2024 Schedule

•February 3rd Adobe Mountain speedway	Phoenix AZ
•February 10th Imperial Valley Speedway	El Centro CA
•March 2nd Adobe Mountain Speedway	Phoenix AZ
•March 8th & 9th Imperial Valley Speedway	El Centro CA
•March 30th Adobe Mountain Speedway	Phoenix AZ
•April 6th Mohave Valley Speedway	Mohave Valley AZ
•April 27th Adobe Mountain Speedway	Phoenix AZ
•June 7th & 8th Deuce of Clubs Thunder Raceway	Show Low AZ
•June 21st &22nd Deuce of Clubs Thunder Raceway	Show Low AZ
•July 12th &13th Deuce of Clubs Thunder Raceway	Show Low AZ
•August 9th & 10th Deuce of Clubs Thunder Raceway	Show Low AZ
•August 31st Aztec Speedway	Aztec NM
•September 1st Fairgrounds Speedway	Cortez CO
•September 14th Adobe Mountain Speedway	Phoenix AZ
•September 28th Adobe Mountain Speedway	Phoenix AZ
•October 12th Adobe Mountain Speedway	Phoenix AZ
•October 26th Adobe Mountain Speedway	Phoenix AZ
•November 8th & 9th Adobe mountain speedway	Phoenix AZ

*Schedule subject to change

2023 Rules

1. Minimum age for competition is 16 years of age. An exemption to allow the minimum age to lower to 14 years old will be considered with a written resume reflecting at least one full season of adult racing experience to include Open Micro, Lightning or full Sprint cars. Other adult divisions may be considered. Approval will be at the discretion of the Series Directors and those decisions are final.

2. Rookies will be required to carry a yellow ribbon and start at the rear of their respective events for 3 races or until approved by the series race director. Rookies are defined as drivers who have no prior race experience at this or higher level. (Race Director discretion). New and/or inexperienced drivers to the series will be required to run a ribbon and start at the rear of their respective events for 3 complete events or until approved by the Series Race Director.

3. Car numbers must be displayed in 3 areas, 1 on each side of the tail and 1 on the front section of hood or nose, these numbers need to be in high contrast. Note: Scorers and officials need to be able to identify the numbers on the cars from a long distance.

4. Drivers and/or car owners and/or team managers are the only recognized representatives of a race team in matters involving rules, rules violations, and technical inspections. They are also responsible for the legality of products and services provided by third parties including parts vendors, chassis manufacturers and engine suppliers.

5. Drivers and/or car owners and/or team managers will be held responsible for the conduct of their team members. Suspensions, expulsions, fines, loss of points and purse money may apply. Verbal or physical abuse will not be tolerated. Irresponsible or abusive use of social media directed at track or series officials, competitors, sponsors or others will be subject to the same penalties.

6. Drivers are required to represent themselves and speak on their own behalf in all interactions with series and track officials.

7. One way radio/race receiver mandatory.

8. Scoring transponders must be attached to the chassis behind the rear axle.

Eligible Engines

1. General Motors Ecotec LE5, LAT, LE9 2.4 liter I4. This engine was used in Pontiacs, Chevrolets, and Saturns from 2006 through 2012. Displacement is 2,384 cc (145.5 cu in), 88 mm (3.5 in) bore and 98 mm (3.9 in) stroke. Compression ratio is 10.4 to one. There were various emission option codes throughout the production life of this engine. All versions are eligible. These engines may be sourced as new or new rebuilt directly from GM dealers or used from auto dismantlers. It has come to our attention that the GM Ecotec 2.2 liter I4 LAP and LE8 engines as found in some 2009-2010 Cobalts, 2009 Pontiac G5, and 2009-2011 HHR's look identical to the 2.4 liter engines listed above. We have been unable to determine if there are any external ID numbers that would differentiate these engines from the 2.4 liter engines. A lower displacement engine running on the same controls will not be an advantage so we will allow this engine. These engines must comply with all the other specifications and restrictions of the 2.4 liter engines. Mistakenly getting a 2.2L instead of a 2.4L should not be a problem if you are sourcing your engine from a GM dealer or a reputable dismantler because they source by VIN numbers. If you are sourcing from private parties or from others who can't document from a VIN then the only reliable way that we know of is to check displacement. There are some fairly simple ways to do this without taking the head off. This is a "spec" engine and, except for the modifications specifically allowed in these rules, it must maintain stock specifications and configuration as produced by General Motors. No other addition or deletion of parts or material is allowed. Engines may be repaired or rebuilt to stock specifications and dimensions only using only standard rebuilder's tolerances. For instance, you may hone cylinders but not bore. You may surface a head but not mill it. You may change head gasket thickness but compression ratio must remain less than 10.5 to 1. To check compression, remove throttle body from manifold, pull all spark plugs, use club suppled compression gauge and pump engine 10 revolutions and gauge must read 210psi or less. You may turn crankshaft journals for replacement bearings. You may not port or polish heads, balance or add internal coatings. Balance shafts may not be deleted. Valve seats may be lapped but shape and angles may not be altered. All parts, including gaskets and bolts, used in the rebuilding process must be OEM or OEM spec replacement parts designed for the LE5, LAT, and LE9 variants and must have the same dimensional specifications, weight, material properties, and tolerances as the component parts supplied when the engine was originally manufactured or rebuilt by GM. Aftermarket or factory performance parts are not allowed.

a) All emissions parts and accessories must be removed. Some California emissions engines came with a secondary air injection system. These engines have small passages cast into the head from the exhaust port to the exhaust flange face of the head. These passages may be blocked off or welded shut.

b) Waterneck may be replaced.

c) Remote oil filter, oil cooler, and oil accumulator are optional

d) Spark plug brand and heat range is open

e) Oil pan must be replaced with a low profile wet sump pan. Wet sump oiling system using stock oil pump and pump drive only.

f) Bolts and fasteners used for the oil pan and all other exterior parts and accessories may be aftermarket sourced.

g) Alternator must be used and belt driven from the front of the engine.

h) Power steering pump, if used, may be belt driven from the front of the engine or direct driven from the front of the water pump.

i) If belt driven power steering is used, the dampener may be replaced with Pontiac Solstice dampener/pulley GM part number 12585233 or Dorman part number 594-409

j) Accessory brackets and attachment points are open.

k) Intake manifold must be stock unaltered LE5, LAT, LE9 found on 2008 and later engines. GM part number 12597953.

l) Tubular headers are legal. Right side exit only. 1 3/4 inch primaries, 34 inch maximum length no steps, 3 inch diameter 4 into 1 collector no more than 14 inches long. Must have O2 sensor bung installed in the collector. May have second bung for a wide band sensor. Exhaust pipe from the collector back may be any configuration but must exit within the confines of the nerf bar and no further rearward than the rear of the right rear tire.

m) Muffler required. Unaltered Extreme Technologies part number 3515-3030-8 or 3515-3030-8SS only. Exhaust turn down must point straight down and exhaust exit is to be parallel with ground.

n) Fuel must be 100% pure methanol. No additives allowed.

o) On board battery capable of starting the car required.

p) Engine must have a working electrically powered starter mounted in stock location. Car must be capable of self starting. Clutches are optional.

q) Air filter is optional but highly recommended.

r) Spec fuel injectors Siemans Mototron 80# EV6 109991. Injector adapters may be required-AC Delco # 217-2257

s) Intake tube or air cleaner must be able to accommodate an air temperature sensor and may not be constructed in such a way that it promotes high pressure or forced air induction.

t) 12 volt electric fuel pump required capable of 100 GPH and at least 90 PSI. May be either external or internal tank mounted.

u) Fuel filters are open and highly recommended. Generally 100 micron stainless steel before the pump and 40 10 micron stainless steel after the pump for external fuel pumps.

v) Fuel rail must be modified for a return type system. The Pontiac Solstice fuel rail (GM part 2172262) allowed.

w) The following engine control sensors must be OEM or OEM replacement parts and produce signals identical to OEM specs.

1. Crankshaft Position Sensor GM # 12588992

2. Knock Sensor AC Delco #12636736

3. MAP Sensor AC Delco # 2134681

4. Cam Position Sensor s(x2) AC Delco #2131690

5. Throttle Position Sensor is part of the throttle body #2173428

6. Variable Valve Timing Actuators AC Delco # 12679099 intake, #12679100 exhaust

7. O2 sensor AC Delco 2132957 x) Fuel pressure regulator must be Aeromotive #13129 or #13130 (kit with fitting and gauge) or high quality equivalent. Fuel pressure must be no less than 58 psi and no more than 70 psi.

The following items are spec and single sourced. They must be supplied by an authorized distributor:

y) Programmed Electronic Control Module (ECU), fuse box, engine wiring harness, and throttle pedal actuator. (this is a drive by wire throttle control system)

1. The ECU is locked and is not user serviceable. Any attempt to access and/or modify the fuel/air/spark maps and other programming perimeters in the ECU will result in confiscation of the unit and subject the driver and/or owner to suspension/expulsion and/or fines and/or loss of points and/or winnings.

2. The wiring harness may not be altered except to add or subtract length for power connections and fuel pump connections or to perform repairs.

3. Any method or attempt to alter the signals sent between the various sensors and the ECU is not allowed and will subject the driver and owner to one or more of the penalties listed above.

4. Series officials may inspect these items at any time and subject them to electronic scanning and testing. Competitors may also be required to exchange these items for replacement parts supplied by series officials. Failure to comply with an official's request for ECU or harness inspection or exchange will subject the driver and owner to one or more of the penalties listed in aa) 1. above.

5. All competitors must submit their ECU's for re-calibration if officials deem that program upgrades are necessary. Failure to comply will be subject to the penalties listed in aa)1. above

6. The throttle pedal actuator assembly may be modified to fit the car and to position the pedal as desired. This includes cutting, adding/subtracting material, etc. but the rheostat sensor and travel stop must remain unchanged. Throttle toe straps are mandatory. A minimum of 2 (two) return springs must be connected to the throttle pedal.

Chassis and Body Design and Construction

All phases of design and construction are subject to the approval of the Technical Director. The Chief Steward and 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. No rotating carbon fiber or titanium parts allowed

Dimensions and Weight

1. The wheelbase must be at least 66 inches and no more than 76 inches.

2. The overall width will be a maximum of 65 inches.

3. All cars must weigh a minimum of 1,140 lbs., including water, oil, fuel, and the driver with his/her personal equipment. Cars may be weighed prior to and/or following any event. 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 weight must be mounted within confines of frame. No weight may be added during yellow or red flag.

Car Construction / Body

1. All cars shall be rear drive only.

2. Engine must be mounted on the centerline of the chassis and the crankshaft must be parallel to the bottom plane of the chassis. Motor plate must be bolted to the forward side of the front roll cage uprights. The rear face of the engine block (bellhousing mounting face) must stand off from the leading (forward) face of the motor plate no less than 7/8th of an inch. Crankshaft centerline must be located no lower than 6 inches above the bottom of the frame and centered between the lower frame rails. Maximum left side engine tilt is 12 degrees.

3. 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 recommended driveline containment system utilizing steel shield bolted to engine plate or containment blanket to cover torque ball and ujoint.

4. Radius rods may not be attached within the confines of the cockpit.

5. The driver shall be seated directly behind the engine, The centerline of the seat back shall be no more than 1 inch off the center line of the roll cage when measured at the top of the seat back to the center line of the roll cage.

6. Only standard type Midget Car bodies, tail tanks covers, and hoods will be permitted.

7. It is suggested that a drawing be submitted to the technical director for approval prior to fabrication of any custom or homemade body panels.

8. All body panels factory, custom or homemade must meet the rules or will not be allowed without a grace period.

9. 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.

10. 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.

11. Side panels covering the sides of the engine and/or vertical spill plates may not extend vertically past downtube. Any wicker or turn out may not extend past the frame rail vertical of down tubes or cage, rearward of back of cage or below the bottom frame rails.

12. Right side cockpit body panels may be a maximum of thirty-six (36) inches high as measured from the bottom frame tube. Opening must be 150 square inches and not distract drivers vision determined by Technical Director.

13. Left side cockpit body panels may be a maximum of (36) inches high as measured from the bottom frame tube. Opening must be 150 square inches and not distract drivers vision determined by the Technical Director

14. 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 right. Visors or panels that restrict driver's vision at the discretion of the Technical Director and will not be permitted.

15. Sail panel 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.

16. All paneling must not extend past edge of frame rails more than thickness of material.

17. One (1") inch turnout allowed on all body and sail panel edges. (except sun visor and nerf bar panel).

18. Only steel, aluminum, or carbon fiber driver floor (belly) pan are permitted (the driver floor pan must support driver weight when stood on). The bellypan 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 underpan or fuel tank.

19. Sun visors are limited to seven (7) inches in length from top to bottom, and may not be wider than the width of the cage, sun visors must be flat on both sides. For fan recognition, all teams are encouraged to place the drivers' name on their visors in large letters.

20. 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.

21.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.

22. Rear view mirrors are not permitted.

23. Carbon Fiber body panels are approved for use.

24. Major chassis or body features considered to be new, innovative, unusual or not considered standard are to be considered not approved or permitted. The Series Technical Director must approve any such item prior to use.

Roll Cage and Chassis

1. Frame and/or chassis must be constructed of 4130 normalized tubing.

2. Roll Cage Construction cars constructed after 1/1/98, main uprights forming the roll cage must be minimum of 13/8 inches O.D. x .095 wall thickness 4130 normalized tubing.

3. No water or oil coolers are to be placed above or beside the cockpit opening

Fuel System

1. Fuel cell and the fuel contained must be carried on the centerline of the chassis and be located behind the driver. All cars must be equipped with a fuel cell and tail tank meeting the requirements of SFI Specifications 28.2. Capacity may be no more than 25 gallons and must be a traditional midget shape and/or housed in a traditionally shaped midget tail tank shell. 2. All tanks must have a minimum of four mounts to the chassis. 3. 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.

Bumper / Nerf Bars

1.The car must be equipped with a rear bumper at all times.

2. Front and rear bumpers, and nerf bars must be constructed of magnetic and or stainless steel (NO TITANIUM) 7/8 or 1 inch O.D. tubing and having a minimum wall thickness of.065 inch and a maximum wall thickness of .095 inch. A maximum of three horizontal and/or three vertical tubes are allowed in the construction of nerf bars.

3. All cars must have a tubular front bumper extending forward no more than 21 inches from the leading edge of the front axle. Bumper must be constructed with one piece of tubing in the shape of a "U" and may be no wider than the frame rails of the car. Bends must be convex and facing forward. Any form of triangulation or reinforcement of the bumper is not allowed.

4.The right nerf bar cannot extend beyond the outside of the right rear tire.

5. With the exception of the exhaust system, no components or accessories may be attached to the nerf bar assembly. 6. Bumpers and nerfs must be constructed and maintained so as not to cause a safety hazard.

Steering and Suspension

1. Removable steering wheels incorporating a quick release mechanism conforming to SFI specification 42.1 are mandatory. Pin type mechanisms are not allowed.

2. Welded aluminum or titanium suspension parts are prohibited exception of Jacobs ladder (Watts link).

3. Drag link straps highly recommended.

4. No electronic weight, shock, sway bar or any suspension item adjuster.

5. No electric power steering or power assist units of any kind will be allowed. Power steering pump must be standard belt drive.

6. Shock absorbers cannot operate or be adjusted electrically or be adjusted from the cockpit. Double and four way adjustable allowed. External reservoirs are allowed.

7. External adjustments only on all suspension, coil over, torsion bar, sway bars, shocks, radius rods, weight jacking, No cockpit adjustable devices for any suspension item.

8. Use of carbon fiber suspension or steering components of any kind is prohibited.

Axles

1. Front axles must be constructed of SAE 4130 steel or a steel alloy equivalent to structural strength. Titanium front or rear axles are not permitted.

Wheels

1. The number of allowable wheels is restricted to two(2) front wheels and two (2) rear wheels on each car.

2. The rim diameter must be 13 inches.

3. The rim width is limited to eight (8) inches for both front wheels and the left rear.

4. The right rear wheel may be a maximum of ten (10) inches in rim width. Right rear tire outer bead locking device is required.

5. If wheel/mud covers are used they must be secured in place as designed by the manufacturer

Tires

1. The use of any device/s to alter the air pressure of the drive tires while the car is in motion is prohibited. The tires listed below are the only rear tires approved for competition. Right Rear Hoosier #35172 80/10.0-13 Branded USAC or Hoosier Midget SP3 Left Rear Hoosier #35140 74/10.30-13 Branded USAC Hoosier #35155 76/10.0-13 Branded USAC Hoosier #35165 78/10.0-13 Branded USAC or the Hoosier D12 midget left rear tire.

2. There will be no tire softening or treating of any kind.

Brakes

1. Cars must be equipped with an effective hydraulic braking system.

2. Master cylinders not fixed to the frame must have flexible lines

3. Brake discs are limited to being manufactured of steel, ferrous or aluminum alloy. Titanium, carbon and/or carbon composite, brake discs are not allowed.

4. 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

Electronics

1. Electronics that provide traction control are prohibited. 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. Tachometers are the only item approved for use to collect/record data.

Safety Equipment

1. Approved aluminum or composite seats may be used, no fiberglass. Seats must be mounted with minimum of 4 bolts 5/16 diameter. Seats must be installed and used in accordance with manufacturer's instruction. Full containment seats are highly recommended.

2. 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.

3. 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.

4. Helmets – All participating drivers must wear safety helmets designed specifically for auto racing that meet or exceeds the SA2005 or SA2010 Snell Foundation 31.1 Specifications and are labeled as such. Helmets will be subject to inspection at each event by the Technical Director.

5. Fire Suits – 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

6. Arm Restraints – Arm restraints are mandatory and must be worn at all times during competition.

7. Roll cage nets will be required if full containment seats are not utilized.

8. If required, cars will be fitted with roll cage nets on both the left and right sides of the roll cage for all events. All roll cage nets must conform to SFI Specifications 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.

9. 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.

10. A SFI approved head and neck restraint system is highly recommended.

These rules will provide for the orderly conduct of Southwest Ecotec Midgets (SWEM) sanctioned events and establish the minimum acceptable requirements for such events. These rules will govern the condition of all events and by signing in to and participating in these events all participants are deemed to have read and understand these rules and agree to abide by them. No expressed or implied warranty of safety will result from the publication of, or compliance with, these rules and/or regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators or others. SWEM reserves the right to amend any rule at any time by notifying participants in writing. Rules involving safety may be imposed immediately and it is the responsibility of all participants to stay abreast of any and all rule changes. Rules governing car specifications may be amended at any time to ensure competitive racing. This is at the sole discretion of the SWEM officials. It is your responsibility to be familiar with all rules. SWEM official's decisions shall be final in all cases.