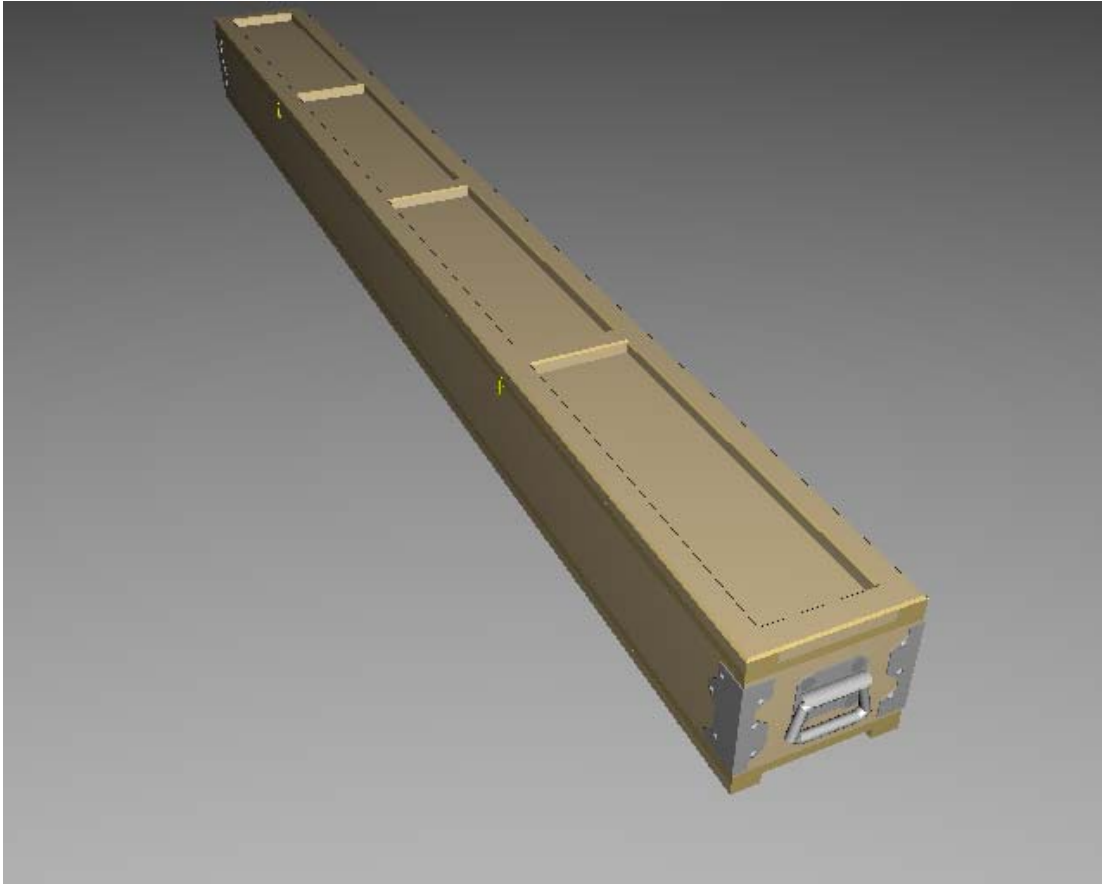


# Case Building Instructions

## For Derbywizard Freedom Aluminum Tracks



You can easily build a hard storage case for your new track by following these simple instructions.

### Materials

Case Width (W): 2 ln = 8.75", 3 ln = 12.25", 4 ln = 15.75", 6 ln = 22.75"

Lid / Bottom (1 each) - 1/2 Plywood, 96" long by W" wide

Ends for a 32' track (2) - 1x6 (nominal\*), W" long

Sides for a 32' track (2) - 1x6 (nominal\*), 94.5" long

Cleats (4) - 1x2 (nominal\*\*), 96" long

Cross Pieces (5) - 1x2 (nominal\*\*), length is by lane: 2 = 5.75", 3 = 9.25", 4 = 12.75", 6 = 19.75"

\* 1x6 nominal has an actual finished dimension of .75" x 5.5"

\*\* 1x2 nominal has an actual finished dimension of .75" x 1.5"

Please Note: The 5.5" height of the end and side pieces are only adequate to store a 32' track. Each additional section will require an increase in height of 7/8". The minimum height for a 40' track would be 6.375". The minimum height for a 48' track would be 7.25". For these higher sided cases we would recommend using a 1x8 nominal sized board which has an actual finished dimension of .75" x 7.25".

We recommend using 1/2 in birch plywood for the bottom and lid. Home Depot sells a 4 x 8 foot sheet for approximately \$35. The sides are made from 1 x 6 pine. The 1 x 6 is considered a 'nominal' dimension. This is the size of the rough board before it is milled on four sides. The dimension you will actually be working with is .75" x 5.5". These pieces can just be cut to length. The interior case height will be that same 5.5". Our recommendation for the 1 x 6 is to use 'finger joint' pine. This wood is made up of a multitude of small pieces glued together with 'finger joints'. This wood commonly comes with a coat of primer paint. The wood is straight and true and knot-free. Home Depot sells a 1 x 6 x 16' piece for approximately \$19. The cleats and cross braces have a finished cross section dimension of .75" x 1.5" . You can buy 1 x 2 (nominal) strapping for this but we would recommend cutting these pieces out of the same 1 x 6 'finger joint' pine.

The most difficult cut for folks would be to make the long straight cuts out of a full sheet of plywood. Home Depot and other lumber retail centers will make these cuts for you. Typically their first two cuts are free and subsequent cuts are 20 cents each. You can bring your entire 'cut list' to Home Depot and have them put together a ready to assemble crate for a cutting fee well under \$5. (Please Note - owners of our tracks shipped prior to 2004 should add 1.375" to the variable lane dimensions).

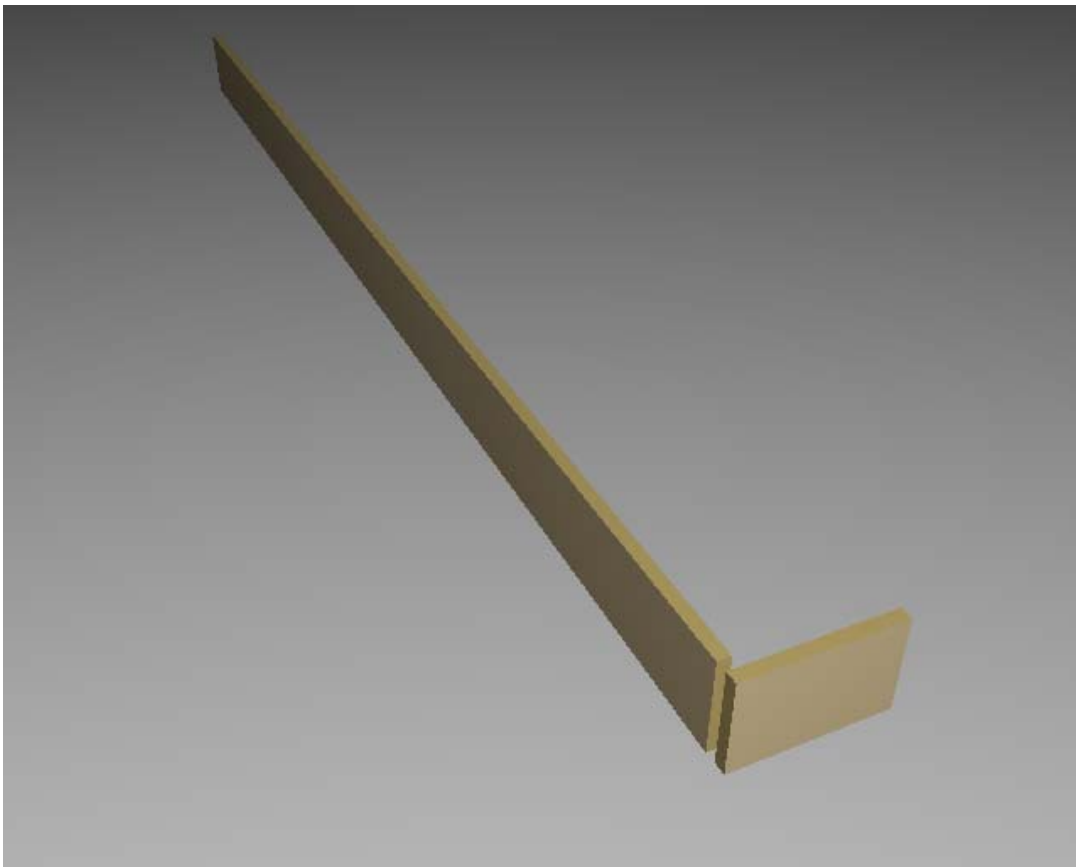
## Hardware

'Stanley' Cabinet Latches (2)  
36" x 1.5" Piano Hinges (2)  
Case Handles (2)  
Corner Brackets (4) Simpson 'Strong Tie' L50Z  
#8 x 5/8" Pan Head Sheet Metal / Wood screw (24)  
#6 x 1 5/8" Drywall Screw (approx 60)  
#6 x 1" Drywall Screw (approx 60)

## Building Notes

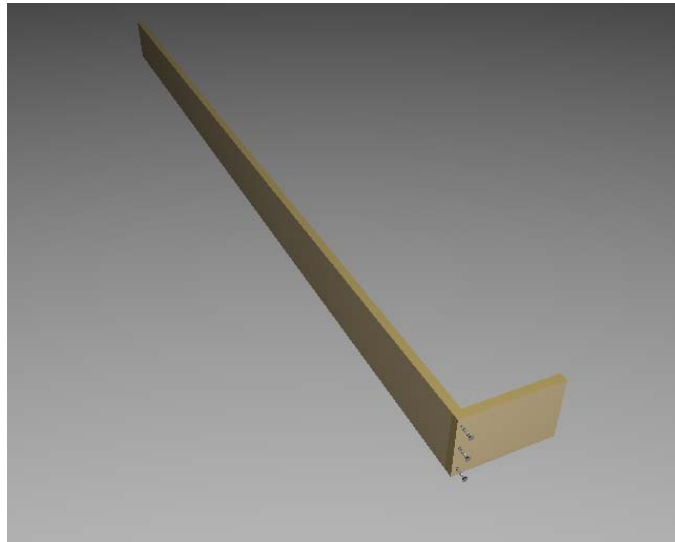
Use yellow carpenters glue for strong 'glued and screwed' joints. Pre-drill the corner joints when screwing into endgrain. This joint by itself is weak by design which is why we incorporate the Simpson 'Strong Ties' to reinforce and protect the corner. Some of you may want to modify this joint and perhaps even 'dovetail' it. We wanted to offer the easiest assembly method. You can radius the edges and corners of the cleats and braces after assembly using a hand router. There is enough room to use a 1/4" round-over bit with a ball-bearing. The hinges and latches will have to be off the lid for this operation.

## Step-by-Step Assembly Instructions



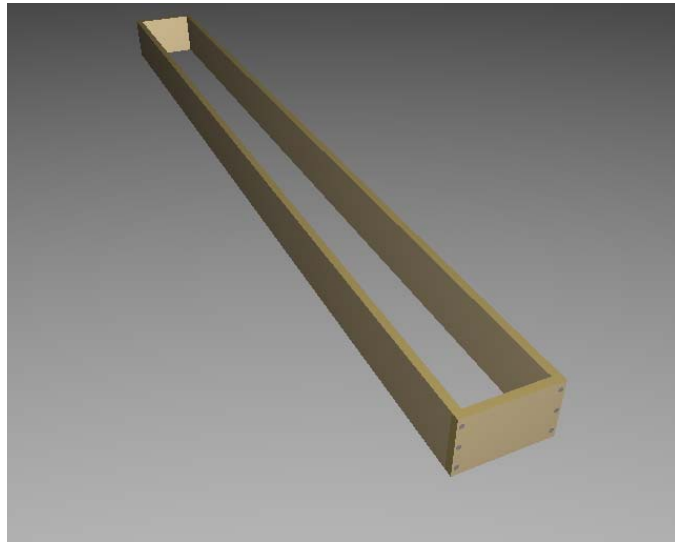
### Step 1

Take one End Piece and one Side Piece and hold them together firmly so that the End Piece caps off the Side Piece.



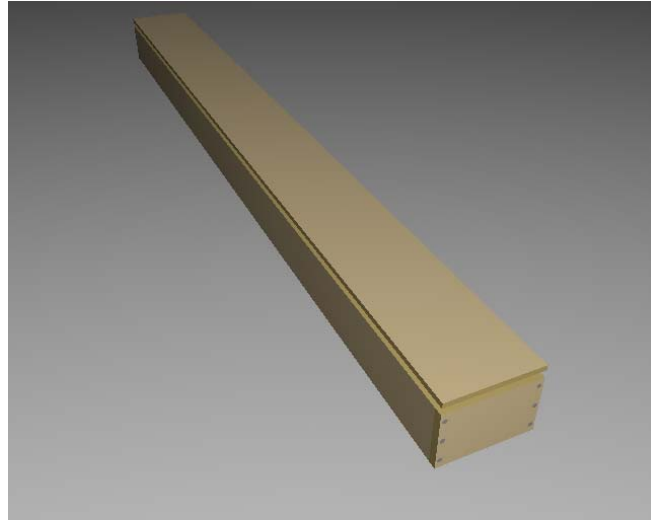
## Step 2

Pre-drill three holes in the above locations (but don't drive any screws into it yet). Next, separate the pieces, apply some glue to the joint, then press them back together firmly and drive three 1 5/8" drywall screws.



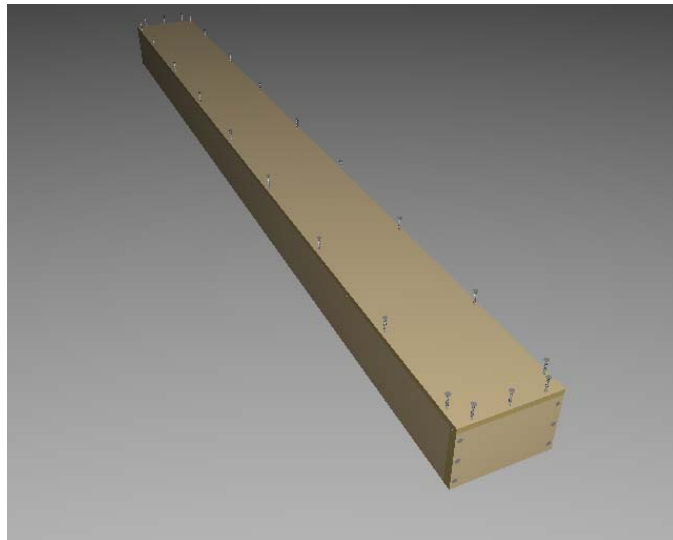
## Step 3

Repeat this process to attach the other End and Side Pieces.



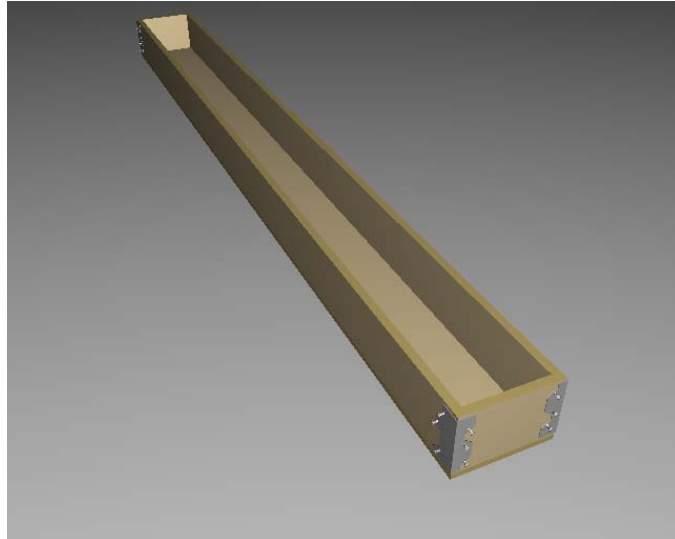
### **Step 4**

Apply some glue all the way around one rim of this box and place one of the plywood pieces on top.



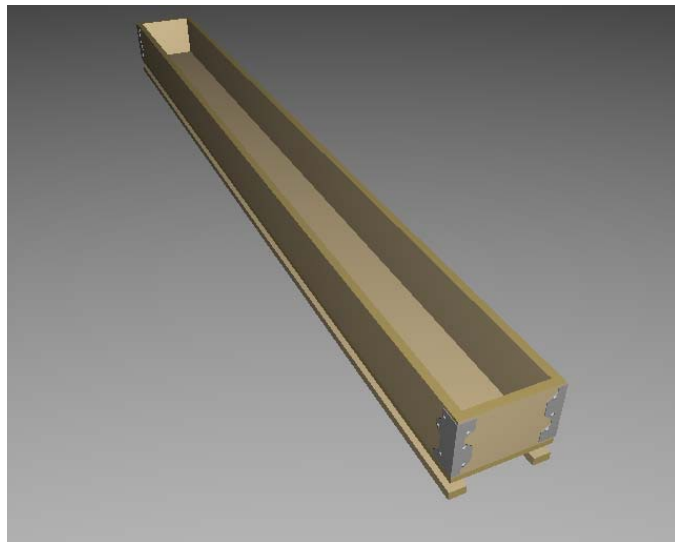
### **Step 5**

Firmly press and hold the piece of plywood, simultaneously down, and flush with the side of the box. Drive 1 5/8" drywall screws through the plywood and into the box below all along the outer rim.



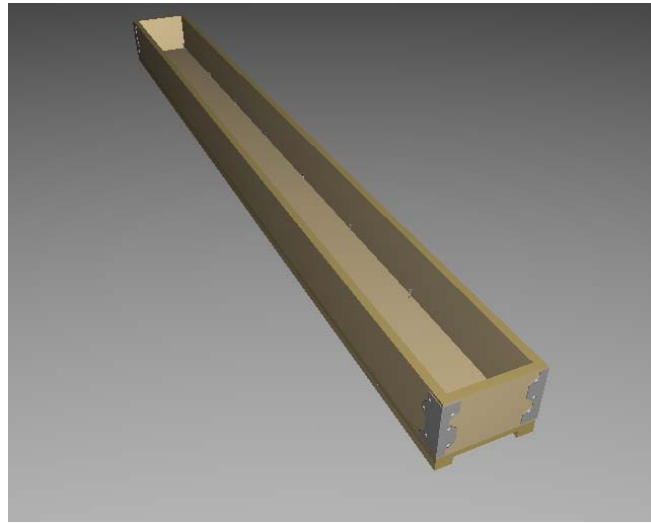
## Step 6

Flip the box over and attach the 'Strong Ties' on all four corners using the 5/8" Pan-Head screws.



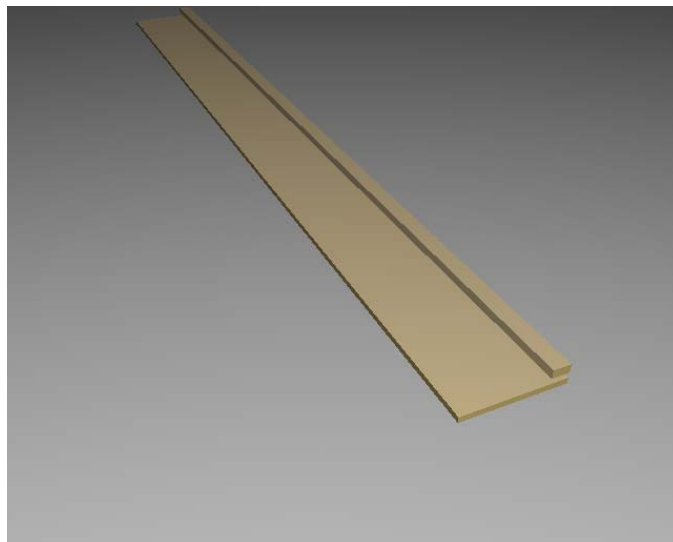
## Step 7

Run glue down the length of one of the Cleats on its wide side and place it, and another glue-less cleat under the box as pictured.



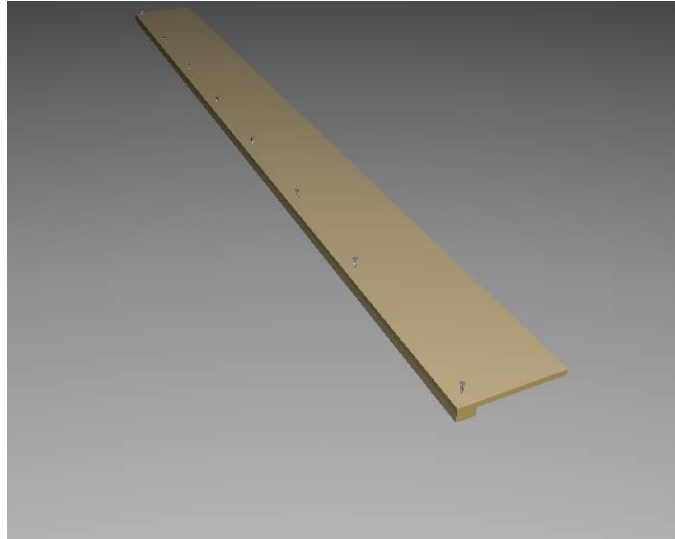
## Step 8

Hold the glued Cleat flush with the edge of the box and drive several 1" drywall screws down into it from inside the box. Once it is firmly in place, apply some glue to the other Cleat and attach that one to the other side in the same manner. Place the entire box aside.



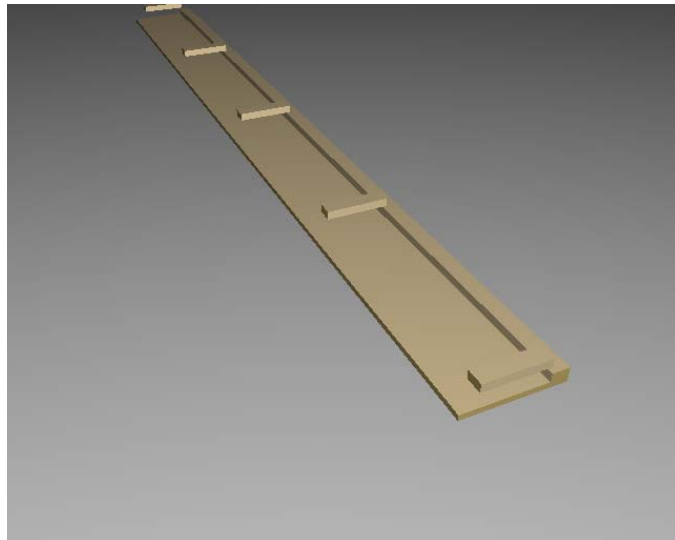
## Step 9

Take another Cleat, apply some glue, and hold it flush with one side of the Lid.



## Step 10

Drive several 1" Drywall screws through the Lid and into the Cleat.



## Step 11

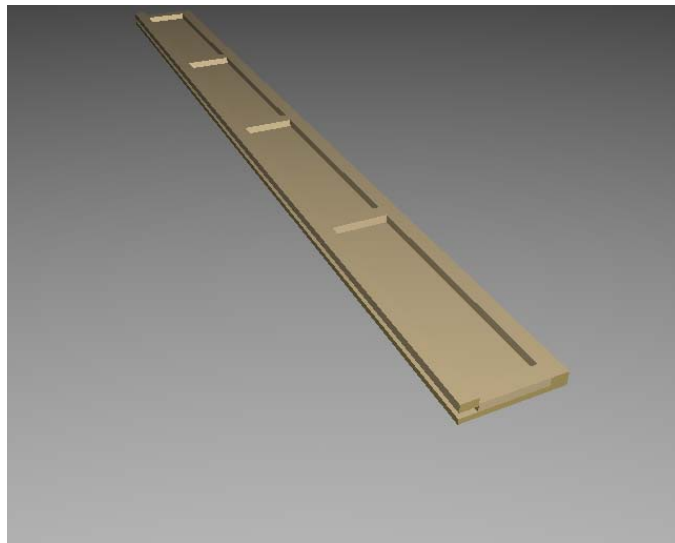
The Cross Pieces should be evenly spaced along the middle of the Lid. First, apply glue to just one, using the rest to help keep the lid level, then continue to Step 12.





## Step 12

Hold the glued Cross Piece firmly in place and drive three 1" drywall screws into it through the Lid. Next, apply glue to the next Cross Piece, hold it down, drive three screws, apply glue to the piece after that, etc. Once all Cross Pieces are attached, continue to Step 13.



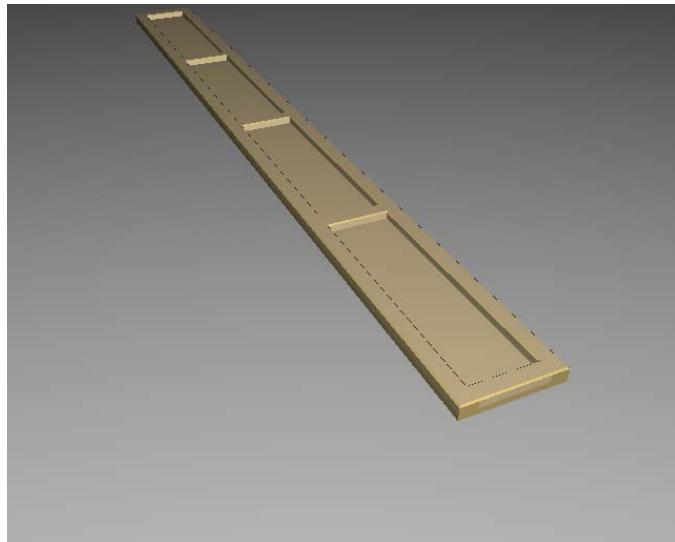
## Step 13

Apply some glue to the Last Cleat and hold it flush to the side of the Lid and the five Cross Pieces.



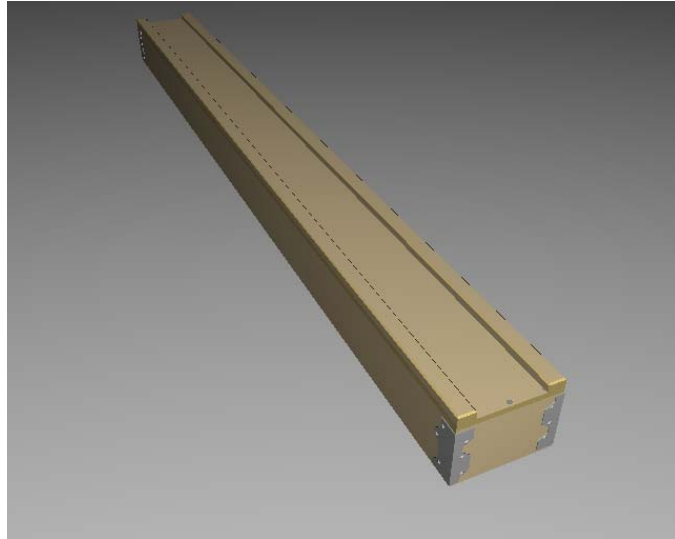
## Step 14

Drive several 1" drywall screws through the Lid and into the last Cleat.



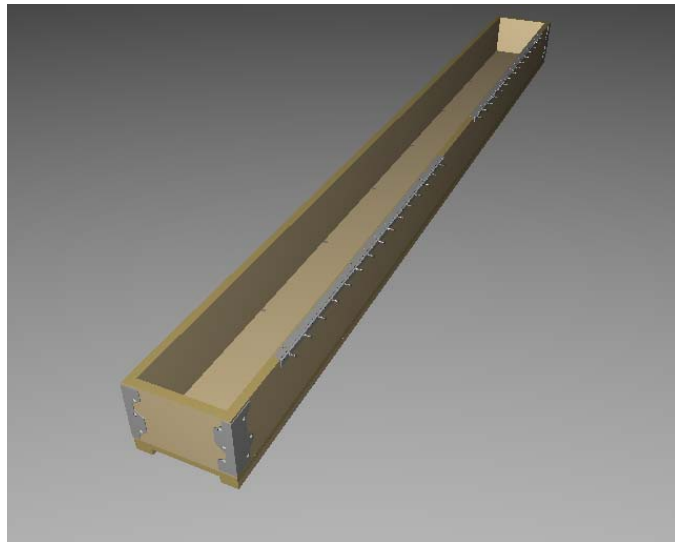
## Step 15

Use a hand router to radius the top outer edges, and the four internal rectangles formed by the Cleats and Cross Pieces. A 1/4" round-over bit with a ball bearing works quite well. Place the completed box lid aside. Note: Do not radius the plywood underside.



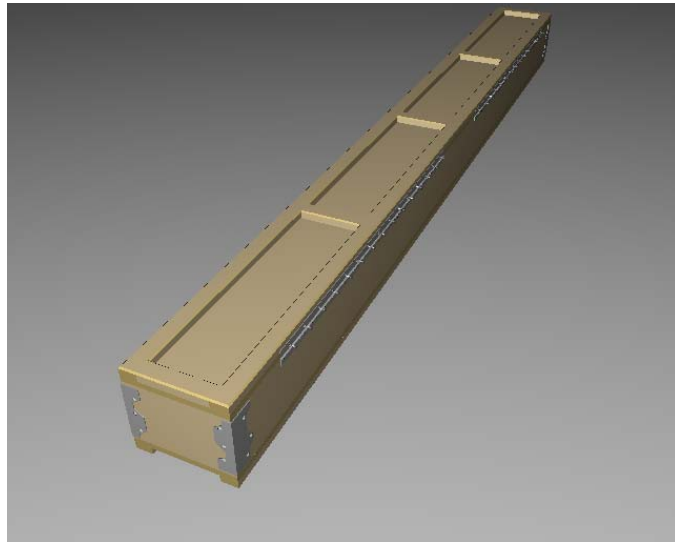
## Step 16

Take the main box body, flip it upside down, and radius off the protruding edges of the cleats.



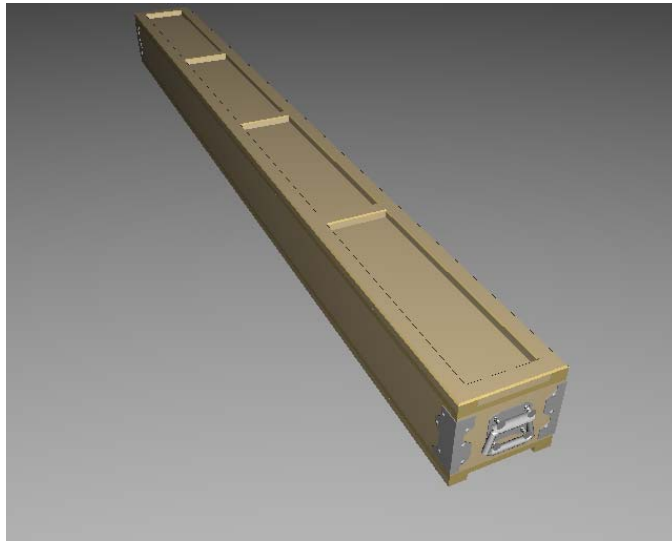
## Step 17

Flip the box right-side up again. Fold both hinges over so that they sit on the edge of the box, and drive the supplied screws through the hinge holes and into the side of the box (not the top rim).



## Step 18

Fold the hinges 'flat' again so that they're pointing up in the air. Place a few razor blades (or something equally thin) along the rim of the box bottom next to the hinges. These act as spacers so that the far side of the box will close properly. Now, take the completed box lid and place it, plywood side down, on top of the box body (with the razor blades in between them). Drive the rest of the screws supplied with the hinges through the hinge holes and into the side of the lid. Open the box, remove the razor blades (or alternative spacers) and close it again.



## Step 19

Attach the Handles to the ends of the box with their supplied hardware.



## Step 20

Attach the bottom parts of the two latches (using their supplied hardware) to the box body so that the top is flush with the seam between the body and the lid. They should be evenly spaced along the side of the box, in line with the second and fourth Cross Pieces of the lid seem to be the best locations.



## Step 21

Slot the lip of each upper latch section into its corresponding lower section and fasten each to the lid of the box. If the box doesn't open and close properly because the top and bottom section of a latch aren't in line with one another, you can remove the two screws along the case seam on the latch piece that seems to be sunken into the box, place a pair of washers under the screwholes, and re-drive the screws through the latch holes and washers.

**Your case is now complete!**

## **Storage Notes**

**The aluminum 'Freedom' series track is designed to be stored with the spacer shims in place. This will protect the individual sections from being marred by the binding plates.**

**Classic series tracks can leave the shims in place or off when storing.**

**The case, as designed, is only 1/4" wider than your track. Loading and unloading the sections is more readily facilitated by lowering and raising the sections using thin plastic strapping, webbing, or cord. Leave these in place in the stored case so you can lift the track sections out without resorting to tipping the loaded case upside down.**

**After the sections are loaded the accessories can pack in on top of the track. You may want to cut Owens Corning Foamular 150 2" extruded polystyrene insulation to make compartments and padding for the accessories.**