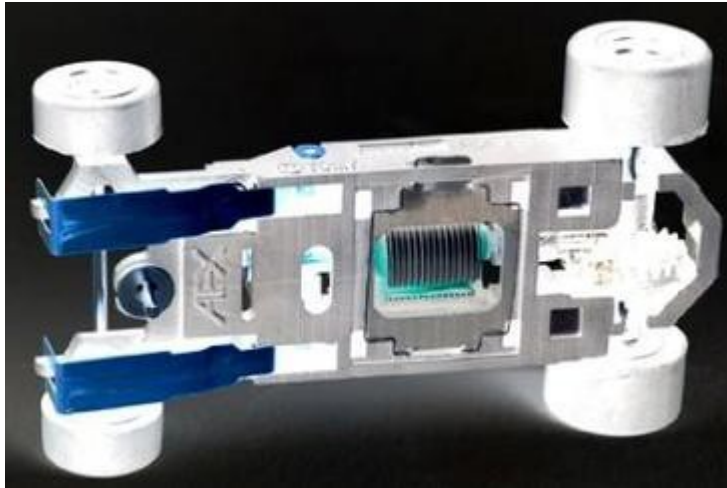
## 12. CHASSIS AND CLASSES GUIDE

Classes are:

- Open Wheel – *AFX Mega G MG17, Tyco 440 family, Tomy Turbo, Lifelike M.*
- Closed Wheel
  - LMP – *AFX Mega G MG17*
  - CW – *AFX Mega G MG15/MG17, Tyco 440 family, Tomy Turbo / SRT, Lifelike M/T, Artin F, AutoWorld Super III, Tomy Super G+.*
  - NASCAR- *AFX Mega G MG15/MG17, Lifelike M/T, Tomy Turbo, Tomy SuperG+*
  - Pro Modified – *TBC*

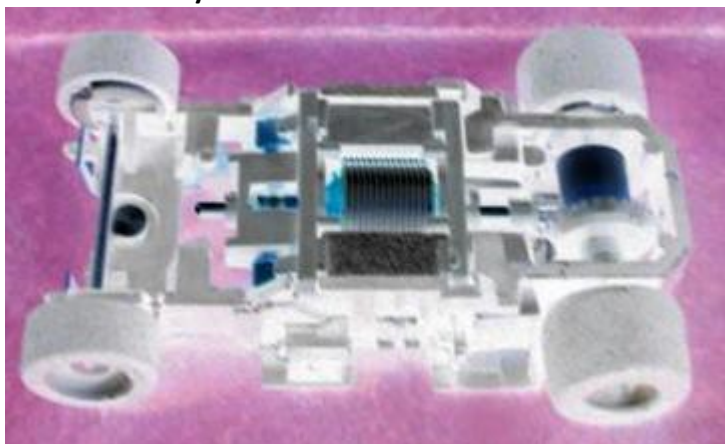
### 12.1. A.F.X MEGA-G MG17





- This chassis is legal in Open Wheel, LMP, Nascar and CW classes.
  - For Open wheel and Modified both the MKI and MKII are permitted, but for LMP class only the MKII.
  - For Open Wheel, only stock guide pins must be used.
  - For Open Wheel bodies must be original, unaltered A.F.X Panoz DP01s or Resin /3D bodies as per Section 9.3 and 9.4. These must feature an accurate or at least prototypical race car colour schemes (race numbers, sponsors etc). 'Fantasy' repaints and re-decorations are permitted, cars must start all races with front wings and down posts.
- In Open Wheel height of rear tyres/wheels combined must not be less than 11.506mm (0.453").
- Only standard Mega-G armatures are permitted.
  - Any make of plain bearing (bush) may be used with this chassis.
  - For LMP1 class only completely unaltered LMP1 bodies manufactured by A.F.X are permitted. The Audi R10 may run so long as the body width does not exceed 34.5mm. For CW any gear ratio is permitted.
  -

#### 12.2. TYCO / MATTEL 440 'FAMILY'

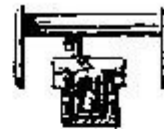


- This chassis is legal in Open Wheel and CW classes.

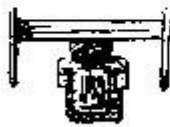
- In Open wheel bodies must feature an accurate or at least prototypical race car colour schemes (race numbers, sponsors etc) with separately painted driver.
- In Open wheel cars must start all races with front wings and down posts (where relevant) present, with the exception of the Tyco [Chaparral 2K](#) body.
- Only standard Tyco (3.5 and 6 ohm) armatures with red windings are permitted.
- Any make of Plain bearing ([bush](#)) may be used with this chassis.
- For Modified any gear ratio is permitted. Mixing of any Tyco/Mattel bulkheads is permitted, but no modifications may be made.
- F1 bodies with two rear wing-posts may be repaired in the way shown in the pictures [here](#).



Original Wing Mount

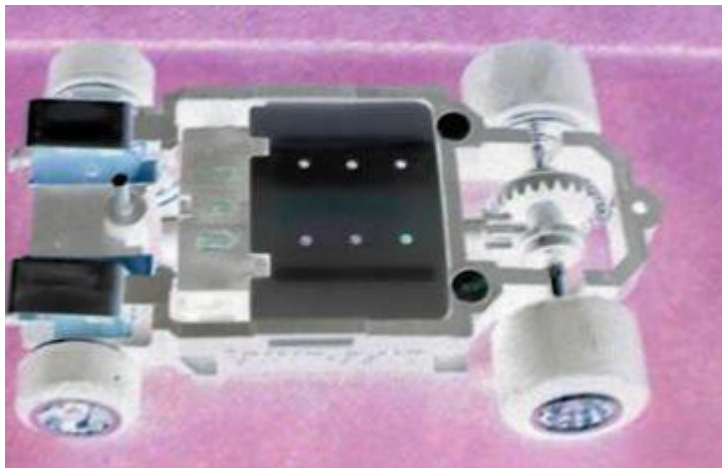


Broken Mount



Repaired Rear Wing Mount using section of rear tyre

### 12.3. WALTHERS LIFE-LIKE 'T'



- This chassis is legal in Nascar and CW classes.
- Only standard T armatures are permitted.
- Must be run with standard and unmodified T can motor.
- Plain bearings ([bush](#)) must be stock and unaltered.
- For Modified any gear ratio is permitted.
- Fitting non-standard front axles is not permitted.

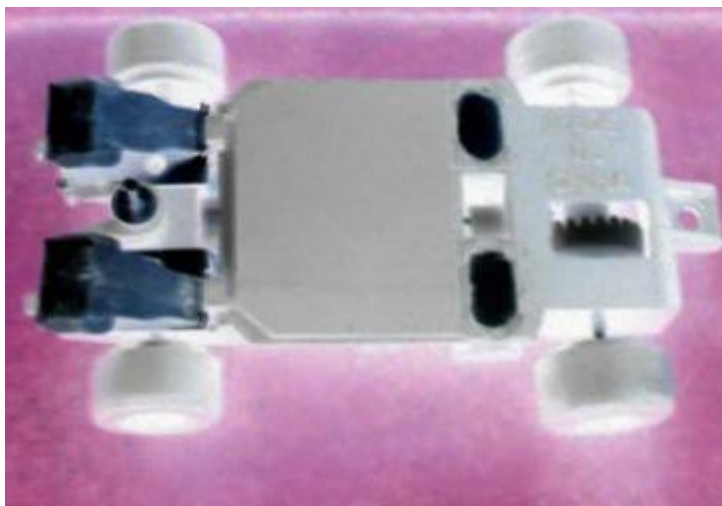
- [Spring plate](#) must be stock and unmodified.

#### 12.4. MARCHON / AUTOWORLD MR-1



- This chassis is legal in CW class.
- Any legal Tomy-timed armature may be used. Motor can and internals may not be altered in any way, other than re-profiling of electrical tabs.
- Plain bearings ([bush](#)) must be stock and unaltered.
- Any gear ratio is permitted.
- Traction magnet clip must be stock, fitted and unmodified.
- Pick up holders must be stock, they may be reshaped but no material may be removed or added.
- Magnets must be stock items, unaltered, not shimmed, not glued in, and must be in the stock position.
- If you build a car outside of these parameters it will be considered a Pro Modified.

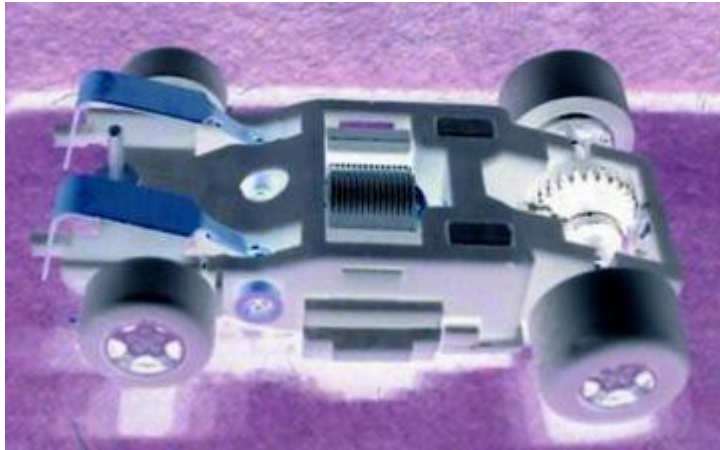
#### 12.5. ARTIN 'F'



- This chassis is legal in CW class.
- Any legal Tomy-timed armature may be used.
- Motor can and internals may not be altered in any way, other than re-profiling of electrical tabs.
- Plain bearings ([bush](#)) must be stock and unaltered.
- Any gear ratio is permitted. [Spring plate](#) must be stock and unmodified.

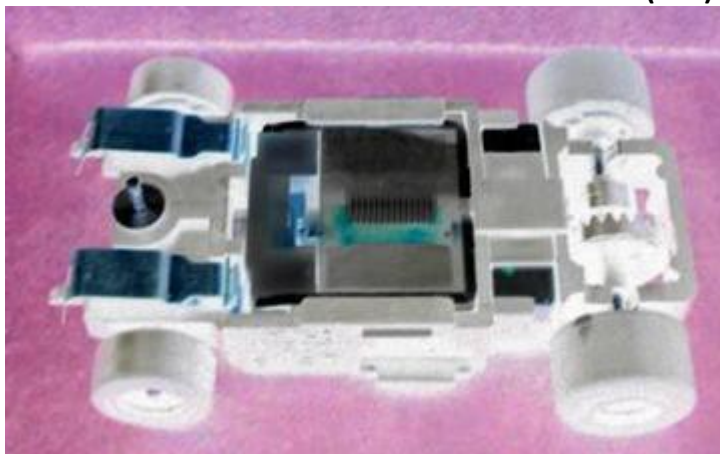
- Pick up holders must be stock, they may be reshaped but no material may be removed or added.
- Magnets must be stock items, unaltered, not shimmed, not glued in, and must be in the stock position.
- If you build a car outside of these parameters it will be considered a Pro Modified.
- Body screw does not have to be fitted.

#### 12.6. AUTOWORLD SUPER III



- This chassis is legal in CW class.
- Only standard AW super III armatures with copper windings are permitted.
- Any gear ratio is permitted.
- Any make of Plain bearing ([bush](#)) may be used with this chassis.
- All retaining clips must be fitted at all times.
- Magnets must be stock items, unaltered, not shimmed, not glued in, and must be in the stock position.
- If you build a car outside of these parameters it will be considered a Pro Modified.

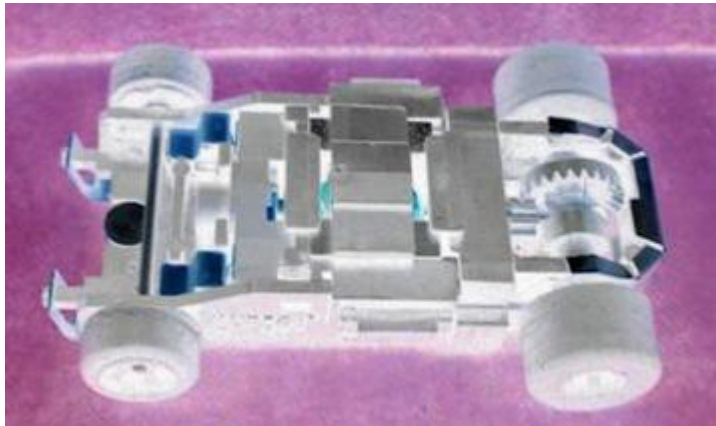
#### 12.7. TOMY TURBO & SUPER RACING TURBO (SRT)



- (also Irwin Turbo+)
- The Turbo is legal in Open Wheel, CW and Nascar classes, the SRT only CW.
- In Open wheel cars must start all races with front wings and down posts (where relevant) present.

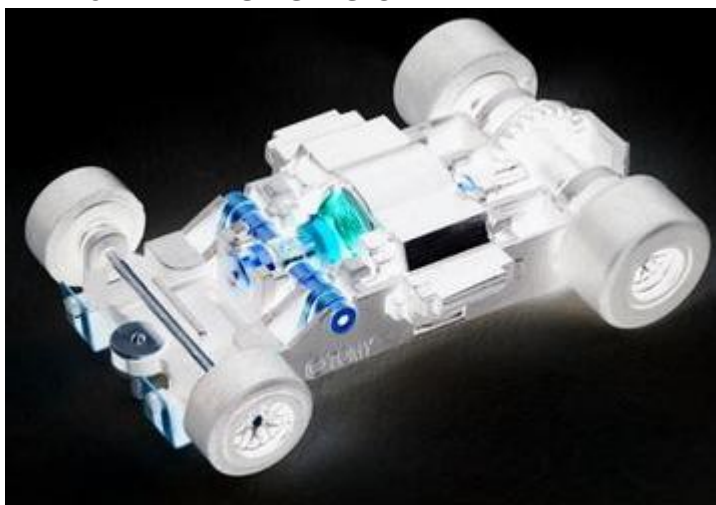
- Only standard Tomy (not A.F.X) armatures with red windings are permitted.
- Motor can may not be altered in any way, other than re-profiling of electrical tabs.
- Plain bearings ([bush](#)) must be stock and unaltered.
- For Modified any gear ratio is permitted.
- For Open wheel and Nascar a 7T pinion must be used, but crown can be either 25T or 22T.
- Magnet retaining clip must be fitted and be unmodified.

#### 12.8. TOMY SUPER G-PLUS



- This chassis is legal in Nascar and CW classes.
- Only standard Tomy (not A.F.X) armatures with red windings are permitted
- Any make of Plain bearing ([bush](#)) may be used with this chassis.
- For Modified any gear ratio is permitted.
- Timing bracket must be stock and unmodified.
- Traction magnet clip must be stock, fitted and unmodified.
- Pick up holders must be stock, they may be reshaped but no material may be removed or added.

#### 12.9. A.F.X MEGA-G MG15

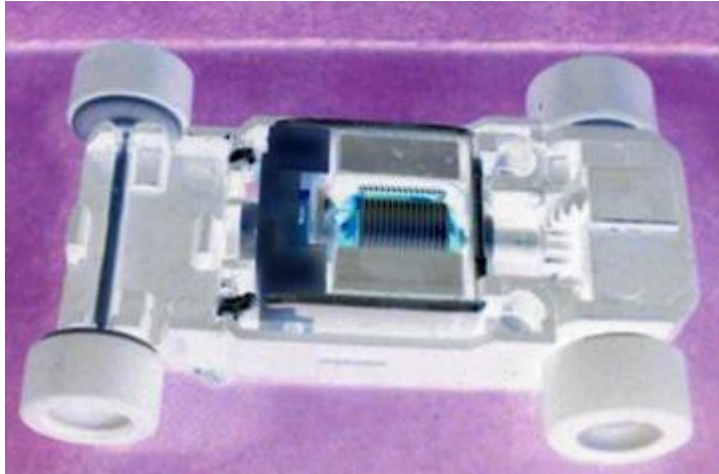


- This chassis is legal in Nascar and CW classes.



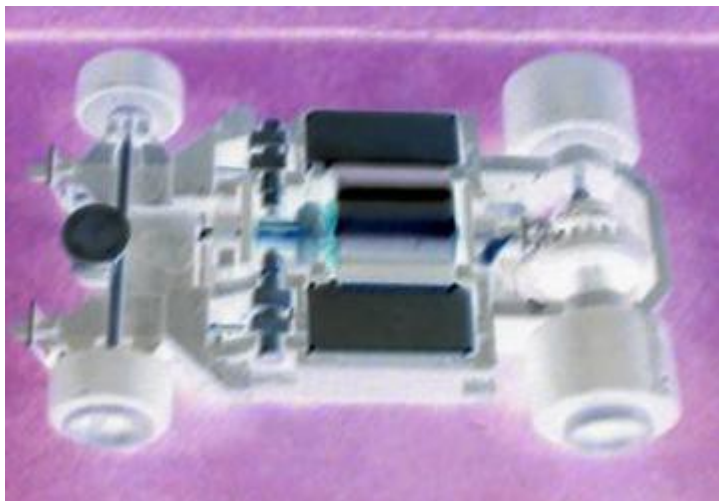
- Only standard Mega-G armatures are permitted.
- Any make of Plain bearing ([bush](#)) may be used with this chassis.
- For Modified any gear ratio is permitted.

#### 12.10. **HORNBY SCALEXTRIC MICRO**



- This chassis is legal in CW class.
- Any legal Tomy-timed armature may be used.
- Motor can and internals may not be altered in any way, other than re-profiling of electrical tabs.
- Plain bearings ([bush](#)) must be stock and unaltered.
- Any gear ratio is permitted.
- Any make of braid is permitted.
- Mixing of braid/pin plates and chassis is permitted.
- Plastic blade-style guide pins are permitted for this chassis only.
- Magnets must be stock items, unaltered, not shimmed and not glued in.
- If you build a car outside of these parameters it will considered a Pro Modified.

#### 12.11. **LIFE-LIKE 'M'**



- (Also Rokar 'X')
- This chassis is legal in Open Wheel, CW and Nascar classes.

- In Open wheel cars must start all races with front wings and down posts (where relevant) present.
- Only standard Life-Like or Rokar armatures with red windings, or the skewed 'powertracker' armature are permitted
- Any make of Plain bearing ([bush](#)) may be used with this chassis, but housings must be stock and unaltered.
- For Modified any gear ratio is permitted.
- Pole piece must be fitted, stock and unmodified.

### 13. PRO-MODIFIED RULES (TO BE REVISED JAN 2015)

13.1. Pro Modified classes may be run in conjunction with Closed wheel classes in the PM Sessions. Pro Modified races cars may not race with other Closed wheel cars. The race format may be heats, or Segmented, where racers will compete on each lane, with all lane scores counting. The total number of laps count and no Finals will take place. The length of segmented races will be determined by Race Control and made public before racing commences. After each lane is raced, it is down to the racer to mark or memorise where their car finished. Racers will replace their car where it finished the previous heat. Should this be forgotten or disputed, the car will be placed ahead of the start finish lane.

13.2. Pro-Modified does not count towards EAHORC Cup points.

#### **All items are 'open' except:**

13.3. Bodies - Bodies must be closed-wheel, and have a shape based on a real race car (not road car). Lexan and other lightweight bodies are permitted, providing they meet guidelines. Bodies must feature accurate or at least prototypical race car colour schemes (race numbers, sponsors etc). Windows must be clear or painted to contrast with body. Where wings were featured on the real car, they must be present, but Lexan and other lightweight bodies may feature moulded in wings.

13.4. Lexan and other lightweight bodies may run without front wheel cut-outs but these must be clear. Bodies may be ballasted, but ballast must be glued firmly in place. Bodies may be lowered, lightened, and otherwise worked on to improve clearances, but must maintain the original outward integrity of the original. Any method of body fitment is permitted with any chassis. Devices designated as clips are not considered a chassis part and must not be glued to chassis, they can but do not have to be glued to bodies.

13.5. Standard Armatures - Armatures without balance marks must be stock and therefore not 'worked up' in any way (examples: diameter of shaft reduced, commutator tied-off, windings or comm epoxied, windings removed, commutator diamond-true). Windings must be red, rotors must be unpainted. Standard arms with Wide-gap rotors are permitted so long as they comply with all other rules.

13.6. Balanced armatures - The following armatures are permitted:

Tyco Timed - [Harden Creek](#) HCE3B & HCE6B, Slottech 102 & 102-1, Slottech 104, 104-1, 104-2 & 104-3, Wizzard SP04, SPO4PA & SP04PAL, Wizzard SP05\*

Tomy Timed - [Harden Creek](#) HCE3E & HCE6E, BSRT #140 & #148

These must not be altered in any way. Any arm with soldered tabs will be treated as a rewind, and therefore illegal. Any driver running with an illegal armature will be disqualified from the class for the whole season, and their name and scores removed from the Pro-Mod championship. \*No other wide-gap balanced arms are permitted.

13.7. Tyres - Must be single compound and black in colour. Sidewall writing and detailing based on real tyres is permitted (must be class-correct and body-correct).

13.8. O-rings and 'thinnies' may be used as front tyres.

13.9. Electricals - Open, but no shunts.

13.10. [Rolling-element](#) bearings - Permitted on armatures, but not axles. Armature shaft may not be modified to facilitate fitting of rolling-element bearings or plain bearings.

13.11. Magnets - maximum 2 traction magnets and two motor magnets per car.

13.12. All entered cars must fit through an EAHORC metal 34mm width gauge and be 17mm from centreline to sides, unless specifically exempted.

13.13. Cars must start all races with body properly attached, and four tyres as defined by the current rules and all items of the car that can be considered it's parts to be present and intact, unless expressly exempted. Where pick-up shoes are part of a chassis design these must be fitted. There must be no sharp edges on the cars. Race control reserve the right to ignore any laps completed by cars that do not comply.



