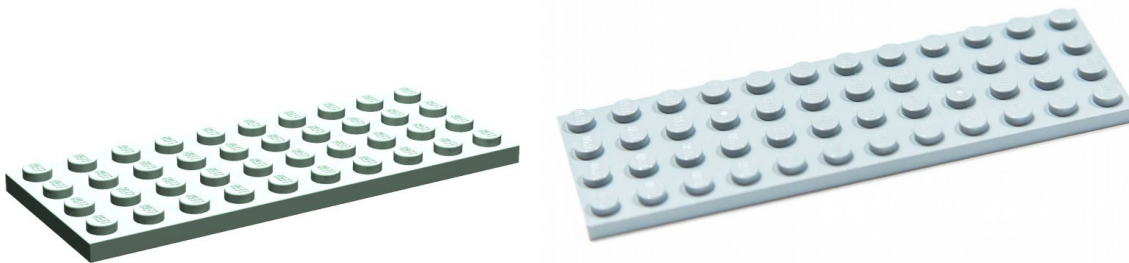# LEGO Brick Derby Car Racing Rules

## Car Weight
- Not over 5 ounces

As soon as you start adding LEGOs to make your car, you will see how fast your car will get heavy and you may quickly pass the 5 ounces. Be careful with this restriction since we will not let you race if your car is more than 5 ounces.

## Brick Derby Car Dimensions
- Max Height: 4.5"
- Max Length: 10"
- Max Width: 3"

1. The car must have 3/8" clearance underneath so it does not rub on the track center guide rail.
2. The width of the base of the LEGO car needs to be precisely four rows of LEGO notches - not including wheels.  (Wheels will add additional width.)
3. The base of the brick derby car should be made up of two bottom pieces: a 4 x10 brick and a 4x12 brick.  When we say 4x10, this means you count the LEGO dots (e.g. four LEGO dots x 10 LEGO dots).   So the full length of the car should be four LEGO dots by 22 LEGO dots.  Do not go past four LEGO dots for the width because you will be bumping up against the car beside you.  Also, do not go less than four LEGO dots because you will not be able to put the wheels on the tracks appropriately.  Regarding the length, do not go more than 22 LEGO dots, because your car will hang off the track's starting area and may slow your car down.

## Brick Derby Axles and Wheels
- PRO Brick Wheel Assembly or Mini Brick Wheel Assembly must be used to get precise wheel spacing.
- The width of the base of the LEGO car needs to be precisely four rows of LEGO notches - not including wheels.  (Wheels will add additional width.)
- All four wheels do not need to be in contact with the track; however, each car must have four wheels.

## Lubrication
- Wheels and Axles may be lubricated before the race, and your LEGO car will perform better if you lubricate the axles. HOWEVER, graphite will wreak havoc on your LEGO parts if they are not glued together! Graphite and oil lubricants, such as NyOil, tend to migrate to everything and if (when) that happens, your LEGO connections will get lubricated and lose their connectivity causing your cool car to fall apart into a heap. Carefully lubricate your axles away from the other parts of your car.
- Lubrication cannot be reapplied during the race or between heats.
- Excessive powder must be removed before racing.

IMPORTANT! Keep lubricant AWAY from the LEGO parts! If any lubrication gets on the LEGO parts, they will separate very easily. You might want to consider gluing the critical LEGO parts together after you are happy with your car design.

NO WD40 Allowed

## Car Modifications Not Allowed
- Wheel bearings, washers or bushings are prohibited.
- Car must be built only using LEGO building blocks.
- Car must not ride on any type of springs.
- So-called  "cheater bars" at the front of the car to give an unfair starting advantage are prohibited.
- No starting or propulsion devices.
- Car must be freewheeling.

**Other Brick Derby / Mini-Brick Derby Race Rules**
- Each car must pass inspection by the official inspection committee before it is allowed to compete.
- Any other modifications not expressly forbidden by any of the rules above, are allowed, subject to final decision by a race official. The Inspection Committee may disqualify any car that does not meet these specifications.

**Car Repairs**
- If pieces fall off the car, (common in Brick Derby car races!), the racer will have 2 minutes to put pieces back on the car.
- No additional pieces may be added when the car is repaired.

**Hints**
- If you want the cars to have some permanence, it is suggested to glue some together (if not all the pieces). LEGO parts were simply not meant to crash together and stay together! There is considerable force when a car reaches the end of the track and unless you have a long landing zone (most tracks don't), the car is going to smash into something and break apart, unless the pieces are glued together. In the very least, you should glue the PRO Brick Wheel Assembly to your car.
- Make sure you know which end of your car is the front and which end is the back. It can make a difference in the speed.
- Don't forget a driver for your car!