

## **Orion District Pushmobile Rules - 2015**

### **General**

1. Have fun! Pushmobile is for the boys. While winning is fun, participating is too, and good sportsmanship is a key component to Scouting. Every boy racing deserves a 'Good job' pat on the back. Keep it fun!
2. We are all volunteers and have dedicated time to creating an event that our boys will remember. Please keep this in mind when you have questions.
3. Pushmobiles may not be shared between teams of the same rank, as they may be required to run against each other in the race-off. Pushmobiles may be shared between teams of different ranks.
4. Once checked-in, all Pushmobiles must remain in the staging area near the start/finish line to prevent delays in organizing heats. No entry to the staging area by any Scout is allowed. Race team leadership may enter pit to retrieve vehicle prior to race.
5. All scouts participating in the races must wear close-toed shoes appropriate for running.
6. Protests must be taken to Program Director immediately following the race. The decision of the Program Director is final.

### **Car Specifications:**

1. All Pushmobiles must pass the inspection prior to participating in the race. Repairs may be made of any problems noted but must be re-inspected.
2. If a car does not meet requirements, it will not be permitted to race. No exceptions. If you choose to use an old car, please make sure that it is updated to the current specifications. Consideration will NOT be given for "but it passed last year."
3. No engines or gears or other means of mechanical locomotion are permitted. Pushmobiles must rely on Scout power only.
4. Pushmobiles are to be built by the Packs (adults and boys) out of wood with the exception of the wheels, axles, hinges for the brake system and necessary bolts and screws used to fasten the wood pieces together. Avoid sharp edges.
5. Brakes are optional (and not recommended) but are often included in Pushmobile designs. The quicker you stop, the quicker you exchange. Metal hinges may be used as a brake pivot.
6. A push bar must be permanently attached or integrated into the rear of the Pushmobile. Further, the push bar should not swivel or rotate. The push-bar must not be made out of metal.
7. Steering wheel or bar, if the car design includes one, must not be made out of metal.

8. Pushmobiles must have a functional seat with a backrest. Seat height may be no greater than 18" above the ground. All racers must sit firmly in seat during race. In other words, racers may not crouch in the seat. Seat belts are not required or recommended.
9. Pushmobiles must have at least four (4) wheels and stand upright without assistance.
10. Tires and wheels are to be between 3.5" and 12" in diameter. No wheels to be over 12". Solid or pneumatic tires are acceptable.
11. Pushmobiles inside wheel dimensions may be no less than 32" as measured from the inside of one wheel to the inside of the next wheel on the same axle.
12. Pushmobile length (overall and axel to axel) is not governed by rules.
13. The steering mechanism must limit the turning radius of the car. Steering 'play' must not exceed 10 degrees in either direction (this is a case of less is better).

### **Race Rules:**

1. If the team has boys from multiple ranks, the highest-ranking boy will determine rank for the team. (ie: Tigers can race on a Wolf team, but a Wolf may not race on a Tiger team.)
2. The minimum team is 4 scouts and a full team is 8 scouts. (4 need more, 6 in a fix, & 8 is great!) If you do not have enough Scouts for a complete race team, do your best to recruit more prior to the start of your race. Remember, lesser ranks can race up in other ranks.
3. The boys who start a heat must finish it. No substitutions are allowed during a single race.
4. The course will consist of four (4) lanes marked in four (4) segments. The width of each lane will be one to two parking spaces wide depending on the available space at the event location. Each segment is approximately 25 yards in length.
5. At each 25-yard marker, the vehicle must come to a complete stop. A one (1) second penalty will be assessed for each failure to stop. The buffer is 5 feet in either direction of the main 25-yard line and if the front of the vehicle crosses that line the penalty will be assessed. Tiger and Wolf will have some leniency on this rule but none will be given to Bear and Webelos.
6. Scouts must switch positions during the race at each stopping point. Each Scout must push the vehicle at least once and steer the vehicle at least once per race.
7. A one (1) second penalty will be assessed for vehicles that do not stay in their lane during the race. A second time penalty may be assessed (at the Race Director's discretion) for time for being out of your lane for a longer time period.

8. In the event of a collision in another lane, the team that was crashed into will be given the opportunity to run the race again. The team that crossed the lane and caused the collision will be given the slowest time from that race, plus a five (5) second penalty. A collision must take place in order to stop a race.
9. A Pushmobile must completely cross the end-of-lane marker (100 yards) before being turned around (180 degrees) to continue racing back. A one (1) second penalty will be assessed for the racers that do not comply.
10. Two (2) boys will be stationed at the start of each segment - one boy will be the driver and the other will be the pusher for that one (1) segment. At the halfway point (100 yds), the car will be turned around and the boys will reverse their roles as driver and pusher.
11. Racers should stand at the change points (safety cones) until the pushmobile has come to a complete stop. The scouts riding/pushing the pushmobile must exit to the right, while the next group of scouts enter from the left. All left/right directions are in reference to the direction the pushmobile is facing) Crossing of lanes is dangerous and is not permitted!
12. For teams with less than 8 scouts, the Pushmobile must come to a complete stop at each switch point and if there are no scouts waiting at that change point, the driver and pusher must exchange positions. The driver should exit to the right and the next driver should enter from the left.
13. Teams should designate an adult to assist with the staging. One adult is allowed at the start line, one at each of the hand off points and one at the turnaround (end of the track). The adult at the starting line is solely responsible for telling the judge that the team is ready. The other adults (hand off and turnaround points) can instruct the racers but may not physically help. Adult coaches are not allowed to touch the Pushmobile or Scouts once the race has started, nor are they allowed to leave their position anytime during the race. Time penalties will be applied for violations.
14. No one, (Scout or adult) may run along side the Pushmobile during the race. All Scouts must remain in place until the race is completed. A 1 second penalty will be assessed per violation.

### **Race Timing**

1. Races will be organized to run by rank. Each rank will consist of heats, the number of which will be determined by the number of teams entered for that rank. Each heat will consist of two races. Teams lanes will alternate as per the race schedule published that day.
2. Elapsed times for each race will be recorded along with the incurred penalty(s).

3. Race times will not be averaged. Times and penalties will only affect the race in which they occurred.
4. At the conclusion of race heats for each rank, times will be compared and the four fastest teams (based on single race times) will be allowed to run in a race-off.
5. Awards will be presented for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> place teams for each rank.