



Description: Here is a layout of my latest project. An airfilter for my "studio" (garage)
#001 Materials used were (2) pcs. $\frac{1}{2}$ " CDX plywood 2'x4', (4) 12"x 24" filters, (2) cheap (but not the cheapest) household type and (2) ultra allergen filters by 3M trap down to .5 micron particles, $\frac{1}{2}$ "x1" strips ripped from (1) 1x4x6' pine, (2) $\frac{1}{2}$ "x2"x8' pine mull strips for trim, blue plastic electrical box & 12 hr. timer, various bolts & screws & BEHR texture paint (a miracle product- the duct tape of the paint world).



Description: #002 The 12"x 24" box is assembled. I could have made it 14"x 24" or any size that accommodates filter sizes. $\frac{1}{2}$ " strips glued & nailed to hold filters. 20" long corner blocks glued and nailed for added strength. Electrical box installed in bottom of unit.
*NOTE: $\frac{1}{2}$ "x 1" pcs cut off the end of each side after assembly to allow removal of filters.



Description: #003 After the 1/2" trim is mitered & glued to box face and 1/2"x 1" end pcs., the slots for both filters are complete. 1/8"x 1/2" pine is glued to 1/2"x 1" end pcs. To compensate for the saw kerf and make an airtight fit.



Description: #004 The unit was painted & textured with BEHR texturing paint & plastic loop rollers. Paint was applied with a 6" drywall knife, smoothed and then textured. The next day I "knocked" off the peaks created by the loop rollers & lightly sanded the entire unit any really rough spots w/ a drywall sanding tool.



Description: #005 Here is the assembled & textured box ready for a finish coat of gloss paint. The blower hole has been cut and all parts, including the blower, dry fitted prior to the painting/texturing process. *NOTE: Mitered end pcs. installed with screws & cup washers for removal of filters.



Description: #006 A used 1200 CFM blower obtained from a friendly local HVAC contractor (FREE if you ask nicely and smile!) the five wires allow me to pick the blower fan speed from low, med-low, med-high, or high. Use two (white & blue in my case gave me a med-high speed) and then wire nut each of the ends of the remaining three for safety.



Description: #007 All of the parts are fitted, eye-bolts are ready for installing (eyebolt holes are drilled through the top and the 1/2" x 1" strips so that the bolt is 2" long providing great holding strength (this thing is a bit heavy). 3/8" lag eye-screws were installed in my studio (garage) ceiling.



Description: #008 In position and working like a "Breeze" (no pun intended). A 12 hour timer is installed in the electrical box. A galvanized, expanded wire, mesh (used for plastering) covers the blower outlet. It's available from most home centers and is cheap & strong.

The next project is a Cyclone dust collector so that my 38 yr marriage to SWMBO will be saved!

Approximate total cost: \$85

Air Tech 250 CFM filter: \$269.00

JDS- 650 CFM Airfilter: \$299.00

Home-built 850 CFM: Priceless!

Ray Lanham – WOW site 3/11/05