# VORLD COMPLETE PLANS



JD Freedman

# Swift Study Guide #2

**World Class Editing Desk** 

**Introductory Video** 

# Swift Study Guide #2 World Class Editing Desk

By

JD Freedman

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For permissions and other inquiries,

Contact: <u>SwiftStudyGuides@Gmail.com</u> <u>www.swiftstudyguides.com</u>

## **Instruction Manual for Assembling Your Custom Video Editing Desk**

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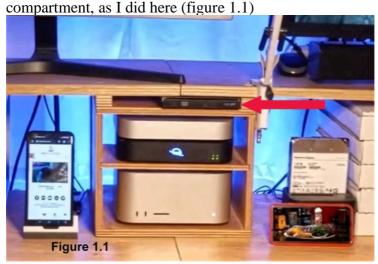
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### 1. Introduction

### 1.1 Project Overview

This guide will walk you through the steps to construct your custom video editing desk. The desk is designed with optimal functionality for video editors and it can be easily dismantled and transported in a full size car. We say "Custom" because this design can be customized for your particular equipment storage needs using ¼ and ½" spacers to create nooks and crannies for your cell phones, tablets, hard drives and other accessories. With a place for everything and everything in its place you will never waste valuable edit time searching for "things" that you need in the middle of an edit session. I strongly recommend that you watch the video tour and study the photos and diagrams before you (or the carpenter you may opt to hire) start your build. If you decide to create a small ½" space on top of the central computer



to hold my iPhone and a DVD player than you will have to add another half inch to the height of the ½" thick plywood shelf supports at each end of the Monitor Shelf, increasing them from 8.5 to 9 inches in height. If you decide you want to install rackmounts on either side of the space as pictured in Figure 1.2 below than you will have to cut out all 4 supports as shown in the ½" cutting guide. You would then screw the rackmount rails to their inside surfaces. There's enough space adjacent to parts 3.6 D-G to add as much as an extra inch to their height. If using rackmount angles + L brackets, the front L brackets should be placed behind the rackmounts rails.



The possibilities are endless so just the basic design is covered here but I encourage you to innovate to meet your specific needs. You should have enough 1/2" and 1/4" wood available to cut as many 12-inch-long strips for spacers as you may need to add storage areas like the two optional 19" wide ones pictured in Figure 1.3. There are two spacers in the current 1/2 cutting guide to use as examples. You may also opt to avoid the use of angle brackets by just screwing into the 1/2" vertical supports



from above and below.

I didn't use glue with the pacers, I just predrilled the holes and screwed them together so I can adjust the height later if needed. One note, you may choose to stain and then coat all wood surfaces with polyurethane. I didn't use stain because I preferred a light-colored work surface, and I didn't bother to coat all the wood only the desktops and shelf. You may consider applying the finish to the desktops and monitor shelf at the beginning and setting those pieces aside so that they are dry and ready to install by the time you finish assembling the rest of the desk. We waited until the desk was assembled and applied the finishes as step #4. It is recommended that you apply at least two coats of varnish or polyurethane, sanding in between the two coats. Also, it was my intension to leave the monitor shelf as one 8-foot-long piece but the carpenter I was working with cut it in half your choice, it works equally well either way.

Feel free to customize this design to fit your needs. When I built the prototype desk I owned a pair of speakers that were about 12 inches wide 8 inches tall and 12 inches deep that I used to support the monitor shelf and I cut some 1 inch by 12 inch strips of plywood to

stack together as spacers to raise the shelf up above the speakers so I could store my laptop, a tablet and a USB charging block , in that space on either side.

The current design has ½" thick vertical uprights on the ends so you don't need those speakers for support. This way you can place small speakers on either end that are not part of the support structure. But if you still want spaces to store stuff like the ones, I had on top of my speakers just cut the two 12"x19" pieces of 1/4" plywood marked "optional" on the spread sheet (2.4).and screw them to the bottom of the shelf with spacers or cut sides the height you want out of ½" plywood. Predrill the holes and use thin enough screws so you don't split the wood. The size and number of screws and brads will depend on your exact configuration but 1.5. inch long wood screws should work fine on the structural pieces and screws that are 1/8 to 1/4" shorter than the plywood you are attaching to should be used assembling the shelves.

### 1.2 Required Tools and Materials

For this project, gather the following tools and materials:

### Tools:

Circular saw or table saw, Drill, drill bits + screw bits Brad stapler, Hammer, #2 carpenter's pencil Measuring tape. Screwdriver set, Stapler Sanding block or electric sander

### **Materials:**

- 1 3/4" Sheet of Plywood (desktops/shelf)
- 1 1/2" Sheet of Plywood (drawer ends/supports)
- 1 1/4" Sheet of Plywood (drawer bottoms/shelves)
- 2 8' 2x2 Pine (six 30" legs)
- 2-8' 1x4 Pine (four 34" sides + two 28" centers)
- 8-16 L brackets, 6- 1.25" angle irons, screws, brads, glue Cable management accessories 6' of cable wrap, zip ties Sandpaper and wood finish

### 1.3 Safety Precautions

Always wear safety glasses and hearing protection when cutting or drilling. Ensure your workspace is wellventilated and keep your tools in good working order.

### 2. Cutting Guide - First make ALL the cuts.

As you measure & mark the pieces to be cut also label each one as shown in the cutting guides with a #2 pencil so those labels can be easily removed. A table saw is much preferred for making these cuts, especially the dados for the center shelf of the Computer Compartment. This compartment was designed specifically to accommodate a Mac Studio, with a mac mini and OWC ministack positioned above it, but you can adjust the size for the computer of your choice. For a full-sized computer, I would suggest just 'placing it on the floor below the desk. In that case I still recommend creating this compartment as a central support for the monitor shelf, but you may opt to replace it with one or two simple shelf supports like those used on each end, if you feel this is a better use of the available storage space under the monitor shelf for your equipment setup.

### 2.1 Cutting Diagram for 3/4" Plywood

Refer to the attached diagram to cut the 3/4" plywood into the necessary pieces for your desktops and monitor shelf. I suggest cutting the shelf first.

### 2.2 Cutting Diagram for 1/2" Plywood

Cut the 1/2" plywood for the base to support the drawers and upright supports according to the attached diagram Excess wood can be used for 1x12 inch spacers.

### 2.3 Cutting Diagram for 1/4" Plywood

Cut the 1/4" plywood for the bottom of the drawers, and horizontal parts of the central computer compartment and the optional accessory shelves, according to the attached diagram. Use extra wood for 1x12 inch spacers.

### 2.4 List of Cut Pieces

After cutting, you should have the following pieces:

3/4" Plywood: 2 Desktops, 1 Monitor Shelf

1/2" Plywood:4 Computer Compartment sides pieces

2 Drawer Bases, 4 Drawer Backs, 3 Drawer fronts:

2-4 Monitor Shelf supports, 5 Cross braces,

2 Keyboard Drawer retainer strips,

1/4" Plywood: 4 Drawer bottoms

3 Computer Compartment shelves

Accessory shelves (optional) 2 pieces

2"x2" pine: 6- Legs 30" long

1"x4" pine: 4 -34" sides, 2 -28 "centers

1- 3/4" 4'x8' Ply	1- 96"x12"	2- 47&7/8"x36"	
1- 1/2" 4'x8' Ply	2-26"x1.5"	2-23"x1.5"	2-14&7/8"x1.5"
	1-17&7/8"x1.5	2-44&5/8"x34"	4-12"x8.5-9.5"
	2-1"x8"	2-6"x8"	2-3"x8"
1- 1/4" 4'x8' Ply	1- 26"x34"	1- 23"x34"	1- 17&7/8"x34"
	1- 14&7/8"x34"	2- 10.5"x12"	1-9.75"x12"
	2-12'X19" (optional)		
1-8' 1x4	2-34" + 1-28"	•	
1-8' 1x4	2-34" + 1-28"		
2-8' 2x2	6-30" 2x2		

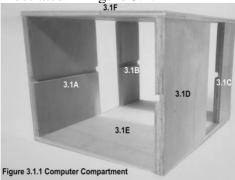
### 3. Assembly Instructions

### 3.1 Central Computer Compartment

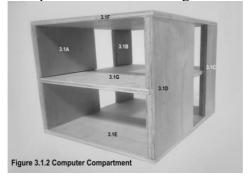
1. Cut a <sup>1</sup>/<sub>4</sub>" wide, <sup>1</sup>/<sub>4</sub>" deep dado @ 4.25 inches above the base of all 4 pieces (#3.1A-D)

2. Apply a bead of wood glue along the lower edge of all 4 pieces (#3.1A-D) and use the brad nailer to attach them along both 12" edges of piece #3.1E as

illustrated in Figure 3.1.1



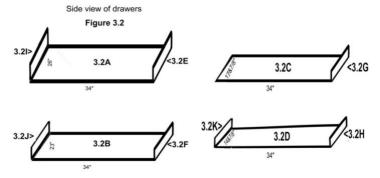
- 3. Insert the central shelf #3.1G in the Dado you cut earlier to make sure everything lines up properly.
- 4. Apply a bead of wood glue along each top edge of all 4 pieces #3.1A-D see Figure 3.1.2



5. Rest piece #3.1F on top of this assembled compartment and use the brad nailer to attach it to the 4 upright pieces along both 12" edges of piece #3.1F as illustrated.

### 3.2 Assemble the 4 drawers

1. Layout panels 3.2 A-D on the floor or a large worktable. One at a time glue four 1.5-inch x ½" pieces of matching length (3.2 E-H) to the rear ends of each of these ¼" drawer bottoms as illustrated and secure in place with the brad nailer.

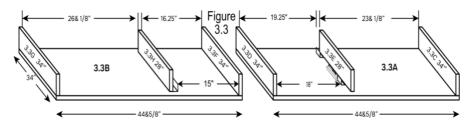


2. Next glue three 1.5-inch x ½" pieces of matching length to the front ends of 3.2 A, B+D ½" drawer bottoms as illustrated (Figure 3.2) and secure them in place with the brad nailer, leaving the front edge of 3.2C bare — this is where your main keyboard will live.

### 3.3 Base of Table/Drawer Support

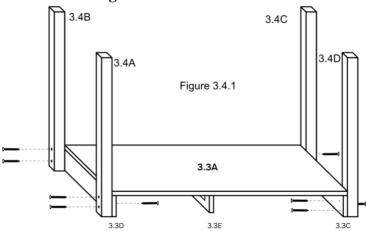
Position the two 1/2" panels 3.3A. And 3.3B next to each other on the floor or on a large worktable. With 3.3A to the right of 3.3B. Beginning with 3.3A glue

the 34" 1x4 (3.3C) along its 34" right hand edge so its ends are flush with the 44&5/8" sides of the panel. Secure in place with the brad nailer. Now repeat this action on 3.3A's left hand side, attaching the 34" 1x4 (3.3D). Next orient the 28"1x4 (3.3E) in between these two 1x4's oriented in the same manner except each end of 3.3E will be inset 3 inches from the 44&5/8" sides of the panel. The vertical surface of 3.3E on its right-hand side will be 23&1/8" from the inside surface of 3.3C and the vertical surface of 3.3E on its left hand side will be 19.25" from the inside surface of number 3.3D Attach 3.3E in the middle of 3.3A in the same manner with glue and the brad nailer.

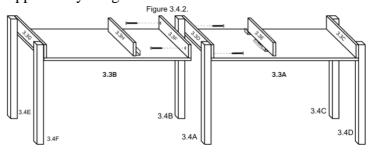


Now repeat this entire process using the 34x44&5/8" panel 3.3B that you placed to the left. The only difference between these two panels will be how you orient the 28" 1x4 (3.3H) in the middle. It will be inset 3 inches from the 44&5/8" sides of the panel. The vertical surface of 3.3H on its right-hand side will be 16.25" from the inside surface of number 3.3F and the vertical surface of 3.3H on its left-hand side will be 26&1/8" from the inside surface of number 3.3G. Attach 3.3H in the same manner with glue and the brad nailer.

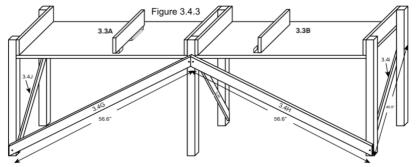
### 3.4 Install the legs & cross braces



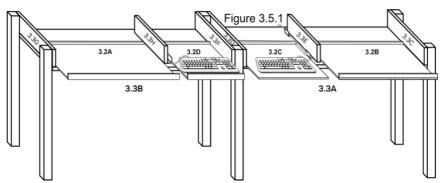
1. Now screw four 2x2 x 30-inch legs (3.4A-D) to the outside 4 corners of 3.3A so the tops of the2x2s line up with the top of the 1x4s. Turn it upside down so this base is now a free-standing table supported by 4 legs. We then take the remaining two 2x2s (3.4 E+F) and screw them to the outside left corners of the left-hand base built on 3.3B. With those two legs in place we stand 3.3B up so that it is in direct contact with the 2 legs screwed to the left side of 3.3A. We can now screw 3.3B to those legs and we have assembled the base of our desk supported by 6 legs.



2. Next we screw cat braces in place to stabilize the legs. Starting with 3.4 G+H cut the ends at a 45-degree angle so they can meet at the top of the rear center leg and screw them each into the lower end of the rear side leg on their respective sides. Then screw braces 3.4i-J in between each rear and front leg by screwing them into the side of each outside rear leg at the bottom and those front legs at the top. Then the last brace will be screwed to the side of the center front leg at the bottom and the center rear leg at the top.

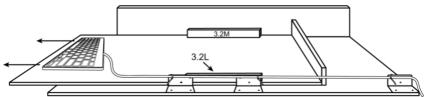


### 3.5 Keyboard Tray Installation and cabling

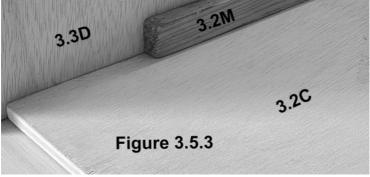


Now working on the right hand side of the desk take 3 of the 1.25" angle irons and line them up along the left

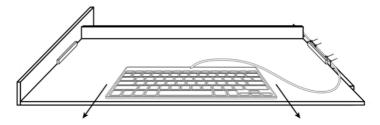
hand side of the 28" 1x4 (3.3E) running down the middle of the plywood on the left so that 1 side of each angle iron is flat against the plywood with its inside edge touching 3.3E and the outside edge forming an upright "wall" 1.25 inches away from the center 1x4 (3.3E). Space them out so that one is at close to the rear of 3.3E the middle one is more than 17 inches from the front edge of the ½" plywood. Screw the rear angle iron in place and mark where the other two will go. But before you screw the front two in attach one of the 8-inch-long strips of ½" thick plywood (3.2L) to both these angle



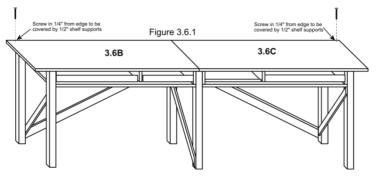
irons so that when they are put back in place it is suspended slightly more than a  $\frac{1}{4}$  inch above the  $\frac{1}{2}$ " inch base surface of plywood. You can use drawer 3.2C to judge the right height and then screw the other 1x8 inch strip (3.2M) into the 1x4 (3.3D) opposite it.



The space between the angle iron and the central 1x4 (3.3E) can be used to run cabling for keyboards, mics or other accessories from front to back without cluttering up the desk. You can install the three remaining angle irons in a similar fashion in the 16.25-inch space on the left-hand side of the desk. Put the other 3 drawers in place.

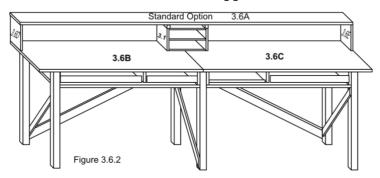


### 3.6 Desk Surface & Monitor Shelf Installation



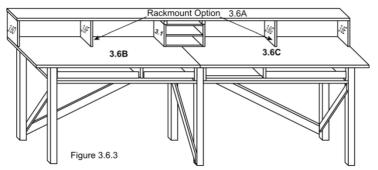
**1. Place the desktops** on the assembled base so the two halves 3.6 B+C meet in the middle. Secure with screws in the rear corners under where the shelf supports will be installed to avoid visible fastenings on the desk surface.

### 2. Position the Monitor Shelf Supports:



Place the central computer compartment (3.1) in the rear center aligned with the rear edge of the desktops and screw in place. Attach 4 L brackets to the inside corners of both shelf supports (3.6 D+E) as illustrated (figure 3.6.2) using 3/8" screws. Line up the outside surface of both shelf supports with the respective outside edge of the desktop in the left and right rear corners of the desk. Screw the bottom brackets of each shelf support to the top surface of the desk with 5/8" countersunk screws.

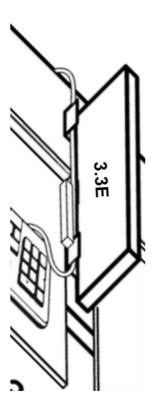
### 3. Place the monitor shelf



(3.6 A) on top and secure with 5/8" countersunk screws drilled through the upper L brackets from the bottom. You can place the optional pieces 3.6 F+G on either side of the center support.

### 4. Cable Management

### **4.1 Cable Routing Suggestions**



Organize your cables in the cable channels formed by the angle irons by using <u>cable wraps</u> fastened to the holes in the L brackets with zip ties or twist ties. You can also staple zip ties or Velcro wraps to hold cables or cable wraps in place at other points throughout the desk. This will keep your workspace neat and functional.

### **5. Finishing Touches**

### 5.1 Sanding and Finishing

### 1. Sand All Surfaces:

Smooth all surfaces with fine-grit sandpaper. Wipe down to remove dust.

### 2. Apply Finish:

Use a wood finish of your choice to protect and enhance the wood's natural beauty.

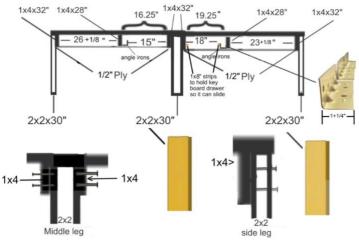
These are the 11x11x2 inch white storage boxes I used.



### **Gallery**











		1/4" 4x8 plywood		12"	19" 3.6H	12"	12*	19° 3.6i	12*
	26"	23"	17&	7/8"	148	7/8	"		_
34"	3.2A	3.2B	34"	2C	34"	3.2D	105" 105" 12"	9.75*	105° 105° 12"

