

# 28 SCALE RACING ASSOCIATION



## Rules and Racing Guidelines

Version 2024.2

### Contents

2	REVISIONS .....	3
2.1	Revisions 5/4/2024.....	3
3	RACE FORMAT .....	4
3.1	Grand Prix Race Format .....	4
4	CLASSES.....	5
4.1	Rocky Mountain Spec, <i>Expert</i> .....	5
4.2	AAA Stock.....	6
4.3	LiPo Stock.....	7
4.4	Formula 1.....	8
4.5	LMP / LMH (Le Mans Prototype / Le Mans Hypercar) This class is still being tested.....	9
4.6	3500 GT.....	10
4.7	Modified AWD.....	11
4.8	Modified GT.....	12
4.9	Modified Open.....	13
5	GENERAL RULES .....	14
5.1	Tires.....	14
5.2	Body & Modifications.....	14
5.3	Weight, Width, Height, & Gearing Tables.....	15
5.4	Prototype and 3D Printed Parts .....	15
5.5	Sportsmanship.....	16
6	RACE TECH.....	16

6.1	Motor .....	16
6.2	Car Tech .....	16
6.3	Rule Clarifications.....	16
7	28 SCALE RACING ASSOCIATION TRACKS .....	17

## 2 REVISIONS

### 2.1 Revisions 5/4/2024

- Added Marka – RK-LM6 to approved Lexan Pan Car and LMP body's list.
- Changed 4.3.8, 4.4.8, 4.5.8, 4.6.8 from - Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Changed to - Any manufacturer ESC and Receiver is allowed. ESC must have and be in BLINKY MODE. Note, this rule change will not take effect immediately, it will take effect at the conclusion of the final Grand Prix Sept 23<sup>rd</sup> 2024.
- Added clarification to 4.3.4, 4.4.4, 4.6.4 - Note: 25 tile straightaway is measured at the longest part of the straightaway / outside straightaway.

### 2.2 Needs Added / Refined / Tested

- Weight width height table needs redone in AWD, Mod, Open to accommodate 102mm cars?
- Need to define penalties for on track and rules infractions?
- Need battery max physical size requirements?
- Need to add min weight to F1?

## 3 RACE FORMAT

### 3.2 Grand Prix Race Format

#### 3.2.1 Practice

- Practice will be separated by like speed classes. Rocky Mountain Spec - F1, Stock - 3500 GT, LMP/LMH - Mod AWD, Mod GT, Mod Open
- Practice will be 3:00 sessions with 30 second driver transition time, session time is dependent on time constraints.
- No more than 10 drivers on the stand per practice session.
- The number of practice sessions each class gets will be determined by the number of entries per class. For example, if there's 27 entries in Stock and 15 entries in F1, there will be 5 sessions of practice to allow every driver in those classes an opportunity to get a practice session in.

#### 3.2.2 Qualifying

- There will be a Pre-Qualifier plus three qualifying runs (Q1, Q2, Q3) for each class. Depending on entries and time constraints a 4<sup>th</sup> qualifier (Q4) may be added. The race director will decide that before the event starts.
- Pre-Qualifier will last for 3 minutes, Q1, Q2, Q3, and Q4 rounds will last 5 minutes with 1 min warm-up and 30 second driver transition time.
- All Qualifying rounds, the drivers will be called out individually to start, and will be on their own clock (IFMAR qualifying).
- For the Pre-Qualifier run, the starting grid will be randomly sorted. Your top 3 consecutive laps will count towards the sorting order for Q1.
- The 1<sup>st</sup> – 4<sup>th</sup> qualifying rounds will be resorted by your best laps and time result from all qualifiers to that point.
- There will be only 1 racers minute allowed per race if needed, racers minute will last a maximum of 1 min. The track will be closed during the racers' minute.
- The racer's final qualifying position will be based on your best single qualifying run, laps and times of the 4 qualifying rounds. TQ will be awarded to the racer with the best laps and time from a single round (Rocket Round).

#### 3.1.3 Mains

##### All Mains

- The winner of each main will score: 1 point, 2nd place will score: 2 points, 3rd place will score: 3 points, and so on, scoring one point less for each driver down to the last finishing position. If a driver does not start a main, they receive 14points.
- 2 turn rule - there will be no passing in the first 2 turns of any main unless a driver wrecks in front of you.
- There will be only 1 racers minute allowed per main if needed, racers minute will last a maximum of 1 min. The track will be closed during the racers' minute.

##### A-Mains

- All "A" mains will run 3 times for 6 minutes using a point system to determine your final position. Your best 2 finishes of the 3 "A" mains will count towards your final points. Least number of points wins.
- All "A" mains will be 10 drivers maximum.
- A driver who wins the first two mains of a triple A-Main event must sit out the third main.
- The "A" mains tiebreaker is the best single finishing position (1-3 beats a 2-2) If there's still a tie then the best Laps/time from the best finishing position run is the final tie breaker (IFMAR).

##### Lower Mains

- All lower mains will run 2 times for 6 minutes using a point system to determine your final position.
- No bumps from the lower mains to the "A".
- lower mains 4 minimum, 13 maximum.
- The tiebreaker is whoever finishes higher in the 2<sup>nd</sup> main.

#### 3.1.4 Classes

- 8 entries make a class, if 8 entries fail to sign up, the class will be dropped.
- Awards will not be ordered if we fail to get 8 entries signed up 2 weeks prior to the event but will be run if 8 entries show up the day of event.
- AAA Stock and LiPo Stock will be combined if not enough entries sign up for either of those classes.

## 4 CLASSES

### 4.2 Rocky Mountain Spec, Expert

#### 4.2.1 Driver Restriction

Rocky Mountain Spec – Mod GT, Mod AWD, or Mod Open drivers Not allowed.

*Rocky Mountain Spec Expert - No driver restriction.*

#### 4.2.2 Chassis

Kyosho MR03S, MR03S2, and MR03 RWD.

#### 4.2.3 Wheelbase

Only wheelbases allowed shall be 90mm, 94mm, 98mm, and 102mm.

#### 4.2.4 Motor

Kyosho MZ9P, MZ9E Motor from RTR, and PN 70 turn (PNR132370). Allowed to change the motor wires and remove the safety switch. Motor must be run as it was manufactured; no motor manipulation of any kind is allowed.

#### 4.2.5 Gear Ratio

6T - 9T Pinion included with RTR kits, or PN 9T (PNR400329) with Stock Kyosho Gear Diff only.

#### 4.2.6 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 8.5mm and the rear-wheel width is 11mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

#### 4.2.7 Tires

Refer to [General Rules>Tires](#) section for information. Max tire diameter while mounted on the wheel shall not exceed 25.5mm.

#### 4.2.8 Batteries

Cars must be powered by 4, AAA batteries. Alkaline, Ni-MH, or Ni-Cd batteries may be used. No other type of battery may be used. An additional battery is allowed and may only be connected to a transponder.

#### 4.2.9 Electronics & Transmitter

Rocky Mountain Spec - Only Kyosho original items included in the box are allowed, with NO modifications.

*Rocky Mountain Spec Expert – Open radio, All other Kyosho original items included in the box are allowed, with NO modifications.*

#### 4.2.10 Body

Any manufactured molded hard shell that fits the allowed wheelbase. All parts must be the original for that body.

Limited wheel and ground clearance modifications are allowed. Body material may not be shaved or thinned for weight reduction. Lexan roofs, windows, and wings are not allowed. Aftermarket plastic wings are allowed. Refer to [General Rules>Body & Modifications](#), Hard Bodies section for additional information.

#### 4.2.11 Option Parts

Any manufacture ball bearings, nuts, screws, springs, shims, and T-Plates allowed.

Any manufacture t-plate mount, steering knuckles, disk damper set, center shock, and front body mount with body adaptor is allowed. Only those 5 above listed items can be upgraded. No aftermarket front suspensions or rear pods allowed. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

#### 4.2.12 Modification

The car must be run in stock configuration. Kingpin flip is allowed, kingpin must be cut to prevent track damage.

## 4.3 AAA Stock

### 4.3.1 Chassis

Kyosho MR03S, MR03S2, & MR03 RWD, Jomurema, MRC MRC01, PN PNR2.5W,

### 4.3.2 Wheelbase

Only wheelbases allowed shall be 90mm, 94mm, 98mm and 102mm.

### 4.3.3 Motor

Any manufacturer 3500Kv motor is allowed, sensored or sensorless. Max can diameter is 16mm. No option or aftermarket rotors are allowed. Maximum Kv is 3800. Refer to [Race Tech>Motor](#) section for additional information.

### 4.3.4 Gear Ratio

Any manufacturer pinion and spur allowed, tooth count must be distinguishable by markings or color for easy tech. All gears must be Pre-Event teched and painted. Refer to the gearing chart to find the appropriate gearing for your specific track. Note: 25 tile straightaway is measured at the longest part of the straightaway / outside straightaway.

AAA Stock – Official 28SRA Grand Prix and Pro-Am Gearing	
Less than 25 tile straightaway	25 tile straightaway or more
14T Pinion / 53T Spur	16T Pinion / 53T Spur

### 4.3.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 8.5mm and the rear-wheel width is 11mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.3.6 Tires

Refer to [General Rules>Tires](#) section for information. Max tire diameter while mounted on the wheel shall not exceed 25.5mm.

### 4.3.7 Batteries

Cars must be powered by 4, AAA batteries. Alkaline, Ni-MH, or Ni-Cd batteries may be used. No other type of battery may be used. An additional battery is allowed and may only be connected to a transponder.

### 4.3.8 ESC / Receiver

Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.3.9 Body

Any manufactured molded hard shell that fits the allowed wheelbase. All parts must be the original for that body. Limited wheel and ground clearance modifications are allowed. The body must weigh a minimum of 26 grams. Side clips if used, are considered part of the body. Lexan roofs, windows, and wings are allowed. Aftermarket plastic wings are allowed. Refer to [General Rules>Body & Modifications](#), Hard Bodies section for additional information.

### 4.3.10 Option Parts

Any aftermarket 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to [General Rules>Prototype and 3D Printed parts](#) section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

## 4.3 LiPo Stock

### 4.3.1 Chassis

Kyosho MR03S, MR03S2, & MR03 RWD, Jomurema, GL Racing GLR, GLR-GT, GL-GTR, MRC MRC01, PN PNR2.5W, PNR3.0, RTRC RTA, Atomic MRZ, MRX, Reflex RX28, RX28SE, NEXX Skyline, Specter, MWX R.1, G-Force Lightning

### 4.3.2 Wheelbase

Only wheelbases allowed shall be 98mm and 102mm.

### 4.3.3 Motor

Any manufacturer 2500Kv motor is allowed, sensored or sensorless. Max can diameter is 16mm. *No* option or aftermarket rotors are allowed. Maximum Kv is 2800. Refer to [Race Tech>Motor](#) section for additional information.

### 4.3.4 Gear Ratio

Any manufacturer pinion and spur allowed, tooth count must be distinguishable by markings or color for easy tech. All gears must be Pre-Event teched and painted. Refer to the gearing chart to find the appropriate gearing for your specific track. Note: 25 tile straightaway is measured at the longest part of the straightaway / outside straightaway.

LiPo Stock – Official 28SRA Grand Prix and Pro-Am Gearing	
Less than 25 tile straightaway	25 tile straightaway or more
10T Pinion / 53T Spur	12T Pinion / 53T Spur

### 4.3.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 8.5mm and the rear-wheel width is 11mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.3.6 Tires

Refer to [General Rules>Tires](#) section for information. Max tire diameter while mounted on the wheel shall not exceed 25.5mm.

### 4.3.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.3.8 ESC / Receiver

Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.3.9 Body

Any manufactured molded hard shell that fits the allowed wheelbase. All parts must be the original for that body. Limited wheel and ground clearance modifications are allowed. The body must weigh a minimum of 26 grams. Side clips if used, are considered part of the body. Lexan roofs, windows, and wings are allowed. Aftermarket plastic wings are allowed. Refer to [General Rules>Body & Modifications](#), Hard Bodies section for additional information.

### 4.3.10 Option Parts

Any aftermarket 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to [General Rules>Prototype and 3D Printed parts](#) section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

## 4.4 Formula 1

### 4.4.1 Chassis

GL Racing GLF-1, G-Force Formula, PNR 3.0F1, MWX R1F1, Atomic SF-F1 conversion

### 4.4.2 Wheelbase

Only wheelbase allowed shall be 112mm – 116mm.

### 4.4.3 Motor

Any manufacturer 2500Kv motor is allowed, sensored or sensorless. Max can diameter is 16mm. No option or aftermarket rotors are allowed. Maximum Kv is 2800. Refer to [Race Tech>Motor](#) section for additional information.

### 4.4.4 Gear Ratio

Any manufacturer pinion and spur allowed, tooth count must be distinguishable by markings or color for easy tech. All gears must be Pre-Event teched and painted. Refer to the gearing chart to find the appropriate gearing for your specific track. Note: 25 tile straightaway is measured at the longest part of the straightaway / outside straightaway.

Formula 1 – Official 28SRA Grand Prix and Pro-Am Gearing	
Less than 25 tile straightaway	25 tile straightaway or more
10T Pinion / 53T Spur	12T Pinion / 53T Spur

### 4.4.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The front-wheel width must be 11mm and the rear-wheel width must be 14mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars.

### 4.4.6 Tires

Refer to [General Rules>Tires](#) section for information. Max tire diameter while mounted on the wheel, shall not exceed 25.5mm.

### 4.4.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.4.8 ESC / Receiver

Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.4.9 Body

Lexan F1 Bodies only. Refer to [General Rules>Body & Modifications](#), Lexan F1 bodies for a list of approved bodies. Aftermarket front and rear wings are allowed but must look like an F1 wing. Bearings in the front wing are allowed.

### 4.4.10 Option Parts

Any after-market 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to [General Rules>Prototype and 3D Printed parts](#) section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.



## 4.5 LMP / LMH (Le Mans Prototype / Le Mans Hypercar) This class is still being tested

### 4.5.1 Chassis

Open any 2WD chassis ONLY. Prototype or pre-production chassis allowed.

### 4.5.2 Wheelbase

Only wheelbase allowed shall be 112mm – 116mm.

### 4.5.3 Motor

Any manufacturer 3500Kv motor is allowed, sensored or sensorless. Max can diameter is 16mm. No option or aftermarket rotors are allowed. Maximum Kv is 3800. Refer to [Race Tech>Motor](#) section for additional information.

### 4.5.4 Gear Ratio

Open

### 4.5.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The front-wheel width must be 11mm and the rear-wheel width must be 14mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.5.6 Tires

Refer to [General Rules>Tires](#) section for information. No max tire diameter. Older F1 tires with the sidewall's are allowed.

### 4.5.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.5.8 ESC / Receiver

Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.5.9 Body

Lexan LMP or LMH Bodies only. Refer to [General Rules>Body & Modifications, Lexan Bodies](#) for a list of approved bodies. Currently the only approved body is the GL Racing GL-Le Mans body set (GL-050-1). Headlights (white) and taillights (red) must be installed and working at the start of each race. Aftermarket Lexan, molded plastic, 3d printed, and carbon wings are allowed, but must look like an LMP / LMH wing, side wings must be installed.

### 4.5.10 Option Parts

Open any parts allowed (including homemade parts, 3D-printed, and prototype parts.)

Class is still being tested, changes might be made.

## 4.6 3500 GT

### 4.6.1 Chassis

Kyosho MR03S, MR03S2, and MR03 RWD, Jomurema, GL Racing GLR, GLR-GT, GL-GTR, MRC MRC01, PN PNR2.5W, PNR3.0, RTRC RTA, Atomic MRZ, MRX, Reflex RX28, RX28SE, NEXX Skyline, Specter, MWX R.1, G-Force Lightning

### 4.6.2 Wheelbase

Only wheelbases allowed shall be 98mm and 102mm.

### 4.6.3 Motor

Any manufacturer 3500Kv motor is allowed, sensored or sensorless. Max can diameter is 16mm. No option or aftermarket rotors are allowed. Maximum Kv is 3800. Refer to [Race Tech>Motor](#) section for additional information.

### 4.6.4 Gear Ratio

Any manufacturer pinion and spur allowed, tooth count must be distinguishable by markings or color for easy tech. All gears must be Pre-Event teched and painted. Refer to the gearing chart to find the appropriate gearing for your specific track. Note: 25 tile straightaway is measured at the longest part of the straightaway / outside straightaway.

3500 GT – Official 28SRA Grand Prix and Pro-Am Gearing	
Less than 25 tile straightaway	25 tile straightaway or more
10T Pinion / 53T Spur	12T Pinion / 53T Spur

### 4.6.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 8.5mm and the rear-wheel width is 11mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.6.6 Tires

Refer to [General Rules>Tires](#) section for information. Max tire diameter while mounted on the wheel shall not exceed 25.5mm.

### 4.6.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.6.8 ESC / Receiver

Any manufacturer ESC and Receiver is allowed. Sensored ESC must have and be in BLINKY MODE. Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.6.9 Body

Lexan GT Bodies only. Refer to [General Rules>Body & Modifications](#), Lexan GT bodies for a list of approved bodies.

### 4.6.10 Option Parts

Any after-market 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to [General Rules>Prototype and 3D Printed parts](#) section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

## 4.7 Modified AWD

### 4.7.1 Chassis

Kyosho Mini-Z Racer AWD MA010, MA015, MA020 and MA030, Atomic BZ and SZ2, GL Racing GLA, GLA Giulia, Mini-Q Q7

### 4.7.2 Wheelbase

Only wheelbases allowed shall be 98mm and 102mm.

### 4.7.3 Motor

Any manufacturer motor is allowed, sensored or sensorless. Max can diameter is 16mm.

### 4.7.4 Gear Ratio

Open

### 4.7.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 11mm and the rear-wheel width is 14mm, not including an outer flange or disk. The maximum wheel diameter is 20.5mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.7.6 Tires

Refer to [General Rules>Tires](#) section for information. No max tire diameter.

### 4.7.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.7.8 ESC / Receiver

Any manufacturer ESC (sensored or sensorless) and Receiver is allowed.  
Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.7.9 Body

Lexan GT Bodies only. Refer to [General Rules>Body & Modifications](#), Lexan GT bodies, for a list of approved bodies.

### 4.7.10 Option Parts

Any aftermarket 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to General Rules>Prototype and 3D Printed parts section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

## 4.8 Modified GT

### 4.8.1 Chassis

Kyosho MR03S, MR03S2, and MR03 RWD, Jomurema, GL Racing GLR, GLR-GT, GL-GTR, MRC MR01, PN PNR2.5W, PNR3,0 RTRC RTA, Atomic MRZ, MRX, Reflex RX28, RX28SE, NEXX Skyline, Specter, MWX R.1, G-Force Lightning

### 4.8.2 Wheelbase

Only wheelbases allowed shall be 94mm, 98mm and 102mm.

### 4.8.3 Motor

Any manufacturer motor is allowed, sensored or sensorless. Max can diameter is 16mm.

### 4.8.4 Gear Ratio

Open

### 4.8.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 11mm and the rear-wheel width is 14mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.8.6 Tires

Refer to [General Rules>Tires](#) section for information. No max tire diameter.

### 4.8.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.8.8 ESC / Receiver

Any manufacturer ESC (sensored or sensorless) and Receiver is allowed.

Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.8.9 Body

Lexan GT Bodies only. Refer to [General Rules>Body & Modifications](#), Lexan GT bodies for a list of approved bodies.

### 4.8.10 Option Parts

Any aftermarket 28 scale publicly available production or 3D printed parts are allowed. Prototype parts are NOT allowed. Refer to [General Rules>Prototype and 3D Printed parts](#) section for additional information. Adding weight via tungsten putty, stick weight, or cut hobby brass is allowed.

## 4.9 Modified Open

### 4.9.1 Chassis

Open any 2WD chassis ONLY. Prototype or pre-production chassis allowed.

### 4.9.2 Wheelbase

Only wheelbases allowed shall be 94mm, 98mm and 102mm.

### 4.9.3 Motor

Any manufacturer motor is allowed, sensed or sensorless. Max can diameter is 16mm.

### 4.9.4 Gear Ratio

Open

### 4.9.5 Wheels

All brand plastic and aluminum 28 scale production wheels are allowed. The maximum front-wheel width is 11mm and the rear-wheel width is 14mm, not including an outer flange or disk. The maximum wheel diameter is 20mm, minimum wheel diameter is 19mm. All wheels must be original designs made for 28 scale cars. Wheel and tire must fit inside the body.

### 4.9.6 Tires

Refer to [General Rules>Tires](#) section for information. No max tire diameter.

### 4.9.7 Batteries

2-cell LiPo or 2 one-cells paralleled maximum 8.4 volts. An additional battery is allowed and may only be connected to a transponder.

### 4.9.8 ESC / Receiver

Any manufacturer ESC (sensed or sensorless) and Receiver is allowed.

Any receiver with a built-in Gyro is *not allowed*. Gyro's are not allowed.

### 4.9.9 Body

Lexan Pan Car and LMP Bodies only. Refer to [General Rules>Body & Modifications](#), Lexan pan car and LMP bodies for a list of approved bodies. Cutting the rear panel is allowed.

### 4.9.10 Option Parts

Open any parts allowed (including homemade parts, 3D-printed, and prototype parts.)

## 5 GENERAL RULES

### 5.1 Tires

All Classes

- RM Spec, AAA Stock, LiPo Stock, F1, and 3500 GT, maximum tire diameter while mounted on the wheel is 25.5mm.
- Older F1 tires are not allowed, unless the sidewall is cut off. Exception is F1 and LMP / LMH Classes.
- Any brand of production rubber 28 scale tire is allowed.
- Traction Compound is NOT allowed on the tire or race surface.
- Tire warmers are allowed.
- Tires may be cleaned with a 70% alcohol solution or water.
- If a driver uses a tire cleaner deemed illegal, the driver will be subject to penalties.
- Homemade tires, Foam tires, Silicon tires, Urethane tires, or Ethyl Carbamate tires are NOT allowed.
- Tire inserts are not allowed.

Please address any questions concerning tires at the driver's meeting or with the race director.

### 5.2 Body & Modifications

#### 5.2.1 Hard Bodies

Bodies may be functionally modified with minimal effect on the external appearance. The following non-comprehensive list of body modifications is allowed.

- The rear bumper may be removed up to a maximum of 20mm from the ground. Wheel wells may be cut or chamfered internally for tire clearance.
- Lower portions of the body may be cut for ground clearance in front, sides, or rear.
- Body panels may be reinforced or strengthened internally without affecting external appearance.
- Original headlight covers must be installed, but headlight buckets may be removed or omitted. If a headlight cover is lost, the hole may be covered with a decal.
- Taillights and taillight covers may be removed or omitted.
- Small body parts such as mirrors, canards, exhausts, and front splitters may be omitted or removed to prevent racing damage, getting stuck under a rail, and debris on the track.
- All rear wings that come standard with their corresponding hard-shell body may be used with no height limit. Custom-manufactured aftermarket plastic wings are allowed on any shell but must be cut to meet the height limit of 45mm from the ground.

The above list is non-comprehensive. The purpose and spirit of the rule are to allow functional performance modifications to the body while preserving the scale appearance and realism. The technical inspector has final authority in the judgment of body modification legality. If you have modified your body and have questions regarding the legality of the modifications, please submit the body in question to technical inspection PRIOR to racing qualification or main event rounds. This is to prevent any inadvertent disqualifications. The technical inspector will judge the legality of body modifications and photograph the body in its legal state if necessary.

If the body is further modified post-inspection, the modifications may or may not be legal. For the racer's protection, please re-submit the body in question to technical inspection IMMEDIATELY if significant modifications have been made. If the body is damaged, the condition of the body may or may not be legal. For the racer's protection, please submit the body in question to technical inspection IMMEDIATELY if significant damage occurs. If the damaged body is judged illegal, it must be repaired or replaced for the next qualification or main event round. Qualification or main event results during which racing damage occurs on track will be allowed, as long as the body is not judged to be intentionally designed to break away to benefit performance.

#### 5.2.2 Lexan Bodies

Aftermarket Lexan, molded plastic, 3d printed, and carbon wings are allowed. Maximum wing size cannot be bigger than the original wing cutting line.

The rear bumper may be removed up to a maximum of 20mm from the ground.

### 5.2.2.1 Approved Lexan GT Bodies

- PN - Supra A90, JSK, AD4, GT4LB, 992GT3, M4GT3, Concept C9, V2 JGT01, ZLB
- SBRC - Zenvo ST1, Phenom GT, NSX GT3, 458GT, SBX, STR, HYR, JX, XB2,
- Marka - RK410, RK408, RK-S, RK-SP6, RK-HC, RK-P-One, RK-W, RK-12, RK-TWR, RK-4C, RK-AMGT, RK-BLD, RK-NTI, RK-PZR, RK-MK4
- Atomic - M4Z, DBX, Hyper, VST, ADR, IS2, LTC Type, LCT-2.0, AMZ
- GL Racing - P1M
- Rad Body – Mako GT, Mako X, Catfish
- PROTOform – P63, Venturi GT
- G-Force VW
- RTRC – XVR-GTB
- Bitty Designs – Ares-1, Eptron
- Nexx Racing – NX-326 Body
- GL Racing – P1M (102mm)
- Marka – RK-P-One (102mm)
- RTRC – XVR-GTB (102mm)

### 5.2.2.2 Approved Lexan Pan Car and LMP Bodies

Cutting the rear panel is allowed.

- PN - BMR, AMR2
- Marka - RK-AMR, RK-P99, RK-LM6
- Atomic - MP1
- SBRC – B001, B011
- Rad Body - LMP3, Ocho, Skillet
- Atomic – MRZ (102mm)
- GL Racing – VDS (102mm)

### 5.2.2.3 Approved Lexan 112mm -116mm bodies

F1

- GL Racing – GLF-1
- PN – F1 body #600821
- G-Force – G-Force formula body

LMP/LMH

- GL Racing – GLF1 LeMans

Because a body isn't listed above doesn't mean it's not allowed. Check with the race director before the event to get a final answer on whether your particular body is allowed or not.

## 5.3 Weight, Width, Height, & Gearing Tables

	Stock	3500 GT	AWD / Mod GT / Mod Open	Notes
Min. Weight	160g	160g	No Limit	
Max. Car Length	180mm	180mm	180mm	Subject with Bodies Rule
Max. Car Width	80mm	80mm	80mm	
Max. Wing Height	45mm	45mm	45mm	

Official 28SRA Grand Prix and Pro-Am Gearing Table		
	Less than 25 tile straightaway	25 tile straightaway or more
AAA Stock	14T Pinion / 53T Spure	16T Pinion / 53T Spur
LiPo Stock	10T Pinion / 53T Spur	12T Pinion / 53T Spur
Formula 1	10T Pinion / 53T Spur	12T Pinion / 53T Spur
3500 GT	10T Pinion / 53T Spur	12T Pinion / 53T Spur

## 5.4 Prototype and 3D Printed Parts

Any production or 3D printed parts not publicly available before the start of an event, are considered prototype parts. Any new parts must be publicly announced via social media or website and be available for purchase on a national scale to be considered publicly available. 3D print files shared with the public 30 days before the start of an event, and can be printed by the public, will meet the requirement of being publicly available for that particular part.

## 5.5 Sportsmanship

Proper manners and good sportsmanship are expected from all drivers at all times. It is important to understand that general bad behavior like cursing, intentional bad driving, etc. will not be accepted and can result in a driver being penalized, disqualified, or even asked to leave in extreme cases.

All participants will be expected to attend the drivers' meeting. Drivers will be expected to understand and comply with each rule by the time they leave the driver's meeting. Ask any questions at this time.

If there is a rule dispute between drivers it must be brought to the attention of the race director or race personnel. The officials at the track will do their best to resolve any issue to the satisfaction of everyone.

If a racer notices an illegal item on another racer's car. Please report to the race official after that racer's race, so the car can be inspected without interference.

Substitute drivers are not allowed in any qualification or main event race. Immediate disqualification from the event for both drivers will result.

## 6 RACE TECH

### 6.1 Motor

#### 6.1.1 Motor tech procedures

All motors to be ran in AAA Stock, LiPo Stock, F1, LMP/Hypercar, and 3500 GT classes must be Pre-Event teched and marked for motor rule compliance.

- Motor must be unsoldered, and sensor wire removed before handing it over to the tech official
- The motor will be teched for Kv using a SkyRC Motor analyzer ([SKY-500020](#))
- SkyRC Motor analyzer will be powered using a 72 watt variable power supply set to 8.4 Volts ([SHNITPWR](#))
- SkrRC analyzer will be set to the first option, Kv analyzer, power knob will be turned to full throttle level (all lights lit)

### 6.2 Car Tech

Race Director or Technical inspector can tech any car at any time without reason.

#### 6.2.1 Pre-Event Tech

Pre-Event is considered, any time prior to the first race of the event. Every driver can submit his car for pre-event tech to make sure they are in compliance with the rules. All Stock, F1, and 3500 GT entries must Pre-Event tech the following items, all motors, pinion gears, and spur gears to be ran in the event. Those items will be marked for easy Pre-Race tech.

#### 6.2.2 Pre-Race Tech

All cars must be teched prior to each race it is in. Drivers will present their car to the technical director at least 3 minutes prior to the previous race being completed. Car must be turned off with body removed for the initial tech. Technical director may ask you to turn on the car during their inspection.

#### 6.2.3 Post-Race Tech

All Cars must be placed on the post-race tech table after each run. Car can be either left on or turned off before placing on the post-tech table. Car cannot leave the post-race tech table until the next race is completed.

### 6.3 Rule Clarifications

- The Atomic MRZ Pro converted to a strait axle, will be considered an MRZ.



## 7 28 SCALE RACING ASSOCIATION TRACKS



Pikes Peak RC Arena / HobbyTown CO Springs  
Website - <https://www.pikespeakrcarena.com>  
Facebook - <https://www.facebook.com/groups/pikespeakrcarena>  
Address - 687 N Academy Blvd, CO Springs CO. 80909  
Racing every Thursday night, Pits open at 4, Racing at 6:30  
Home of the Pikes Peak 28 Scale Grand Prix



5280 Raceway  
Website - <https://5280raceway.com>  
Facebook - <https://www.facebook.com/5280Raceway>  
Address – 1625 Quail St. Lakewood CO. 80215  
Home of the Mile High Mini-Z Grand Prix (MHMGP)



Las Vegas Mini-Z Underground  
Website –  
Facebook - <https://www.facebook.com/groups/lasvegasminiz>  
Address –  
Racing 2-3 times a month, Check there Facebook page for more info on exact dates



HobbyTown Littleton  
Website - <https://www.hobbytown.com/littleton-co>  
Facebook - <https://www.facebook.com/groups/rockymountain28scalealliance>  
Address – 7981 S Broadway, Littleton CO. 80122  
Racing every Wednesday night starting at 6:30, Racing every Friday night starting at 7:30. Track is up for practice Wed - Sat



Hotlap Hobbies  
Website - <https://www.steelcityrc.com>  
Facebook - <https://www.facebook.com/SteelCityRc>  
Address – 78 Silicon Dr, Pueblo CO. 81007  
Racing every Sunday starting at 1, and Wednesday starting at 6:30. Check there Facebook page for full schedule



West Valley City RC  
Website - <https://www.rm28sa.com/west-valley-city-rc-1>  
Facebook - <https://www.facebook.com/WVCFamilyFitnessCenter>  
Address – 1355 West 3100 South, West Valley City UT. 84119  
Located in the Salt Lake City area. The West Valley City RC venue is the premier 28 scale racing facility in Utah. There known for their 2 main races per year, the Summer Sizzler and the Black Ice Race. Check out there Facebook page for their club racing dates.



Wolfram RC

Website - <https://www.wolframrc.com>

Facebook - <https://www.facebook.com/WolframRC>

Address - 3800 Merle Hay Road Suite #1243, Des Moines, IA. 50310

Racing every Thursday night 6:30pm, Some Saturdays and every other Sunday.



Iron City RC Hobbies

Website - <https://ironcityrchobbies.com>

Facebook - <https://www.facebook.com/groups/213066425104735>

Address - 2980 Lebanon Church RD, West Mifflin PA. 15122



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Madison Mini RC Raceway & Club

Website - <https://www.madisonminirc.com>

Facebook - <https://www.facebook.com/groups/madisonminirc>

Address – 5940 Seminole Centre Ct, Fitchburg, WI. 53711

Racing every Friday night starting at 5pm and every 3<sup>rd</sup> Saturday starting at 9 am.

Practice every Mon and Tue starting at 5 pm.



Madison Mini RC Raceway & Club

Website - <https://www.madisonminirc.com>

Facebook - <https://www.facebook.com/groups/madisonminirc>

Address – 5940 Seminole Centre Ct, Fitchburg, WI. 53711

Racing every Friday night starting at 5pm and every 3<sup>rd</sup> Saturday starting at 9 am.



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361



Iron City RC Hobbies

Website - <https://ironcityrchobbies.com>

Facebook - <https://www.facebook.com/groups/213066425104735>

Address - 2980 Lebanon Church RD, West Mifflin PA. 15122



Marty's Hobbies

Website - <https://martyshobbies.com>

Facebook - <https://www.facebook.com/profile.php?id=100057188960973>

Address – 270 Conejo Ridge Ave, Thousand Oaks, CA. 91361