POWRi ILLINOIS MIDGET RACING ASSOCIATION

In the interest of the POWRi IMRA Midget racing series, major chassis or engine features considered to be new, innovative, unusual, not considered standard or not used by most of the current midgets, are to be considered not approved or permitted. All cars shall appear and fit the guidelines of a "traditional" midget. The series must specifically approve any such new items. All cars and engines must meet the official POWRi ILLINOIS MIDGET RACING ASSOCIATION specifications and are subject to technical inspection prior to and/or following any event. Any car owner or driver in charge, refusing to allow his car to be checked or leaves the track after being told of intent to check, shall be considered guilty of violation of specifications, and will receive a loss of points and monies from that race event. Cars failing post-race technical inspection will receive a loss of finishing position, points, and monies from that race event, and must demonstrate proof that infraction has been corrected before participating in subsequent races. POWRi IMRA also has the right to fine, suspended and\or loss of all points earned from that season for engine infractions. POWRi IMRA racing series reserves the right to change rules as required to maintain the competitiveness of the series following reasonable notice to competitors.

All participants with the POWRi IMRA MUST BE A PAID POWRi IMRA MEMBER IN GOOD STANDING BEFORE BEING ALLOWED TO COMPETE. A $100 membership fee can be attained by going to the POWRi web site and completing and purchasing a membership license. No temporary license will be allowed.

The following rules apply to all midgets with production-based automotive engines. Refer to appendix for rules pertaining to production-based motorcycle engines.

501 Design and Construction

All phases of design and construction are subject to the approval of the POWRi IMRA Midget Series Technical Director. The Technical Director may exclude any car, design, or construction, which they deem unsafe or not meeting the specifications, the spirit and/or the intentions of the rules contained herein.

502 Dimensions and Weight

A. The wheelbase must be at least 65 inches and no more than 76 inches.
B. Engine setback will be a minimum of 33 inches and 35 inches maximum. This measurement will be taken from the front of the engine plate to the center of the rear axle.
C. All cars must weigh a minimum of 1,100 lbs., including water, oil, fuel, and the driver with his personal equipment. Weight may be adjusted by engine package to maintain competitiveness, as determined by Technical Director. Cars may be weighed prior to and/or following any event. Details of the scaling procedure will be announced in the drivers' meeting. If the car is found to be light, it will be scored last and awarded last place points and money for event car weighed. Additional bolt on weight must be mounted and fastened to the frame and/or chassis in a secure manner. Weight must be mounted in an area between bottom frame rails, front and rear axles and no higher than mid rails at cockpit. All weights must be mounted within the confines of the frame. No weight may be added during yellow or red flag***. NO BALLAST/ WEIGHT IN NERFS, BUMPERS, FRONT AXLE***

****CARS WILL ONLY BE ALLOWED 2 TIMES ON SCALES TO MEET WIEGHT REQUIREMENTS ON POST RACE INSPECTIONS!***

503 Car Construction / Body

A. All cars shall be rear drive only.
B. Engines must be mounted within a maximum of 1" offset (2" total) of the centerline of the chassis. The crankshaft must be parallel to the bottom plane of the chassis. Engine inclination must not exceed Forty-Five (45) degrees from vertical as measured from the vertical centerline of the cylinder bores.
C. Only torque tube type drivelines, utilizing only one u-joint, will be allowed the torque tube must be one solid piece. Torque tube hoop or strap mandatory. *Highly recommend driveline containment system utilizing steel shield bolted to engine plate or containment blanket to cover torque ball and u joint*.
D. Radius rods may not be attached within the confines of the cockpit.
E. The driver shall be seated directly behind the engine: the driver's head can't be no more than one (1) inch off center line of roll cage, measured at center line of seat to top of driver's helmet when seated in an upright position.
F. Only standard type Midget Car bodies, tail tanks and hoods will be permitted.
G. The front part of the body, known as the nose assembly, shall not be wider than the parallel lines of the body and may not exceed the width of the frame. The nose assembly may not extend forward beyond the confines of the front bumper.
H. Any item added to resemble imitate and/or specifically designed to deflect, trap and/or form a pattern for air to travel in a directed manner, except for those used to cool and/or protect engine and brake systems will not be permitted.

I. The engine must be covered with a cowling or hood secured in place. The hood or cowling need not enclose the sides of the engine.
J. A forward-facing scoop, or ducting, supplying "forced air induction" to the injection inlets is not permitted.
K. Side panels covering the sides of the engine and/or vertical spill plates may not extend vertically more than the height of the cockpit panels. All parts of the engine between the frame rails must have a hood covering, except for the air filter. Down tubes must be of the standard midget type. Excess panels will be permitted at the discretion of the technical director.
L. Side panels that include exit ducts may not extend more than 5 inches from the frame rails and may not extend past the front engine plate. These ducts must start behind the front axle.
M. Right side cockpit body panels must be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. The opening must be 150 square inches and not distract the driver's vision as determined by the technical director.
N. Left side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. The opening must be 150 square inches and not distract the driver's vision as determined by the technical director.
O. Side visors on roll cage (body panel) will be allowed, they will be limited to eight (8) inches tall. Visors that restrict driver's vision at the discretion of IMRA officials will not be permitted.
P. Sail panels may extend rearward to triangular bar at back of roll cage, sail panels may not extend forward past a cross plane established by seat back.
Q. All paneling must not extend past edge of frame rails more than thickness of material.
R. One (1") inch turnout allowed on all body and sail panel edges. (Except sun visor and nerf bar panel)
S. Side visors on roll cage will be allowed, must maintain 8" vertical and 23" horizontal opening on right side. The left side visor can be no larger than the right.
T. Only steel, aluminum or carbon fiber driver floor (belly) pan is permitted (the driver floor pan must support driver weight when stood on). The belly pan may not extend rearward past the leading edge of the rear axle and must be flat from side to side without any aerodynamic aids. Horizontal panels may not extend below the plane of the under pan or fuel tank.
U. Sun visors must not extend forward more than seven (7) inches from the front of the forward most edge of the roll cage/ halo tube and may not be wider than the width of the cage; sun visors must be flat on both sides.
V. Airfoils, wings, spoilers or other aerodynamic appendages will not be permitted. The Technical Director may have any panel or part removed which, in their opinion, is not within the spirit or intent of this rule.
W. With the exception of suspension components, induction and/or exhaust systems and nerf bars, no accessory or component of the car may extend more than 6 inches from the main frame tubes. Cylindrical oil tanks mounted outside the frame, behind the engine must be mounted as close to the frame as practical.
X. Rear view mirrors are not permitted.
Y. Aluminum pitman and steering arms are allowed. They must be one piece, no welding and a web thickness of 1/2 inch minimum.

504 Roll Cage and Chassis

A. The frame and/or chassis must be constructed of 4130 normalized tubing.
B. All cars must have a roll cage that is integral with the frame and does not encroach upon an imaginary cylinder, 20 inches in diameter, extending through the top cockpit opening directly above the seat. The roll cage should extend four inches above the driver's helmet when seated in the driving position.
C. Main uprights forming the roll cage must be a minimum of 1-3/8 inches O.D. x .095 wall thickness 4130 normalized tubing.
D. No water or oil coolers are to be placed above or beside the cockpit opening.

505 Fuel Tanks

A. Conventional midget style tail tank and bladder meeting SFI specification 28.2 is required**.** Rollover valves will be mandatory. All tanks/fuel cells must be securely mounted between frame rails and behind the driver.
B. All tanks must have a minimum of four mounts to the chassis.
C. Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder.
D. Ethanol or Methanol (M1) fuel only. No additives allowed except for top lube. All fuel is subject to testing at any time. Any fuel that does not conform to the POWRi standards, as administered at the track, will be considered illegal. The use of illegal fuel could result in disqualification from the event and/or the entire program.

506 Bumpers/Nerf Bars

A. The car must always be equipped with a rear bumper.
B. Front and rear bumpers and nerf bars must be constructed of magnetic and or stainless steel (NO TITANIUM) tubing with a minimum O.D. of 7/8 inch and having a minimum wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars.
C. All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.
D. All cars must be equipped with nerf bars on both sides and mounted directly to the chassis. The right nerf bar cannot extend beyond the outside of the right rear tire.
E. Except for the exhaust system, no components or accessories may be attached to the nerf bar assembly.

507 Steering and Suspension

A. Removable steering wheels incorporating a quick release mechanism conforming to SFI Specification 42.1 are mandatory. Pip pin type mechanisms are not allowed.
B. Welded aluminum or titanium suspension parts are prohibited except for Jacob's ladder (Watts link).
C. Drag link straps mandatory.
D. No electronic weight, shock, sway bar or any suspension item adjuster.
E. No independent suspension. Only torsion bar or coil over suspensions allowed.

F. Panhard bars will not be allowed for the rear axle. Jacob's ladder required. Jacob's ladder must be located on the right side of the chassis and attached to the frame and the right-side birdcage.
G. Cockpit adjustable shocks are permitted, no other cockpit adjustable devices are permitted for any suspension item.

508 Axles

A. The car's axles connecting the wheels must be of one-piece tubular construction without the capability of camber or independent castor adjustment to the wheel assembly. Offset kingpin bushings are allowed.
B. Any other construction will be considered as independent suspension.
C. All front axles must be constructed of SAE 4130 steel or a steel alloy equivalent in structural strength. Titanium front or rear axles are not permitted.

509 Wheels

A. The number of allowable wheels is restricted to two (2) front wheels and two (2) rear wheels on each car.
B. The rim diameter must be 13 inches.
C. The left rear and both fronts may be a maximum of eight (8) inches in rim width.
D. The right rear wheel may be a maximum of ten (10) inches in rim width.
E. Tire bead locking device must be used on the outer bead seat of the right rear tire and wheel assembly.
F. The use of full-face brake scoops and/or wheel covers on the inside of wheels is not allowed.
G. All bolts are mandatory in bead lock and wheel centers.
H. Wheel cover fasteners made of steel are highly recommended.

510 Tires

A. Any device(s) used for warming the tires prior to competition is prohibited.
B. Any solvents or chemicals applied to the tire that alter the chemical makeup of the compound or have the effect of altering tire durometer is prohibited.
C. Any tire that is found to deviate from the original factory specifications will be confiscated. The maximum penalty for chemically altering a tire is a one-year suspension from competition and loss of all points earned for the season.
D. Siping and/or grooving is permitted.
E. Electronically controlled tire pressure bleeders will not be allowed.

The tires listed below are the only rear tires approved for competition.

Hoosier Race Tire - (**LF**-D12, D15) (**RF**-D12, D15, D20) (**LR**-RD-12, D12, D20) (**RR**-SP2, SP3, SP4)

511 Throttle

A. Throttle toe straps are mandatory. A minimum of three (3) return springs must be connected to the throttle and at least one of these must be connected to the butterfly shaft. Throttle by wire pedals require two return springs attached to the pedal.
B. If the throttle actuating mechanism is the cable type, the cable must be encased.
C. The throttle pedal must have a wide-open pedal stop.

512 Brakes

A. Cars must be equipped with an effective braking system.
B. Master cylinders not fixed to the frame must have flexible lines.
C. Brake discs are limited to being manufactured of steel, ferrous or aluminum alloy. Titanium, carbon and/or carbon composite, brake discs are not allowed.
D. If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in competition.

513 Engine, Starter and Clutch

A. 'In/Out' box must be in good operating condition. A clutch is optional.

514 Engine Mounting Plate

A. An effective firewall must be installed between the engine compartment and the cockpit. It must be as leak proof as practical.

515 Engine Packages

The intent of the POWRi IMRA Midget Series Engine rules is to utilize production engines with stock internal dimensions, with a target range of 200 to 225 horsepower. All engines must be normally aspirated, internal combustion, four cycle, reciprocating piston type, incorporating a maximum of four (4) cylinders in line. Engines must be production engines from a passenger car manufacturer and reasonably available in the United States. No engines may be used from passenger cars that have not been sold in the United States of America by an official authorized manufacturer dealership. No purpose-built race engines, race engine blocks, race engine cylinder heads or race engine crankshafts are allowed. Engine serial numbers and\or engine designation model numbers must remain on all engines.

**Engines will be inspected and sealed by the POWRi IMRA midget series tech crew to verify that engine has been checked and meets the POWRi IMRA midget series rules and to ease in post-race inspections. Any engine that has not been sealed by the POWRi IMRA midget series will NOT BE ALLOWED TO COMPETE UNTIL ENGINE HAS BEEN INSPECTED AND SEALED BY THE POWRi IMRA RACING SERIES TECH DIRECTOR. Car owners can contact the IMRA officials to have their engines inspected and sealed with location and times to be determined by car owners and tech official. No*

inspection for sealing the engine will be performed on race day at the racing facility. Any engine that has been sealed by the IMRA but has had the seal removed will be subject to further inspection and must have the engine reinspected and resealed.by the tech director before being allowed to compete.

The following engines are the only engines permitted in the POWRi IMRA Midget Series:

- **GM Ecotec 2.4L (LE5)**
  Maximum displacement 2.384Liters/ (Bore 88.0mm Stroke 98.0mm)
  Constant Flow Mechanical or EFI with plenum or individual runner intake permitted.
  Restrictor may be required, as determined by Technical Director
  Compression ratio 10.4.1

- **Honda 2.4L (K24A1)**
  Maximum displacement 2.345 Liters (bore 87.0mm stroke 99.0mm)
  Constant flow Mechanical or EFI with plenum or individual runner intake permitted.
  Restrictor may be required, as determined by Technical Director
  Compression ratio 9.6.1

- **Toyota 2.4L (2AZ-FE)**
  Maximum displacement 2.362 Liters (88.5mm bore 96.0mm stroke)
  Constant Flow Mechanical or EFI with plenum or individual runner intake permitted.
  Restrictor may be required, as determined by Technical Director
  Compression ratio 9.8.1

- **Chrysler World Engine 2.4L**
  Maximum displacement 2.360 Liters (88mm Bore 97mm Stroke)
  Constant Flow Mechanical or EFI with plenum or individual runner intake permitted.
  Restrictor may be required, as determined by Technical Director
  Compression ratio 10.2.1

Must use original manufacturers OEM cylinder head, OEM block, OEM crankshaft, OEM camshafts with stock duration and lift used in their stock positions (intake camshaft on intake valves (intake side), exhaust camshaft on exhaust valves (exhaust side) only!) OEM Rocker Arms (rockers cannot have any alterations to any locking mechanism, they must remain stock), OEM stock lifters (lifters must remain stock as from the factory with no alterations (example-Ecotec le5 lifters must remain hydraulic with no alterations from factory, no shimming, no solid lifter) OEM stock valves - must be from the same series/model engine, and manufactured for that particular engine, stock steel valves, no stainless steel or titanium valves allowed.

Alterations to the OEM block and OEM cylinder head are limited to removing material for the express purpose of fitting the engine in the chassis only. Blocking and/or opening lubrication and coolant passages will be allowed. Adding, removing, lightening, chamfering or "knife edging" crankshaft counterweights is strictly prohibited. Heads can be decked for trueing – excess decking resulting in compression ratios outside of those found in similar engines not permitted.

Counterbalance Shafts can be deleted.

Connecting rods (stock length only, steel only-no aluminum or titanium), valve springs, valve spring retainers and keepers (steel only, no aluminum or titanium), aftermarket exact replacement pistons (exact measurements and compression ratio as stock factory pistons) may be replaced with aftermarket products. Aftermarket cam gears, sprockets, timing chains, timing belts may be used. No titanium engine parts are allowed. All other STOCK OEM cylinder head components must be used. Welding or machining on the cylinder head will NOT be permitted. Porting of the cylinder head (or combustion chamber) including intake matching is NOT ALLOWED. Machining, grinding, sanding, or etching of the intake and/or exhaust ports is STRICTLY PROHIBITED. No altering of the shape and/or size of the intake or exhaust ports or the combustion chamber from OEM specs is allowed.

POWRi IMRA Midget Series will utilize the Katech Whistler machine and a compression gauge to detect modifications to combustion chambers which fall outside of the range exhibited by similar engines to determine compliance with all rules listed above.

**The POWRi IMRA midget series reserves the right to change rules as required to maintain competitiveness with all engine packages.*

Oil System: Wet Sump or Dry Sump permitted.

Ignition System & fuel delivery:

A. Approved electronic ignitions and fuel delivery systems: Electromotive XDI, TECs, TECs200, MSD 6214, Performance Electronics PE3-8400, PE3-IG2, RRE Ecotec ignition. Approved electronic systems are limited to functions as supplied by the manufacturer.
B. The use of electronic logic processors to control any function of the race car, and/or any system for gathering continuous data from any function of the race car is strictly prohibited. Ignition systems housed in a single unit, independent from any other device, and unable to transmit to or from any other device while on-track.
C. Tachometer only item approved for use to collect/record data. Sensors allowed for use, crankshaft position sensor, camshaft position sensor, water temperature, oil pressure, tachometer, wide or narrow band air fuel ratio meter, throttle position sensor, fuel pressure, and manifold absolute pressure sensor (MAP).
D. Electronic ignition systems may only be used to control; coil(s), trigger(s), spark curve(s) and RPM limits.
E. VVT, VTEC, i-VCT, etc.: may be utilized or locked out.

***Traction control is not permitted. Any car found to be using a traction control can be suspended for up to one season.**

516 Safety Equipment *(Track requirement may apply if more restrictive)*

A. Approved aluminum and composite seats may be used, no fiberglass. Seats must be mounted with a minimum of 4 bolts 5/16 diameter. Seats must be installed and used in accordance with manufacturer's instructions.
B. It is mandatory that all cars have a headrest of high impact, shock-absorbing material meeting SFI Specification 45.2 behind the driver's head with a minimum thickness of one (1) inch.
C. Seat belts must meet SFI 16.5 or SFI 16.1, be within two (2) years from date of manufacturer. (Must have label) Seat belts must be installed and used in accordance with manufacturer's instructions.
D. Helmets - All participating drivers must wear safety helmets designed specifically for auto racing that meet or exceed the SA 2020 Snell Foundation or SFI Foundation 31.1 Specifications and are labeled as such. Helmets will be subject to inspection at each event by the Technical Director.
E. Uniforms - All drivers must wear fire resistant underwear, socks, shoes, gloves and a one-piece uniform fitted snugly around the neck, wrists and ankles. It is recommended that you also wear a fire-resistant head sock and/or helmet skirt. Recommended all above items meet SFI Foundation Specifications 3.2A and 3.3.
F. Arm Restraints - Arm restraints are mandatory and must always be worn during competition.
G. Roll Cage Nets - It is mandatory that all cars be fitted with roll cage nets on the right side of the roll cage for all events, unless utilizing a full containment seat. All roll cage nets must conform to SFI Specification 37.1, which specifies a functional quick release opening mechanism. The life of roll cage nets shall not exceed two (2) years. Caution should be used when positioning head restraining nets to be certain that the driver's head cannot get under the net in case of an accident. The bottom of the roll cage net should be as close to the top of the shoulder as possible.
H. Roll cage nets will not be required if POWRi approved full containment seats are utilized.
I. Roll Cage Padding conforming to SFI specification 45.1 Mandatory if not utilizing full containment seat in all areas surrounding head, *highly recommended with full containment seat.*
J. All cars must be equipped with an ignition switch or emergency shut-off located within easy reach of the driver, and clearly marked on and off.
K. *An SFI approved head and neck restraint system is highly recommended.*
L. One way radio/RACEceiver is mandatory when utilized by race facility.

517 Car Numbers

A. All car numbers will be assigned by the Director of Competition or his designation.
B. Every car must carry its assigned number prominently displayed on the nose and on each side of the tail.
C. The final decision on the adequacy of the number will rest with the Director of Timing and Scoring.
D. Numbers 2 through 99 will be assigned to entrants on a permanent basis providing a car registration has been received prior to January 15 of each year. To be eligible to retain a number an entrant must have entered and/or made an effort to compete in 51% or more of the scheduled races in the previous season. The number 1 is reserved for the Regional Champion driver and will not be reassigned. The use of the number 1 is not caused to relinquish the competitor's permanent number. Numbers may be voluntarily released by the holder at the end of the season. The Director of Competition may reassign numbers at the conclusion of the season. Any number released by a competitor must be reassigned by the Director of Competition. Numbers may be reassigned if the number was not actually used in competition the previous season. Other numbers will be assigned in the order that car registrations are received.
E. After a number is assigned to a particular car and entrant, it will remain with the entrant until the end of the racing season.
F. Should two or more cars with the same number be entered in a competition, the Stewards will require that one or more cars be temporarily renumbered.

518 Appearance

A. The POWRi logo must be placed on the top section of sail panel right and left side. If applicable, sponsor logo(s) must be placed on right and left lower cockpit side panels to be eligible for point fund.

Appendix – Production-based motorcycle engines

The following rules apply to all midgets with production-based motorcycle engines and are based on the ***NATIONAL LIGHTNING SPRINT RULES.*** *All cars shall appear and fit the guidelines of a "traditional" Upright Mini Sprint/Lightning Sprint. No 'sidewinder'/micro sprints, or TQs (three quarter midgets) permitted. (Safety, Car Number and Appearance rules referenced above also apply to production-based motorcycle engine powered midgets.)*

601 Chassis

A. Frame roll cage and halos must be constructed of a minimum 1-1/4 X .095 4130 tubing.
B. Must be chain drive.
C. Bumpers and nerf bars must be bolted to the frame and cannot have any sharp edges or corners. Nerf bars cannot extend past the outside edge of rear tires.
D. All cars must be rear drive only. Engine offset is a maximum of 6" measured at the rear of the engine, centerline of inside cylinders to the center line of the motor plate uprights in chassis.
E. Radius rods may not be attached within the confines of the cockpit.
F. No independent suspension. The car's axles connecting the wheels must be of one-piece tubular construction.

602 Body

A. The front part of the body, known as the nose assembly, shall not be wider than the parallel lines of the body and may not exceed the width of the frame. The nose assembly may not extend forward beyond the confines of the front bumper.
B. The engine must be covered with a cowling or hood secured in place. The hood or cowling need not enclose the sides of the engine.
C. Side visors on roll cage will be limited to eight (8) inches tall.
D. Only steel or aluminum floor/belly pan are permitted.
E. Sun visors must not extend forward more than seven (7) inches from the front of the forward most edge of the roll cage/halo tube and may not be wider than the width of the cage; sun visors must be flat on both sides.
F. Panels attached to nerf bars will not be permitted.
G. All paneling must not extend past edge of frame rails more than thickness of material.
H. One (1") inch turnout allowed on all body and sail panel edges, except sun visor.
I. The car must always be equipped with a rear bumper.
J. Front and rear bumpers and nerf bars must be constructed of magnetic and or stainless steel (NO TITANIUM) tubing with a minimum O.D. of 7/8 inch and having a minimum wall thickness of .065 inch and a maximum wall thickness of .120 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars.
K. All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumpers must be constructed so as not to cause a safety hazard.
L. Bumpers and nerf bars must be bolted to the frame and cannot have any sharp edges or corners. Nerf bars cannot extend past the outside edge of rear tires.
M. With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly.

603. Dimensions and Weight

A. The wheelbase must be at least 65 inches and no more than 74 inches. (Measured centerline to centerline)
B. All cars must weigh a minimum post-race including driver:
    1. 1000 CC Stock Engine: **950 LBS.**
C. A weight decal will be placed on both sides of the frame rail to signify car weight to scale operator.
D. Additional bolt on weight must be mounted and fastened to the frame and/or chassis in a secure manner. Weight must be mounted in an area between bottom frame rails, to the main frame, between front and rear axles and no higher than mid rails at cockpit. All weight must be mounted within confines of frame. NO BALLAST/WEIGHT IN NERFS, BUMPERS, FRONT AXLE.

604. Fuel and Fuel System

A. Maximum 112 octane gas, E85, or Methanol. No additives or oxygenated fuels will be permitted. All fuel is subject to testing at any time. Any fuel that does not conform to these standards, as administered at the track, will be considered illegal. The use of illegal fuel could result in disqualification from the event and/or the entire program.
B. All tanks must have a minimum of four mounts to the chassis.
C. Fuel tanks may not be mounted to the chassis utilizing any portion of the access plates or the nut plates bonded into the fuel bladder.
D. The engine must be equipped with a fuel shut-off device.
E. Fuel tank meeting SFI specification 28.1 or a conventional midget style tail tank and bladder meeting SFI specification 28.2 is required. Metal tanks are not permitted. Rollover valves will be mandatory. All tanks/fuel cells must be securely mounted between frame rails and behind the driver.

605. Engine Specifications

A. Any 1000cc, normally aspirated, production motorcycle engine may be used. Engine model must be in production for two full calendar years prior to use. No limited production engines will be permitted. No current year production engines allowed. The serial number must be identifiable. (POWRi IMRA Midget Series will utilize a compression gauge and bore/Stroke tool to detect modifications to combustion chambers which fall outside of the range exhibited by similar engines to determine compliance with all rules listed above.)
B. Engine case, cylinders, head, crank, rods, pistons, cams, valves, transmission, coatings, and clutch must remain stock OEM and operational.
C. Degreeing of stock OEM cams is permitted.
D. All cars must be able to start the first race under their own power without assist.
E. Mufflers are mandatory.
F. Oiling system may be modified for reliability. Oil pan, pickup, cooler, lines, tank(s), and pump(s) may be modified or replaced. Cylindrical oil tanks must be mounted inside the frame rails.
G. Electronic or Mechanical Injection may be used. No weight penalty exists for either injection system. Carburetors are also permitted.
H. The motor plate may not be made from carbon fiber, or any type of composite materials.
I. **No shifter may be accessible within the drivers compartment or within the drivers reach while seated in the race car. Shifting is not permitted while in competition**.
J. All engines must be inspected and sealed by the POWRi IMRA tech director before being allowed to compete.

606. Electronics

A. Aftermarket Engine Control Module(s) or Fuel Management System(s) will be permitted. Electronics that provide traction control are prohibited. No aftermarket plug-in traction control devices, wheel speed, or chain sensors will be permitted. All electronic components may be inspected, sealed, or confiscated by POWRi or organizer at any time. The maximum penalty for utilizing traction control is a one year suspension from competition and loss of all points earned for the season.
B. All cars must be equipped with ignition switch or emergency shut-off located within easy reach of the driver.

607. Exhaust

A. Mufflers are mandatory. Exhaust system tail pipe(s) must not be any wider than nerf bar.
B. The car may be required to have a muffler if local conditions warrant. If so, this will be stated on each individual entry blank. The technical director may disallow a muffler that, in their opinion, is not within the sprit or intent of this rule.

608. Suspension Components

A. No cockpit adjustable electronic weight, shock, sway bar or any suspension item adjuster.
B. All front axles must be constructed of 4130 tubing. Titanium front or rear axles are not permitted.
C. Adjustable shocks are permitted.

609. Wheels

A. The number of allowable wheels is restricted to two (2) front wheels and two (2) rear wheels on each car.
B. The wheel diameter must be 13 inches.
C. The wheel width is limited to eight (8”) inches for both front wheels.
D. The rear wheels are a maximum width of EIGHT inches (8") for the left rear, and ten inches (10") for the right rear.
E. An approved tire bead locking device must be used on the outer bead seat of the right rear tire and wheel assembly.
F. All bolts are mandatory in bead lock and wheel centers.

610. Tires

A. All Tires must be Hoosier.
B. Any device(s) used for warming the tires prior to competition is prohibited.
C. Any solvents or chemicals applied to the tire that alter the chemical makeup of the compound or have the effect of altering tire durometer is prohibited.
D. Sipping and/or grooving is permitted.
E. Tires (**LF**-D12, D15) (**RF**-D12, D15, D20) (**LR**-D12, D20) (**RR**-SP2, SP3, SP4)
F. Electronically controlled tire pressure bleeders will not be allowed.

611. Brakes

A. No electronic controlled brake bias adjuster. (Manual adjustment only)
B. If at any time during competition it becomes evident that a car is without brakes, the necessary repairs must be completed before the car can continue in competition.