How To Build A Cigar Box Guitar

By Ivan Sucharski

So you think it's time to join the Cigar Box Guitar Revolution?

Follow these simple steps towards building your own cigar-box guitar! Remember, the number one rule of building a cigar box guitar is: **"There are no rules!"** Just have fun with it, but be careful… Once you've built one, you'll want to build another. It's addictive!
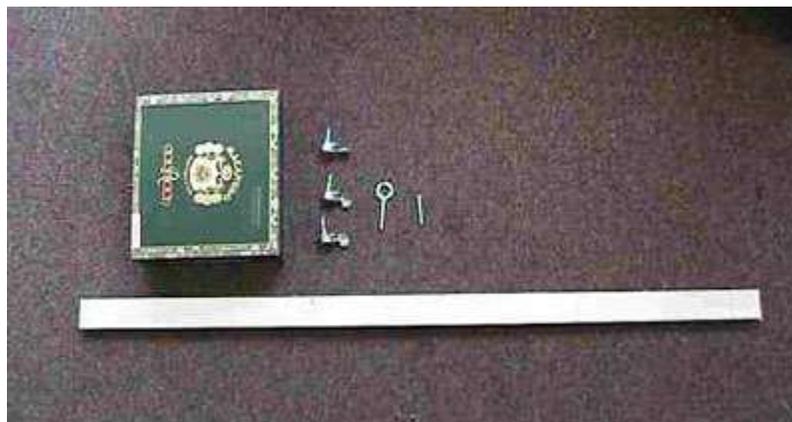
Materials Needed:

- Wooden Cigar Box
- 3 foot long 1×2 (poplar)
- 1″ Finishing nails (12)
- 8/32 X 1½ ″ bolt
- ¼" X 2½" Eye bolt
- Wood Glue
- ½ pint stain/sealant
- Sponge brush (1/2″ to 1″ is fine)
- Sandpaper Multipack (Wood)
- Tuning pegs (3)

Tools you will need:

- Drill with multiple sized bits
- Hacksaw
- Pocketknife
- ½" wide Woodworking file or reasonable substitute (optional)
- Scroll Saw,
- various sanding devices

Instructions:

1. Basic Shape of the Neck at the Bottom. The neck and the body of the guitar should fit together very snugly. Also, you want the neck to come up flush with the body, so you need to cut a notch exactly as long and deep as the lid. Here's how to do it: Take the neck of the guitar and line it up with the box lid so that the bottom of the neck (where the strings will be coming up from) is an inch or so from where the box lid ends. Make a mark on the neck there and where it protrudes from the other end of the lid. These marks designate where the lid groove needs to be carved so that you can get the neck to line up perfectly with the body. Cut out the area between the marks, as deep as your lid is thick. I used my wood file to do this. It was slightly tedious, but gave me great depth control. After reaching proper depth, I used sandpaper to smooth out the rough spots so the neck would rest evenly on the body.

2. Preparing the Body for the Neck. The body of the guitar needs to have notches so the neck fits snugly, and also needs sound holes drilled in it so you can hear the twangy goodness you create. This next step preps your body. Take the cigar box and measure halfway across each of the left and right side. From that point measure ¾" towards and away from the lid. Even though the wood for the neck is called a 1X2 it's really a ¾

X 1½. At each of the endpoints you just drew, draw a line ¾" towards the bottom of the box, then connect those two lines. This will guide you for cutting out the notches for the neck to fit into. Be sure to cut just inside your marks and not quite as deep as you think you should. Try to fit the 1X2 in the notch, and when it doesn't quite fit use the file and sandpaper to widen and deepen the notches.

The idea is to have **the tightest fit possible**. Remember, you want the lid to close easily over the

neck of your guitar with no bowing of the lid (notch not deep enough) and no space between the neck and the lid (notch too deep). Once you have the notches cut to perfection, you are ready to drill out the sound holes in your guitar body. Any number of techniques can be used including the use of a scroll saw. I personally don't own such things, so I just drill holes in the lid. Don't make holes where the neck goes,

since the neck will end up covering them. I don't really have anything intelligent to say about how you should prepare the sound holes as I have not experimented with this much. One caution: be careful not to crack the lid of your cigar box while drilling madly.

3. Working on the Neck. The top of the neck will be comprised of a headstock and a bridge. This next part discusses how to prepare those parts. Remove the neck from the body of the guitar. Make a mark around 4 inches from the top of the neck. This will be where the headstock ends and the fretboard begins. Before you shape the headstock, I suggest you drill the 3 holes for the tuning pegs. This is because you need to be sure you don't cut the headstock too thin (the tuning pegs won't screw in snugly). Drill 2 holes on the left side of the headstock and one on the right. The two holes on the right should not line up with one another, one should be slightly offset so the strings don't interfere with one another when you string it. I offset my top hole about 3/8″ further in than the bottom hole. The holes are about 2″ apart. I drilled the left hole between the top and bottom right hand holes to make sure the headstock strength was not compromised. You can make a template with paper or business cards so you have the holes lined up properly before drilling.
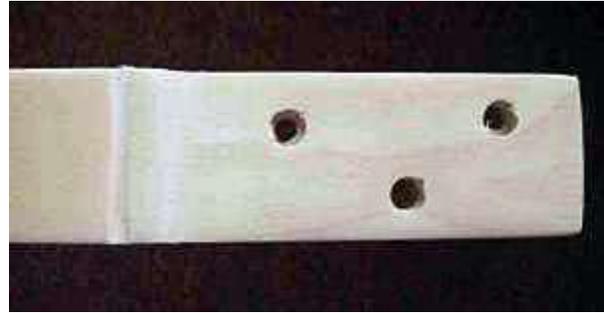
Next, the **shaping of the headstock** is in order. I like to use the wood file because I can file away little bits of the headstock at a time without going overboard. I use it and the pocketknife to shape the headstock into the shape I want. After that, you can round out the back of the neck for a more comfortable playing experience. Just don't mess with the neck portion that goes inside of the body of the guitar since nobody will see that part and since you want to retain a snug fit between the neck and body.

4. The Bridge and String Holes. The last manipulation of the neck piece is the drilling of the sting holes at the bottom of the neck and the creation of the bridge groove. Drill 3 very small equidistant holes at the bottom of the neck, approximately ½" from the bottom, this is where you will thread the strings. On the top of the neck, ½" below where the headstock begins, use the wood file to cut a small round groove across the neck. This is where the bolt you use for the bridge will sit. The groove should be deep enough that 2/3 of the bolt is above the plane of the neck and 1/3 is below.

5. Staining and Prettying Up the Neck. Remove all hardware from the neck. Sand it down nice and pretty and get off all the rough spots, nicks etc. Stain and seal it.

6. Attaching the Neck to the Body. Use the wood glue to affix the neck of the guitar to the lid. After it has dried, you

might want to use a few finishing nails as well. Be careful that you don't crack the lid when doing this. Use the finishing nails to close up the lid. I like to drill pilot holes so that everything goes in straight and easy. *(Note: If you want to wire this baby for sound, see the note at the end of these instructions. Don't do this step yet!!)*

7. String Her Up! Using acoustic guitar strings is recommended by Shane Speal, the King of the Cigar Box Guitar, and I'm not one to argue with the king. He uses John Pearse acoustic guitar strings, gauged .045, .035, .026. Place the bridge bolt in place, as well as the eye bolt at the bottom of the guitar and tune it up. Shane suggests a few different types of tuning including: A (A, E, A'); G (G, D, G'); A7 (A, E, G'); G9 (G, D, A'). A note about the strings: The first guitar I made has some grooves cut into the wood by the strings, directly above where the three small holes I drilled in the bottom are. The stress put on the strings is causing them to cut holes up from those I drilled. I'm trying a new design where I use 3 small washers at the base of the holes. I'm hoping this will keep the strings from cutting too deeply into the wood.

Making the Guitar Electric with a simple piezo pickup

Note for those interested in making the guitar electric I have found one of the cheapest ways to do this and still get a reasonable sound. You can wire your cigar box guitar for about $3.00. You will need the following: A Radio Shack Piezo Transducer (part number 273-073 or 273-073a) and a ¼" output jack.

The transducer is in the section with the buzzers, not the microphones. Connect the transducer to the jack via two wires.

Simply glue the buzzer to the inside of the cigar box lid and drill out a hole for the jack to mount to. Voila, electric cigar box. After doing this, continue following directions 6 and 7. The transducer has a somewhat bass bias, in that sounds come out somewhat deep sounding. I found that turning the bass tabs on my amp fixes this problem. Also, running it through various pedals nullifies the problem (chorus pedals etc.)