

# “The Race”

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(Not affiliated with the Power Racing Series, PPRS)

## *Overview*

Welcome teams to the first ever Electric Vehicle Obstacle Drag-Race. A couple of quick notes before you read on. First this competition is NOT affiliated with the Power Racing Series (PPRS) as there are no national points awarded to any of the competitors. Second and the most important thing to remember is to have fun. The purpose of the event is to provide entertainment to the spectators and fun to the participants. Malfunctions, meltdowns, and a trail of lost pieces are all part of the fun. Sure there is winning but finishing is an accomplishment as well and let's not forget the courage to enter and try. No one is really a loser when the goal of the group is to help each other and put on a good show.

## *Schedule*

Saturday October 6<sup>th</sup> – Testing Day

The track will be open several times throughout the day to allow the teams to test their vehicles and strategies for the race. The officials will be available to do an “unofficial” inspection if desired.

Sunday October 7<sup>th</sup> – Race Day

Official inspections in the morning and heats throughout the day ending with a winner's ceremony at 4pm.

## *Team Structure*

Teams must contain a minimum of two members. There is no upper limit to how many members a team may have. No person may be on more than one team. No matter where a team purchases its vehicle, it must conform to the standards listed below. Each team may enter one vehicle and must modify and repair it as necessary.

## *Team Budget*

The total allowable budget for any individual vehicle is \$500. This does not include the cost for safety equipment worn by drivers such as helmets, pads, or gloves. This also does not account for the initial cost of the vehicle purchased, tax, and shipping costs are not included. It is required that teams provide paperwork to prove their vehicle is under budget. Officials will determine if teams have exceeded the budget and hold all rights to disqualify a team's suspected vehicle.

## *Permitted Types of Vehicles*

Any child ride-on electric vehicle will be allowed to enter competition. This includes any Peg Perego, Fisher-Price brand Power Wheels, as well as Little Tikes Ride On toys. The majority of the original ride on body must remain functionally intact as determined by race officials.

## *Vehicle Size*

The vehicle may not exceed 70" long by 40" wide. Height is not restricted. No part of the vehicle other than safety equipment may protrude past the dimensions enumerated in this rule. All vehicles will be measured by track officials as part of the inspection. Any vehicle disobeying the dimension rule shall be banned from competition until it has been modified to fit within the dimensions of the box.

## *Vehicle Decoration and Engineering Modifications*

Teams are encouraged to be imaginative when decorating and modifying their vehicles. However each team should take into careful consideration the potential of injuries or damage caused by external decorative items. Specifically prohibited are any decorative items that are sharp, pointed, obscuring, fragile, or that would otherwise cause injury or damage to the driver or other drivers and their respective vehicles during routine vehicle-to-vehicle contact or crashes. This rule also applies to structural, drivetrain or steering modifications to vehicle. Officials reserve the right to prohibit a vehicle from entering any race if the vehicle is deemed to be a hazard to its driver, other drivers and their vehicles or spectators.

## *Wheels*

All vehicles are permitted to use third party wheels and hubs as long as the modifications fall within the Vehicle Decoration and Engineering Modifications specifications described above. There are no limitations to how the wheels can be modified to connect the chassis (internally or externally) as long as power to the ground is derived from these wheels and hubs.

## *Batteries*

For safety reasons the use of liquid acid batteries is prohibited due to the inherit risk of such batteries in the event of a flip over. But so called "sealed maintenance free" batteries are allowed. Officials suggest the use of sealed gel-cell batteries or sealed absorbed glass mat (agm) batteries. Officials strongly suggest that teams should be prepared to bring 2 sets of charged batteries and chargers for competition. There is no limit to the number of batteries allowed as long as it fits within team budget. With limited time between events, there may not be enough time to fully recharge a battery. Batteries cannot be changed out during the actual heat.

## *Motors*

All motors must be electrically powered by electricity stored in an electrolytic battery. Vehicles may not generate their own power. No hybrid or assisted engines are allowed. All power supplies must range from 6-24 volts maximum input to the motors. A Kill Switch system or a method to immediately cut power should the driver be thrown must be incorporated in the vehicles (a “gas pedal” or push-and-go system will meet this criteria as would a pull switch like on a jet ski). Teams are permitted to implement any system necessary to achieve the kill system. It will be tested as part of the inspection.

## *Drivers*

All vehicles must be controlled and steered by one and only one human driver seated in the vehicle. No remotely controlled vehicles are allowed. Drivers must be at least 12 years of age at the time of the race. Teams are allowed to alternate or change drivers during the competition.

## *Inspection*

Each vehicle will undergo an inspection prior to the start of the event to assure it complies with all of the safety and performances rules. The vehicle will also be measured and the supply voltage to the motor(s) tested to assure it falls within the specifications outlined in the rules. The officials reserve the right to perform additional complete or partial inspections at any time during the event at their discretion.

## *Safety Regulations*

All participating drivers are required to wear a helmet while on the track. Any time a driver is within track boundaries (as defined by the race information sheet distributed at the drivers’ meeting) a driver must wear a DOT approved helmet. All drivers are required to wear full-length jeans or comparable sturdy work pants, long sleeve shirts and close-toe shoes or boots. Drivers must also wear mechanic or racing gloves during a race event. Safety glasses are also required if helmets are open-faced but are not required for full helmets with a face visor. Elbow and Knee Pads are required for all drivers participating. All safety equipment herein mentioned is not bound to budget constraints.

## *On Track Safety*

The event officials will have the following on track to ensure a safe event:

- 2 ABC fire extinguishers.
- 2 Track Marshals who shall spot incidents and call forth any violations.

EMT personal will be onsite for the entire Regional Maker Faire Event.

## *Drivers' Meetings*

The drivers meeting will be held Sunday October 7<sup>th</sup> in the morning, before the event begins, **all** present members of **all** teams must attend a drivers' meeting. (This includes drivers as well as non-drivers.) At these meetings, officials will explain the races that will take place during the day, make clear all of the applicable race rules, and perform all checks on vehicles to make sure that they conform to standards.

## *Track Specifications*

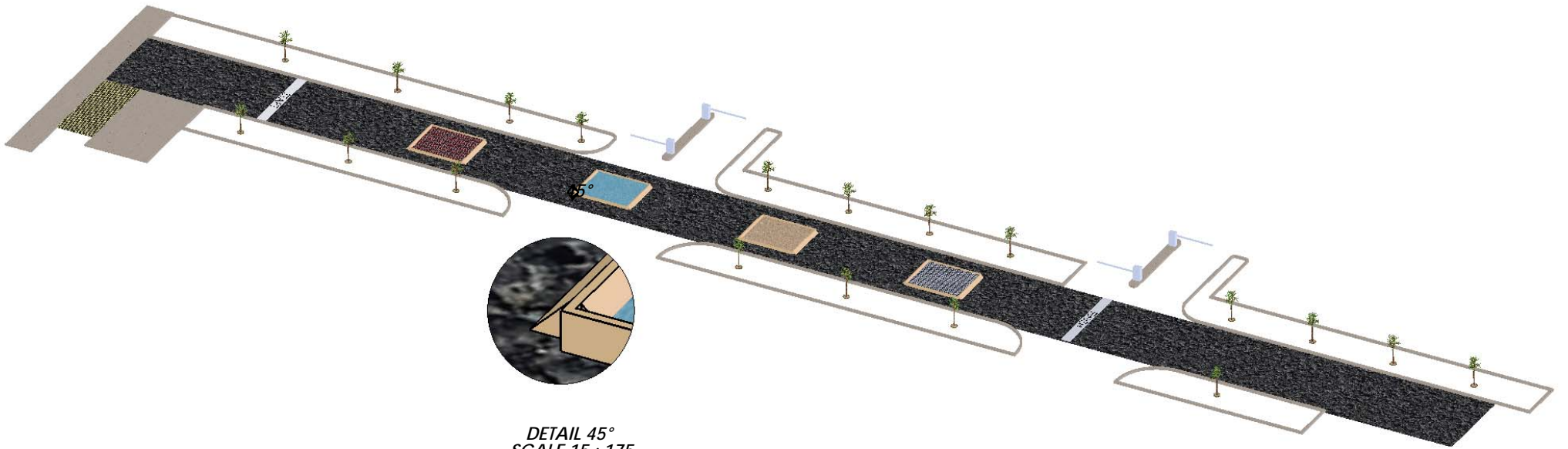
The racers will race side-by-side but will be competing against the clock. The total elapsed time for the 3 quickest of the 4 heats will determine the winner of the event. The course is 178 feet long by 18 feet wide. The obstacles are 10 feet by 12 feet by 7.5 inch deep and placed in the center of the race area. The vehicles will both use the same 10x12 obstacles. The obstacles are as follows: pea gravel (small rounded stones), water, sand, and wood chips. The first obstacle is 30 feet from the start line there is 25 feet between each obstacle and a 25 foot home stretch after the final obstacle. There will be a 45° incline on both sides of the frame leading into and out of each obstacle to help the vehicles.

## *Team Package*

Upon signing up to compete each team will receive a package with the rules, heat times and a detailed drawing of the track with specific dimensions. Each team will have a covered "pit" area with a table, chairs and 115v electric power.

## Rules

1. The vehicle MUST power itself down the track. The driver is not allowed to get off the vehicle to push or push with his/her feet while seated.
  - a. The driver is allowed to get off the vehicle to make repairs/adjustments HOWEVER no forward progress is allowed during the repair process.
2. Leaving an obstacle early (intentionally or by accident) will disqualify the driver for that heat.
  - a. Any wheel crossing the retaining board (dropping off edge of obstacle enclosure) is considered leaving an obstacle.
  - b. The obstacle may be repeated to avoid the disqualification.
3. Driving around an obstacle (not even attempting it) will disqualify the driver for that heat.
4. If a driver is thrown from his/her vehicle they may climb back on and continue the race provided no forward progress is gained while in the act of remounting the vehicle.
  - a. If the vehicle continues on its own (beyond rolling to a stop) without the driver the vehicle will be disqualified from that heat and the team will have to show that the kill switch has been repaired before being allowed to compete in any further heats.
5. Drivers cannot be changed during a heat.
6. Intentional contact between vehicles is not permitted.
  - a. Minor intentional bumping will result in disqualification for the heat.
  - b. Major intentional ramming will result in disqualification for the event.
7. No projectiles of any kind can be fired or thrown from the vehicle during any part of the competition.
8. No explosive, incendiary or hazardous chemicals are allowed on the vehicles including but not limited to fireworks, sparklers, party poppers or intentional flame generating devices.
9. Enjoy yourself
  - a. This is supposed to be fun. Don't get too caught up in the details. Purchase a cheap car or better yet get one out of the trash.
  - b. Beg, borrow or buy some motors and batteries.
  - c. Figure out how to duct tape it all together.
  - d. Go racing.



DETAIL 45°  
SCALE 15 : 175

