

Cub Scout Project: Wood Tool Box

Table of Contents

Intro: Cub scout project: Wood Tool Box	2
Step 1: Materials	2
Step 2: Preparation step tools	2
Step 3: Prep step 1	3
Step 4: Prep step 2	3
Step 5: Prep step 3	4
Step 6: Prep step 4	5
Step 7: Scout meeting - what to bring	5
Step 8: Scout step 1	6
Step 9: Scout step 2	6
Step 10: Scout step 3	7
Step 11: Scout step 4	8
Step 12: Scout step 5	9
Step 13: Scout step 6	10
Step 14: Scout step 7	11
Step 15: Conclusion	12

Intro: Cub scout project: Wood Tool Box

The tool box is one of the projects our cub scout pack builds. Its uses few materials and costs less than \$3 per scout. This is a great beginner project. The cub scouts learn how to use a hammer, saw, glue gun, and sanding block.

It takes a little preparation to get things ready for the scouts. The guide is in two parts, Preparation steps and Scout steps. Prep steps are done by the leaders prior to the meeting. The scout steps are done by the kids at the meeting.



Step 1: Materials

Materials:

1" x 4" x 8' pine board (Furring strip). One board per two tool boxes. (~\$2)

1" x 2" x 8' pine board (Furring strip). One board per 8 tool boxes. (~\$1)

1lb box 1-3/8" ring shank drywall nails. One box per 20 tool boxes. (~\$4)



Step 2: Preparation step tools

Preparation tools required:

Miter saw, or hand saw to cut boards

Tape measure

Pencil

Square

Ruler or gauge

C-clamp (1-1/2" or larger)

5/64" Drill bit

Drill press, or hand drill.



Step 3: Prep step 1

Measure and mark the boards to be cut.

The 1"x 2" x 8' board should be marked every 12 inches.

The 1"x 4" x 8' board should be marked for six 12 inch pieces, and two 10 - 1/2 inch pieces.

(The 1"x 4" x 8' board should be marked at 12", 24", 36", 48", 60", 72", 82-1/2" and 93".)

Cut the boards.

Here's a list of cut parts you'll need for a single tool box:

One 1"x 2" x 12" board. This will be the tool box handle.

Three 1"x 4" x 12" boards. These will be the sides of the tool box. (One of these will be cut in half by the cub scout.)

One 1"x 4" x 10-1/2" board. This will be the bottom of the box.



Step 4: Prep step 2

On one of the 1"x 4" x 12" boards, draw a line across its middle (6" from edge). The scout will cut this board in half. It will be used as the tall sides of the box.



Step 5: Prep step 3

Mark pilot holes.

Pilot holes are helpful for younger scouts who are making the tool box. Pre-drilled pilot holes will help the nails start straight and keep them going true.

All pilot holes are 3/8" in from the edge of the boards. Since the thickness of the boards being nailed is 3/4", placing the pilot holes 3/8" from the edge will keep the nails in the center of those boards. If you have a gauge or caliper lock it at 3/8". Place it against the edge of the board, then make a pencil mark at its end. This will give you consistent edge placement of the holes.

Pilot hole locations:

Handle 1"x2"x12": On both ends, in middle of handle. (3/4" x 3/8" from corner)

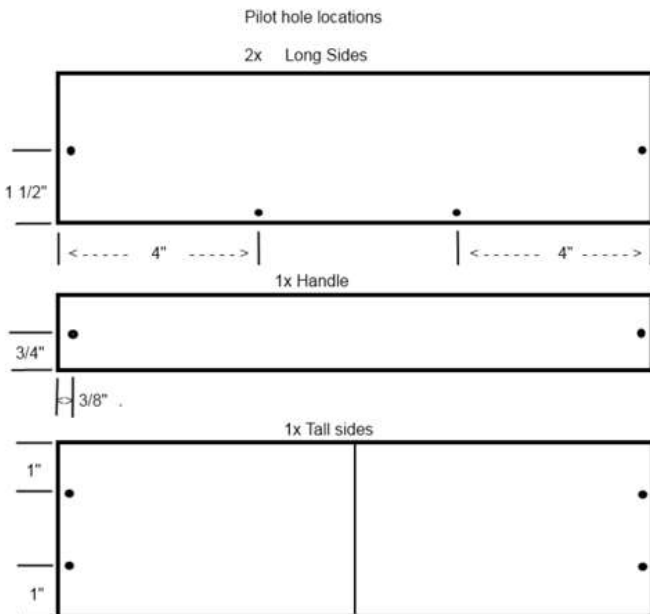
Long sides 1"x4"x12": On both ends in middle (1-3/4" x 3/8" from corner)

Two in line along the bottom of the board (4" x 3/8" from opposite corners)

Tall sides 1"x 4"x 12": Two in line along the left of the board (1" x 3/8" from corners)

Two in line along the right of the board (1" x 3/8" from the corners)

Bottom 1"x 4" x 10-1/2": No holes.



Step 6: Prep step 4

Drill pilot holes.

Drill the marked pilot hole locations with a 5/64" drill bit.

A drill press will give the straightest pilot holes. However a hand drill works as well.

Both of the long sides have the same pilot hole locations. So a short cut here is to clamp both together and drill them at the same time.



Step 7: Scout meeting - what to bring

Materials required per tool box:

One 1"x 2"x 12" board. This will be the tool box handle.

Two 1"x 4" x12" boards. These will be the long sides of the tool box.

One 1"x 4" x12" board. The one marked in the middle to be cut in half. These will be the tall sides.

One 1"x 4"x 10-1/2" board. This will be the bottom of the box.

Fourteen 1-3/8" ring shank drywall nails.

Tools required for the scouts:

Sanding block or sanding sponge (medium grit). One per 2 scouts.

Coping saw. One per 4 scouts.

C-clamp (2-1/2" or larger). One per 4 scouts.

Glue gun. One per 4 scouts.

Glue stick for glue gun. One stick per tool box.

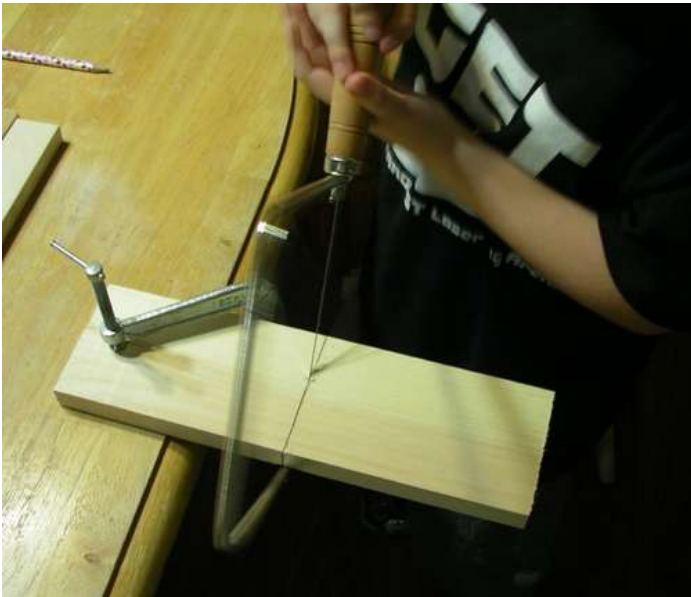
Hammer. One per 2 scouts.



Step 8: Scout step 1

Cut the tall side board in half.

Clamp the tall side board to a table or work bench. Use the coping saw to cut the board in half along the line. The two halves are the tall sides of the tool box.



Step 9: Scout step 2

Sand the rough edges.

Splinters can hurt. Sand away all the rough splintery edges with the sanding block.



Step 10: Scout step 3

Glue, then nail one tall side to the bottom.

The nails are what hold the tool box together and make it strong.
The hot melt glue will hold the boards together while you hammer in the nails.

Get the bottom board and one of the tall side pieces. (The bottom is 1"x4"x10-1/2", the tall side is 1"x4"x6")

Apply glue to the end of the bottom board.

Line up one of the tall side pieces with the end you just glued. Make sure the pilot holes are on the bottom.

Press the two boards together. Hold them for a minute to allow the glue to set.

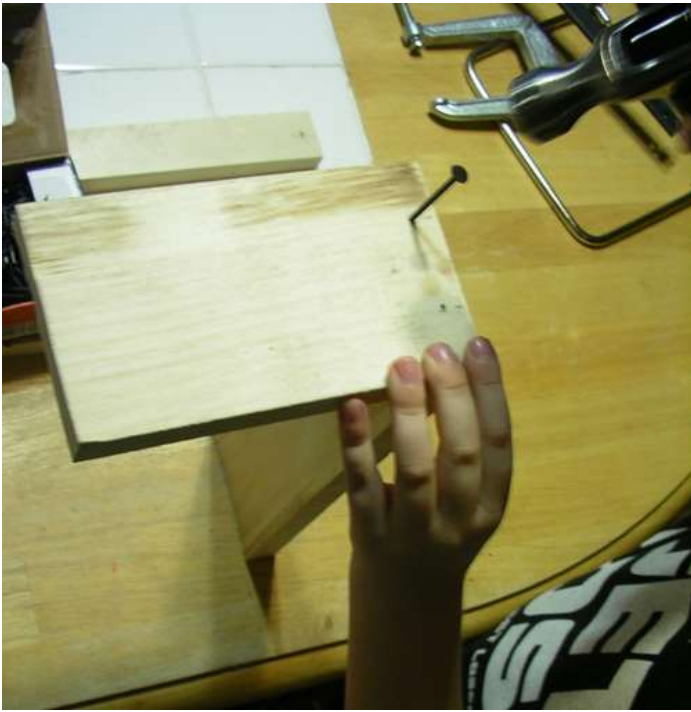
Tip the boards up so the nails can be hammered in.

Place a nail in the hole and hammer it in.

Get a second nail and hammer it into the other hole.

Your done when the top of the nails are flat against the wood.

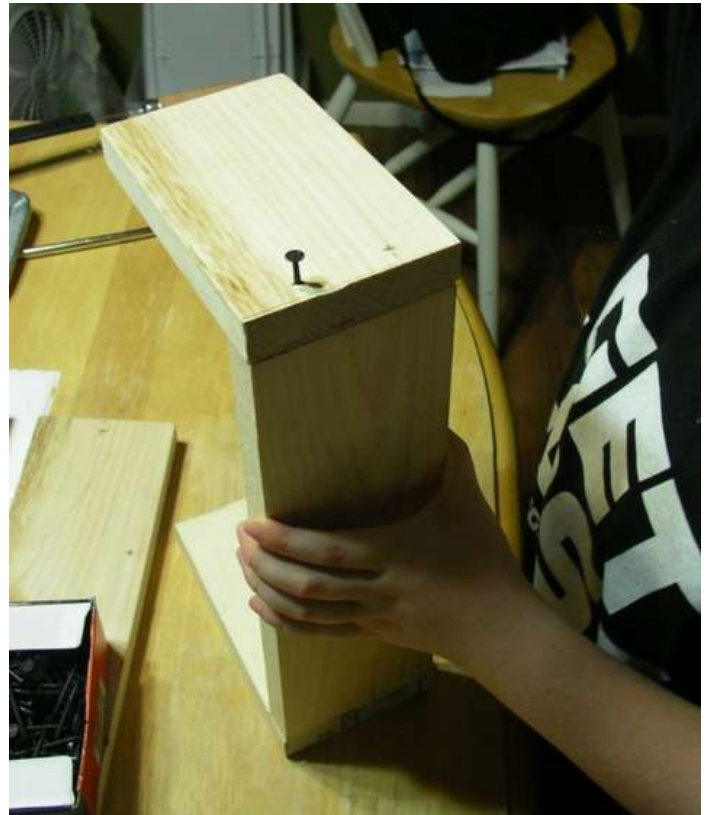




Step 11: Scout step 4

Glue, then nail the other tall side to the bottom. This is a repeat of the last step.





Step 12: Scout step 5

Glue, then nail the first long side.
Apply enough glue to fill in any empty spaces between the boards.
Hold the boards in place while the glue dries.





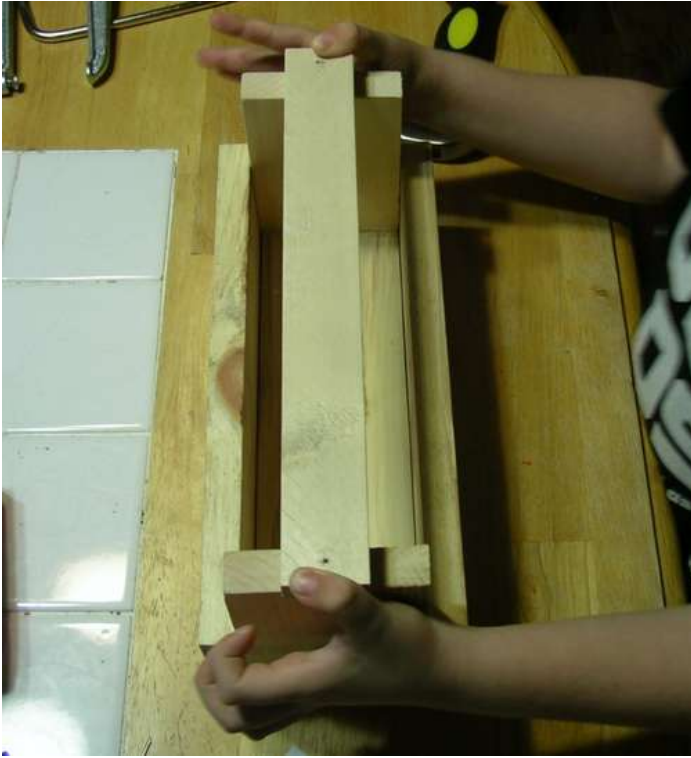
Step 13: Scout step 6

Glue, then nail the other long side. This is a repeat of the last step.



Step 14: Scout step 7

Glue, then nail the handle to the top center of the tall sides.



Step 15: Conclusion

Ta-DA!

I hope you and the scouts have fun making this tool box. But more importantly, I hope the scouts learned some new skills.