

Chair Roller Project

A set of these to put on chair legs and turn any chair into a rolling chair!



What you'll need to make a set of 4 chair rollers

Supplies

- (4) 3 wheel movers dollies
- (4) ¼" flat head screw, ¾" long
- (4) Nylon lock nut
- (4) ¼" flat washers
- (4) 3/8" flat washers
- (4) tennis balls (yes, they come in different colors!)

Tools

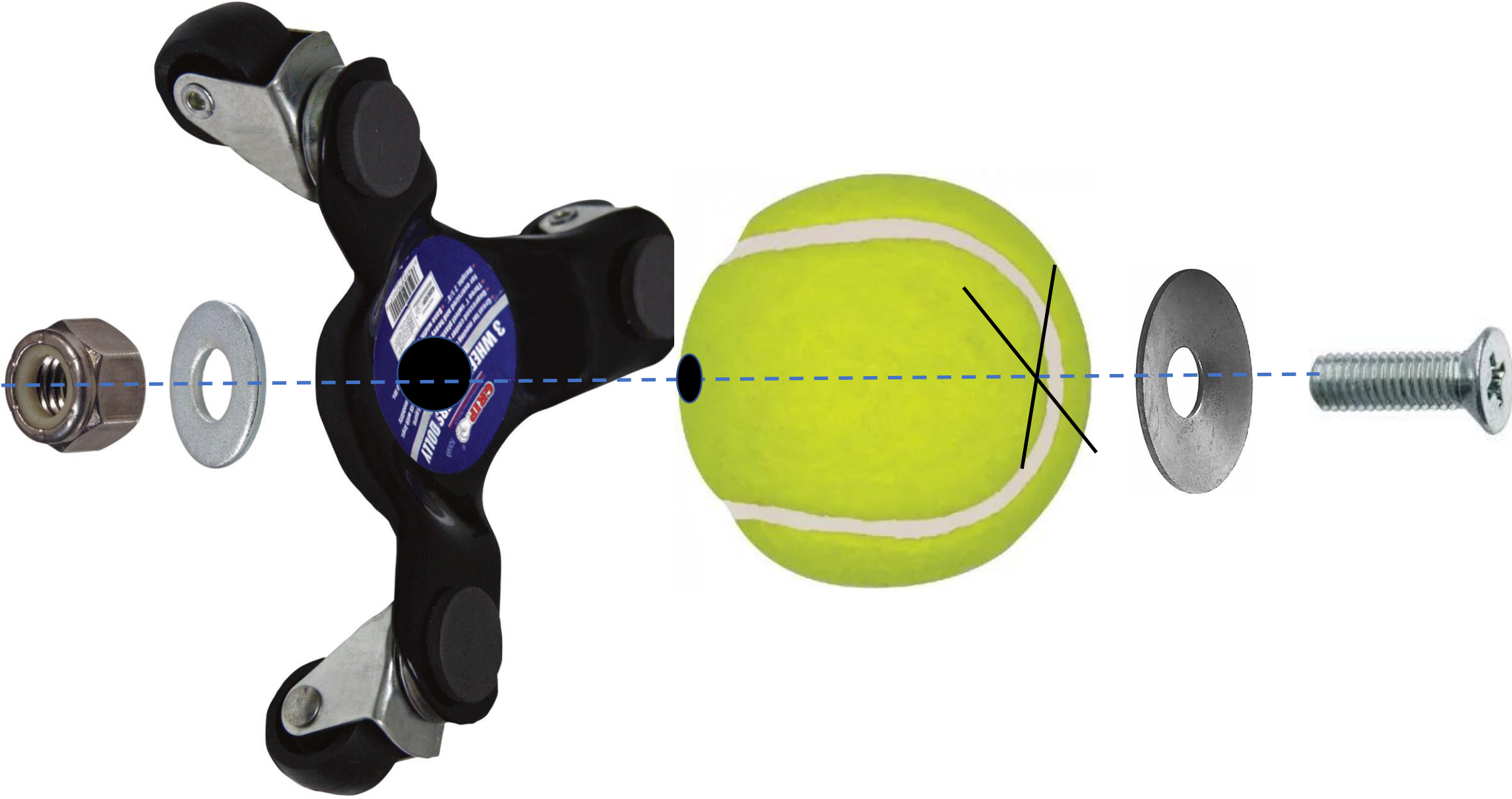
- #2 Phillips screwdriver
- Adjustable wrench
- Sharp knife

Optional: drill with ¼" bit

Notes

- Most of the parts (balls, screws, washers, nuts) are MUCH less expensive to purchase in bulk.
- The dollies are available from numerous sources. You will see different weight ratings, but any will work. Each chair will have 4 of these, so having 4 dollies rated for 160 pounds means that the set of 4 will support 640 pounds! The steel dollies rated anywhere between 130 and 200 pounds each are common and easiest to use.
- The exact length of the large cuts on the tennis ball aren't critical. Making them a little larger will result in the being able to be used on larger legs but a looser fit on small legs. Smaller will make them be a tight fit on small chair legs and potentially more difficult to get on and off of chair legs. It's easy to make them larger later if desired.

Exploded view of a chair leg roller

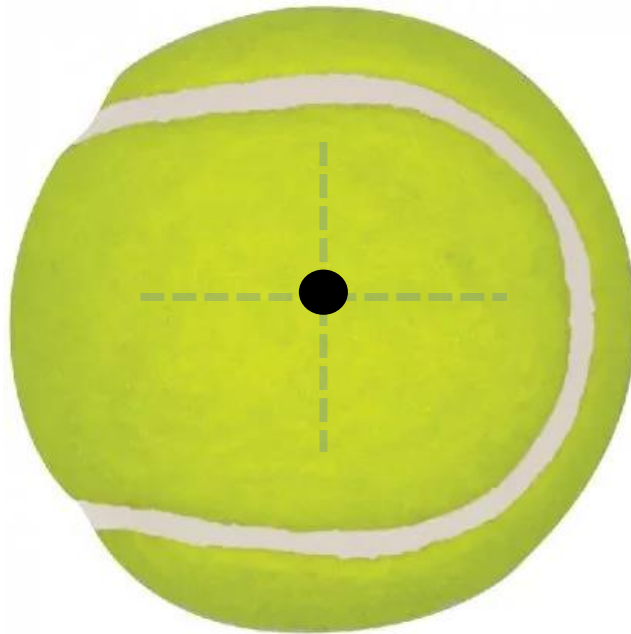


First thing we're going to do is cut the tennis ball...
A sharp knife works best, you'll want the cuts to be about 2" long and form a "+".

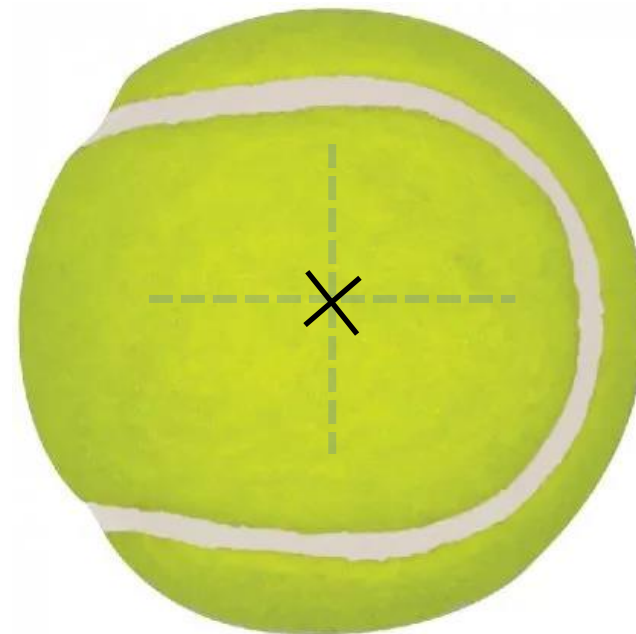


Next, we need to make a hole for the screw to go through on the side opposite the “+” you just cut. A drill with a ¼” bit works best, but a knife will work too. If using a drill, just use the center of the “+” cut to align the drill. If using a knife, you can cut a small “+” or poke the knife in so that the cut is a little more than ¼” and turn it a few times.

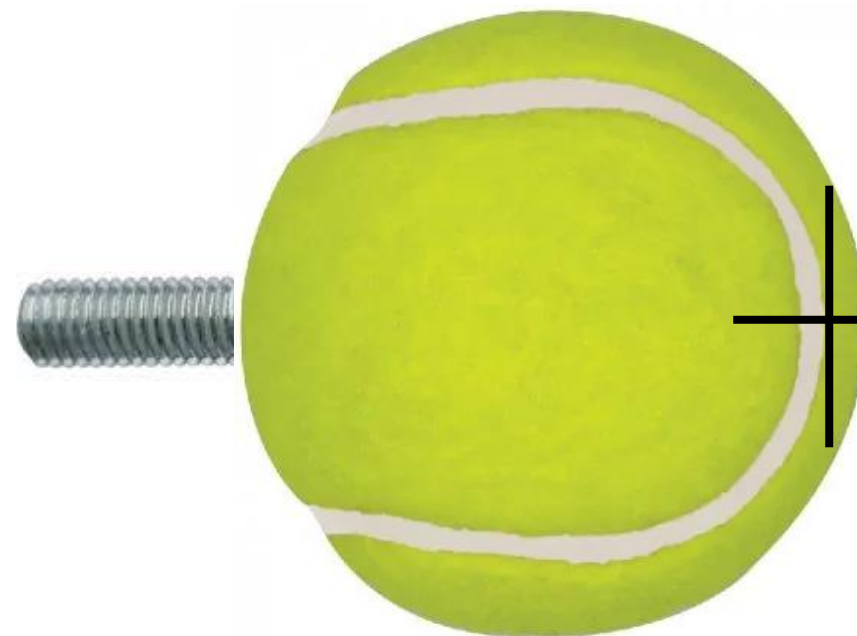
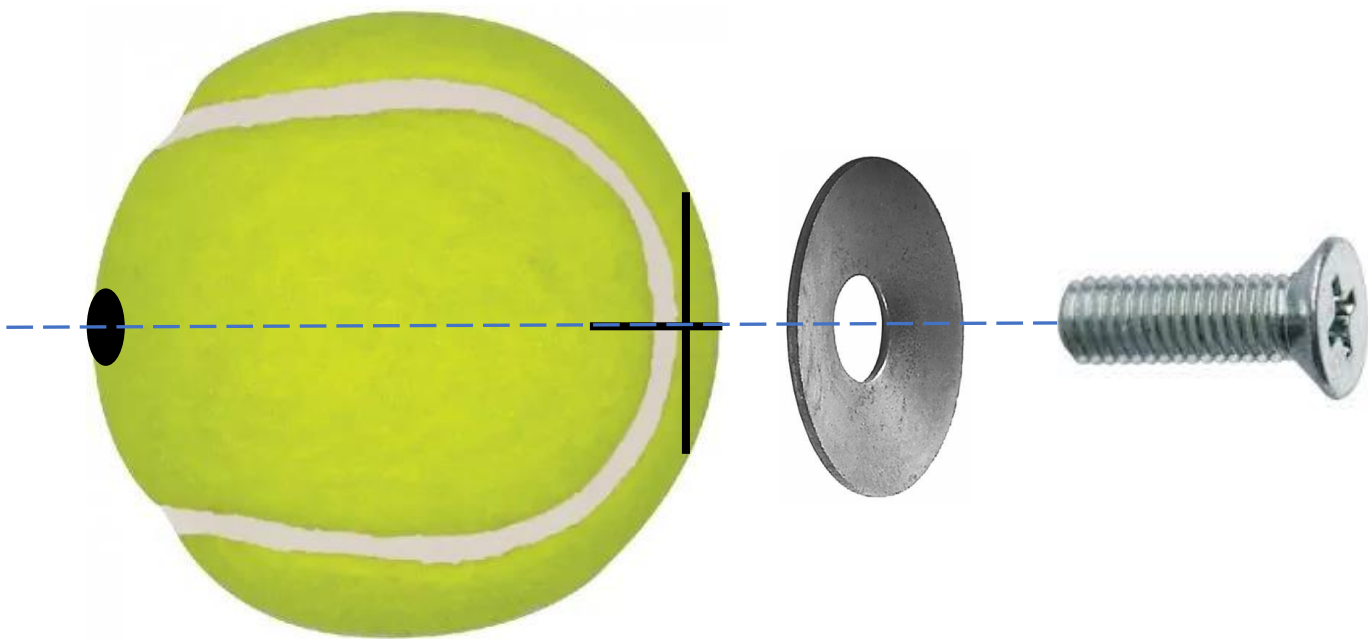
The important part is that the hole is located opposite the center of the “+” you made in the previous step. This hole shape/size isn’t terribly important, just don’t make it much larger than what the screw needs so it will fit through (1/4”).



OR

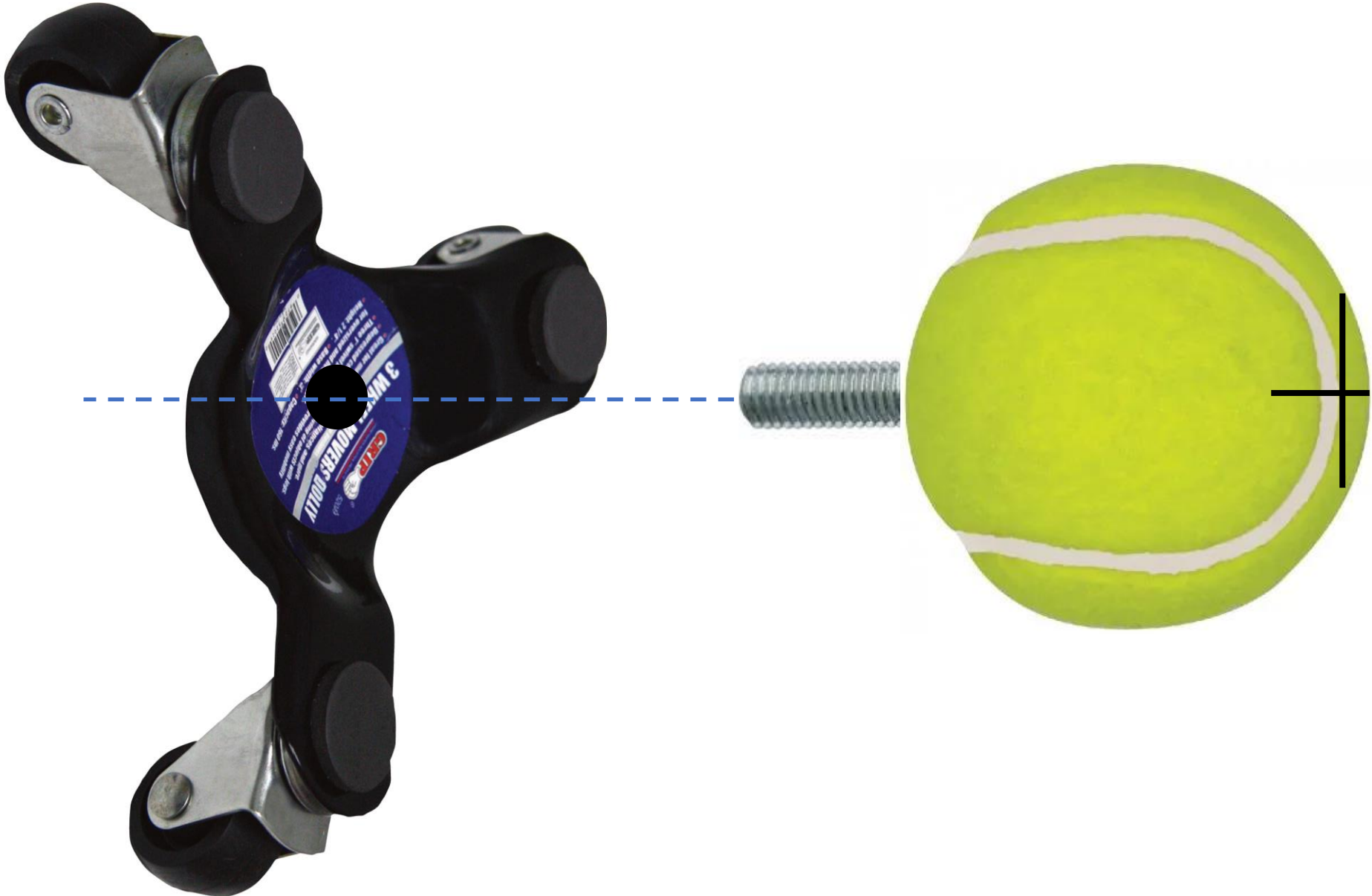


Insert a large (3/8") washer on the screw and then insert the screw & washer into the tennis ball through the large "+" cut.

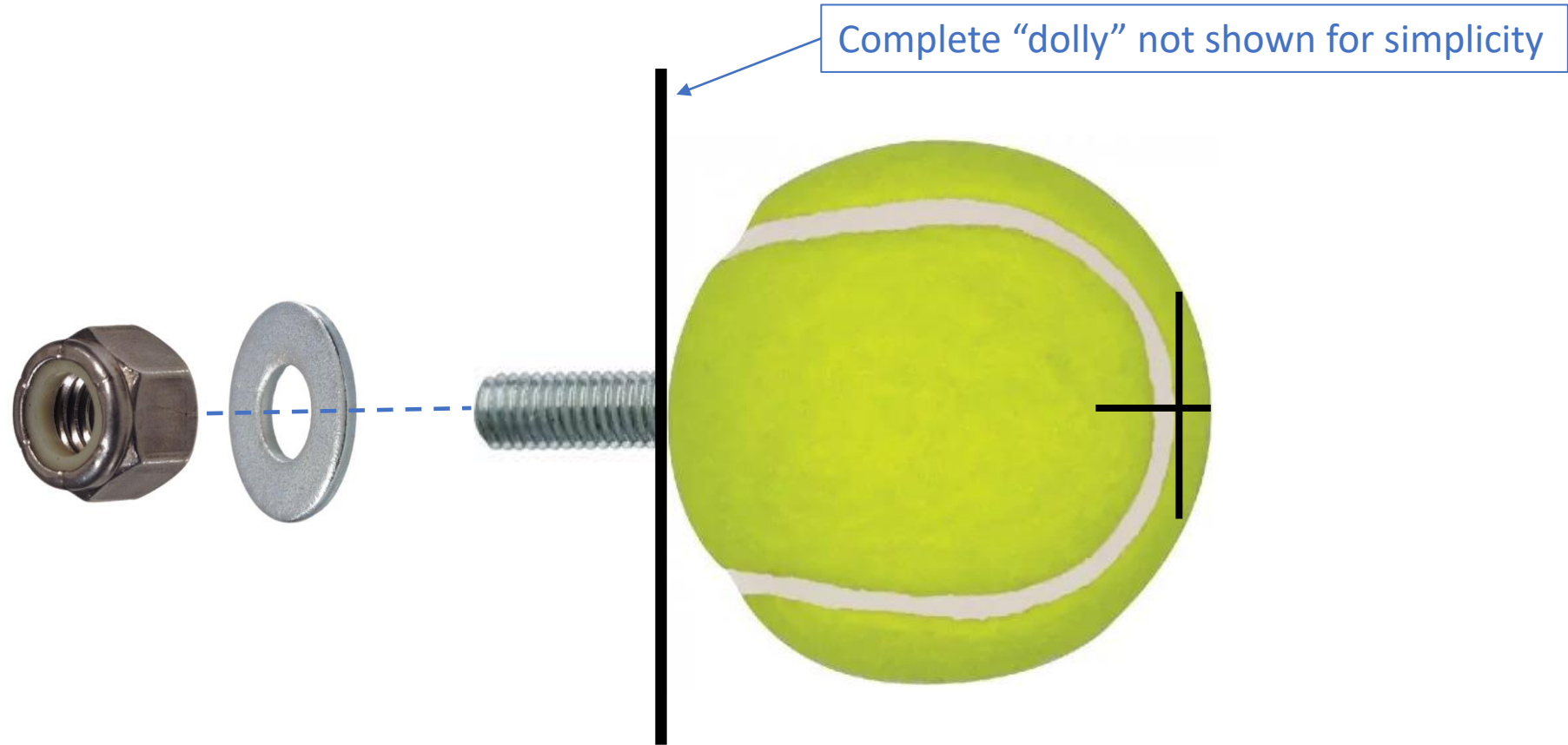


When finished, the screw will be sticking out of the ball through the small hole made earlier

Final step is to put the ball in place on the “dolly”. There will be a center hole in the metal, but some brands have a label covering it. Just punch through the label with the screw (or peel the label off if you’re so inclined).



Almost done! Put a small (1/4") washer on the exposed portion of the screw on the bottom of the "dolly". Next, put the nut on the screw and turn it a few turns until finger tight. Large end of the nut goes toward the washer.



Finally! Using a Phillips screwdriver poked through the large “+” cut, and a wrench holding the nut, tighten the nut until snug. Congratulations, you’ve finished the first one! Now, just 3 more to go...

