

How to Build a Plyometric “Jump” Box

The finished dimensions of this box are exactly 18” square. We discussed making a rectangular box for different jump height options but ultimately decided this would be the most practical, stable, as well as easy to build and store.

Here are the dimensions of the six sides:

- Top = 18” x 18”
- Sides = 17 ¼” x 17 ¼” – qty 4
- Bottom = 16 7/16” x 16 7/16”

Materials:

- ¾” finished plywood – 4’x8’ sheet (you don’t need entire thing)
- 2” x 2” rough-cut lumber – approximately 115” or two 8’ pieces (*Note for the novices – American lumber dimensions are odd. A “two-by-two” piece of lumber measures 1 ¾” by 1 ¾” NOT 2” square. Cryptic for sure.*)
 - 4 segments 16 7/16” long to brace sides
 - 4 segments 12 ¼” long to brace top
- 2” long deck screws – qty = 56 (see pictures)
- 4 flush-mount cabinet screws (see pictures)
- wood glue
- urethane sealant
- black sharpie marker

Notes and Pictures:

Here’s a picture of the original box from the gym. It’s also 18” square. The plywood isn’t finished, so the edges and finish are little rougher. I used finished plywood that costs a bit more, but I’m hoping it reduces splintering.

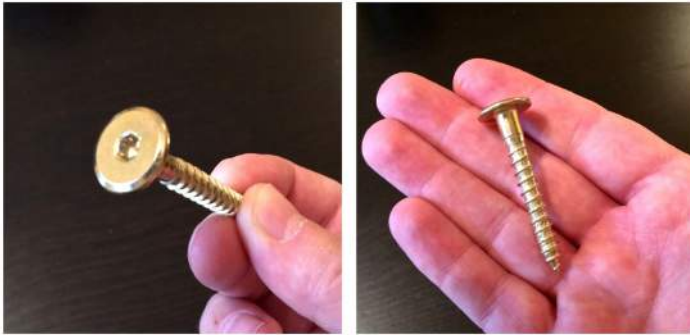


Here's a picture of our finished box. The dimensions are the same as the gym box, 18"x18".



We wanted a removable bottom panel in case we needed to add weight to the bottom of the box. Some of these boxes have plates or heavy bean bags in them to keep them from moving around. The cabinetry screws on the four corners of the base can be easily removed and a hole in the middle of the base helps lift out the panel.





These are 2" long cabinetry screws. They worked nicely as flush-mount fasteners on the bottom. We didn't want anything that could scratch floors and we also wanted it to be easily removable.

You need to pre-drill these holes



You need a hex-head bit, hex key or Allen wrench to drive and remove these screws.

Bottom fasteners are mounted 3/4" from the edges of the bottom board. This puts them dead-center on the support braces inside the box.



The primary screws holding everything together are 2" deck screws. Any brand will do. I like these because the hex-heads are hard to strip, unlike traditional Phillips heads.



The purely decorative big “18” on the sides are simply traced from a paper stencil and colored in with a black sharpie marker. The urethane sealant locks in the marker color so it doesn’t bleed or rub off.



Instead of leaving the wood bare we used a satin-finish urethane. It should stand up to the abuse of jumping plus protect the wood from the humidity here in Florida. We coated the inside and the outside for that reason. If you want a smooth finish, you need to lightly sand the urethane between coats, especially the first one. The first coat will always cause the wood to expand and draw out imperfections in the wood. Sand them off and reapply another coat.



Screw placement isn’t critical, as long as they don’t bump into each other.

They must be at least 2" from the top edge and 2 13/16" from the bottom edge or the screws for the top and bottom will hit.



Use the 2"x2" pieces to hold the sides together. Note how the sides overlap one another in the picture of the finished box.

Use wood glue between the pieces to make a really tight bond along with the screws.

The support pieces align flush to the top edge and should leave a $\frac{13}{16}$ " gap at the bottom for the bottom board to sit inside almost flush.



This is how the inside pieces look when the box is upright. The inner support pieces are a little shorter on the bottom to fit the recessed bottom piece to sit flush.

The 18"x18" square top will sit flush on the top.



Here's a view of all four sides assembled without the top. The top should be a perfect 18" square. If your cuts are not perfect, you can straighten them with a handheld belt sander after you attach it.

