

Turning a pop-up toothpick holder:

This is an easy spindle project, and helps build skills including making lidded boxes, matching grain on lidded boxes, jam chucking, finials on lids, and turning to a specific diameter. I saw this project demonstrated by Theo Haralampou (look up “Theo the woodturner”) for Record Power Tools (recordpower.co.uk; recordpowertv.com).

South Auckland (NZ) woodturners have a variation of this project, see <https://sawg.org.nz/dick-veitch-toothpick-holder/>

Wood Magazine has a video for a variation of this project, see <https://www.woodmagazine.com/video/turned-toothpick-dispenser>

Tools I use: needed: Lathe, spindle roughing gouge, skew, spindle gouge, parting tool, drive center and live center, scroll (4 jaw) chuck, drill chuck (for tailstock), standard drill bit (I use 0.25”) and three Forstner bits (I use 1.625”, 1.875”, 2.125”). (You may adjust sizes depending on how big you want the project to be—if your blanks are not that large or you don’t have a set of Forstners, you could use 1.5”, 1.75”, 2”). Members of NMWT get a discount at Woodworkers’ Supply, and you could buy individual Forstner bits there. You may also want a box of Kleenex or generic tissue, along with sanding and finishing supplies.

I use a 3”x3”x6” spindle blank, with a tight grain (if the blank is a bit smaller, I would use the smaller Forstner bits). Figure in the exterior spindle makes this a pretty project. You’ll also want additional wood for the inside toothpick container itself, again a tight grain (2” diameter, 2” long, but no figure needed); a hardwood dowel that you’ll turn down—3/8” diameter by 4” long is good. Extra wood for additional jam chucks is good.

Steps:

1. Decide on shape of outside of toothpick holder. (This may require redesigns as you go...)
2. Rough-round a spindle blank. Turn tenons on each side of the spindle blank.
3. Mount in a 4-jaw chuck. Shape the body of the toothpick holder, except for the very top of the holder. Mark where the body ends and the lid begins.
4. Part the lid from the body. Finish shaping the top of the toothpick holder.
5. Drill with the 2.125” bit, about 3/16” to 1/4” into the top. This is the recess for the lid.
6. Drill with the 1.875” to the bottom depth needed for the toothpick holder (I use 3.125” deep).
7. Mark the outside at the bottom of the toothpick holder where you will eventually part from the 4-jaw chuck.
8. Finish the top, especially the transition to the recess for the lid. Clean up the recess for the lid using a spindle gouge, or light cuts with a scraper.
9. Sand the inside as needed; pay attention to drilled surfaces if they need sanding. No need to sand the bottom inside of the toothpick holder.
10. Remove the toothpick holder and mount the lid part into the 4 jaw chuck.
11. Turn the lid diameter where it fits into the recess of the body. You’re looking for a slightly loose fit. (You can use the 2.125” Forstner to help you get the initial size).
12. Shape the inside of the lid, like a shallow bowl shape. Drill a 1/4” hole, at least 1/4” deep into the inside of the lid.
13. Shape the outside of the lid. Pay attention that you can seat the lid inside the recess. Sand where the lid will fit into the recess if you don’t have a good finish there.

14. Begin shaping the finial, and removing waste wood from the tenon side of the lid.
15. Remove the lid from the chuck, put the body of the toothpick holder back in the chuck.
16. Use tissue paper, and jam the lid on the body. Bring up the tailstock to support the lid.
17. Finish matching the lid to the body. Turn away most of the tenon & waste wood. Shape the finial at the top of the lid.
 - a. Recommendation: Don't do a pointy finial! You don't want to poke your hand when you lift the lid!
18. Turn away the waste at the top of the finial.
 - a. You may want to check that the tissue paper jam is tight enough. If your jam isn't tight enough, wet the tissue paper. This will give you a *very tight* fit, but as the wood and tissue paper dry, the fit will loosen so you can disassemble the lid from the body.
19. Sand the outside of body and lid through the grits. I like going to 400.
20. Finish the exterior if you wish—I like either plain walnut oil or friction polish. Remove lid. Part body from chuck.
21. Turn another spindle blank to 1.875" diameter. You can start with a tight fit in the body of the toothpick holder as a jam chuck! Make this cylinder at least 1.625" long.
22. Make a jam chuck for the body of the toothpick holder. Jam holder on the jam chuck, and clean up the bottom of the toothpick holder with a spindle gouge. Sand and decorate bottom as you wish.
23. Remove the toothpick holder body. Finish your spindle blank to 1.875" diameter, loose fit in the toothpick holder, 1.625" length minimum.
24. Drill a 1.625" diameter hole using a Forstner bit to the desired depth (try for 1.44" deep, or 1 7/16. No deeper than 1.5" deep!!). Drill a 1/4" hole at the bottom of this body, at least 1/4" deep (or more).
25. Sand as desired. I don't feel the need to go above 220. Finish as desired (walnut oil is fine here, or leave unfinished).
26. Part the bottom. You want to have a cylinder with a bottom here!
27. Turn a narrow spindle, with a 1/4" diameter at either end, with a length that will go from the toothpick container to the 1/4" hole in the lid. Decorate this spindle to show that it was turned, and not a purchased dowel. Finish the spindle with your choice of finish, but sand lightly the ends where you will glue.
28. Assemble and glue. I like Titebond or similar glue.
29. You may buff if you like... But if you buff, be careful not to launch the project!

Hy Tran, New Mexico Woodturners—July 2021 demonstration

Dimensions are inches and approximate. Drawing is not to scale. If using smaller Forstner bits, the lid recess will be 2", the box hole will be 1.75", and the interior of the popup cylinder will be 1.5".

