



Ultimate Arcade

By CyberTech Design

www.cybertechdesign.net

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II. Before you begin

It is highly recommended that you measure all doorways and stairways leading to where your Ultimate Arcade cabinet will be placed. You will need a minimum clearance of 27 inches in all doorways and hallways to transport the finish cabinet. Be sure to read through this entire document before assembly.

IMPORTANT: REMOVE TELEVISION OR MONITOR BEFORE TRANSPORTING THE ULTIMATE ARCADE CABINET.

III. Tools required

Please use safety goggles when cutting materials and during assembly.

- Electric router
- Circular saw
- Jig saw
- 2 " hole saw
- 1 1/4 " hole saw
- 1 1/8 " hole saw
- 1/8 " drill bit
- Paint brush
- Paint roller
- Paint tray
- Screwdriver
- Wire strippers
- Tape measure
- Metal ruler
- Pencil / Pen
- 5/16" roundover router bit



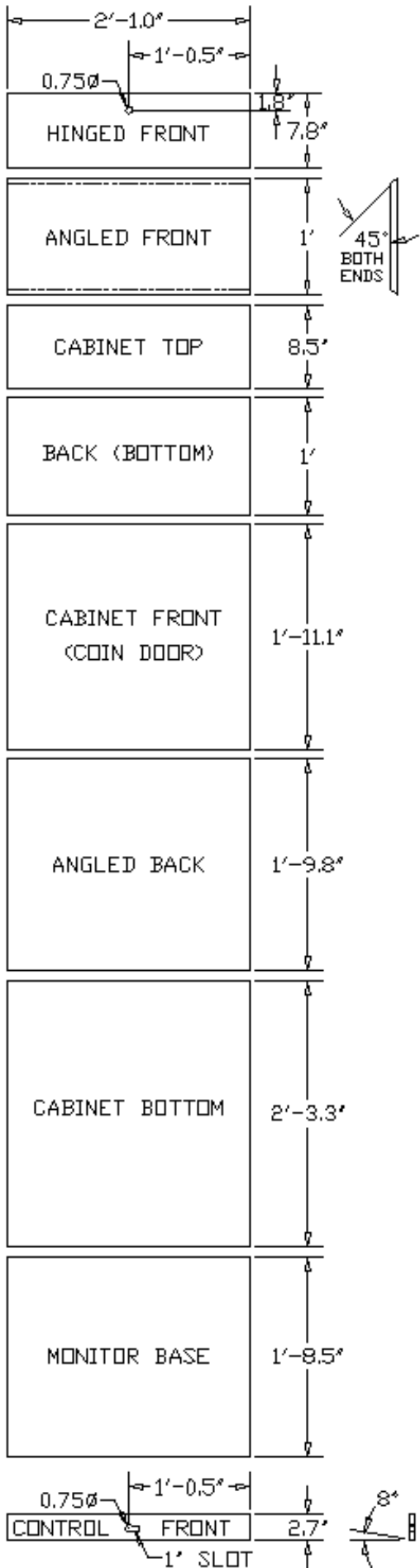
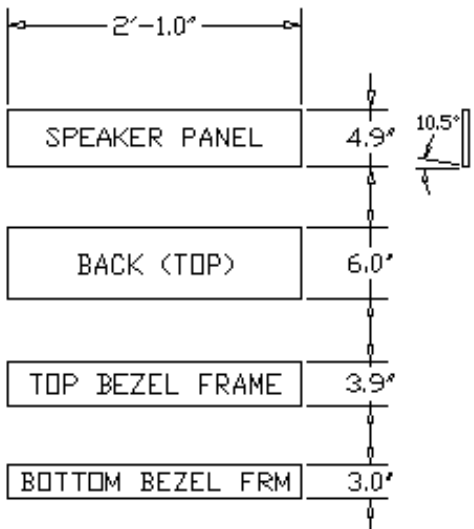
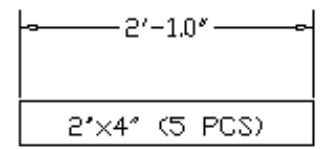
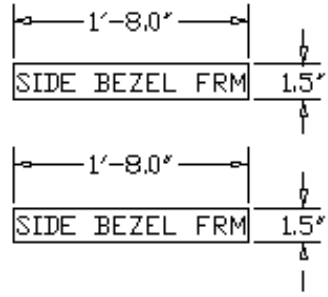
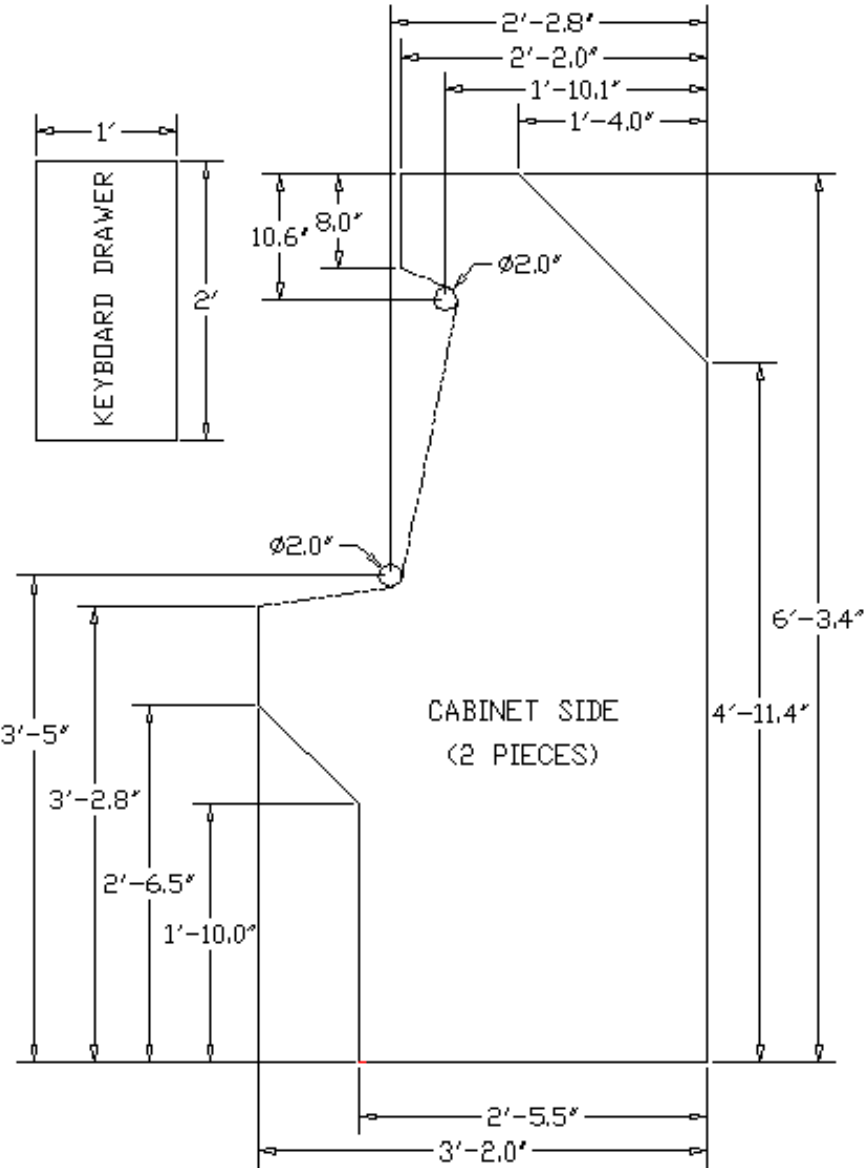
Materials List

NOTE: Additional fasteners may be required for assembly if not included in hardware packages.

1-1/2" L-Brackets	68		www.homedepot.com
12" Side Mount Drawer Slides	2		www.homedepot.com
1-1/16" Threaded Nickel Glide	4		www.homedepot.com
Brass Mailbox Lock	1		www.homedepot.com
1/2" Long Flat Head Phillips Wood Screws (3/16" Dia)	280		www.homedepot.com
2" Long Flat Head Phillips Wood Screws (3/16" Dia)	20		www.homedepot.com
3/8" Long Round Head Wood Screws (1/8" Dia)	12		www.homedepot.com
Happ Controls Push Buttons (58-9144-L)	12		www.happcontrols.com
Happ Controls Player 1 Button (58-9111-L1PLY)	1		www.happcontrols.com
Happ Controls Player 2 Button (58-9111-L2PLY)	1		www.happcontrols.com
Happ Controls Ultimate 8way Joystick (50-7608-16)	2		www.happcontrols.com
Happ Controls Marquee retainer (49-1000-00)	1		www.happcontrols.com
KE72 Keyboard Encoder	1		www.hagstromelectronics.com
Piano Hinge 25" Long	1		www.homedepot.com
S-Video To Coax Converter (For TV without S-Video)	1		http://videoware.site.yahoo.net
25" Television (with S-Video)	1		www.sears.com
Shielded Speaker system	1		www.c-source.com
18" Fluorescent Lighting Fixture	1		www.homedepot.com
IDE Ribbon Cable	2		www.c-source.com
Electrical Terminals	44		www.homedepot.com
5/8" x 4' x 8' Particle Board	3		www.homedepot.com
1/8" x 25" x 26.2" Plexiglas	1		www.homedepot.com
1/8" x 25" x 7.25" Plexiglas	2		www.homedepot.com
2" x 4" x 8' Stud	2		www.homedepot.com

Cabinet Details

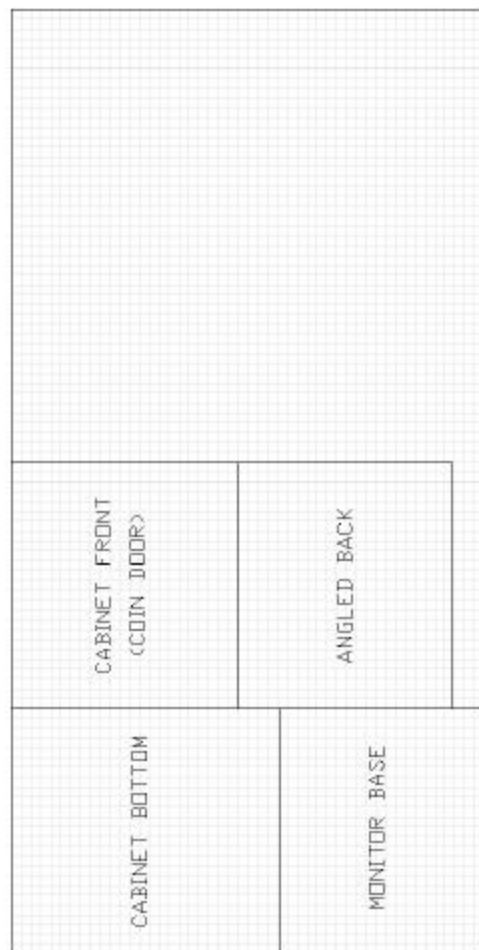
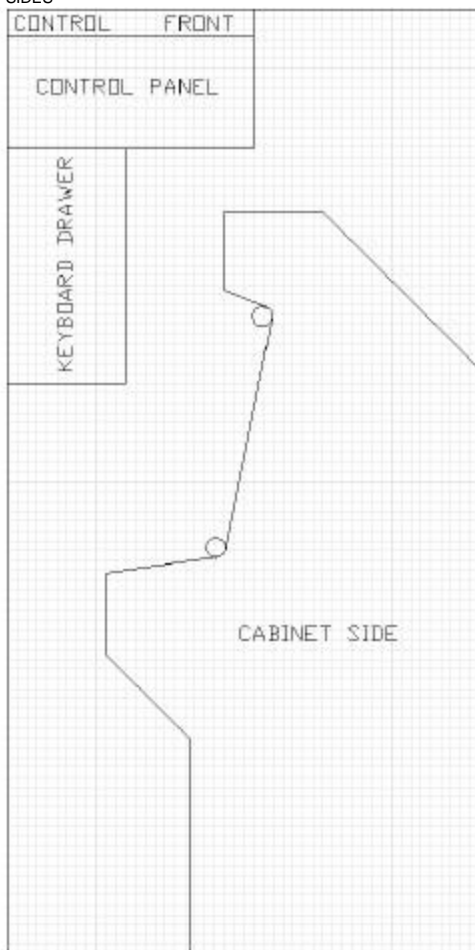
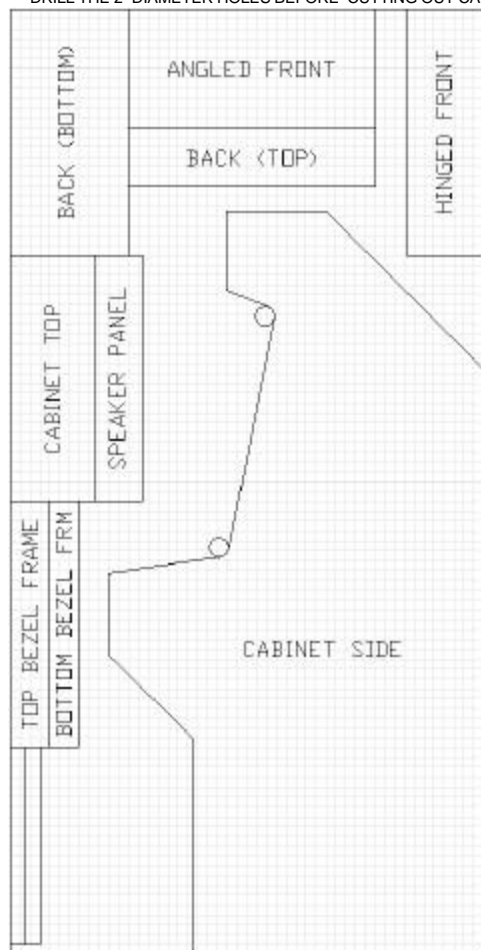
NOTE: All Dimensions have a tolerance of +/- 0.10



Material Layout

NOTE: Use the dimensions from the Cabinet Details drawing to layout each piece. To allow for blade width, layout and cut one piece at a time.

*** DRILL THE 2" DIAMETER HOLES BEFORE CUTTING OUT CABINET SIDES ***



Step 1

Use the material layout and cabinet details drawings to layout and cut all of the cabinet pieces from the 5/8" x 4' x 8' particle board sheets. Before cutting out the cabinet side panels, drill the two 2" diameter holes as specified in the cabinet details drawing. Layout and cut one cabinet piece at a time to allow for the saw blade width. Mark each piece for identification. **NOTE: SOME PIECES REQUIRE A MITER (ANGLED) CUT ALONG ONE OR MORE EDGES.**

Step 2

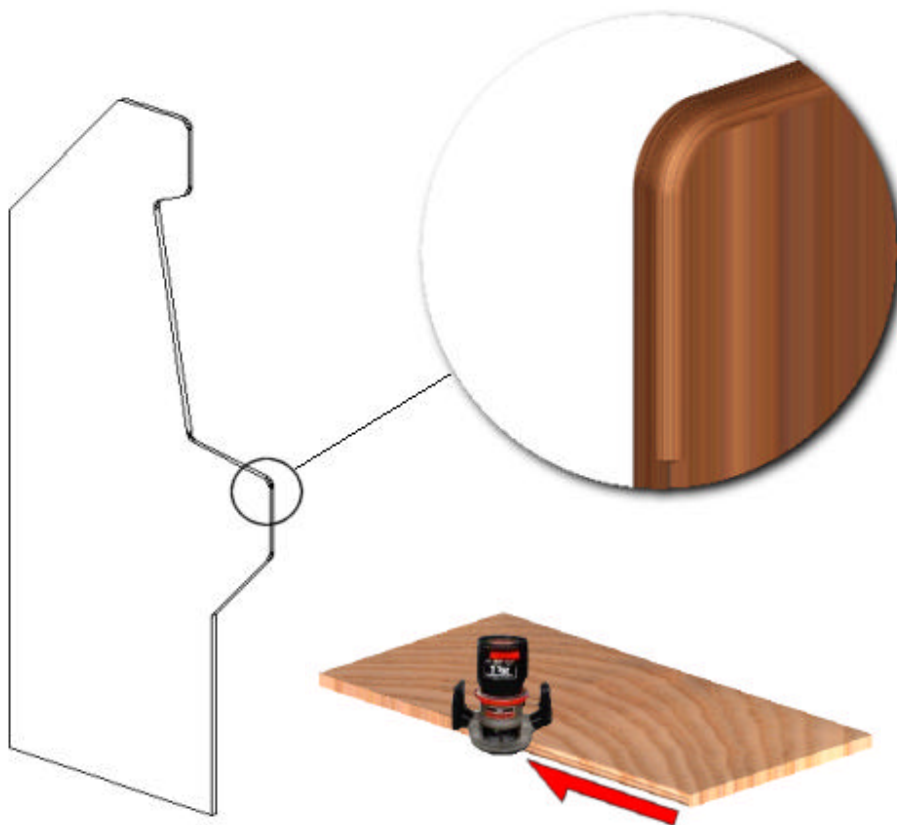
Using the 5/16" roundover router bit, round all corners and edges of the front and back of the cabinet side panels.

Step 3

Using the 5/16" roundover router bit, round one of the 24" edges (top and bottom) on the keyboard drawer cutout.

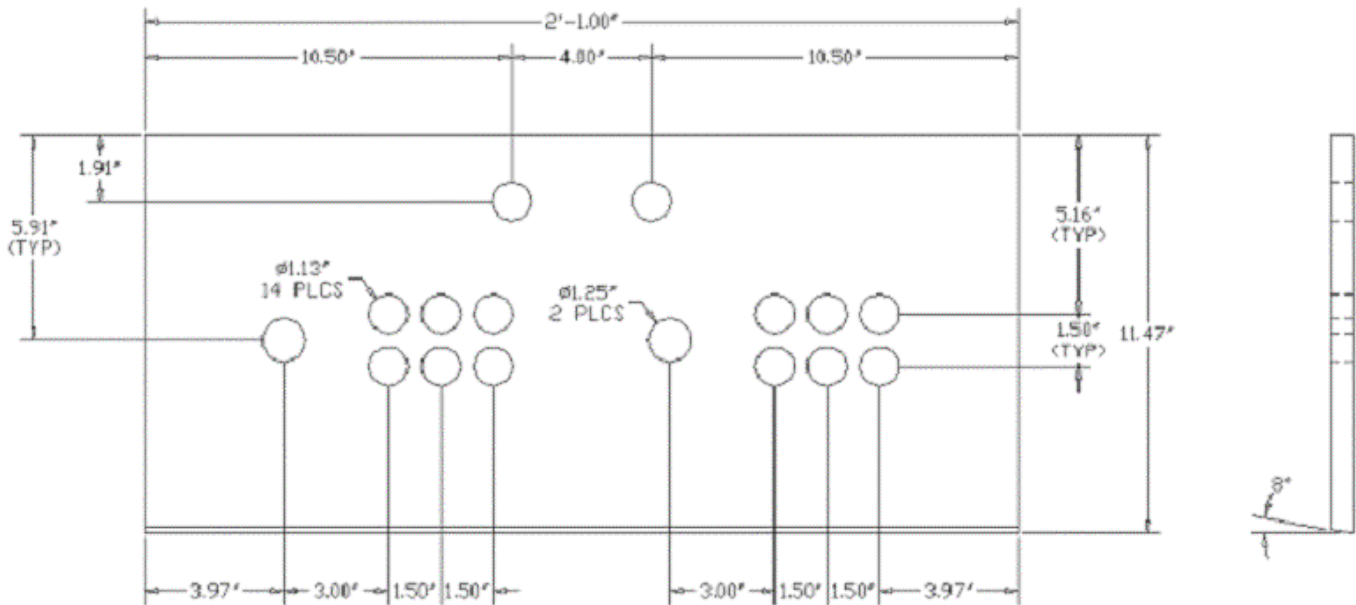
Step 4

Using the 5/16" roundover router bit, round the 25" edge closest to the drilled hole (**TOP ONLY**) on the hinged front panel.



Control Panel Details

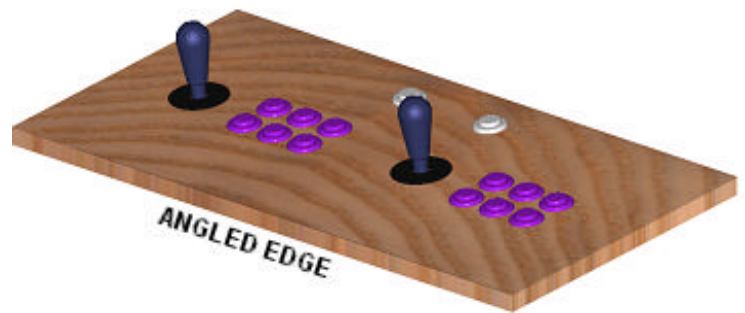
NOTE: All Dimensions have a tolerance of ± 0.10



Step 5

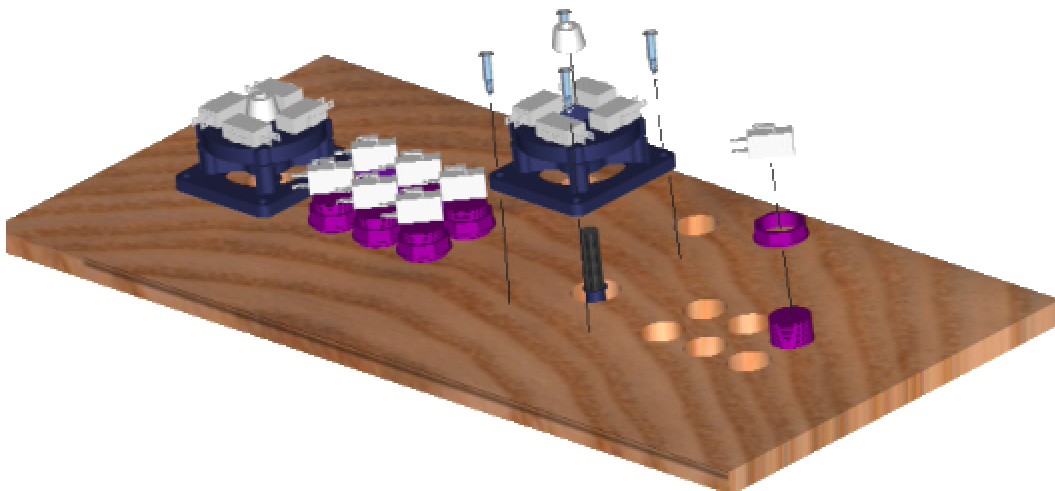
Using the control panel details drawing above, layout the location of the button and joystick holes. Use the 1-1/4" hole saw to cut out the (2) joystick holes. Use the 1-1/8" hole saw to cut out the (12) player one and player two buttons. Use the 1-1/8" hole saw to cut out the player one and player two selection buttons.

Note: Be sure that the angled edge is in the front and slopes outward before drilling holes.



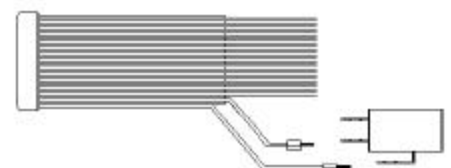
Step 6

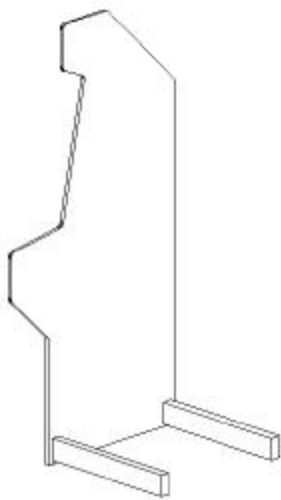
Install joystick and buttons as shown in the diagram below.



Step 6a

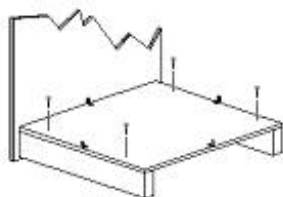
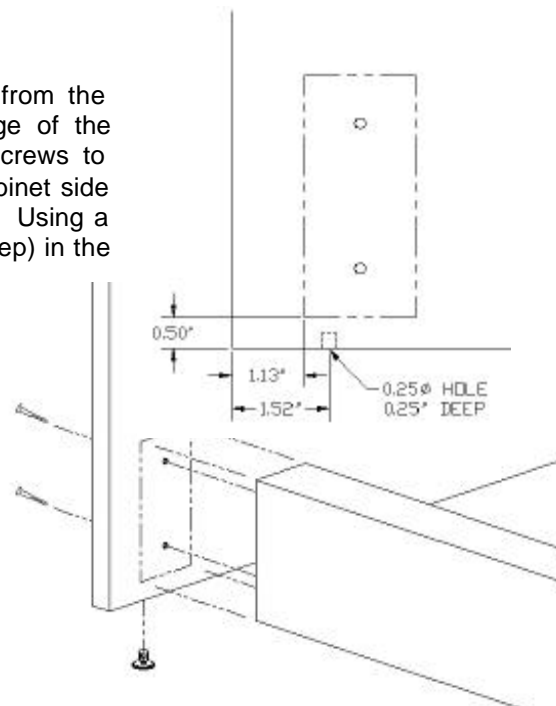
Wire each switch using a ribbon cable. Cut one end off of the ribbon cable and separate each wire. Strip off 1/4" to 1/2" of insulation from every other wire. Crimp an electrical terminal to each stripped wire. Connect the terminals to the switch as shown.





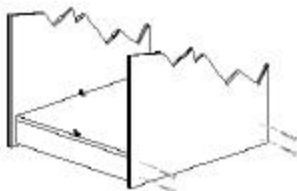
Step 7

Locate one of the 25" 2x4 sections 1.13" in from the outside edge and $\frac{1}{2}$ " in from the bottom edge of the cabinet side panel. Use two 2" long wood screws to secure the 2x4. On the bottom edge of the cabinet side panel, measure 1.52" in from the outside edge. Using a $\frac{1}{4}$ " drill bit, drill a $\frac{1}{4}$ " diameter hole ($\frac{1}{4}$ " to $\frac{1}{2}$ " deep) in the center of the bottom edge of the cabinet side panel. Press one of the threaded glides into the hole. Secure using wood glue if necessary. Repeat this step for the other side of the cabinet side panel.



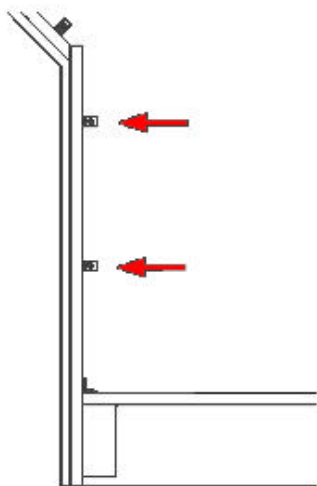
Step 8

Attach the cabinet bottom panel to the two 2x4 studs using (4) 2" long wood screws. Secure an L-bracket in the middle of each side of the bottom panel using $\frac{1}{2}$ " long wood screws.



Step 9

Position the opposite cabinet side panel using the dimensions in **Step 7**. Secure the side panel to the two 2x4 studs using (4) 2" long wood screws. Secure the L-bracket on the inside of the side panel using $\frac{1}{2}$ " long wood screw(s).

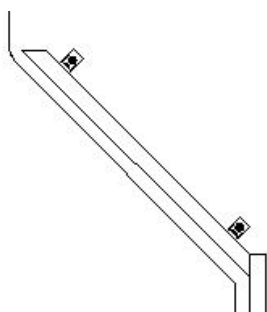


Step 10

Position the cabinet front (coin door) panel as shown in the diagram to the left. Secure front panel using (4) L-brackets and $\frac{1}{2}$ " wood screws.

Note: The cabinet front panel should be recessed $\frac{1}{2}$ " in from the outside edge of the cabinet side panels.

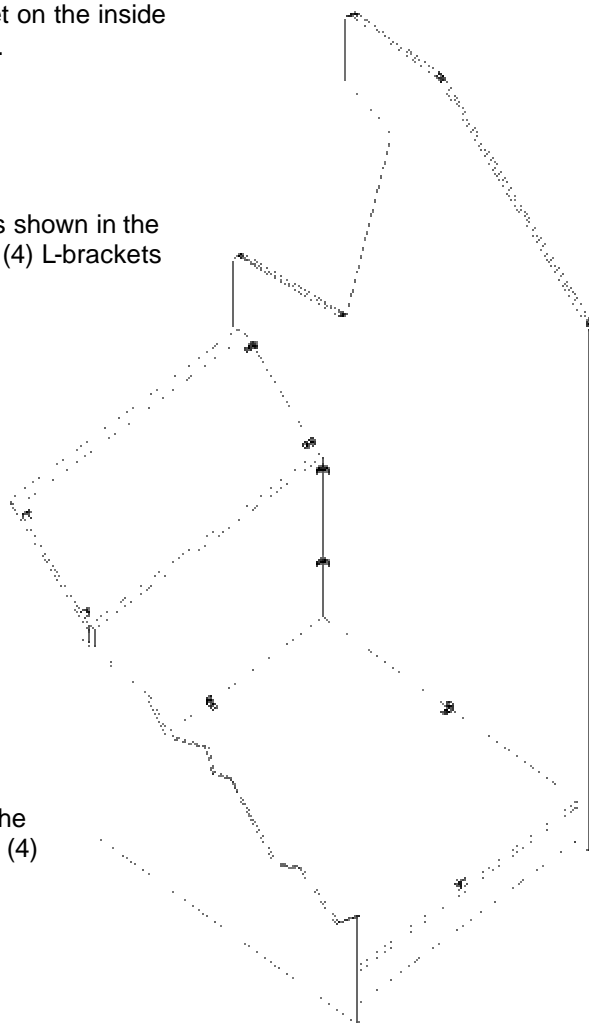
Note: If a coin door is to be used, the cutout should be made in the cabinet front panel before assembly.



Step 11

Position the angled front panel as shown in the diagram to the left. Secure front panel using (4) L-brackets and $\frac{1}{2}$ " wood screws.

Note: The cabinet front panel should be recessed $\frac{1}{2}$ " in from the outside edge of the cabinet side panels.

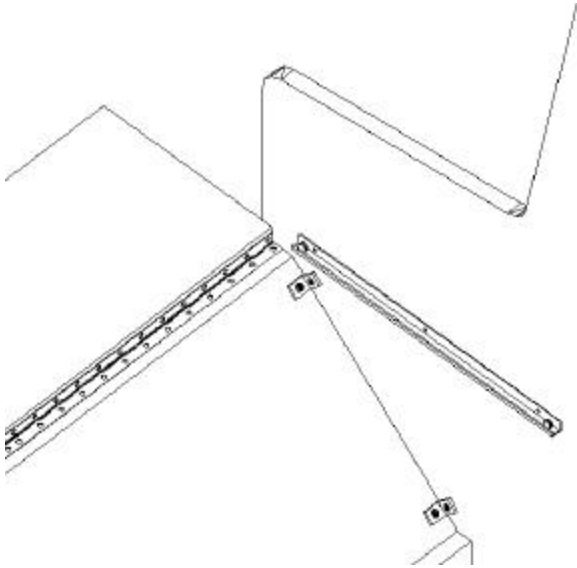
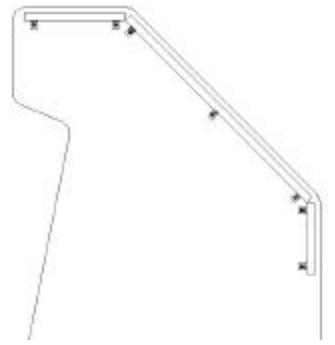




Step 12

Position the back, top, and angled back panel as shown in the diagram to the right. Secure all panels using L-brackets and $\frac{1}{2}$ " wood screws.

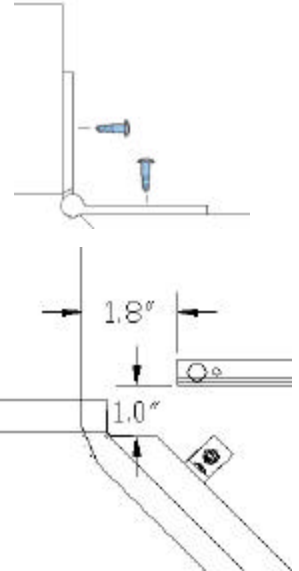
Note: All cabinet panels should be recessed $\frac{1}{2}$ " in from the outside edge of the cabinet side panels.



Step 13

Attach 25" long piano hinge to flat end of the hinged front panel using the supplied fasteners (refer to the diagrams for proper hinge positioning). Attach hinge to the angled front panel using the supplied fasteners.

Note: When the hinged front panel is in the vertical position, the rounded edge should be on the outside and the flat edge facing the inside of the cabinet.



Step 14

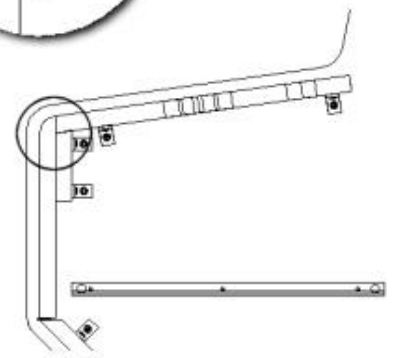
Locate the keyboard drawer slides 1.0" above the angled front panel and 1.8" in from the outside edge of the side panels. Attach drawer slides using supplied fasteners or $\frac{1}{2}$ " wood screws.



Step 15

Align the hinged front panel so it is in the vertical position. Position the control panel top so the front top edge is flush with the vertical hinged front panel. Secure the control panel top using (4) L-brackets and $\frac{1}{2}$ " long wood screws.

Note: The control panel top should be recessed $\frac{1}{2}$ " in from the outside edge of the cabinet side panels.



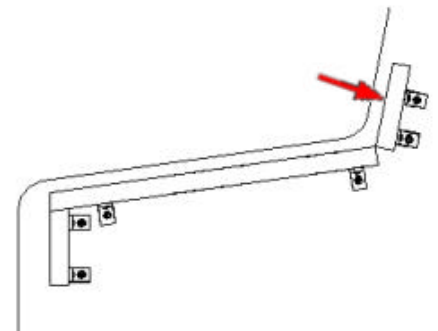
Step 16

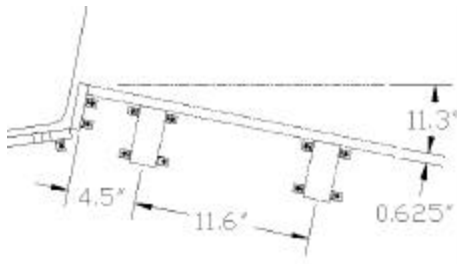
Position the control front panel so the angled top edge is flush with the bottom of the control panel top. All three panels should be flush with each other (hinged front panel, control panel top, and the control front panel). Secure the control front panel using (4) L-brackets and $\frac{1}{2}$ " long wood screws.

Step 17

Position the bottom bezel frame panel so the bottom front edge is flush with the back top edge of the control panel top. The front face of the bottom bezel frame panel should be parallel with the side frame panel edge (79 Degrees). Secure the panel using (4) L-brackets and $\frac{1}{2}$ " long wood screws.

Note: The bottom bezel frame panel should be recessed $\frac{1}{2}$ " in from the outside edge of the cabinet side panels.

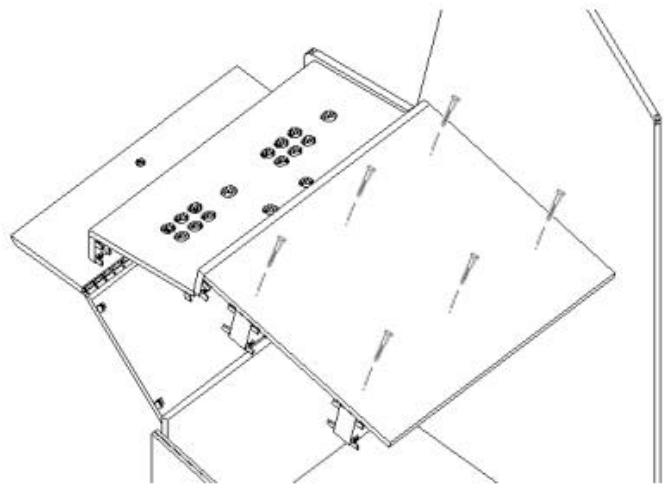




Step 18

Using a pencil, draw a straight line 11.3 degrees from the back top edge of the bezel bottom frame panel. Draw a parallel line 5/8" below the previous line. This is where the monitor base panel will be placed.

Position a 25" 2x4 stud 4.5" in from the back edge of the bottom bezel panel. Secure using (8) L-brackets and 1/2" wood screws. Place another 2x4 stud approximately 11.6" away from the previous stud. Secure in place using (8) L-brackets and 1/2" long wood screws.



Step 19

Use (6) 2" long wood screws to secure the monitor base panel to the two 2x4 studs.

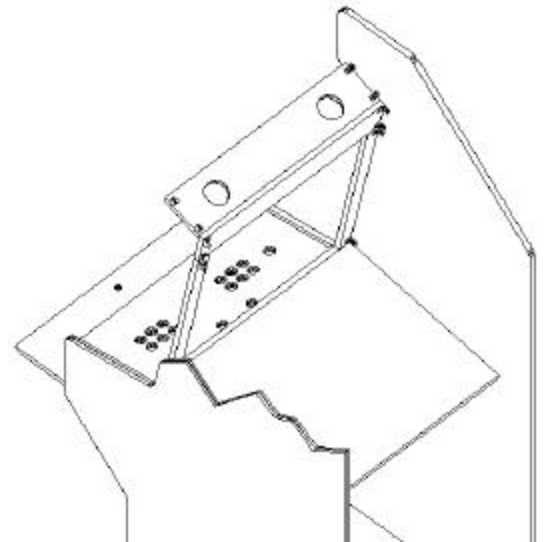
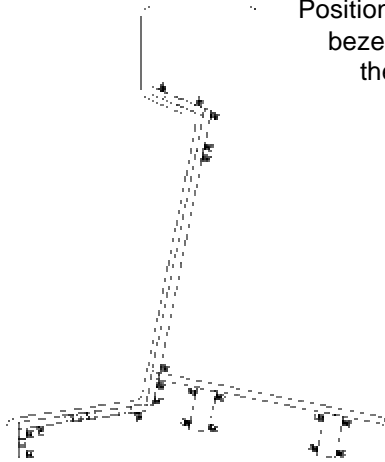
Step 20

Position the speaker panel, bezel top frame panel, and bezel side frame panels as shown in the diagram to the left. Secure all cabinet panels using L-brackets and 1/2" long wood screws.

Note: All cabinet panels should be recessed 1/2" in from the outside edge of the cabinet side panels.

Note: Cut holes for speakers in the speaker panel using the 2" hole saw and the jig saw. Secure speakers to panel using 1/2" long wood screws.

IMPORTANT: Make sure the television will fit through opening. If not, install television before securing bezel frame panels.



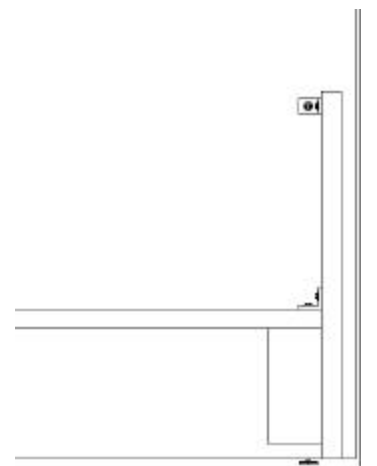
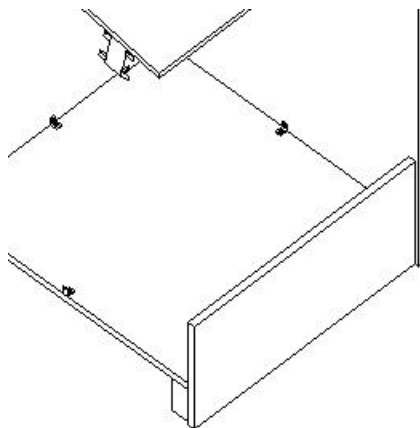
Step 21

Position the back bottom panel so it is flush with the rear 2x4 stud and cabinet bottom panel. Secure the back panel in place using (2) L-brackets and 1/2" long wood screws.

Note: The back bottom panel should be recessed 1/2" in from the outside edge of the cabinet side panels.

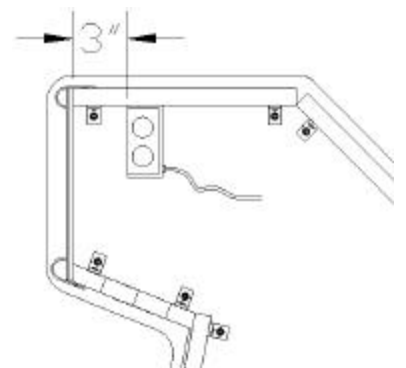
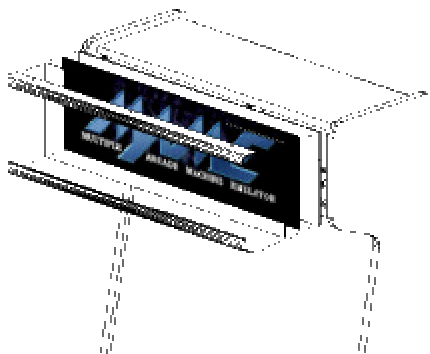
Step 22

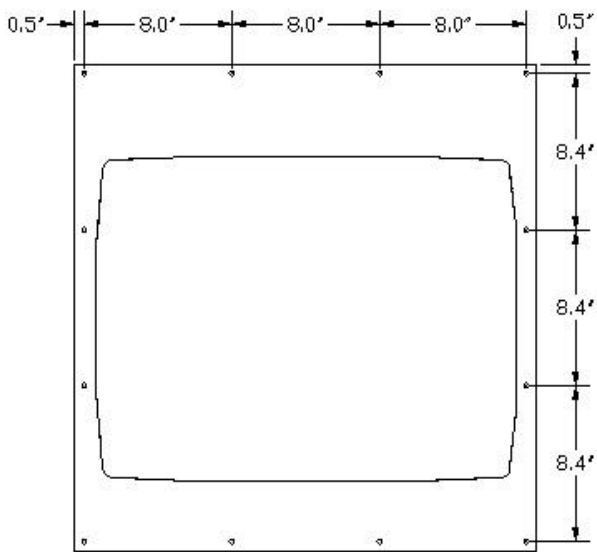
Secure the fluorescent lighting fixture to the inside top of the arcade cabinet using 1/2" long wood screws. Position the lighting fixture approximately 3" in from the marquee (See diagram below).



Step 23

Place the marquee in between the two pieces of 25"x7 1/4" plexiglas. Position the plexiglas flush with the top panel and speaker panel. Secure the marquee assembly using the 25" long marquee retainers and 1/2" long wood screws.





Step 24

Using the hole layout diagram to the left, drill (12) 1/8" Diameter holes around the perimeter of the 25"x26.2" piece of plexiglas.

Note: When drilling through plexiglas, be sure to use the highest drilling speed. Use very little pressure and drill the holes slowly. Trying to drill through plexiglas quickly will result in cracking.

Step 25

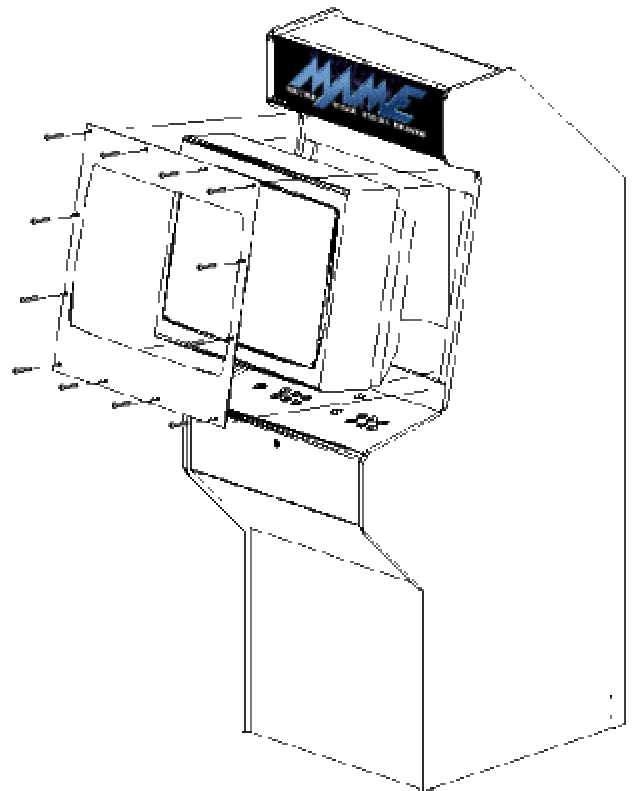
Mask off the location of the television screen using masking tape. Use a flat black paint and paint the backside of the plexiglas.

Note: Temporarily install the plexiglas as in step 26 (do not secure using screws). Use a felt tip pen and trace the contour of the television screen onto the plexiglas. This is the area to mask off with tape.



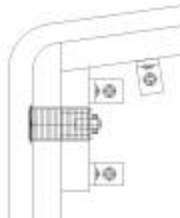
Step 26

If the television was not installed in step 20, set the television onto the monitor base inside the cabinet. Center the television within the cabinet and position it as close as possible to the front of the cabinet. Secure the bezel using (12) 3/8" long wood screws.



Step 27

Install the mailbox lock in the hinged front panel as shown. The lock bar must extend through the control front panel to lock.



Step 28

Secure the keyboard drawer slides to the keyboard drawer panel using 1/2" long wood screws or supplied fasteners.

Note: The rounded edge should be towards the front of the cabinet.

