AROUND THE MAKER WORKSHOP, BROUGHT TO YOU BY DREMEL

By John Edgar Park

» Neaten up your desk with a flush-mounted USB hub

Wires, wires everywhere. I don't like looking at wires, wires everywhere. Even though I have a USB hub, it's a bit of an eyesore sitting on top of my desk, plugged into devices up top, and my computer down below. I decided it was time to embed the hub directly into the surface of the desk. Using the Dremel Multi-Max to plunge-cut the wood desktop, I fit the USB hub into the desk, and attached the hub to the underside using brackets. It's now stable, stylish, and out of the way.

MATERIALS AND TOOLS

- **Dremel Multi-Max oscillating tool** with 1⅜" wood blade, circular drywall/wood blade, and sandpaper attachment
- **Powered USB hub**
- **1" metal brackets and screws (2 of each)**
- **Wood rasp**
- **Sandpaper**
- **Epoxy**
- **Pencil**
- **Ruler**
- **Carpenter's square**
- **Safety goggles**

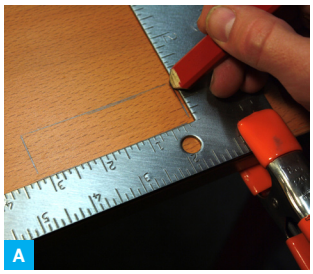
Directions

Step 1: Choose a spot on the desk to place your hub, making sure there is enough clearance underneath the desktop. Measure and mark with a ruler or carpenter's square the spot you'll be cutting away (Figure A). It's good to go about 1/16" short in each dimension so that you can rasp and sand away for a perfect fit. If you cut too large a hole, you'll want to fill the gaps or use a trim to hide the space.

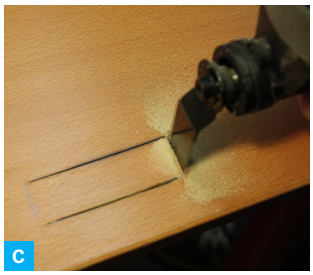
WARNING: It's always important to use safety goggles or safety glasses when operating any power tools.

Step 2: Use the circular drywall/wood blade on the Multi-Max, on a setting between 8 and 10, to carefully begin cutting on the marked lines (Figure B). How you approach this will depend on the dimensions of your hub. I used this blade for the long sides, then switched to the 1⅜" wood blade for the short sides (Figure C).

Step 3: Cut fully through the desktop until you can remove the unneeded plug of wood (Figure D). Check to see if your hub fits (FIgure E). If it's too snug, carefully begin rasping away the excess wood (Figure F).


A


B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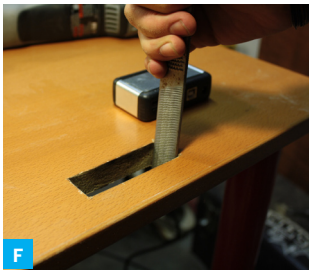
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Step 4: Once the hole is large enough to pass the hub through from the underside, start sanding the interior. I switched to the fine sanding accessory on the Mult-Max and made quick work of it (Figure G). For fine detail, I used some sandpaper. I also put a slight bevel on the edges of the hole.

When you're done, wipe the dust off the desk with a damp cloth. You can also choose to stain the exposed wood and finish it at this time.

Step 5: Next, prepare the hub for mounting. Place the hub into the hole at the height you want (Figure H), then mark it. I have a small bit of it protruding from the surface so that it doesn't become a home for wayward crumbs.

I placed each of the brackets where I wanted them (Figure I) and used the pencil to mark the position on both hub and desk underside.

Step 6: Clean the hub of any dust or grease, then epoxy the brackets to the hub's sides. Go read a book or go play a game while you allow the epoxy to dry (about an hour).

Step 7: When the epoxy has set, place the hub back into the desk and then screw the brackets into place (Figure J).

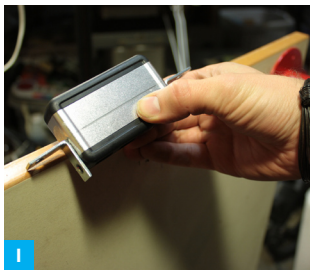
Step 8: Now, you can attach the power and input cable (from your computer below) to the hub. Place your monitor, mouse, keyboard and other USB devices back on your desk and plug them into the hub (Figure K). Looks clean, professional, and custom made!

About the Author

John Edgar Park is the host of *Make:* television and a CG Supervisor at DisneyToon Studios. Find him online at jpixl.net.


G


H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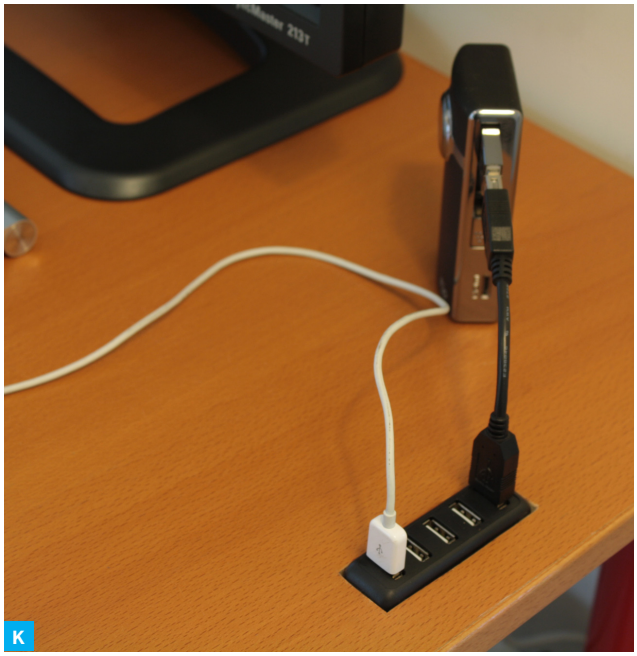
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