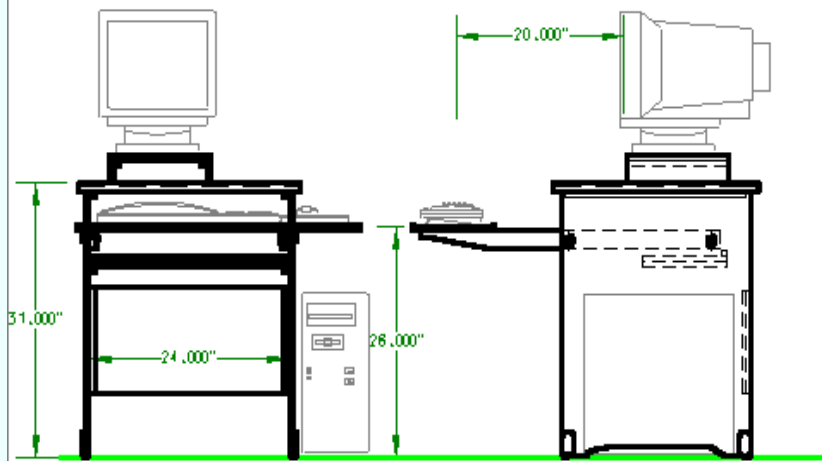


Typing Stand Computer Desk

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TSTAND.SKF
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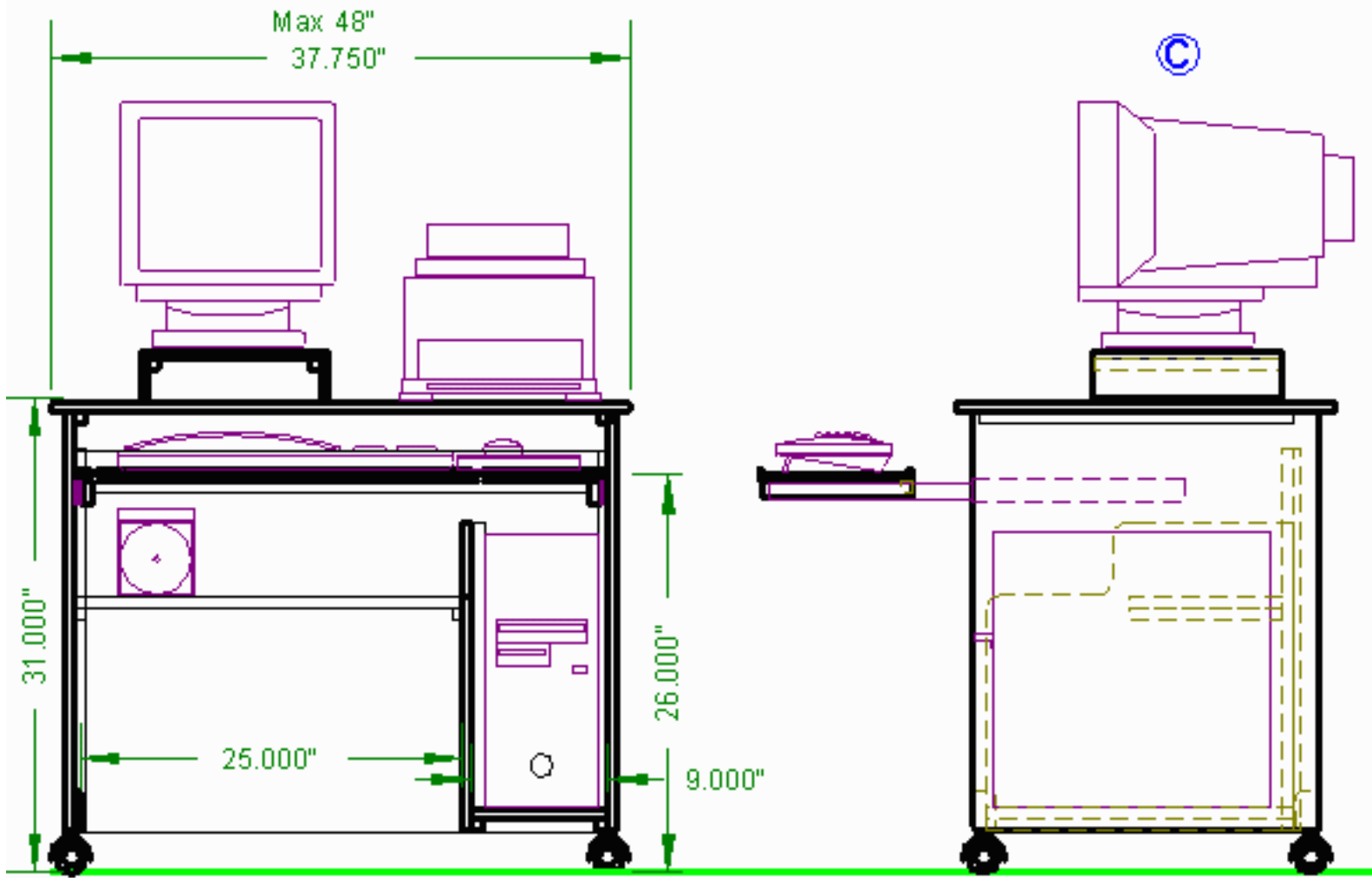
Typing Stand Computer Desk

When you first experiences the discomfort of Repetitive Strain Injury, it is a big help to reduce stress on your hands immediately. You need a simple, low-stress desk that you or a friend can build quickly. It must be adjustable so that you can work out the exact dimensions that are right for you. Later on you can build a pretty desk to take its place.

The Typing Stand Computer Desk is this desk. It is based on the simple typing stand that was held a typewriter in so many offices for so many years. It can be made in one afternoon from a single sheet of plywood and some scrap lumber in one afternoon. It can get you some relief today. You can also adjust the keyboard height, the monitor height, the keyboard to monitor distance, and mouse left or right by moving a few bolts and screws. You can find the layout that is just right for you.

We even have an exercise on our Web Site to help you find just the right dimensions for you. It is [Air Typing](#). You can customize this desk for your exact needs in a couple hours working with a friend. If you are under a doctor's or physical therapists care, follow any instructions they give you very carefully.

You can buy all the materials for this desk at your local home store. Have the plywood sheet cut there so it can be easily carried in nearly any car.



We also have a slightly larger version of this desk that is on casters. The cost of the materials is slightly higher, but it features roll-around convenience, room for a printer, and a pull-out keyboard. This version is handy in a rec room or if you want to quickly roll the computer into a storage area. You can get these drawings by asking for the roll-around version in the text box.

• Download the Detailed Drawings

1. Desk Construction

You can make this desk by:

1. Downloading the drawings and this text.
2. Studying this information and locating the materials.
3. Purchasing all the materials locally.
4. Having the plywood cut.
5. Hand cutting and drilling the small pieces.
6. Gluing up parts.
7. Assembling the desk.
8. Finishing all pieces

2. Discussion of Sketches

After you download the sketches, these notes will help you understand them more completely.

1. Typing Stand Computer Desk

The front view shows the desk with the mouse on the users right and the computer in the tower position. The monitor sits on a small stand that can be made to the height you need. The keyboard shelf is shown at 26 inches high which puts it near most people's laps but you can set it at any height you need. The width is shown at 25 inches which allows the desk to be made from a single sheet of plywood but does not provide room for most printers.

The side view shows the center of the keyboard 20 inch out from the monitor face. This can be easily adjusted by the length of the keyboard support arms. The desk sits on simple feet but you can shorten the sides and add casters if you like. The back and internal shelf help stiffen the desk so that it feels solid.

2. Typing Stand Commuter Desk, Top View, Sketch #2

This sketch is shows the desk as a small nearly square top with a long keyboard shelf mounted well out from the front. The keyboard shelf is longer than the table top to allow room for the mouse. The keyboard shelf may extend either to the right of left depending on the side you need the mouse.

3. Typing Stand Computer Desk, Plywood Layout, Sketch #3

This sketch shows the layout of the desk pieces on one 4-by-8 foot by 1/2 inch plywood. The top is double thick. Dimensions for first three cuts are shown. These cuts can be made at the home center so that you can easily get the materials home.

4. Typing Stand Computer Desk, Stick Pieces, Sketch #4

These are the pieces of wood need for the desk. Most are used as screw blocks to hold the plywood pieces together. They can be purchased as molding or (much cheaper) be cut from scrap wood if you have a power saw.

3. Materials

This Desk is made from a single sheet of 1/2 inch plywood and a few sticks of wood. The parts are assembled with glue, wood screws, bolts, and brads.

1. Wood

Plywood:

- 1 -- Fir, .50 in., A/C, 4x8 feet, \$24.00 each -- \$24.00

(15/32 in. thick plywood is OK)

Molding:

- 12 ft -- Pine, .75 by .75 inches, \$.37/ft -- \$ 4.44

(.5 by .75 stock is acceptable, or cut them from scrap lumber)

- 6 ft -- Pine, .25 quarter round, \$.35/ft -- \$ 2.10

Wood Subtotal: \$30.54

2. Hardware

- 4 -- Feet -- \$ 2.20
- 100 -- Screw, flat head, #8 1 inch -- \$ 3.20
- 4 -- machine Bolts, 1/4 inch, 1.5 inches long -- \$.40
- 4 -- 'T' Nuts, 1/4 -- \$.75
- 4 -- Flat Washers, 1/4 -- \$.20

- 4 -- Finder Washers, 1/4 -- \$.75
- 1 box -- Brads, 5/8 inch -- \$ 1.00
- 8 oz. -- Woodworker's Glue -- \$ 3.80

Hardware Subtotal: \$12.30

3. **Finish:**

- 1 qt. -- Paint, oil based -- \$ 7.00

Finish Subtotal: \$ 7.00

4. **Omissions and Contingencies (~20%)**

(Tax, sand paper, etc.) \$10.16

5. **Estimate Total Cost \$60.00**

This is only an estimate (made in the August 1998). The price may vary in your area. We save some money on the prototype by cutting all the screw blocks from scrap wood.

4. **Tools**

This desk was designed to be build using only a few hand tools that a student or home owner might have, purchase at reasonable cost, or borrow. These tools are all useful for general around-the-house maintenance and can fit in a tool box.

1. Electric Drill, 3/8 chuck
2. Screw Mate bit for #8 screws -- \$6.20 new
3. Miter Box and hand saw -- under \$20.00 new
4. Tri-Square
5. Screw drivers
6. Hammer and small nail set

You will also need sand paper, paint brushes. etc. It would be nice to have a block plane and a four-in-hand rasp.

5. **Building Your Desk**

This is your desk and you can build it to suit your likes and needs.

1. **Your Custom Heights**

Work out the best height for the monitor and keyboard for your personal needs. The exercise [Air Typing](#) on our Web Site shows how to do this in detail. The basic idea is to find the arrangement that is least stressful for you. The keyboard shelf will probably be just above you lap.

Also decide if you want the mouse on the left or right side. You may also want to cut squares of scrap wood a little bigger than you mouse pad to raise the mouse up by about one inch.

2. **Casters?**

Before starting you might want to consider if you want to put casters on this desk. If you do then you will need to shorten the length of the sides by the height of the casters. Four blocks are shown to thicken the desk sides for the caster mounts.

3. **Cutting the Plywood**

Sketch #2 shows the plywood lay out with the first three cuts shown. The dimensions for these cuts make allowance for the saw blade width of future cuts. It is simplest to have these cut made at the plywood supplier and so that you can easily bring the pieces home.

The rest of the cuts can be made with any fine toothed saw. A jig saw working against a straight edge does well and can handle the cut outs at the bottom of the sides. For the prototype we used a plywood blade in a radial arm saw and a jig saw.

4. **Gluing the Top**

The top consist of two pieces of plywood glued together. Cut the two pieces as close as you can to exactly the same size. Glue the two 'C' sides together and clamp and weight the top while it sets.

When the glue gets gummy (about 20 minutes) scrape off the excess with a putty knife. Pretty up the edge with a block plane, rasp, saw, or sand paper.

5. **Building the Sides**

The two sides have the all the screw blocks glued and screwed to them. Later the back and

shelf can be screwed to the blocks without glue so that the desk can be taken apart. The shelf screw blocks can be set at any convenient height. The back screw blocks should be set in so that the back is flush with the side edge.

The four foot block simply thicken the bottom of the sides so that it thick enough for feet or casters. The blocks are glued and bradded on and may be placed on the inside or the outside of the sides.

6. **Assembling the Base**

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Glue and brad a strip of wood the the back of the shelf to serve as a back stop and to stiffen the shelf.

Drill pilot holes for the screws and install the back and shelf without glue. Place the top on the floor with the best side down and the best edge forward. Carefull center the base upside down on the top and attache it with screws only.

7. **Building the Keyboard Shelf**

Cut two pieces of quarter round to match the length of the keyboard shelf. Cut the head off one of the brads and use it as a drill bit. Careful drill pilot holes for brads every six inches along the quarter round. Glue and grad the quarter round to the front and back of the keyboard shelf.

Glue the two pieces of each keyboard shelf support arm together. When gummy, scrap off excess glue. When dry flatten the area where the keyboard shelf will set. Drill two holes and install the 'T' bolts in these supports.

8. **Installing the Keyboard Shelf**

Clamp or temporally screw the keyboard support arms to the sides of the desk. Play with the height and distance in until you have the keyboard height and monitor to keyboard distance you need. Mark the 'T' bolt holes and drill them for the 0.25 inch bolts. You may drill a hole pattern in the side if you want some adjustment capability.

Attach the arms with the bolts, flat washers, and finder washers. Finder washers are simply large washers that spread the force over a larger area of the wood.

Set the keyboard shelf on the support arms. Decide if you want a left or right mouse and screw it in place with four screws. Do not glue it as you may want to change the mouse

position later.

9. Building the Monitor Stand

If you need the monitor to be higher than the desk top you may build a small monitor stand to raise it slightly. The height you need may depend on the type of glasses you wear but your neck must be at a comfortable angle.

The sides of the stand can be any width you need and are better made from scrap boards rather than the plywood pieces shown.



6. Finishing

You may finish your desk any way you like. You can simply paint the desk if you plan to use it only for a short time or you can do a little better job on the finishing. We recommend:

- Disassemble the desk.
- Fill the Plywood Edges
- Sand
- Prim with thinned shellac
- Sand with fine paper
- Paint with oil based enamel
- Sand with fine paper
- Paint with a second coat of enamel

The plywood edges require special attention. Fill and seal all the exposed plywood edges with the following steps:

1. Insert splinters of wood and glue into all open spaces. These should be loose fits and not forced in. Do not cut them off until after the glue is dry and then use a sharp knife.
2. Rough sand all edges. Round off the outside plies very slightly.
3. Fill visible edges with wood putty. Force the material hard into the exposed edge with a putty knife.
4. Fine sand all edges.
5. Seal the edges with sealer, thinned shellack, or thinned paint.
6. Let dry completely
7. Sand again with fine paper.

First fill all visible holes with glue and wood splinters. Toothpicks work well. Let dry and sand with course paper over a wooden block. Fill with wood putty (I like the powder you mix with

water). Let this dry thoroughly and sand again. Seal with a thinned coat of shellac. Sand again and refill. Sand again, seal again, and sand with fine sand paper. In the process you can round the edges of the plywood a little bit. The edges are now ready to be painted.

Priming the wood with thinned shellac help seal the wood, and helps the paint both to stick and to cover more area.

Two coats of oil based enamel should last for many years.



7. Completion

All that is left is to reassemble the desk, and install the computer cables.

1. Cabling

Detailed [cabling instructions](#) and plans for a [remote power switch](#) are given in our Web page under 'Freebies'. The tie wrap mounts described there will help to keep cables neat and out of the way. The remote power switch is much easier to use than several hard-to-find switches.

