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Workbench vise diy

Home Tools, Gear & Equipment Tools & Supplies Workbenches Family Handyman Our compact garage workbench has an expandable top that folds for extra workspace and pops up when not in use. It also features easy-to-assemble drawers and a shelf for easy storage. And you can build this simple workbench in one day. From the DIY experts of the Handyman Magazine family!It might also be like: TBDTime A full dayComplexity BeginnerCost \$101-250Overview: A compact garage workbench when space is cramped The last time I stopped at my sister's house, my brother-in-law was on the garage floor putting together a tricycle for his grandson. They had recently moved into a new home, and apparently his latest garage workbench hadn't made the trip. I decided to make him a new one. Space was an important consideration. I wanted to build a workbench big enough to be useful, but there was only a few meters between the garage wall and the front of their parked cars, almost like a garage bench of sorts. The money was also a concern-I didn't want to spend much of it. He's, after all, my brother-in-law. Finally, I wanted something easy and fun to build. I came up with a cheap plan with a top that would work just fine for smaller jobs. It has a special top that folds up for those larger projects... Like assembling a tricycle. What it takes to build this garage countertop workbenchTime: One day, not including color and varnishCost: \$135, including hardware, but not the finishSkill level: Beginner in intermediateTools: Circular saw, drill and jigsawExtra desktop when you need it? extra parking when you don't. Total dimensions: 60-1/2" width x 34-3/4" high x 32" depth (or 16" deep, folded) You can download and enlarge Figure A using the button above. You can also download a clipping list, which contains all the part dimensions. The diagram shows the parts 3/4-in. plywood. Accessories 1/4-in. do not appear. You can download and enlarge the cutting charts using the button above. Step 1: Gather materials for your garage workbench and assemble the main componentsPhoto 1: Assemble the main componentsLay the top upside down and connect the sides with six screws 1-5/8-in. Then flip the whole thing up and attach the bottom. Try to place all the wood so the best sides face the outside and the top. Build the top and bottomGing the materials for the garage workbench using the complete list of materials that you can download using the button above. Then cut them 3/4-in. plywood in size after cutting List and Cutting Charts you will also find using the button above. Cut a 15-in. x 8-ft. strip from 1/4-in. plywood to use as a bottom drawer. The rest is the perfect width for the back (E); it just needs to be torn down in length. Do not cut drawer fronts until after the carcass of the workbench is assembled. Cut the 2x4s that make up the top and bottom frames (F and G). Assemble them with two 3-in. screws at each end. The nails I used were made from fir, which is strong but fragile, so as to avoid separation. I predrilled the screw holes with a 1/8-in. bit. Fasten the plywood up and down (A and C) to the frames with 1-5/8-in screws. I countersunk the screws on top so I could fill them with wood filler. I used wood glue in addition to screws throughout this program. Connect the sidesDing the top upside down and connect the sides (B) with six screws 1-5/8 in. Flip the sides and top upside down and place it on the flatter surface available, then connect the bottom with 1-5/8-in. screws as well. Try to place the wood with the fewest defects forward (Photo 1). Step 2: Fasten the drawer rack and dividerPhoto 2: Add a rackSeach the shelf using the drawer divider and some of the 2x4 scraps. To avoid separating the plywood rack, predrill holes through the sides and on the shelf before fastening with screws. Cut a pair of trash 2x4s to the same height as your drawer divider (D). Use the divider on one side and the 2x4 waste on the other as guides to achieve the right height for your shelf (C). Predrill 1/8-in. holes through the plywood on the shelf before installing the four 1-5/8-in. screws (see Photo 2). Use a layout square to highlight the position of the drawer separator. Predrill holes through the plywood and into the divider before securing it in place with four 1-5/8-in. screws both at the top and bottom. Step 3: Plug in the back and build the drawersPhoto 3: Install the drawer guidesInstall the bottom drawer guides first, and then cut a plywood fragment to act as a renegade for senior drivers. Fasten the guides with glue and head finishing screws. Photo 4: Place the drawer fronts perfectly With the drawer box in place, place the front with shims. Fasten the pulls with screws 1-1/4 in. These screws will hold the front in place so you can pull the drawer out and add more screws from the inside. Connect the backUse a configuration square to make sure everything is squared up before you fasten the back (E). If you don't have a layout square, you can count diagonally from top to bottom both ways. If the numbers are not the same, tweak it one way or another until they are. Don't stick the back up-you'll want to be able to remove it when it's time to paint and stain. Predrill the holes, then fasten the back with 1-1/4-in. trim screws. Make your drawersCed your drawer guides (K) from 1x6s. Tear them down to 7/8 inside. Tear down a sacrificial piece of plywood 5-7/8 in. to use as a renegade to achieve the appropriate height for drawer drivers (Photo 3). Screw the guides with 1-1/4-in. decorative screws. Don't forget the glue? screws alone will not be sufficient to keep a drawer full of heavy tools. There is enough plywood left over in this project to build all drawer frames, but 1x6s happen to be the perfect size. So for an extra \$15, you don't have to rip down a bunch more plywood. Build drawer boxes so there is at least one one on each side of the drawer. Use 1-5/8-in. screws to assemble the frames and 1-1/4-in. screws to connect the bottom. Then place the drawer fronts (Photo 4). You can download and enlarge Figure B using the button above. You'll find the part dimensions in the cutting list there as well. Step 4: Install foldable topPhoto 5: Install the folding topNow that the garage countertop section is built for, you can add the folding top. Flip the counter upside down and push the folding top tightly up to it. Use 3/4-in. screws to connect the hinge to the top bench so as not to poke all the way through. Flip the bench upside down and unbutton the folding top (A) tightly on the permanent. To ensure that the screws start straight, highlight the hinge screw positions with a pencil, and use a set of nails to create a starter hole. Use 3/4-in. screws to fasten the hinges to the folding top-the ones that come with the hinges will probably poke in. Step 5: Cut and assemble the support strandsPhotograph 6: Drill the pin hole Make sure the folding top is securely fastened to the support arm before drilling a hole for the hitchhiker pin. When drilling a hole so large, it is easier to start with a pilot hole about half the size. After cutting the support arms (H) in length, use a compass to highlight a half circle at one end of the arms, and then cut them with a puzzle. Cut a 45-degree angle on the other side. With the bench still upside down and the support arm clamped down about 1 in. through the back of the bench, predrill a 1/4-in. hole for delay/spin screw. Start the hole in the center of the circle you made at the end of the arm. Pierce your hand and get on the counter. Then place the lag screws with a washing machine on both sides of each arm. Check to see that they swing back and forth freely. You may need to cut a little off if you rub on the top bench. When drilling holes in the hitchhiker pins, make sure you avoid the 3-in. screws that hold the top frame together (Photo 6). Step 6: Fasten the bracket and molding and apply a finishStox the brace board and screen moldGy, tighten and screw on the benchtop (J) brace board. The tirana board shall be at least 1/4 in. smaller than the opening of the area above the shelf. If countersink 3/8-in. holes in the bottom of the straps, 1-5/8-in. screws will work from bottom to top. Screen molding (Q) helps protect the exposed plywood edges of the tops of the bench. Install the molding with the folding top up, a small gap between the two peaks so the molding does not bind when the top is folded down. Use glue and brad nails, or use a trim gun if you have one. FinishingTo finish the workbench carcass, I used a primer formulated for raw wood, and enamel paint for durability. Be sure to paint the bottom to prevent moisture from wicking up on raw wood. I used polyurethane satin for drawer tops and fronts. It will also be used poly in the areas the drawers come into contact with (painted parts tend to stick together). If the drawers start to bind, try a coating coating drawers and drawer guides. Tools required for this project have the necessary tools for this DIY project lined up before you start-you will save time and frustration. Circular sawDrill bit setDrill / guide - wirelessFrame squareJigsawPaintbrushSpeed squareStraightedgeTape measureReminable materials for this ProjectAvoid last minute shopping trips by having all your materials ready ahead of time. Here's a list.120-grit sandpaperWood glue

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