

HOW TO BUILD A PUMPKIN RACE CAR!

Building a Pumpkin Derby Racer is easy, place the axles through the pumpkin or gourd and attach the wheels. The secret to an undefeatable Race Car is having perfectly parallel axels!

MATERIALS

While we recommend using 5" rubber wheels with a 5/16" axle opening, any size wheel may be used.

Here's a list of materials to help you build your Race Car:

- 1 - medium pumpkin (14-18 pounds)
- 2 - ½" wrenches
- 2 - 18" long pieces of 5/16" threaded rod
- 4 - 5" wheels with an axle diameter of at least 5/16"
- 20 - 5/16" hex nuts
- 8 - 5/16" flat washers
- 4 - 5/16" fender washers
- 4 - 5/16" acorn nuts



INSTRUCTIONS

Step 1: PUNCHING AXLE HOLES

Hold pumpkin firmly against "jig" and punch front and rear axle holes

Step 2: INSERTING THE AXLES

Feed axles through the path you just created

Step 3: CENTERING THE PUMPKIN

Thread one fender washer and one hex nut firmly against the pumpkin on all four ends of the axles. This will help avoid your race car becoming off-center and not running straight.

Step 4: ATTACHING THE WHEELS

Place nuts and washers on the threaded rod in this order: (does not include hex nut and fender washer described in Step 3)

1) (2) hex nuts 2) (1) flat washer 3) (1) wheel 4) (1) flat washer 5) (2) hex nut 6) (1) acorn nut

Repeat this step for the remaining three wheels.

Step 5: CREATING & SECURING THE LOCK NUTS (using 2 1/2" wrenches)

To create the LOCK NUT, simply rotate two hex nuts onto each other.

You will essentially be rotating one hex nut to the right and the other to the left. It is important that after the lock nuts are tightened there is enough room for the wheels to rotate freely, but not so much room that they wobble.

Step 6: TROUBLESHOOTING

The following are common problems:

RACE CAR RUBS ON THE GROUND: If the pumpkin hangs too low and is rubbing on the ground, you may need to shave some off. Bumps and imperfections in the road may also cause a pumpkin to hit the ground as it races. Make sure you have good clearance.

RACE CAR RUNS SLOW OR DOES NOT MOVE: Check to make sure all wheels are spinning freely and not wobbling.

RACE CAR VEERS OFF COURSE: Your Race Car may tend to veer either left or right. This is comparable to a person on a skateboard.



GOOD LUCK!