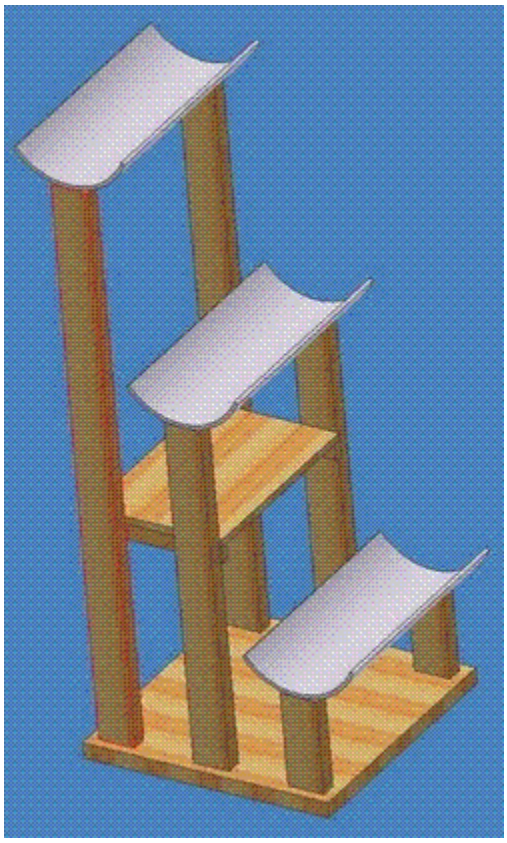
Build your own cat tree

Build the pictured four-perch cat tree measuring 2’ wide, 2’ deep, and 4’-6” high. Depending upon your preferences, upholstery, batting, carpet and/or sisal rope are added to complete the tree. In these plans, upholstery and batting are indicated where carpet might normally be used. This is suggested because cats scratch the carpet to pieces and then eat the pieces. This leaves a ragged, bare patch that is difficult to replace. Therefore, a heavy upholstery material and poly batting are suggested for the perches, shelf and base. However, the use of carpet or upholstery are strictly a preference of the cat and their human companion. Either are accomodated by the wooden structure and plans.

For structural stability and usability, 1×2 supports are used at the tops of the posts, a support shelf is present in the middle of the tree, 2×4’s were used instead of 4×4’s, and two bolts were used per post instead of one. Further, the bolts are recessed so the cat tree doesn’t gouge floors.



Four-perch cat tree

Materials

Perches—one 22” length of 12” Sono tube cut lengthwise into three curved sections.
Posts—two 8’x2”x4” pieces of lumber, each piece cut into 4’-6”, 2’-9”, and 9” lengths.

Supports—three 19” lengths of 1”x2” pieces of lumber (to span the posts at the top beneath the perches), and two 13” lengths to attach the Support Perch.
Support Shelf Perch—One 19”x13” piece of plywood, to span between posts (to act as a stabilizer) Base—two 2’x2’ pieces of 3/4” plywood.
Hardware—twelve 1/4” x 3-1/2” lag bolts, twelve flat washers selected to fit the bolts, heavy wire brad staples, staples (for staple gun), and twenty 1-1/2” wood screws.
Fabric and batting—four 26” squares, and one 34” square in the cat’s choice of color.
Misc.—500’ of 3/8” sisal rope (ten 50’ packs), wood glue, and 3” long nails. Tools—drill, screw driver, hammer, staple gun, wood clamps, measuring tape, pencil.
Alternative: Eliminate the need for lumber and sisal rope by using clean, solid, bark-covered tree limbs or trunks approx. 4” diameter, cut to specified lengths.

Directions

First, prepare posts and base: Post Assemblies:

1. Cut the 2×4’s into 4’-6”, 2’-9”, and 9” pieces (2 of each size).
2. Drill two holes in the bottoms of each length of wood, using a template (see base instructions).
3. Attach the 19” long support 1×2’s between the top ends of each pair of posts, spanning the posts like a beam. Attach the 9” pieces together, and the 2’-9” pieces, and then the 4’-6” pieces. Use nails to fasten these pieces. Put them between the posts, not on top of them.

Assemble the Base:

1. Glue the 2’x2’ pieces of 3/4” plywood together to form one 2’x2’x1-1/2” base.
2. After the glue dries, drill six holes along two opposing sides of the base about 2” from the edge. An easy way to do this is to draw a template on the underside of the plywood base. Draw a rectangle 1-1/2”x 3-1/2” (the actual size of a 2×4) just 1” from the each edge of the base in the corner, and repeat for each corner. Then draw a rectangle 1” from the edge in the middle of the base, and repeat for each side. You will have three rectangles in a row along each side of the base, 1” from the base edge, as shown below. Place two marks inside each 2×4 for the bolt holes.
3. Countersink the holes with a 1” drill bit. This will allow the bolt heads and washers to be recessed into the wood, so you don’t scratch any floors.
4. Cover the top surface of the base with the 34” square of fabric, by centering the base on the overturned square of carpet, wrapping the edges of the carpet around the sides of the base, and securing the fabric with staples tacked through the under side only.

Assemble the posts and base:

1. Attach posts to base with the 3-1/2” lag bolts. Insert a bolt through a washer first, and attach the 9” post assembly in the front. Then attach the 2’-9” post asssembly

in the middle, and finally the 4'-6" post assembly in the rear. This forms a ramp the cats can run up.
2. Do not completely tighten the bolts yet. Bring them close to tight, then back them off a bit.

Attach the Support shelf Perch:

1. Stand the tree upright. Clamp a 13" 1×2 between the 2'-9" and the 4'-6" posts, one on each side, on the inside of the posts. Be sure the base bolts are loose, so the posts are free to align themselves properly. Place the top of the 1×2 supports 21" above the base, and level them.
2. With these shelf supports clamped in place, place the 13"x19" shelf perch on them. It should lay flat, and not wobble. Adjust the clamps and support 1×2's until the shelf lays flat.
3. Once the shelf is laying flat, remove it and attach the 1×2's to the posts more permanently. While still clamped in place, screw them to the posts with the 1-1/2" wood screws (two per post). Then remove the clamps. (A screwdriver clutch drill attachment makes this easy work.)
4. Now screw the 13"x19" shelf to the 1×2 supports. Use three screws per side.
5. Now tighten the base lag bolts.

Attach the Perches:

1. Cut the 12" diameter Sono Tube (available in the Concrete Formwork section of the hardware store) into thirds lengthwise, to form three curved sections 22" long.
2. Place one section on top of a post assembly. Screw it in place using the wood screws. Put two screws in each 2×4 post. Repeat for each perch.
3. Cover each curved section of tube with poly batting and a 24" square of fabric, placing seams on the the under sides of the perches, attaching the fabric with staples. Also cover the Shelf Perch with batting and fabric, stapling to the underside of the shelf.

Wrap the Posts with Sisal Rope:

1. Start at the base of the post, and use heavy wire brads and a hammer. Fasten the rope to the bottom of the post, and begin wrapping. Every 6 or 8 winds, tamp the rope down with a hammer. Fasten the rope in the back of the 2×4's only, so the fasteners don't show.
2. At the shelf perch, we cut small sections of rope and attached them individually around the 1×2 shelf supports. Then we continued winding after we passed the shelf. One 50' pack of 3/8" sisal rope will wrap about 20" of 2×4.