

# 16th PN Racing World Cup

# PNWC 2022

## Rules and Regulations **Version 22.06**

### **Highlights:**

Approved Atomic SZ2 Chassis to AWD Mod class.

Approved Atomic MRT chassis to 2WD Mod class.

New spec spur gear for MR2055 Gear Diff, (#MR2055-T53WC Yellow)

Approved bodies to 2WD Mod and AWD Mod class

PN Racing Concept C9, V2 JGT01

Marka RK-12, RK-TWR

SBRC STR, HYR

Driver Restriction for 2WD Stock Class and Novie Box Stock Class, 2005-2021 PNWC Final any classes A Main top 3 position drivers, NOT allowed in this class.

### **Race Classes**

Kysoho Box Stock, 2WD Stock, GT Super Stock, 2WD Modified, AWD Modified and Pan Car Open.

### **PNWC Final Race Format**

#### Qualifying

- There will be Pre-Qualify plus THREE qualifying runs for each class.
- Each round will last 5 minutes.
- For the Pre-Qualify run, the starting grid will be staggered in a random order.
- For the First Qualify, the starting grid will be based on Pre-Qualify best 5 average laps.
- For the second to fourth qualify, racers will be re-shuffled each round into heats based best lap time results
- The starting order for each run will be based on the number of laps run in the time allowed.
- Top Qualifier (TQ) will be awarded to the racer with the highest lap count for a single heat.

#### Mains

- All classes: Three Mains 8 minutes for A Main, Two Mains 5 minutes for Others Main. No bump up.
- All mains will be 10 drivers, the lowest main 4 minimum and maximum 13 drivers.
- A driver who wins the first two mains of a triple A Main event must sit out the third main.
- Best two rounds point lowest is final winner
- 1<sup>st</sup> place each round will score: 100 points
- 2<sup>nd</sup> place will score: 102 points
- 3<sup>rd</sup> place will score: 103 points

4<sup>th</sup> place will score: 104 points  
5<sup>th</sup> place will score: 105 points  
6<sup>th</sup> place will score: 106 points  
7<sup>th</sup> place will score: 107 points  
8<sup>th</sup> place will score: 108 points  
9<sup>th</sup> place will score: 109 points  
10<sup>th</sup> place will score: 110 points

- The first tie breaker being the total of the laps and time of two highest mains. Subsequent ties are broken by the single best laps time of either highest pointed main.

## **Novie Box Stock Class**

**Driver Restriction:** 2005-2021 PNWC Final any classes A Main top 3 position drivers, **NOT** allowed in this class.

### **Motor:**

Kyosho MZ9P and MZ9E Motor from RTR, allow change the motor wire and remove the safety switch.

### **Chassis:**

Kyohso MR03S, MR03S2 and MR03 RWD.

### **Wheels:**

Kyosho or PN plastic wheels, Front 8.5mm x 20mm, Rear 11mmx20mm, offset must fit inside of the body.

### **Tire:**

Kyosho or PN rubber tire only

Traction Compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

### **Electronic & Transmitter:**

Kyohso original from RTR, NO any modification.

### **Gear Ratio:**

Fixed 9T Pinion with Stock Gear Diff. Kyosho or PN 400329 only.

### **Wheelbase:**

90mm to 102mm

### **Body:**

Kyosho original AutoScale body, white body, Jomurema GT01 body and TRP Scale body, all parts must be original form that body, limited wheel clearance modification allowed.

**Batteries:**

Kyosho Speed House 800HV, Peak Racing 900HV, TRP747, TRP900, PN HP750 and PN HP900 AAA NiMH 4pcs only.

**Option Parts:**

Kyosho or PN Ball Bearing, wheel nut and T-Plate only.

**Modifications:**

It must be run in stock configuration.

**2WD Stock Class**

**Driver Restriction:** 2005-2022 PNWC Final any classes A Main top 3 position drivers, **NOT** allowed in this class.

**Chassis:**

Kyosho Mini-Z Racer MR01, MR015, MR02, MR03, MRC MR01 and PNR2.5W.  
90mm-98mm wheel base only.

**Body:**

Kyosho Mini-Z, TRP Scale and Jomurema GT01 body only, LeMans body **NOT** allowed, full windshield and window must be installed, except for clearance, Lexan window and Lexan Roof allowed.

**Motor:**

Event Purchased Handout motor ONLY - will be PN Brushless V3.1 3500kv #160035WC, all motor comes with standard 14.5 rotor.

Handout motor will be sealed with security label, if the label removed or broken will be VOID.

Motor will be provided at first practice day for purchase (Entry Fee not included), each class maximum purchase two motor.

Fixed Gear ratio 64 Pitch 16 Pinion (#416416 or #426416) / 53T Spur Gear (#MR2953WC Yellow or #MR2055-T53WC Yellow) ONLY

**ESC:**

Kyosho ASF VE VE Pro MR03S RWD and EVO, PN 16A ESC (#500807 and #500807A)

**Battery:**

Cars must be powered by four AAA batteries. Alkaline, Ni-MH or Ni-Cd batteries may be used. No other type of battery may be used. For example: Lithium Polymer may not be used. Additional battery for transponder allowed.

### **Option Parts:**

Any aftermarket brand Mini-Z production parts allowed, any homemade parts, 3D print option parts and prototype parts not allowed.

Allowed 3D Print Transponder Holder, Body Side Clips, ESC Top Cover allowed.

### **Wheel:**

All brand Plastic and Aluminum Mini-Z production wheel rims are allowed. Maximum front wheel width is 8.5mm. Maximum rear wheel width is 11mm. Maximum wheel diameter is 20mm. All wheel rims must be original design made for Mini-Z RACER, any modification is not allowed, any slot-car design wheel and 3D print wheel not allowed.

### **Tire:**

Any Brand of Rubber Mini-Z production tire ONLY. Homemade tires, Foam tires, Silicon tires, Urethane tires, Ethyl Carbamate tires **NOT** allowed. No tire insert use. Traction compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

## **GTLM Super Stock Class**

### **Chassis:**

Kyosho Mini-Z Racer MR01, MR015, MR02, MR03, Jomurema, GL Racing GLR, GLR-GT, MRC MR01, PNR2.5W, RTRC RTA, Atomic MRZ and NEXX Skyline

GT Body 90mm-98mm wheel base only

LM Body 102mm wheel base only.

### **Body:**

Kyosho Mini-Z, TRP Scale and Jomurema GT01 body only, full windshield and window must be installed, except for clearance, Lexan window and Lexan Roof allowed.

### **Motor:**

Handout motor PN Brushless Anima 3500kv #170035WC, all motor comes with standard 14.5 rotor, and all motor will inspect by motor checker machine, make sure all motor running on same performance, and all motor will be sealed with security label, if the label removed or broken will be VOID.

Motor will be provided at first practice day for purchase (Entry Fee not included), each class maximum purchase two motor.

Fixed Gear ratio 64 Pitch 10 Pinion (#416410WC or #426410WC) / 53T Spur Gear (#MR2953WC Yellow or #MR2055-T53WC Yellow) ONLY

### **ESC:**

OPEN any Sensored or Sensorless ESC on BLINKY MODE only (when applicable), no Bluetooth device attached.

**Battery:**

2S Li-Po battery maximum 8.4 volt

**Option Parts:**

Any aftermarket brand Mini-Z production parts allowed, any homemade parts, 3D print option parts and prototype parts not allowed.

Allowed 3D Print Transponder Holder, Body Side Clips, ESC Top Cover allowed.

**Wheel:**

All brand Plastic and Aluminum Mini-Z production wheel rims are allowed. Maximum front wheel width is 8.5mm. Maximum rear wheel width is 11mm. Maximum wheel diameter is 20mm. All wheel rims must be original design made for Mini-Z RACER, any modification is not allowed, any slot-car design wheel and 3D print wheel not allowed.

**Tire:**

Any Brand of Rubber Mini-Z production tire ONLY. Homemade tires, Foam tires, Silicon tires, Urethane tires, Ethyl Carbamate tires **NOT** allowed. No tire insert use. Traction compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

## **2WD Modified Class**

**Chassis:**

Kyosho Mini-Z Racer MR01, MR015, MR02, MR03, Jomurema, GL Racing GLR GLR-GT, MRC MR01, PNR2.5W, RTRC RTA, Atomic MRZ, Atomic MRT and NEXX Skyline

94mm-98mm Wheel Base ONLY, No weight limit.

(Aftermarket chassis TBA, contact philip@pnracing.com to submit your chassis sponsor)

**Approved Lexan Body:**

PN - Supra A90, JGT1, JSK, AD4, GT4LB, 992GT3, M4GT3, Concept C9, V2 JGT01

SBRC - Zenvo ST1, Phenom GT, NSX, 458, SBX, STR, HYR

Marka - RK410, RK408, RK-S, RK-SP6, RK-P-One, RK-W, RK-12, RK-TWR

Atomic - M4Z, DBX, HYP, VST

GL Racing - P1M

Maximum wing size not bigger than original wing cutting line.

#600630 PN Carbon Wing and #600640 Lexan Wing allowed.

(Aftermarket bodies is TBA, contact philip@pnracing.com to submit your bodies sponsor)

**Motor:**

Open any Mini-Z size motor, sensored or sensorless.

**ESC:**

Open any ESC sensed or sensorless.

**Battery:**

Any battery maximum 8.4 volt

Additional battery for transponder allowed.

**Option Parts:**

Any aftermarket brand Mini-Z production parts allowed. Any homemade parts, 3D print option parts and prototype parts **NOT** allowed.

Allowed 3D Print Transponder Holder, Body Side Clips, ESC Top Cover allowed.

**Wheel:**

All brand Plastic and Aluminum rims are allowed. Maximum front wheel width is **11mm**. Maximum rear wheel width is **14mm**. Maximum wheel diameter is 21mm. All wheel rims must be original design made for Mini-Z RACER, any modification is not allowed, any slot-car design wheel and 3D print wheel **NOT** allowed.

**Tire:**

Any Brand of Rubber Mini-Z production tire ONLY. Homemade tires, Foam tires, Silicon tires, Urethane tires, Ethyl Carbamate tires **NOT** allowed. No tire insert use. Traction compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

## **AWD Modified Class**

**Chassis:**

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

94mm-98mm Wheel Base ONLY, No weight limit.

(Aftermarket chassis TBA, contact philip@pnracing.com to submit your chassis sponsor)

**Approved Lexan Body:**

PN - Supra A90, JGT1, JSK, AD4, GT4LB, 992GT3, M4GT3, Concept C9, V2 JGT01

SBRC - Zenvo ST1, Phenom GT, NSX, 458, SBX, STR, HYR

Marka - RK410, RK408, RK-S, RK-SP6, RK-P-One, RK-W, RK-12, RK-TWR

Atomic - M4Z, DBX, HYP, VST

GL Racing - P1M

Maximum wing size not bigger than original wing cutting line.

#600630 PN Carbon Wing allowed.

(Aftermarket bodies is TBA, contact philip@pnracing.com to submit your bodies sponsor)

**Motor:**

Open any Mini-Z size motor, sensored or sensorless.

**ESC:**

Open any ESC sensored or sensorless

**Battery:**

Any battery maximum 8.4 volt

Additional battery for transponder allowed.

**Option Parts:**

Open any parts allowed (including homemade parts, 3D print parts and prototype parts)

**Wheel:**

All brand Plastic and Aluminum rims are allowed. Maximum Front wheel width is **11mm**. Maximum Rear wheel width is **14mm**. Maximum wheel diameter is **20.5mm**.

All wheel rims must be original design made for Mini-Z RACER, any modification is not allowed, any slot-car design wheel and 3D print wheel not allowed.

**Tire:**

Any Brand of Rubber Mini-Z production tire ONLY. Homemade tires, Foam tires, Silicon tires, Urethane tires, Ethyl Carbamate tires **NOT** allowed. No tire insert use. Traction compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

## **Pan Car Open Class**

**Chassis:**

Open any 2WD chassis ONLY, 94mm-98mm Wheel Base ONLY.

**Body:**

MUST be use the following bodies list, allow to cut the rear panel.

#600800 PN Racing Lexan Pan Car Body

#600810 PN Racing BMR Lexan Pan Car Body

#600810L PN Racing BMR Lexan Light Weight Version Pan Car Body

Marka RK-AMR

Atomic MP1

#SBRC-B011 SBRC Pan Body (Rear Wing must be not higher than the side wing)

(Aftermarket Pan Car Body TBA, contact philip@pnracing.com to submit your chassis sponsor)

**Motor:**

Open any Mini-Z size motor, sensed or sensorless.

**ESC:**

Open any ESC sensed or sensorless

**Battery:**

Any battery maximum 8.4 volt

Additional battery for transponder allowed.

**Option Parts:**

Open any parts allowed (including homemade parts, 3D print parts and prototype parts)

**Wheel:**

All brand Plastic and Aluminum rims are allowed. Maximum Front wheel width is **11mm**. Maximum Rear wheel width is **14mm**. Maximum wheel diameter is **20mm**.

All wheel rims must be original design made for Mini-Z RACER, any modification is not allowed, any slot-car design wheel and 3D print wheel not allowed.

**Tire:**

Any Brand of Rubber Mini-Z production tire ONLY. Homemade tires, Foam tires, Silicon tires, Urethane tires, Ethyl Carbamate tires **NOT** allowed. No tire insert use. Traction compounds **NOT** allowed on tire or on race surface. Tire warmers are allowed. Tires may be cleaned with a 70% alcohol solution. If a driver uses tire cleaner that has been deemed illegal, the driver will be subject to any penalties that apply. Please address any questions concerning tire cleaners at the drivers meeting.

## **GENERAL RULES**

**Body Modifications:**

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

The rear bumper may be removed up to Maximum 20mm from the ground.

Wheel wells may be cut forward or backward to accommodate different wheelbase chassis.

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 material may be shaved or thinned internally for weight reduction. Technical inspection officials reserve the right to disqualify any modified body deemed to be too fragile due to excessive material removal.

Body panels may be reinforced or strengthened internally without affecting external appearance.

Original windshield and windows must be installed, but can be modified by cutting unexposed internal areas.

Original headlight covers must be installed, but headlight buckets may be removed or omitted. In the event that 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 may be omitted or removed to prevent racing damage and debris on track.

All rear wing comes with the body may be installed according to the no height limited. Custom Manufactured wings allow using on the body, according to the height limited 45mm from the ground.

- The above list is non-comprehensive. The purpose and spirit of the rules is 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 round. This is in order 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 are 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.

### Weight, Width & Height Table:

	<i>2WD Stock Class</i>	<i>GTM Super Stock Class</i>		<i>2WD Open, AWD Open and Pan Car Open</i>
<b>Min. Weight</b>	160g	160g		No Limit
<b>Max. Wheel Base</b>	*98mm	GT Body *98mm	LM Body Must be 102mm	94mm to 98mm
<b>Max. Car Length</b>	*180mm	*180mm	*180mm	Subject with Bodies Rule
<b>Max. Car Width</b>	* 80mm	* 80mm	* 80mm	
<b>Max. Wing Height</b>	* 45mm	* 45mm	* 45mm	

**\*Original body if no any modify, not apply for this rule.**

- All Classes  
Drivers may make minor modifications to the body and or chassis to reduce weight. Total vehicle weight must fall within the guidelines of this document. Please refer to the table above for weight requirements. The PN Racing directory and race officials reserve the right to disqualify a body and or chassis for excessive material removal if the body and or chassis is deemed to be fragile.

### **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. All rules are available online at [www.pnracing.com](http://www.pnracing.com). 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 rules dispute between drivers it must be brought to the attention of the race director or PN Racing 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 PN Racing 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. An immediate disqualification from the event for both drivers will result.

### **Jumped starts:**

A jumped start is any movement of a vehicle between the time the Starter announces the start time and the starting signal.

Penalties:

If one or more vehicles jump start, a false start will be declared, and the grid will be re-formed. If the same vehicle moves second time, it will be moved back the length of the grid from its original starting position.

If a jumped start is not called by the officials immediately at the start of a race but can be verified afterwards by at least two race officials using any recording device, a ten second penalty will be added to that offenders' particular qualifying time or if a main event, a one lap penalty will be assessed.

### **Technical Inspections:**

All racers are encouraged to bring their cars to the officials during open practice so that any corrections can be made before the official inspection.

- **Before each race**

Technical inspections will take place before each race. Inspections will be performed by PN Racing officials. If the PN Racing official determines that the car does not meet the requirements specified in this document the car will be deemed illegal and will not be allowed to race. It will be the responsibility of the driver to ensure that the car meets all requirements and passes inspection before the race begins. In the event that the PN Racing official does not catch a violation, the car will still be considered illegal and the racer will be subject to any consequences of running an illegal car.

- **After each race**

Cars and radios from each race must be put on the post-race tech table for any post-race inspection that is required. Drivers that did not finish their race are still subject to this rule. Inspection of cars will start only after the start of the preceding race (for example, inspection for race 2 will start after race 1 has started and is underway). Cars on the post-race tech table will not be released until the end of the following race (for example, cars that ran in race 2 will be released when race 3 is completed).

**Final approval to approve the legality of any car is not valid until after the post-race inspection.**

**-END-**