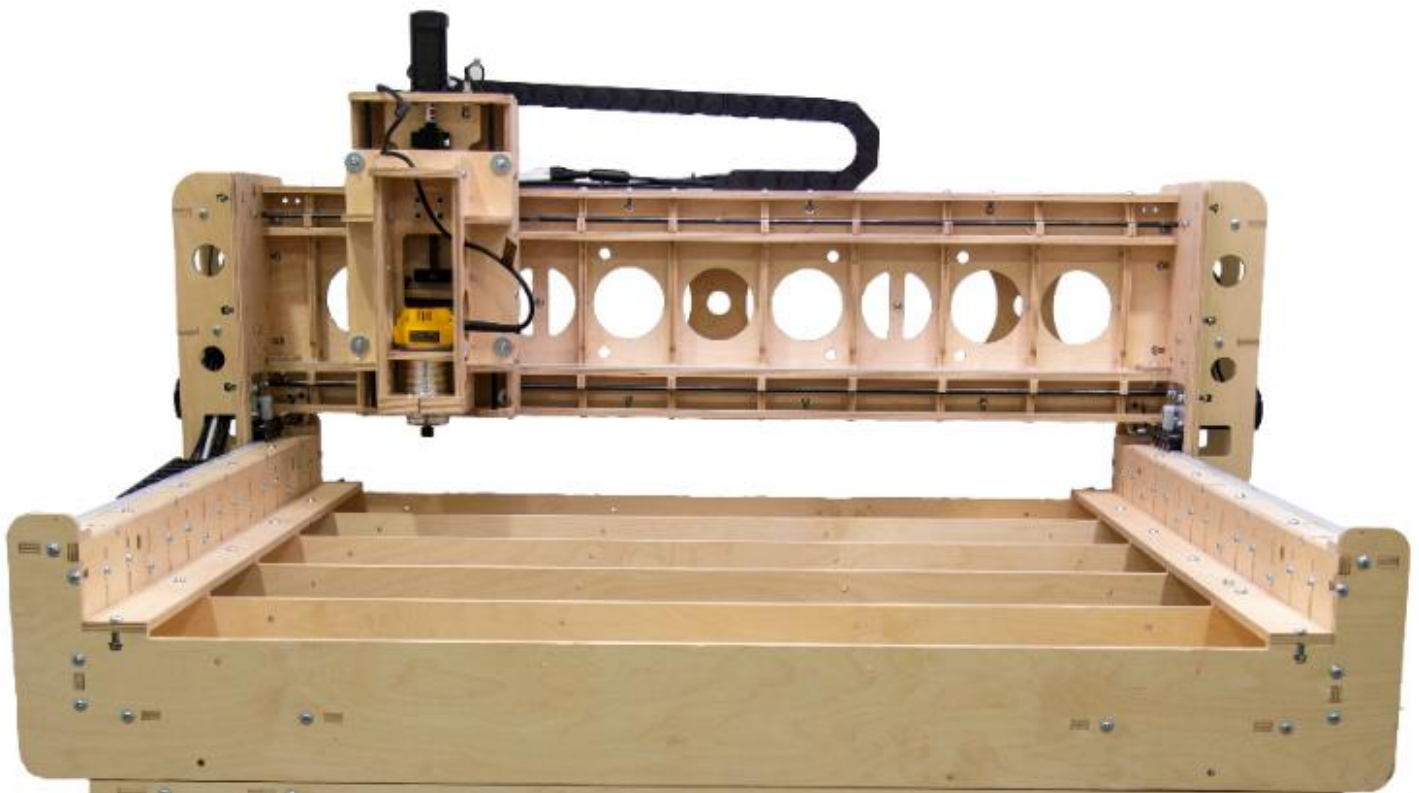




X Frame Assembly

MANUAL 4 of 8



Version 2.7


Table of Contents


Safety First.....3


X Frame Assembly Parts Guide.....4-5


X Frame Assembly Instructions6-20

Look Safety Information and Hints.

	<p>DANGER Indicates a serious risk of bodily harm, possible injury and death. This warning box is to be taken seriously. Any work must be carried out with extreme caution.</p>
---	--

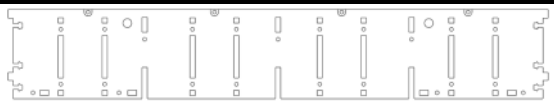
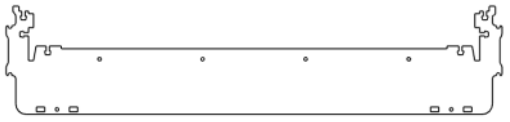

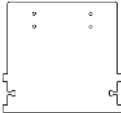
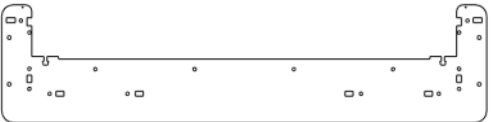


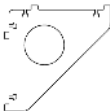
	<p>CAUTION Indicates a possible risk of injury that can result from failure to follow this Instruction.</p>
---	--

	<p>WARNING Indicates the possible damage to the machine, it's components, or the work piece that can result from the failure to follow this warning.</p>
---	---




 <p>HINT</p>	<p>Hints will provide needed information, shortcuts, and insights that will make assembly and machine operation easier and safer.</p>
--	---

Please review each assembly manual before beginning to assemble the KL7 SERIES CNC Router.

X Frame Wood Components

Part #	Description	Qty	Photo
X1	Frame Side	2	
X2	Mid Rail Supports	4	
X3	Rail Support	20	
X4	Drag Chain Mount	1	
X5	End Panels	2	
X6	Side Brace	2	
X7	Belt Rest	2	
X8	Corner Brace	4	

X Hardware Components

Part #	Description	Qty	Photo
H3	5/16 x 1 1/4 Machine Screw	104	
H5	5/16 Nut	104	
RX	3/8" x 48" X Rail	4	

X Frame Assembly

Step 1

Attach the ten X3 Rail Supports to the X1 Frame Side. Align the tabs of the X3 Rail Supports to the slots of the X1 Frame Side, insert and secure with twenty 5/16 x 1 1/4 Screws and Nuts as shown

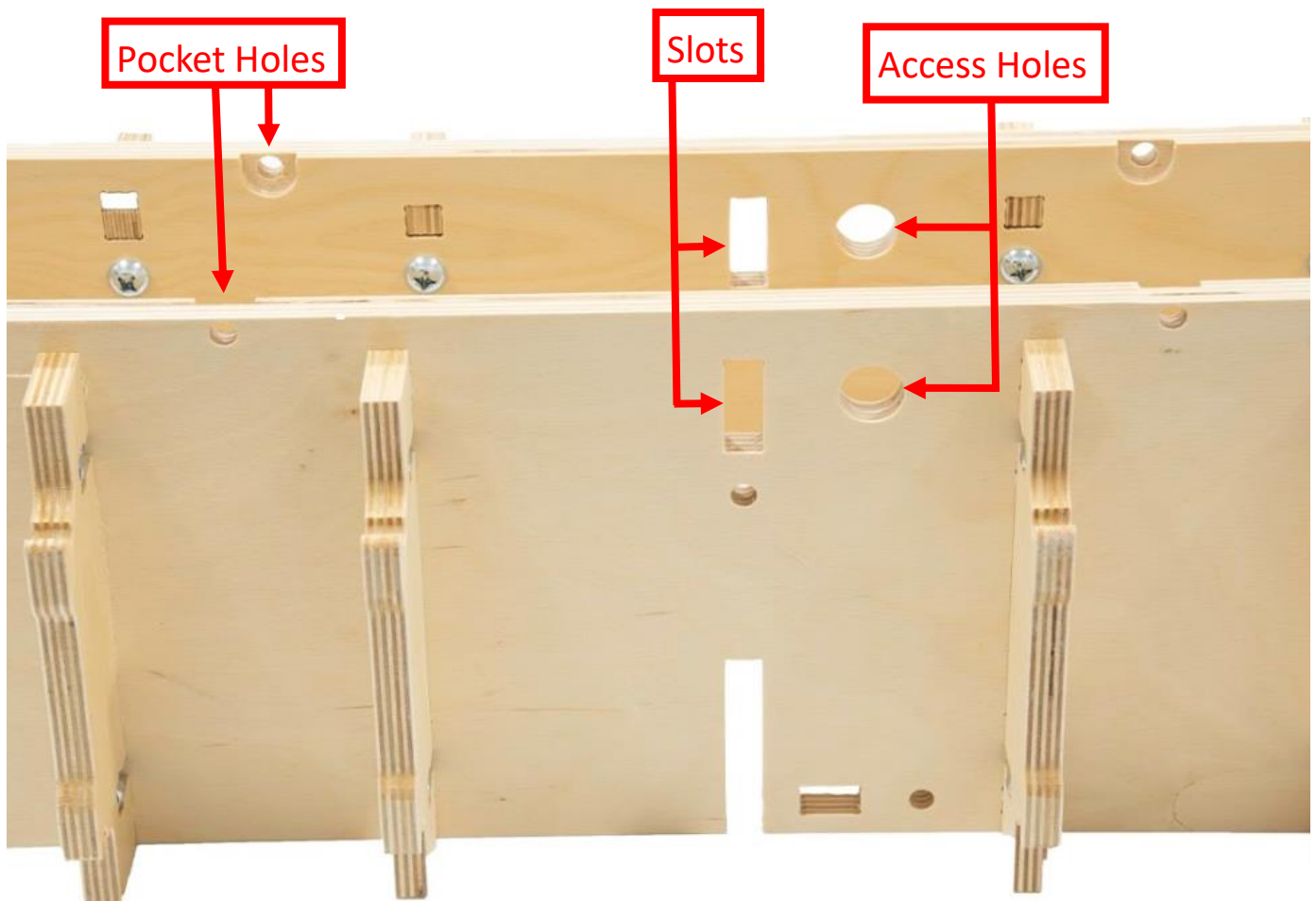
NOTE: The Pocket holes on the X1 Frame Side must be placed face-down when attaching the X3 Rail Supports.



Repeat to install the remaining ten X3 Rail Supports on the other Side Frame.

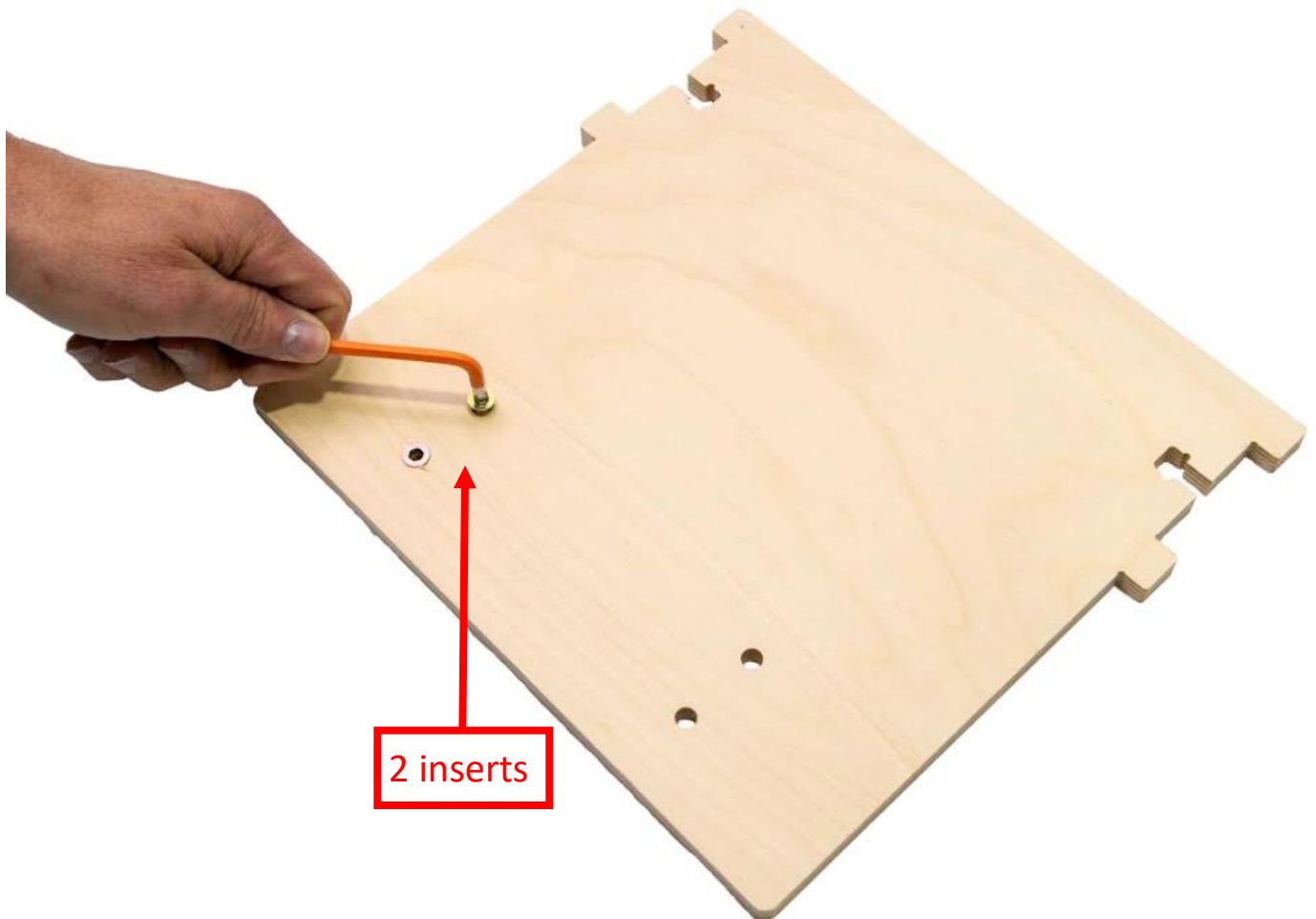


NOTE: The finished X Frame Side Assemblies are designed to mirror each other as shown. You will be able to see how the slots, pocket holes, and access holes line up.



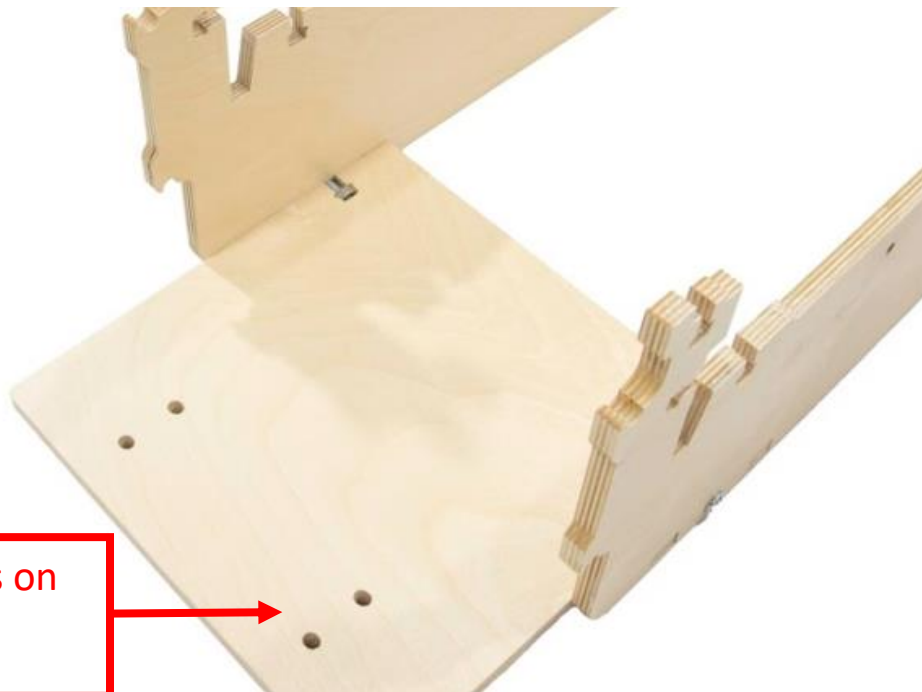
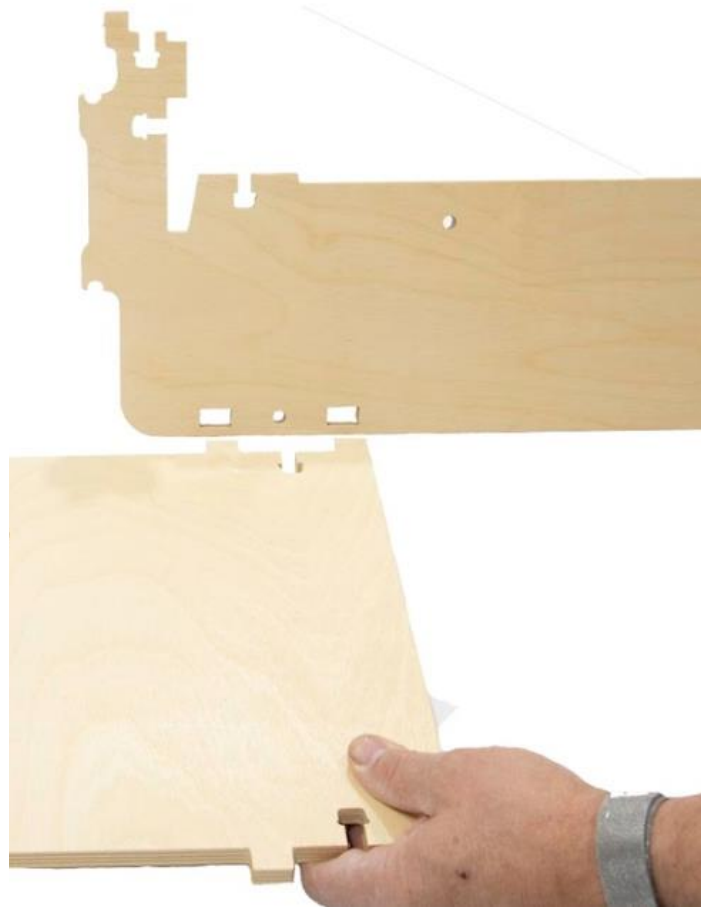
Step 2

Install two 10-24 Threaded Inserts into the X4 Drag Chain Mount as shown.



Step 3

Align the tabs of the X4 Drag Chain Mount with the slots in the X2 Mid Rail Supports and secure with two 5/16 x 1 1/4 Machine Screws and Nuts.



Inserts flanges on
opposite side

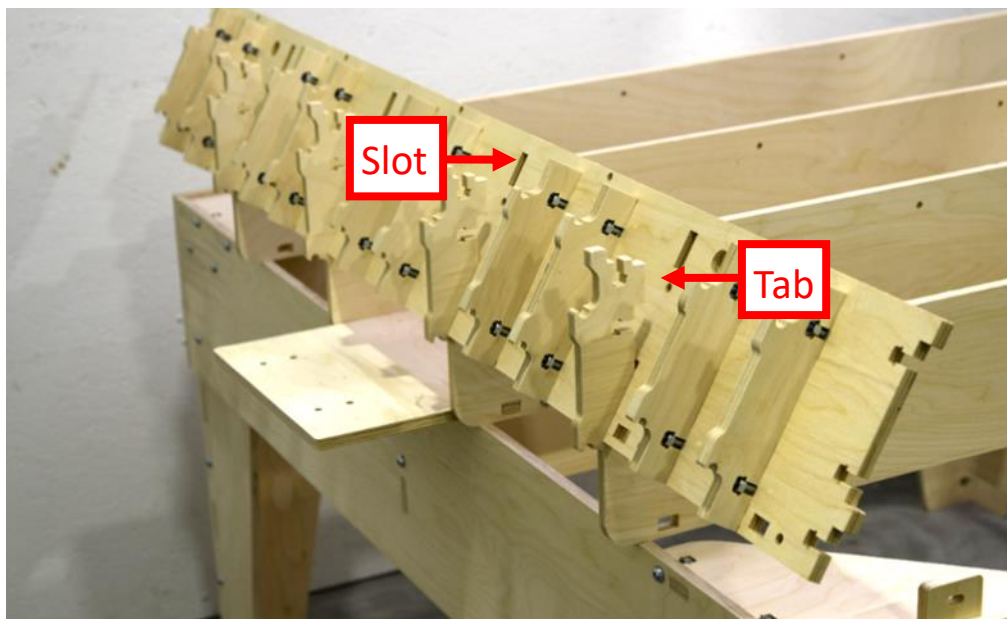
Step 4

With the X2 Mid Rail assembly on a large flat work surface set the third X2 Mid Rail beside it as shown.

NOTE: In the photo below the assembly is setting on the KL744 Optional Table.

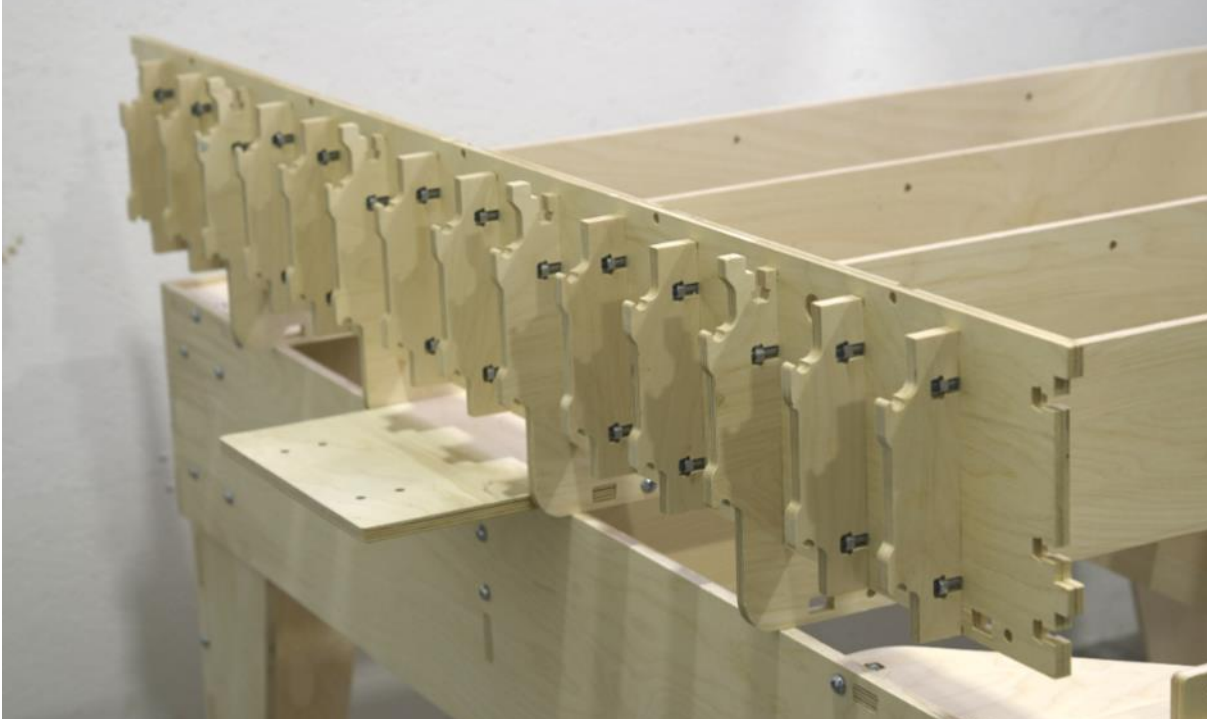


Align slots of the X Frame Side Assembly with the X2 Mid Rail Supports as shown. Carefully slide the slots down until the bottom of the slot rests on the base of X Frame Side Assembly. The tabs on the X2 Mid Rail Supports will fit in slots of the X Frame Side Assembly. Secure with four 5/16 x 1 1/4 Machine Screws and Nuts.

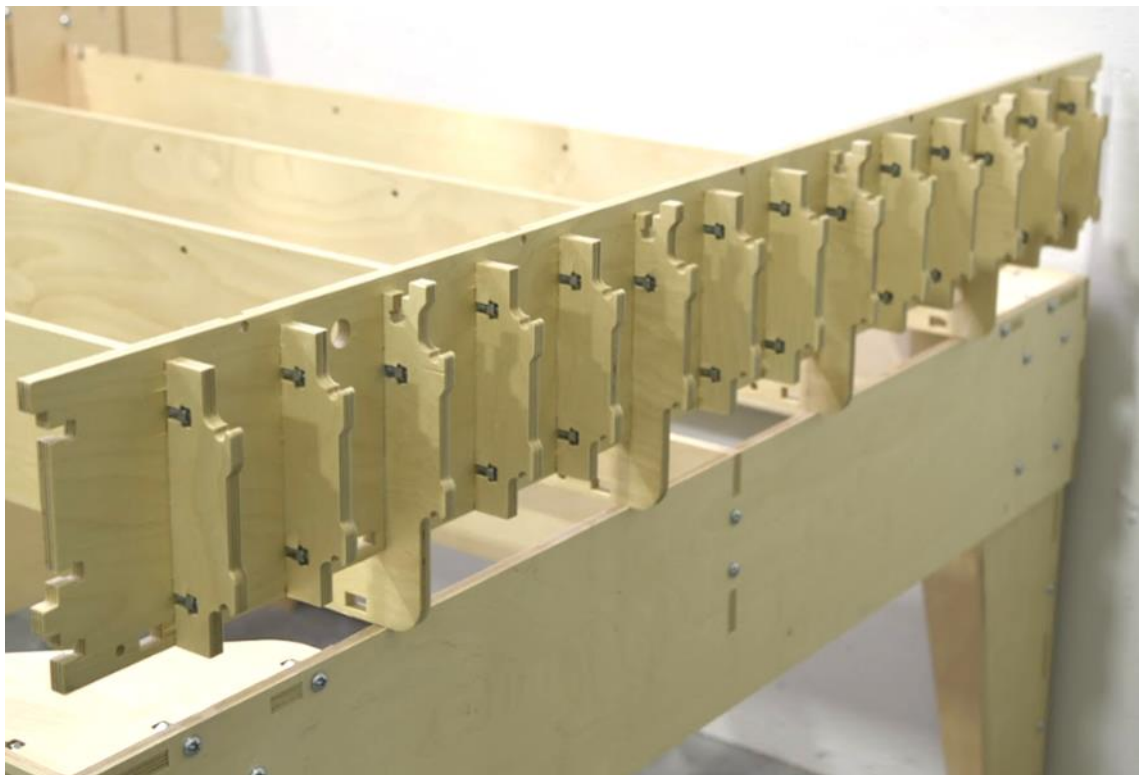


Repeat to install the remaining X Frame Side Assembly on the opposite side.

Left Side Assembled

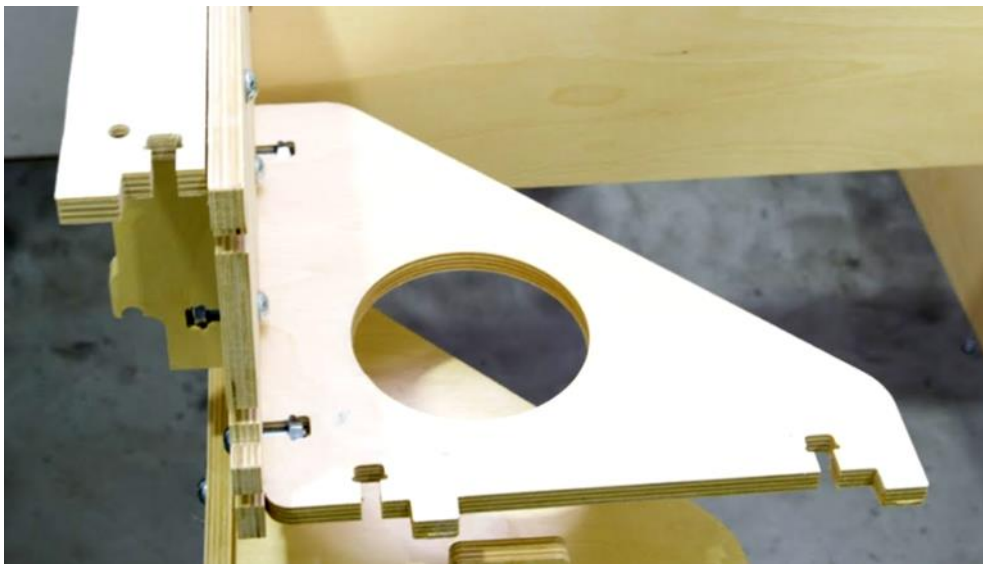


Right Side Assembled



Step 5

Insert the tabs of the X8 Corner Brace into the slots of the X Frame Side Assembly as shown and secure with two 5/16 x 1 1/4 Machine Screws and Nuts.



Repeat to install all four Corner Braces.

Step 6

Attach the X7 Belt Rest to the top of the X Frame Side Assembly. Align the three slots of the X7 Belt Rest with the three tabs of the X Frame Side Assembly as shown and secure with seven 5/16 x 1 1/4 Machine Screws and Nuts.



NOTE: It is important that the surface of the X7 Belt Rest and the top edge of the Frame Side Assembly form a smooth flat surface before fastening together as shown.

Step 7

Attach one of the X5 End Panels to the rear of the X Frame Assembly. Align the slots of the X5 End Panel with the tabs at both ends of the X Frame Assembly and secure with twelve 5/16 x 1 1/4 Machine Screws and Nuts as shown.



Back View

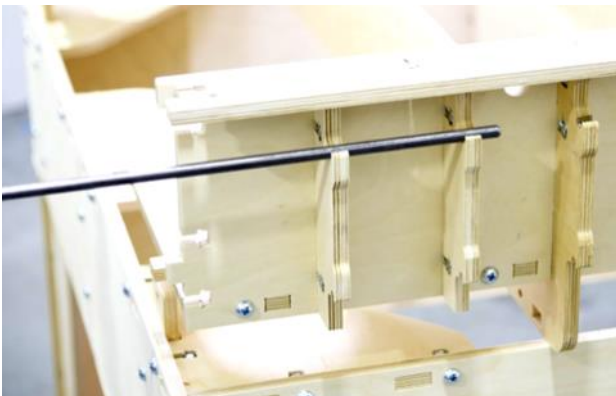


Apply Teflon dry lube to the rail prior to installation.

Step 8

Carefully slide an X Rail through the X3 Rail Supports until it fits into the pocket hold in the X5 End Panel as shown.

NOTE: Do not snap the rod into place.



NOTE: To make installing the rods easier you can slowly rotate the rail through the Rail Supports by using a 3/8 variable speed drill as shown.

Step 9

With someone to assist you, carefully slide the Gantry Assembly onto the X rails. Be sure the upper pulleys are riding on the upper rail and the lower pulleys are beneath the lower rail on both sides.



Step 10

Attach the remaining X5 End Panel to the front of the X Frame Assembly. Align the slots of the X5 End Panel with the tabs at both ends of the X Frame Assembly and secure with twelve 5/16 x 1 1/4 Machine Screws and Nuts as shown.



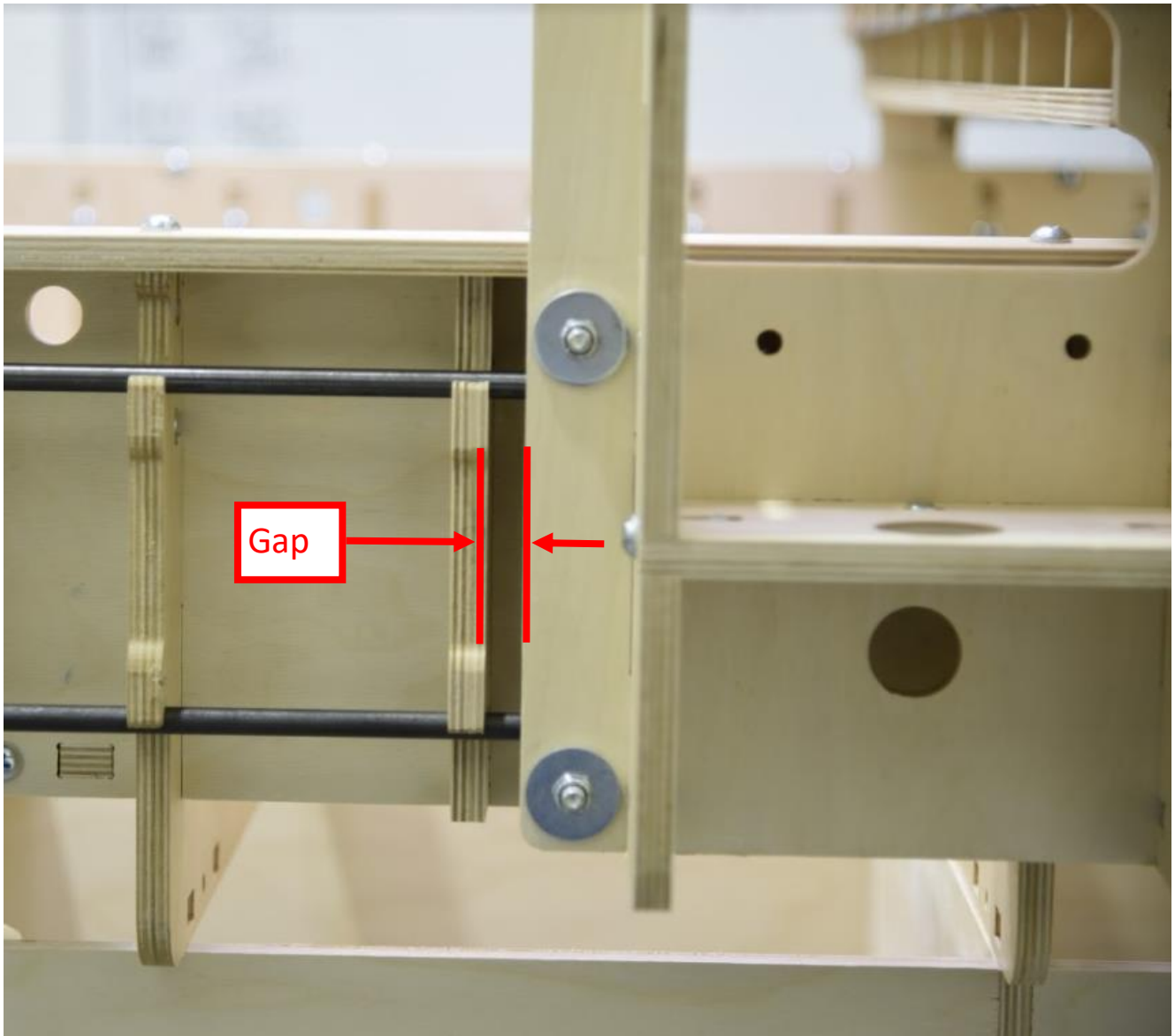
Step 11

On the Gantry Sides, using a 5/64 Allen Wrench, adjust the 8-32 Set Screws to snug the lower pulley against the lower rail. Repeat for all four lower Set Screws. The pulley should be full engaged with the rail and only roll when the Gantry moves.

NOTE: Remember to apply Loctite 243 to the threads of the Set Screws.



NOTE: The gap should be parallel as shown on both sides of the Gantry Assembly.



Step 12

Attach one of the X6 Side Braces to the X Frame Assembly and secure with five 5/16 Machine Screws and Nuts as shown. Repeat for the other side.



NOTE: For ease of installation set the 5/16 Nuts in the T-Slots before laying the X6 Side Brace in place.

