

Kennebec Valley District
Pinewood Derby General Rules (These may be copied and used for
Local and/or District Pinewood Derbies) Version 1.5

Vr 1.2 modified November 17th 2011 Vr 1.3 modified Dec 2nd 2011. Vr 1.4 modified Dec 11, 2011 Vr 1.5 modified Jan 13, 2012

- Section 1. General Rules**
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Section 1. General Rules.

- 1.1 The race is open to all Tiger Scouts, Cub Scouts, and Webelos Scouts (1st year, 2nd year webelos or just graduated to Boy Scouts with in five months of the District Derby Date.) registered in a Pack of Kennebec Valley District, B.S.A.
- 1.2 Definitions:
 - 1.2-a The Scout shall be referred to as “Drivers” in the rules.
 - 1.2-b The Parents or designated guardians of the scouts will be referred to as the “Pit Crew” in these rules
 - 1.2-c The designated parents or registered leaders in charge or organizing and running the District Pine Wood Derby will be referred to as “Officials” in these rules.
 - 1.2-d The designated parents or registered leaders in charge of officiating the race for the purpose of determining Driver placement or Best of Show contest will be referred to as “Judge” in these rules.
 - 1.2-e The word “Shall” means “Must(has to be) and can not deviate from the rule in which the word shall is used”.
 - 1.2-f The word “Car” means Pinewood Derby Car.
 - 1.2-g The word “Heat” shall mean one run of the cars down the track.
 - 1.2-h The words “Staging Area” shall mean where cars are stored in between heats
 - 1.2-i The words “On Deck” shall mean the driver shall race in the next heat following the current heat running. This mean a heat may be running, the drivers “on deck” shall retrieve their cars from the staging area and wait until the current heat has completed.
 - 1.2-j The word “Starter” shall refer to the staff member in charge of releasing the Gate of the track.
- 1.3 All cars competing in the Kennebec Valley District Pine Wood Derby shall be the car used in the local Pinewood Derby of the Driver’s registered Unit.
- 1.4 All cars competing in the Kennebec Valley District Pine Wood Derby shall have been made in the same year or no more than 4 months prior to the year of the District Derby. IE. The 2012 District Pinewood Derby must have Cars made in Sept 2011 to date of District Race in 2012. This allows the Pack to hold local races within the beginning of

the school year up to the month of the district derby if they so choose. Any Cars made prior to the above mentioned will not be permitted under any circumstances.

- 1.5 District Pinewood Derby participants shall be from a pack of which the participant won 1st, 2nd, or 3rd place over all in the pack. In the event one of these youth can not attend the District pinewood Derby, the 4th place driver may attend in any one of the absent drivers stead using his own car and not the car of the absent driver. Best of show participants shall be the 1st place winner of the best of show over all in the pack, in the local derbies. In the event the 1st place winner can not attend the District best of show, the 2nd place best of show winner from a pack may attend in the 1st place winners stead using his own car and not the 1st place winners best of show car.
- 1.6 All Pinewood Derby races shall race cars which have been built from a official BSA approved Grand Prix Pinewood Derby Kit. Not aftermarket or specialty kits such as the ones you can buy from AC Moore, Micheal's, Home Depot, Lowes and other such stores where the kits are already pre-cut and pre-designed. IE. The Hummer Kit.
- 1.7 The Pinewood Derby cars shall be made from the official BSA approved parts. This means all parts, wood block, wheels, and axles shall be BSA approved parts. This means the parts must come from an Official Boy Scouts of America Grand Prix Kit. Figure 1.
- 1.8 The purchase of machined wheels and/or polished axles from other suppliers shall be specifically prohibited.
- 1.9 Decorative items such as steering wheels, drivers, spoilers, deals and interior details are permissible as long as the finished car meets the Car Dimensions and Specifics rules below.
- 1.10 Drivers shall not use decorations which promote the use of alcoholic beverages or tobacco products on their cars. Such decorations will be subject to disqualification unless removed.
- 1.11 Any Driver and/or Pit Crew member have the right to appeal to the race officials for an interpretation of these rules. The race officials, by majority vote, shall be the final interpreters of these rules. However, an interpretation of the rules at the pack or district level does not necessarily ensure a similar interpretation at the council level. All rulings by the race officials at each level of competition will be considered final.
- 1.12 Winning cars from the Pack Derby should be held by the drivers, NOT the Pack.
- 1.13 There shall be NO proxy drivers, if for any reason the scout can not attend the race neither can the car.



Figure 1. Official Pine Wood Derby Grand Prix Car Kit

Section 2. Rules of Conduct

- 2.1 General Rules of Conduct shall be adhered to by all racers and pit crew members.
- 2.2 Each driver shall handle only his own car.
- 2.3 A driver who handles or touches another drivers car may be subject to immediate disqualifications.

- 2.4 Each driver shall conduct himself in a manor becoming of a Scout.
- 2.5 In the event a driver does not conduct himself well during the District Pine Wood Derby, the officials may disqualify him due to behavior issues. I.E. A racer has a tantrum due to losing a heat and strikes another person of any sort. A driver is not happy with the outcome of a heat and attempts to damage any equipment belonging to the pack, district, individual volunteers, and/or hosting location of the race. These kind of behavior issues will not be tolerated under any circumstances.
- 2.6 Drivers, officials, pit crews, and judges shall not Boo any other scout before, during or after a race.
- 2.7 Although we can not control spectators, we expect all spectators to refrain from boo-ing and or negative comments during the race. Excessive negativity in this manor from any spectator may be asked to leave the premiss by majority vote of the officials.
- 2.8 All drivers shall be in a Class A uniform when participating in the Pinewood Derby or Pinewood Derby best of show contest.
- 2.9 All drivers shall wear any designations, race numbers or other important identification deemed by the officials
- 2.10 All drivers shall relinquish any designations worn, to the registration booth prior to leaving the Pinewood Derby.
- 2.11 Drivers and Pit Crew are free to visit the restrooms, water fountains, and concession stands during the race. Drivers and pit crews shall be responsible for making sure Drivers know when they are On Deck in order to help maintain a good managed Pinewood Derby race. In the event a Driver has an emergency(such as an emergency restroom visit) and needs to leave the “On Deck” or the race track area the driver will have a maximum 5 minutes to return.
- 2.12 Drivers and Pit Crew shall not use profanity of any sort. Any outburst of the type shall be subject to disqualification.
- 2.13 Staging Area Rules of Conduct.
 - 2.13-a Drivers shall store all cars which have been registered, inspected and weigh in the Race Staging area.
 - 2.13-b Rule 2.2 and 2.3 shall be strictly adhered to in the Staging area.
 - 2.13-c Once cars have been placed in the staging area, the car can not be touched until the driver is called upon to run a heat.
 - 2.13-d Once a heat is over and the judges have given permission to retrieve the cars, the driver shall return his car back to the staging area.
- 2.14 Race Track Rules of Conduct
 - 2.14-a Only drivers racing in or staging for a heat, race officials or members of the track team will be permitted in the track area. Other people may be allowed in the track area when specifically approved by the race officials.
 - 2.14-b Rule 2.2 and 2.3 shall be strictly adhered to in the Race Track area.
 - 2.14-c Each race shall be announced and drivers will be called to the track area.
 - 2.14-d Each driver shall be called On Deck prior to a heat.
 - 2.14-e Each driver shall have 3 minuets from the first call off from the on deck status to bring his car to the gate. Failure to report to the gate within that 3 minute call the racer and car shall be disqualified from that heat only, but will be able to race in future heats.

- 2.14-f Drivers shall report to the starting line when the starter tells them to and *shall* place their cars on the appropriate lane gate.
- 2.14-g The starter shall ensure all cars are on the track lanes properly. The cars may be re-adjusted for proper placement at the direction of the starter.
- 2.14-h Rule 3-5-c shall be strictly adhered to.
- 2.14-i If a car leaves the track, runs out of its lane and/or interferes with another car, the race will be rerun.
- 2.14-j If a car suffers mechanical failure such as it loses an axle, wheel or decoration, etc., Rule 4.5 will take effect and the race will be rerun.
- 2.14-k If the same car gets into trouble on the second run, the car automatically loses that heat.
- 2.14-l If the same car gets into trouble on a different heat the officials shall decide by majority vote if the car can continue to race after it has these types of problems again. If they should vote to allow the car to continue rule 4.5 will take effect. If they should vote to not allow the car to continue this will mean disqualification of the car.
- 2.14-m In the event a driver and or his pit crew can not complete repairs in compliance with rule 4.5 than the car will be disqualified.
- 2.14-n If a car suffers a mechanical problem in between heats, Rules 4.5 will take effect. If the repairs can not be preformed in the allotted time the car shall be disqualified.
- 2.14-o Kennebec Valley District Rules
 - 2.14-o Subsec 1 The results of a race (i.e First, Second, Third, and Forth place) shall normally be determined by an official electronic finish line.
 - 2.14-o Subsec 2 This finish line will be supervised at all times by at least one judge and one official.
 - 2.14-o Subsec 3 In the event of a failure or the absence of an electronic finish line, the race officials will prescribe the method for determining the results of the race.
 - 2.14-o Subsec 4 The Judges shall keep an analog version of each race results of first, second, third and fourth strictly for the purpose of the event of an electronic gate failure.
 - 2.14-o Subsec 5 The Judges shall do everything in their power to make sure accurate records of each race are kept in duplicate format to help prevent failure or loss of electronic or analog data.

Section 3. Car Dimensions and Specifics.

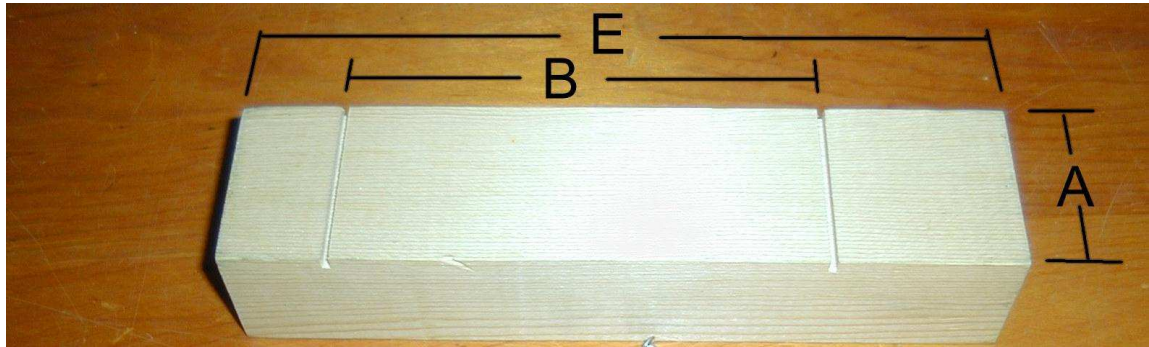


Diagram 1

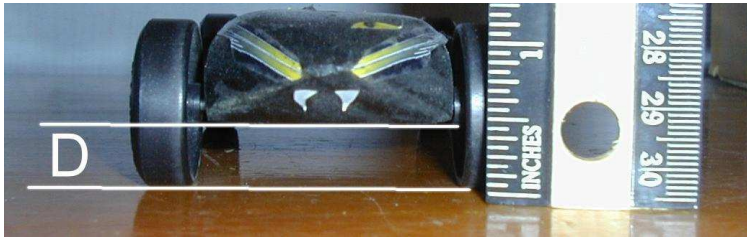


Diagram 3



Diagram 2

3.1 Dimensions:

- 3.1-a The minimum width between wheels shall be 1 and 3/4 inches. (A measurement in Dimension Diagram 1.)
- 3.1-b The maximum overall width of the car including wheels and axles shall not exceed 2 and 3/4 inches. (C measurement in Dimension Diagram 2.)
- 3.1-c The minimum clearance between the bottom of the car and the bottom of the wheels shall be 3/8 inches. (D measurement in Dimension Diagram 3.)
- 3.1-d The maximum length of the car shall not exceed 7 inches (E measurement in Dimension Diagram 1).
- 3.1-e The maximum height of the car shall not exceed 3 and 1/4 inches from the bottom of the wheels. Dimension (F measurement in Dimension Diagram 4.)
- 3.1-f Any Decorative items mentioned in 1.9 and the such shall measured as part of the overall height of the car, dimension (F in Diagram 4), width Dimension (A in Diagram 1) and length Dimension (E in Diagram 1).
- 3.1-g The pre-cut axle locations in the official Pinewood Derby car block shall be used.

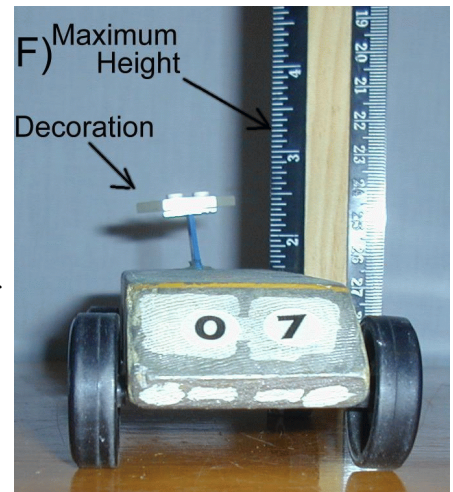


Diagram 4

3.1-h The pre-cut axle locations provide a nominal wheelbase of 4 and ½ inches and shall be strictly adhered to. (Diagram 1 measurement B).

3.2 Weight:

3.2-a Weight shall mean over all weight. This is the body of the car, wheels, axles and any decorative items added to the car.

3.2-b The weight of the car shall not exceed 5 ounces (141.7 grams).

3.2-c The car may be hollowed out and built up to the maximum weight (Rule 3.2-b) by the addition of wood or metal only, provided it is securely built into the body of the car or affixed securely to the car.

3.2-d No loose materials of any kind such as lead shot are permitted in or on the car.

3.2-e Using tape of any kind to secure weight is not recommended. If tape (Such as masking, scotch, etc) is used to hold weights, it must be tightly attached to the car. The officials may have final say if a car using tape to hold weight meets the qualification to race under this rule. Cars deemed unsafe at inspection and registration will be asked to be fixed the issue before final weigh in.

3.2-f It is recommended that weights on the bottom of the car be inset so they are flush with the bottom of the wood block of the official Pinewood Derby car wood block. Please refer to 3.1 Dimensions and 3.1-c Clearances.

3.3 Wheels and Axles

3.3-a Only Official Cub Scout Pinewood Derby Wheels, with the “Official B.S.A.” stamp on the inside of the wheel, shall be used. This includes decorative wheels and alternate colored wheels. See Figure 5.

3.3-b All four Wheels Shall make flat contact with the surface of the official race track. See Figure 6

3.3-c Relocating one or more wheels higher than the other to allow the car to ride on two or three wheels only through pivoting as it coasts is strictly prohibited



Figure 5. You can see the official BSA logo on the inside of the wheel



Figure 6. The left wheel is flat to the riding surface, the right is not and would need to be fixed before racing would be permitted

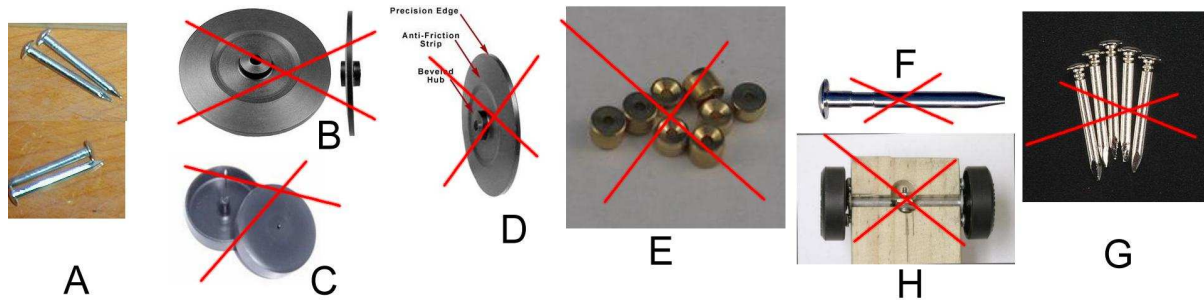


Figure 7. Axles and wheels

- 3.3-d Only Official Cub Scout Pinewood Derby axles shall be used. (Figure 7. Letter A.)
- 3.3-e The official Pinewood Derby axles may be polished.
- 3.3-f Solid axles are strictly prohibited. (Figure 7. Letter H)
- 3.3-g Wheel bearings, washers, or bushings are strictly prohibited (Figure 7. Letter E)
- 3.3-h The car shall not ride on any type of spring or shock.
- 3.3-i Wheels may be lightly sanded to remove blemishes from the flat tread surface and

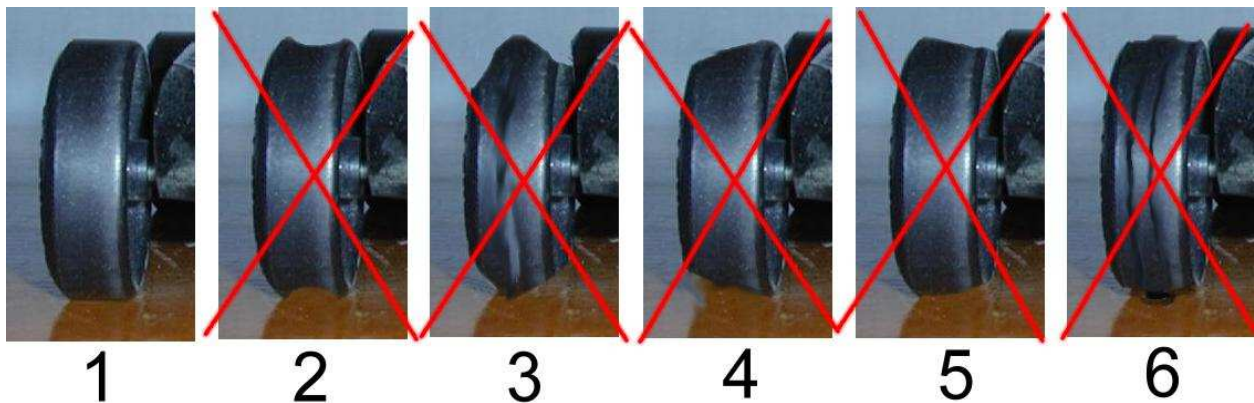


Figure 8. Wheel beveling and tapering.

to be true the roundness of the wheel. (Figure 8 number 1)

- 3.3-j Molding flash from the wheel hub may also be removed by light sanding.
- 3.3-k Rule 3.3-g and 3.3-h shall be the only wheel modifications allowed.
- 3.3-l Extensive removal of wheel material is strictly prohibited.
- 3.3-m Beveling or tapering of the wheels is strictly prohibited. (Figure 8, number 2, 3, 4, 5 and 6)
- 3.3-n A minimum of 1/4 inches of flat tread surface shall be required for all four wheels. (Figure 8 number 1.)
- 3.3-o Removal of material from the inside diameter of the wheel or on the backside of the wheel face is strictly prohibited.
- 3.3-p Wheel covers and hubcap type covers are strictly prohibited.
- 3.3-q Blade wheels even if found by a BSA source or stamped official BSA shall be strictly prohibited. (Figure 7. Letter B, and D)

- 3.4 Lubrication
 - 3.4-a Graphite shall be the only lubricant a driver may use on his car.
 - 3.4-b Cars may be lubricated before registration, inspection and weigh in. No other lubrication will be permitted after registration, inspection and weigh in
- 3.5 Miscellaneous
 - 3.5-a Cars must be freewheeling with no starting device or other propulsion.
 - 3.5-b Gravity shall be the cars only means of propulsion
 - 3-5-c No part of the car shall protrude past the starting gate or post. Figure 9 and 10. Forked cars shall be strictly prohibited if it can not comply with this rule.



Figure 9. As you can see the metal posts would protrude past the starting post.

Section 4. Inspection

- 4.1 Each car shall pass inspection by the pack or District inspection officials at each event before it may compete.
- 4.2 Each inspection team has the right to disqualify any car that doe not meet the rules and specifications.
- 4.3 Drivers will be informed of any violation and will be given an opportunity to fix the specified violations.
- 4.4 Cars can be re-inspected at any time. If the car does not meet the rules and specifications, it shall be brought into compliance before its next race or it will be disqualified.
- 4.5 A Maximum of five minutes will be allowed for a driver(or his pit crew) to bring his car into compliance if a problem is found during a race.
- 4.6 Once cars have been registered, inspected and weighed, they shall remain in the custody of the pack or the Kennebec Valley District race officials until the end of the competition.
- 4.7 Pinewood Derby Cars with wet paint or glue shall not be accepted for inspection.



Figure 10. Fork Car

Section 5. Weigh in.

- 5.1 The readings of the Official Race Scale at each event will be considered final.
- 5.2 The pack and District inspection teams shall weigh in all cars after the driver and car have been registered and inspected.



- 5.3 It is possible scale measurements may differ between the Pack and the Kennebec Valley District Pinewood Derbies. Drivers and Pit Crews must be prepared to adjust weight to meet the readings of the Official Race Scale at each level of the competition.
- 5.4 In the event a car becomes damaged during the race Rule 4.5 will take effect. A mandatory re-weigh-in shall be done to make sure the car is still in compliance with weight specifications in Rule 3.2-b.

(This section is brand new this year for consideration of the district)

Section 6. Pinewood Derby Staff roles and responsibilities.

District Executive. The District Executives role in the Kennebec Valley District Pinewood Derby is to make sure the rules are maintained and adhered to by all participants, drivers, pit crews judges and officials. The District Executive will maintain the power to have the final casting vote in the event of a tie vote during any dispute that may arise in a District race.

Cubmaster. The Cubmasters role in the Local Pinewood Derby is to make sure the rules are maintained and adhered to by all participants, drivers, pit crews judges and officials. The Cubmaster will maintain the power to have the final casting vote in the event of a tie vote during any dispute that may arise in a local race.

Officials.

Registration. The registration officials shall maintain an accurate record of all participants of the Pinwood Derby. They shall make sure to record racers, name, address, phone number and any other important information that is needed for the final awarding of prizes or moving to the next level of competition as deemed by the Pinewood Derby committee local or district. The Registration officials shall also assign official racing numbers or designations to the youth participating as a driver.

Inspection. The inspection officials shall measure all cars utilizing the Kennebec Valley District Rules 3.1 Dimensions, 3.3 Wheels and Axles, 3.4 Lubrication, and 3.5 Misc. Each driver's car shall be inspected to make sure that all Dimension rules are adhered to. The Inspection officials shall have the final say if a car passes or does not pass the general dimension rules.

Weigh-in. The Weigh-in officials shall weigh all cars utilizing the Kennebec Valley District Rules 3.2 Weight. Each driver's car shall be weighed and official weight recorded on the bottom of the car with pencil. The weigh-in official shall have the final say if a car passes or does not pass the general weigh-in and weight rules.

Staging The staging officials shall maintain an orderly in and out process for drivers to retrieve cars and leave cars. It is important that the staging official maintains order in the staging area to prevent damage to drivers cars via pushing, shoving, or congestion of drivers coming in and out of the staging area.

Gate Gate officials shall be diligent in working with the judges, and track officials to make sure the gate is not opened pre-maturely and that order is maintained when drivers are bringing cars to be placed on the gate. The Gate official shall be responsible for making sure cars are on the track properly to prevent the car from hopping the track. This does happen at times but the Gate official should check each car on the gate prior to running of a heat.

Track Track officials shall be responsible for making sure drivers are getting to and from the gate to the spectating location for each race in an orderly fashion. This will help to improve the flow of each race. Track officials shall make sure that drivers are not in danger of disrupting or damaging the Track, Audio Visual equipment, judging equipment, and track equipment used at a race.

Local/District Pit Crew. It is the option of the local or district staff of each

committee to elect a local or district pit crew to help supply an area for driver's pit crews to make modifications to cars. Local/District Pit Crews shall NOT make any modifications to any drivers car under any circumstances. Suggestions may be made, and maintaining of the equipment such as drills, saws, metal potting material may be done by the local/district pit crews. The local/district pit crew is merely a supervisory and think tank role.

Judges.

Judges shall maintain the official local/district pinewood derby race results. If electronic means of calculating results is available such as an electronic gate with automatic software for storing placement, an "Analog"(meaning hard copy written down) of each race result shall be maintained. Basically this entails writing down the results. IE. Heat 1. 1st place driver 4, 2nd place driver 10, 3rd place driver 16, 4th place driver 2. The use of the analog copy of the race results will be used in the event of a power failure or loss of electronic results through computer crashing etc. A minimum of 3 judges should be used for each local/district race. Almost all Pinewood derby tracks have electronic finish lines which will indicate 1st, 2nd, 3rd, 4th place. In the unlikely event that a race is held on a track without an electronic finish line, the judges shall have final say on what the placement of each heat is.

Explanation of Revisions:

- Rev 1.1 A more detailed version of the 2011 District PWD rules with a focus on providing an extremely detailed set of rules
- Rev 1.2 Clarification of Articles. Changes made to categorize the rules. Additional rules added based on loop holes found.
- Rev 1.3 Clarification of Articles. Changes made to various rules wording to make more sense from the original wording. 16 new articles added.
- Rev 1.4 Re-designation of Article numbering sequence. Two rules adjusted.
- Rev 1.5 Re-designation of Article numbering sequence. Rule 4.7-4.12 to be 4.4-4.7 and changes to 5.4 to say refer to 4.5 vs 4.10. Re-designation correction made to number sequence of Rule 2.14-o's subsections. They were designated 2.14-m subsec 1-5. The correction was made to say 2.14-o subsection 1-5. Rule Change made to 3.1-b under measurements. The original rule allowed for car's width to be 3 and 14 inches wide. This width would not be compatible with many styles of PWD race tracks. The change is now 2 1/4 inches which should accommodate all tracks.