

Omio CNC Router Stand (Mobile Cart) - User Guide (Rev 1)

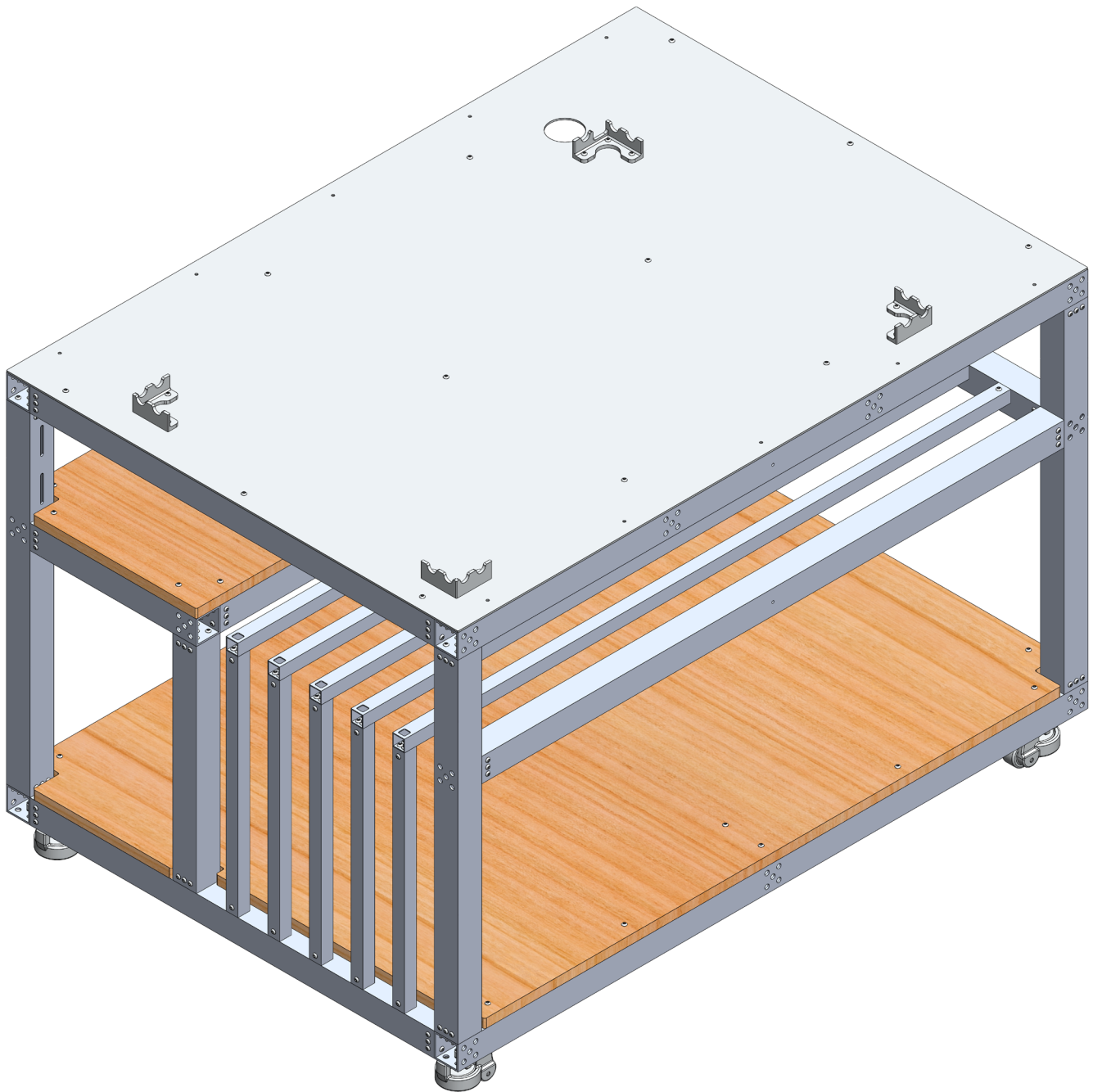




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What is the Omio CNC Router Stand (Mobile Cart)?



The Omio CNC Router Stand is a sturdy, mobile table for the Omio X8-2200L-USB (WCP-0341). The stand will hold the computer or laptop used to control the router as well as the control box. The stand is large enough to accommodate an enclosure, if desired. Everything needed to operate the Omio X8-2200L is contained in one mobile unit.

Features:

- Designed for the Omio X8-2200L-USB (WCP-0341)
 - Smaller routers may be used as well
- Overall Dimensions: 53"L x 38"W x 35.5"H
- 2" x 2" aluminum tubing construction
- Casters with leveling pads
- Material Storage (6 sections) fits 2' x 4' sheet
- Monitor arm mounting holes
- Storage space for other accessories and tools
- Omio Enclosure (WCP-0343) bolts directly to cart
- Weight Capacity - 500 lbs



Recommended Tools

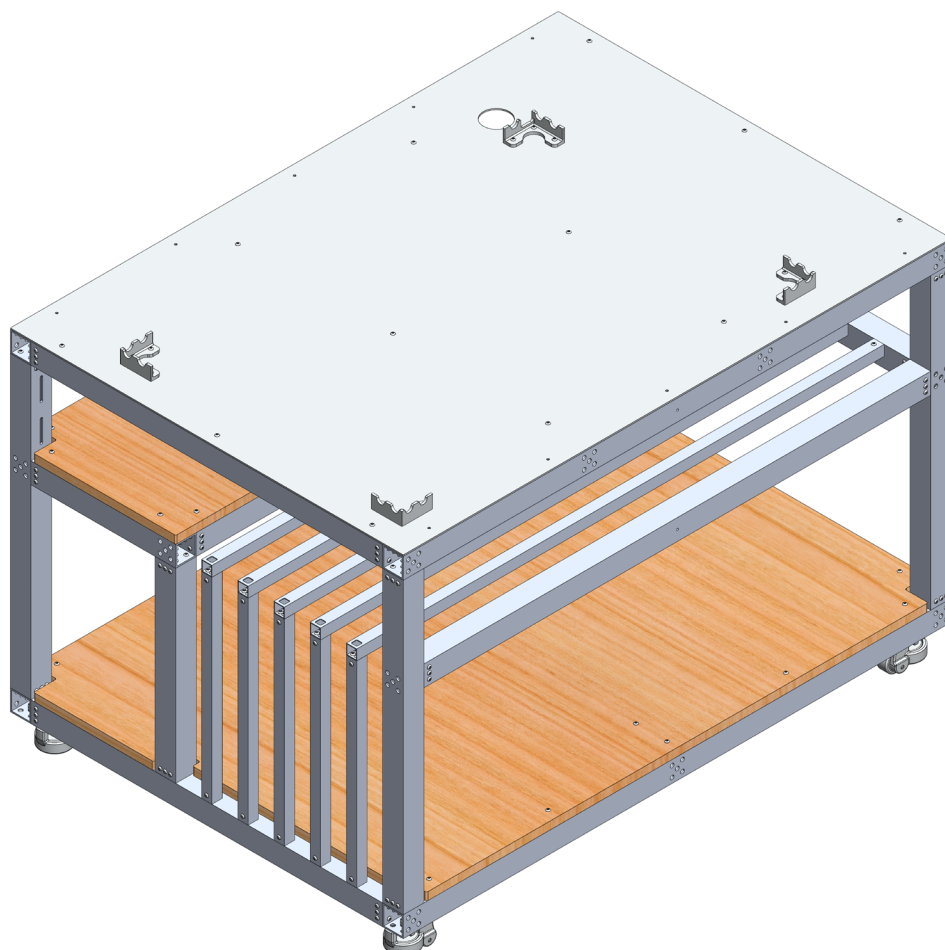
Picture	Name
	Dead Blow Hammer
	Allen Wrench Set



Omio CNC Router Stand Assembly Instructions

The following outlines the assembly instructions for the Omio CNC Router Stand. All tubing will be labeled with its own number to help with assembly. Tubing locations can also be found in the CAD model available on the product page.

Rivnuts will come pre-installed where needed.





Assembly Note

Due to variations and differences in quality of the aluminum extrusion, WCP will install all tube plugs into the ends of the tubing where they are required. We do this to ensure all tube plugs fit correctly. Step 1 can be skipped as it will be completed before shipping.

When installing the 2" x 2" tube plugs, the following illustrations show the maximum amount of bolts that can be added to each tube. We have provided the amount that is necessary for the cart to be assembled correctly and more may be added if desired. Each tube plug only requires two bolts per side as opposed to the three seen in Step 1. Additionally, only four bolts are needed to attach one tube to an adjacent tube as opposed to five as seen in the remaining assembly steps.



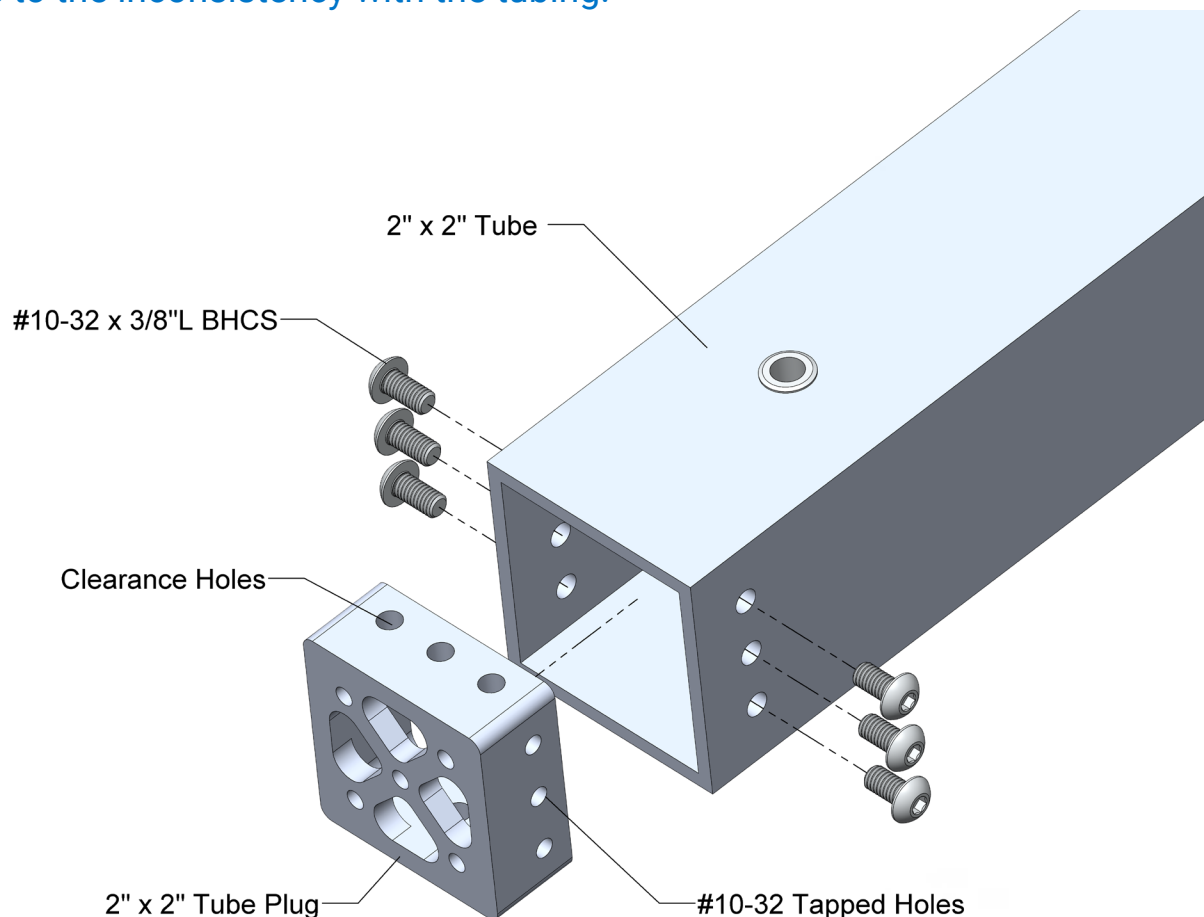
Step 1

2" x 2" Tube Plug

Slide a 2" x 2" tube plug into the tube. Align the tapped holes on the sides of the tube plug with the clearance holes in the tubing. Install the six #10-32 x 3/8"L BHCS.

Repeat this step on all 2" x 2" tubing that has the same hole pattern on the ends. There will be 33 plugs in total that need to be installed.

Note: Some plugs may not be a slip fit and may need to be tapped in with a mallet. This is due to the inconsistency with the tubing.



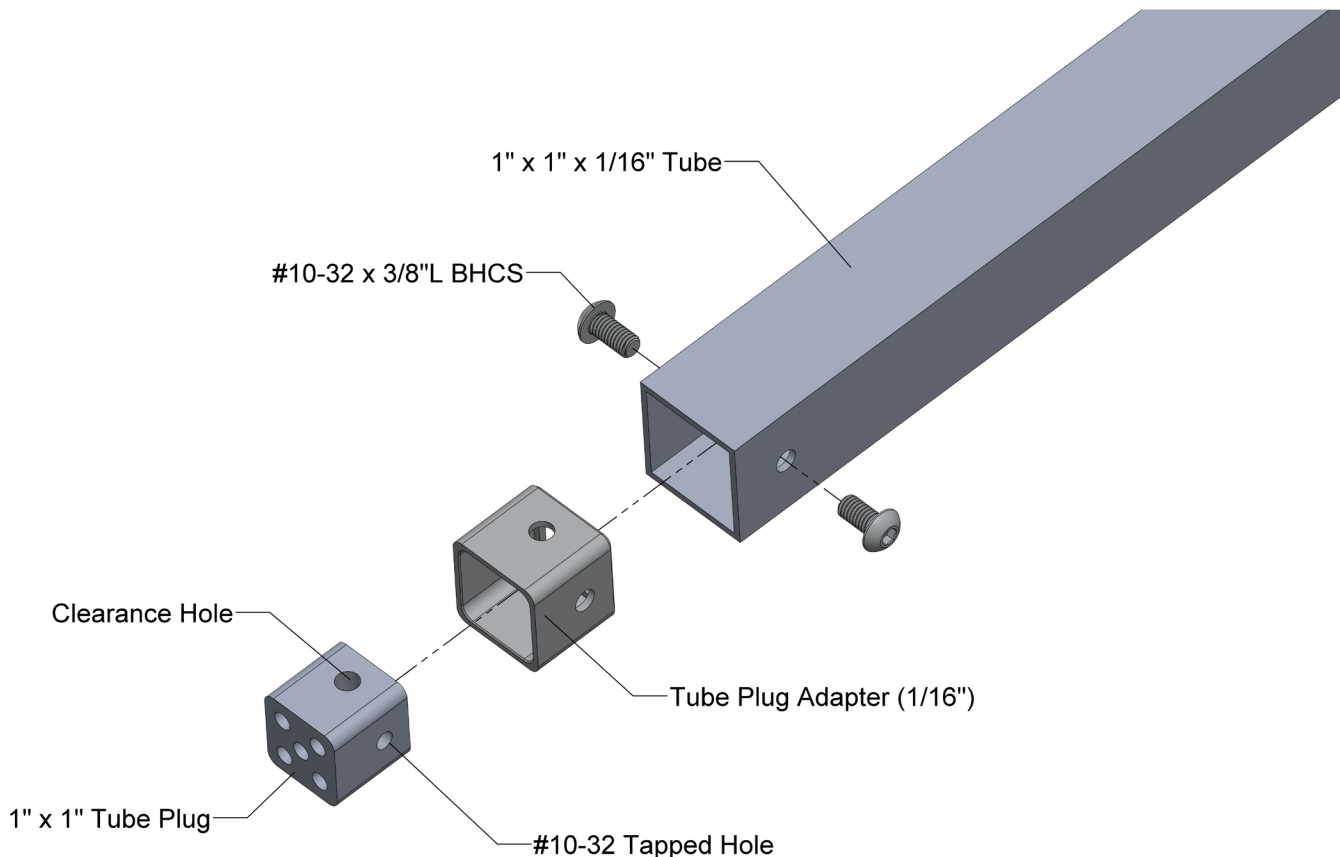


1"x1" Tube Plug (1/16" Wall Tubing)

Slide a 1" x 1" tube plug into the tube plug adapter. Then slide both into the tubing. Align the tapped holes on the sides of the tube plug with the clearance holes in the tubing. Install the two #10-32 x 3/8"L BHCS.

Repeat this step on all 1" x 1" x 1/16" tubing that has the same hole pattern on the ends. There will be five plugs and adapters in total that need to be installed.

Note: Some plugs may not be a slip fit and may need to be tapped in with a mallet. This is due to the inconsistency with the tubing.



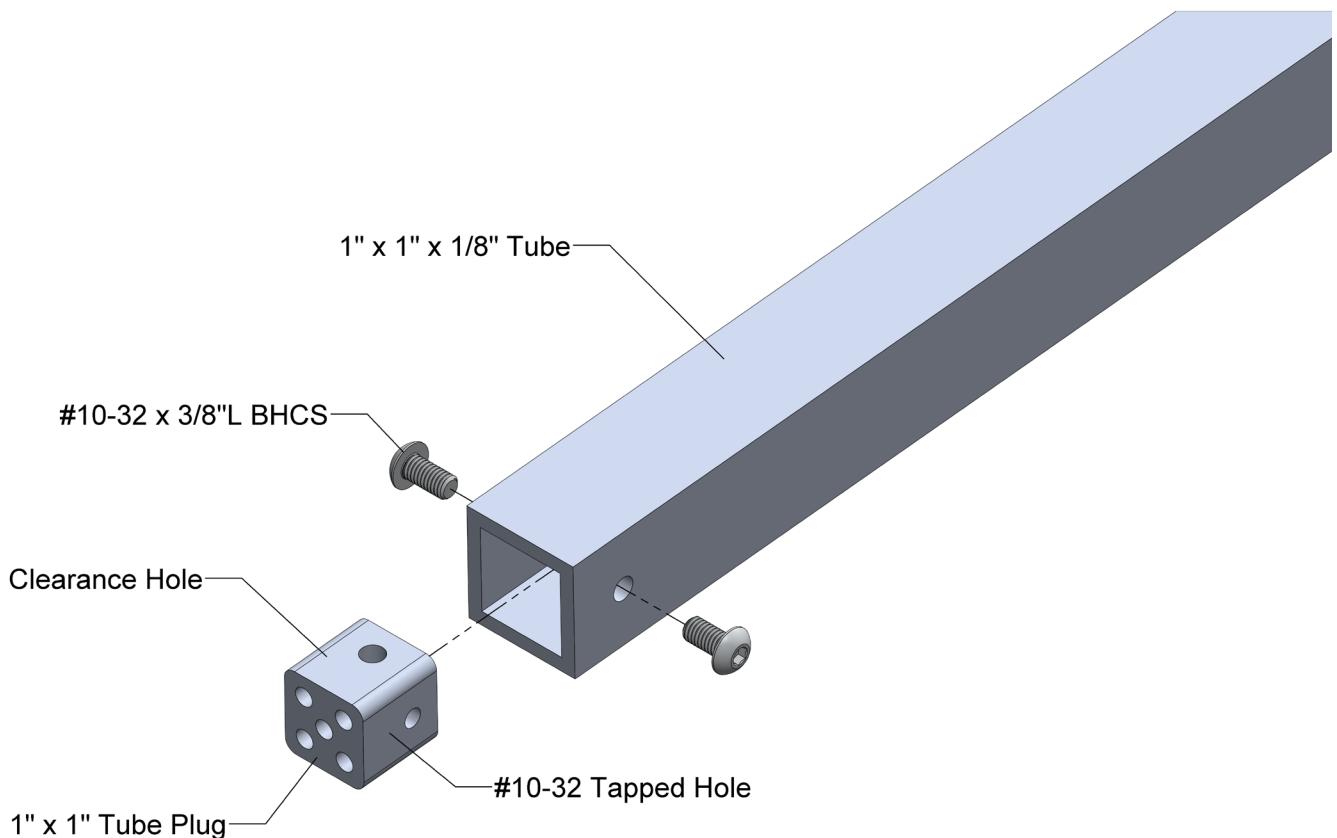


1"x1" Tube Plug (1/8" Wall Tubing)

Slide a 1" x 1" tube plug into the tube. Align the tapped holes on the sides of the tube plug with the clearance holes in the tubing. Install the two #10-32 x 3/8"L BHCS.

Repeat this step on all 1" x 1" x 1/8" tubing that has the same hole pattern on the ends. There will be ten plugs in total that need to be installed.

Note: Some plugs may not be a slip fit and may need to be tapped in with a mallet. This is due to the inconsistency with the tubing.



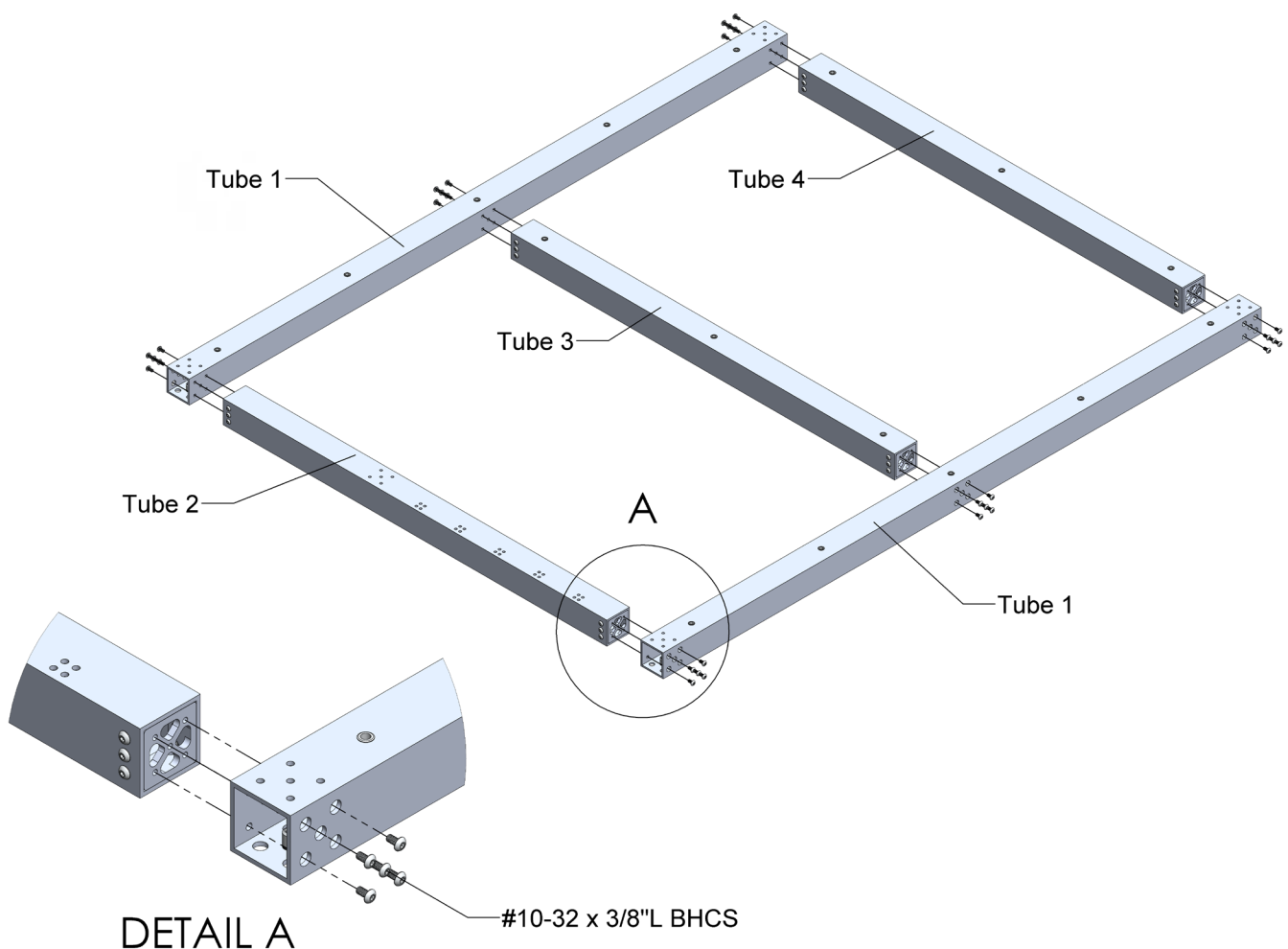


Step 2

Place tubing on a flat surface as shown below. All #10-32 rivnuts should be facing up with the 1/4-20 rivnuts in each corner facing down.

Install the five #10-32 x 3/8" L BHCS screws into each tubing plug in the locations shown below.

Note: Assembly for this step will be easier if all components are placed on a table so that there is access to the side holes.

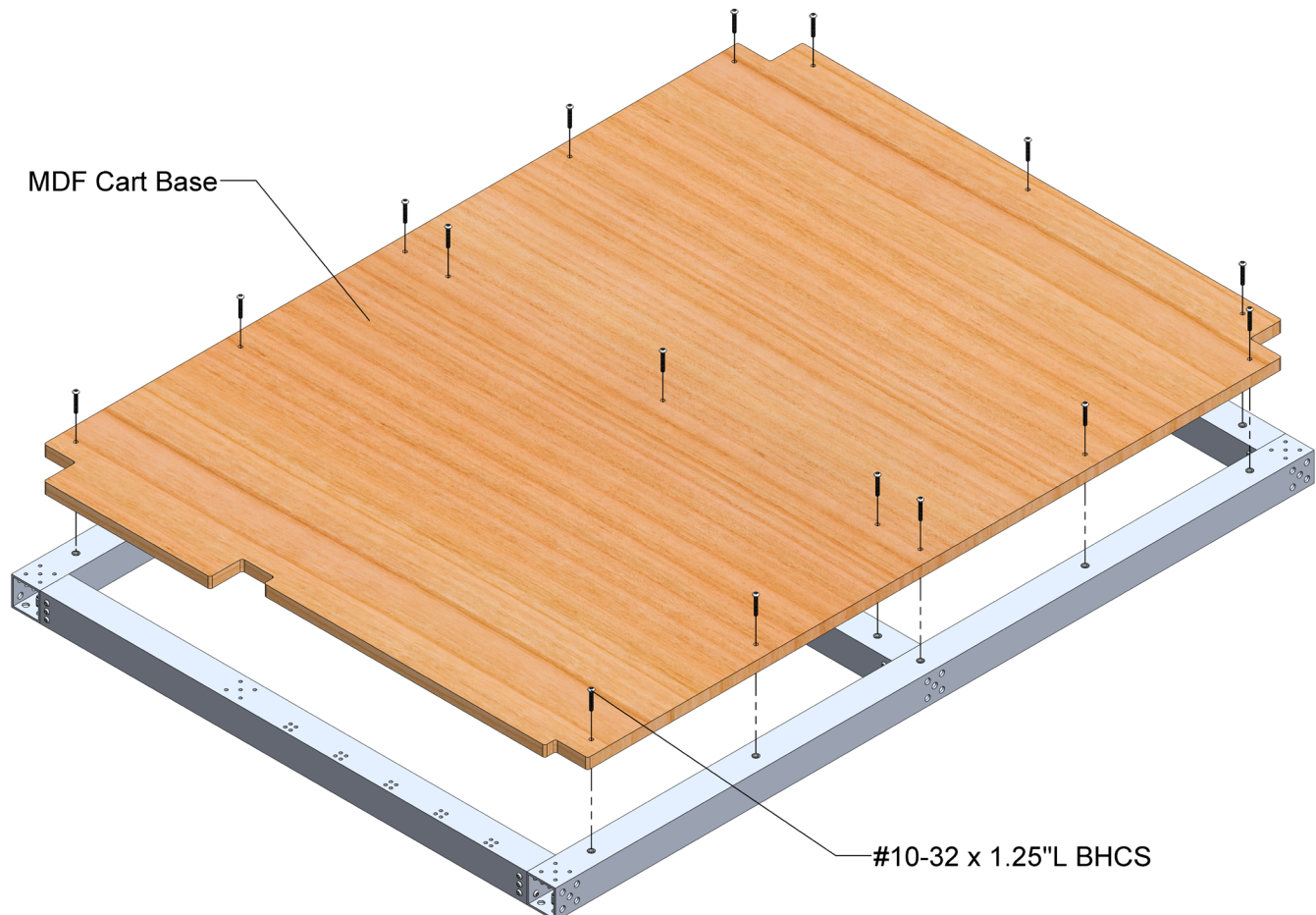




Step 3

Place the MDF Cart Base on top of the aluminum structure from the previous step. The counter bores in the MDF Cart Base will line up with the rivnuts in the tubing. Install all #10-32 x 1.25"L bolts.

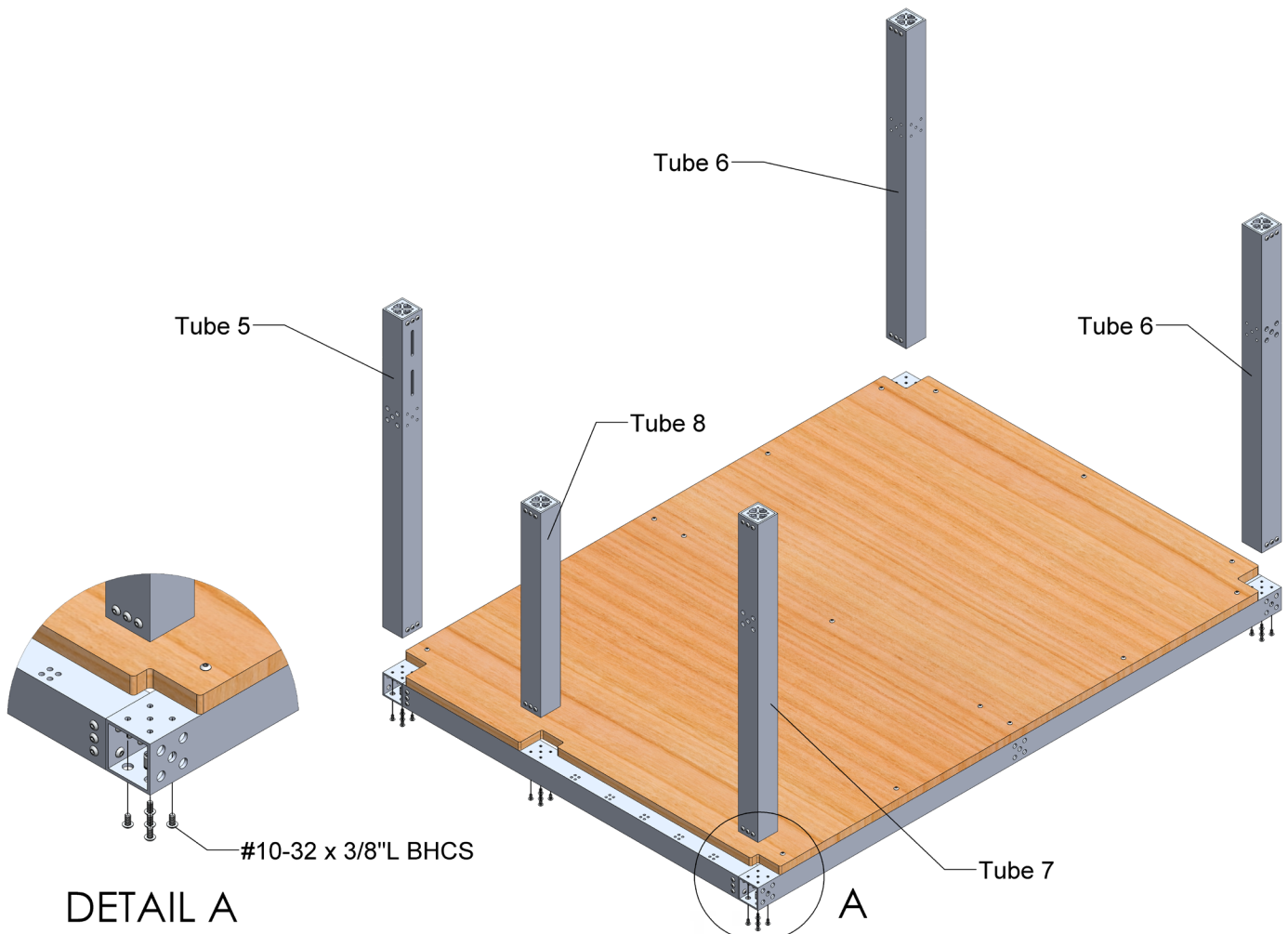
Note: DO NOT over tighten the bolts.





Step 4

Install all tubes as shown in the locations shown below. Use five #10-32 x 3/8" L bolts to secure each one in place.



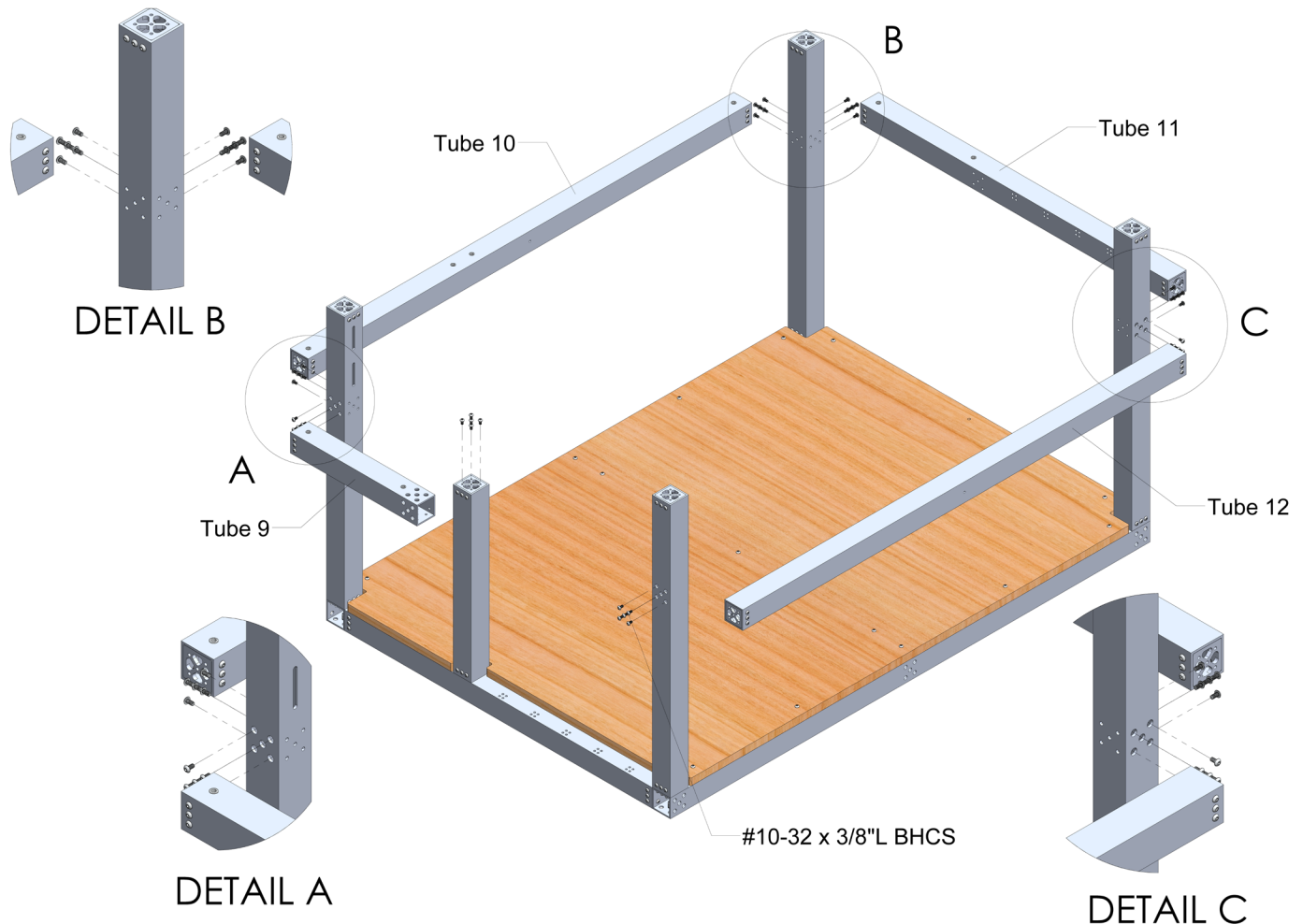
#10-32 x 3/8" L BHCS

DETAIL A



Step 5

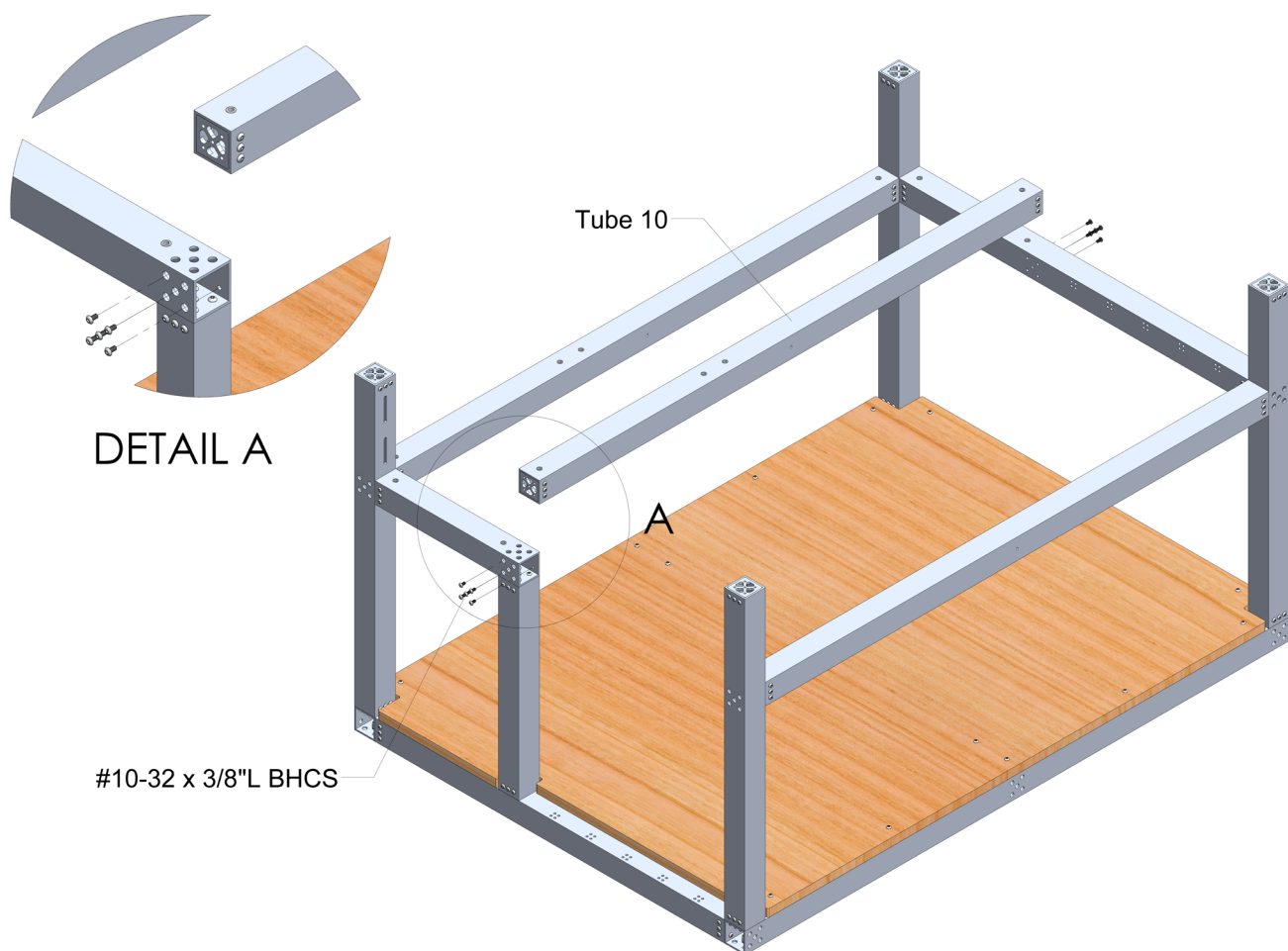
Install all tubes as shown in the locations shown below. Use five #10-32 x 3/8" L bolts to secure each end of tube in place. Rivnuts need to be facing up on each tube.





Step 6

Install all tubes as shown in the locations shown below. Use five #10-32 x 3/8" L bolts to secure each end of tube in place. Rivnuts need to be facing up on each tube.

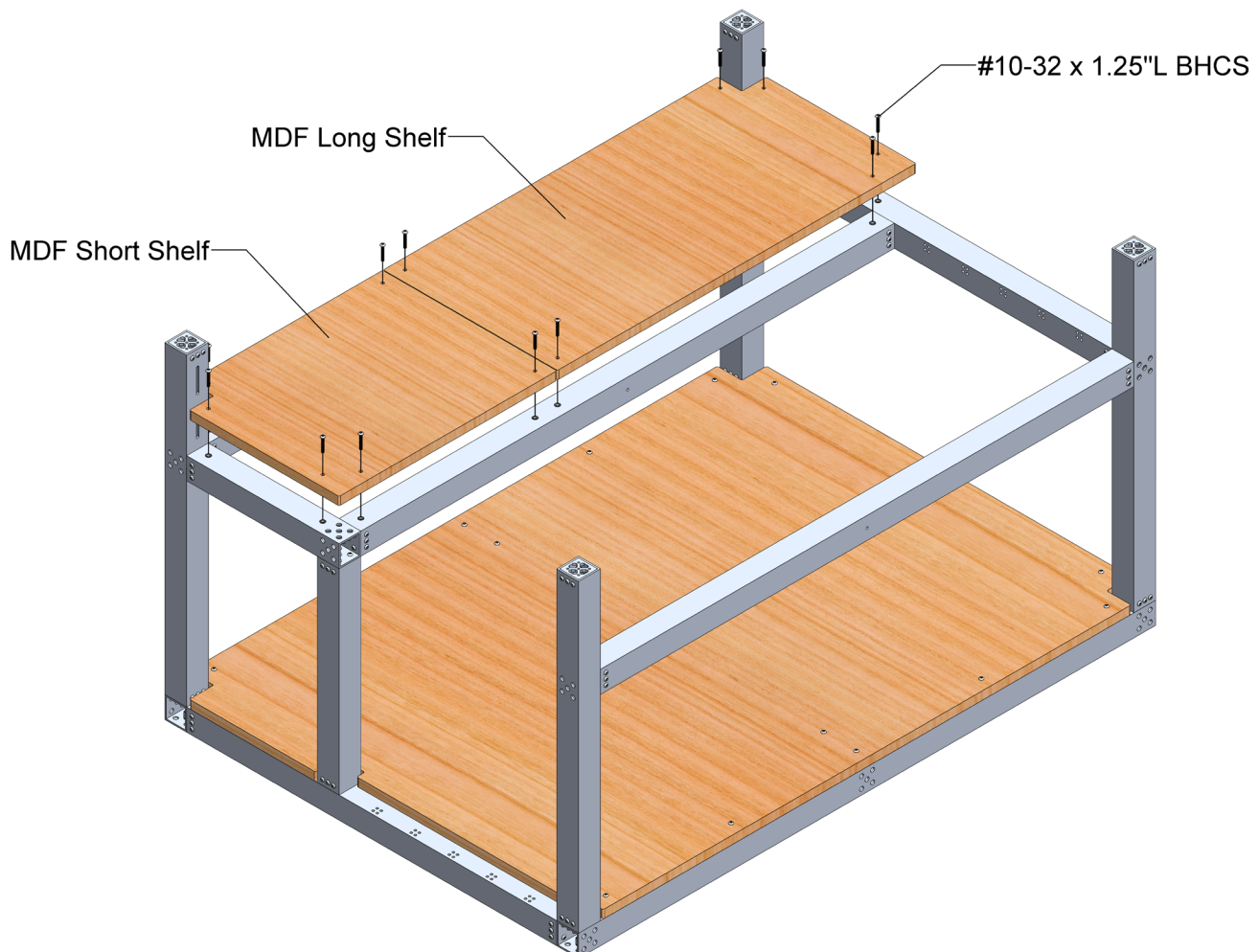




Step 7

Place the MDF Short Shelf and MDF Long Shelf on top of the aluminum structure from the previous step. The counter bores in the MDF Shelf will line up with the rivnuts in the tubing. Install all #10-32 x 1.25" L bolts.

Note: DO NOT over tighten the bolts.

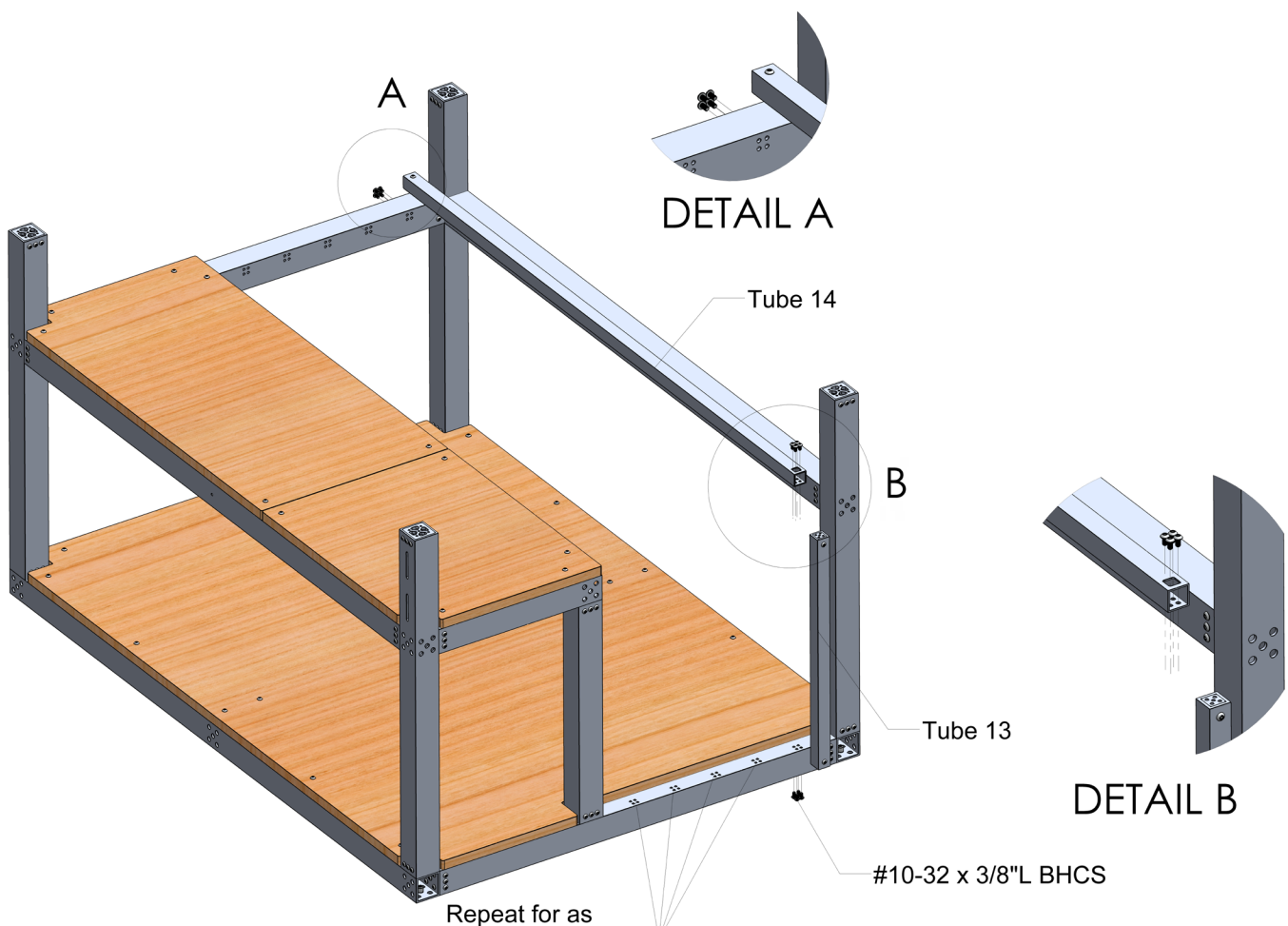




Step 8

Install all tubes as shown in the locations shown below. Use four #10-32 x 3/8" L bolts to secure each end of tube in place. Install as many sets of dividers as desired.

Note: Some angle iron may be installed on the wood base directly under each 1" x 1" piece of tubing to help prevent sheets from sliding around, if the cart will be moved often. This is an optional addition and parts are not included.



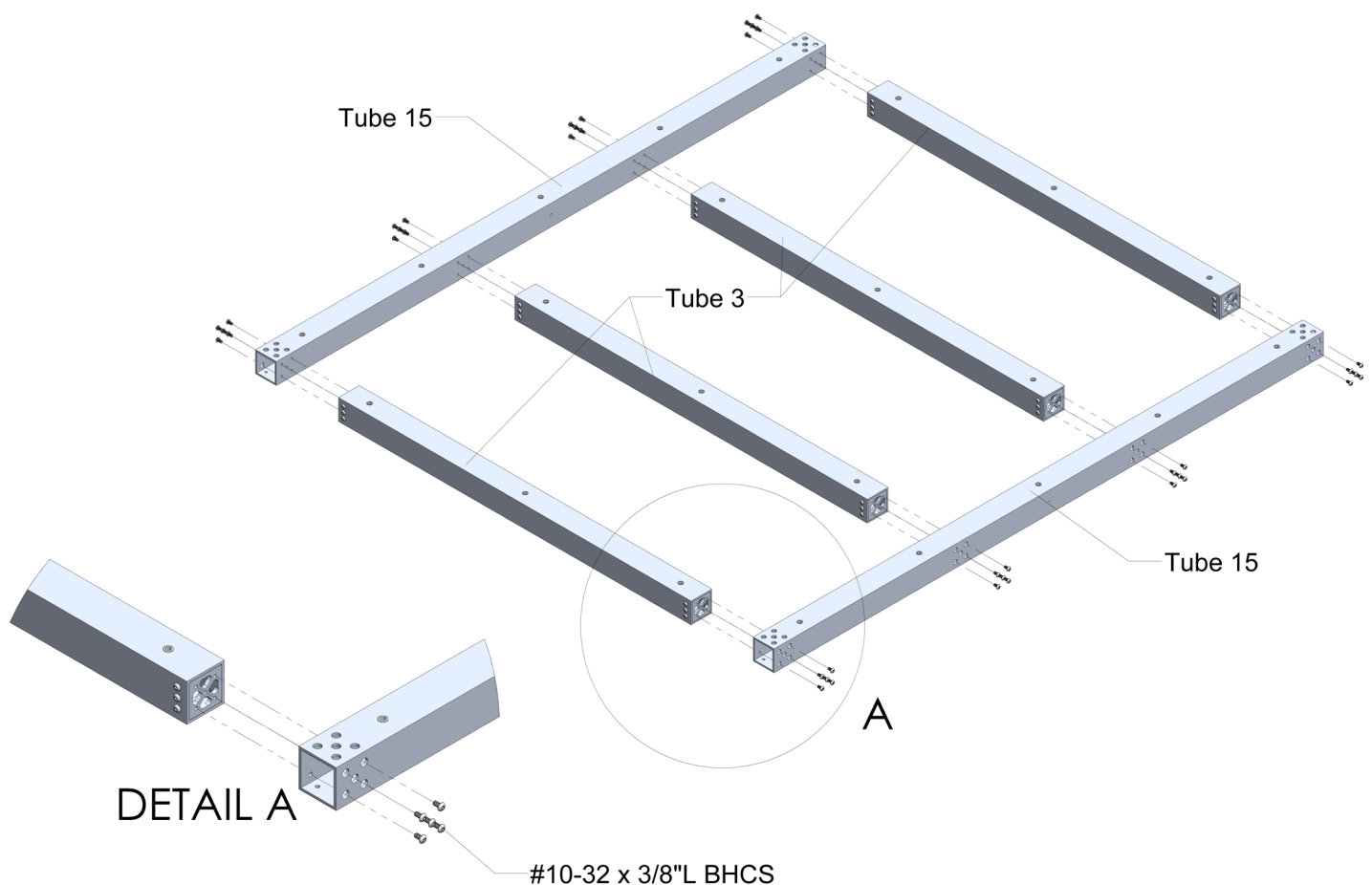


Step 9

Place tubing on a flat surface as shown below. All #10-32 rivnuts should be facing up.

Install the five #10-32 x 3/8"L BHCS screws into each tubing plug in the locations shown below.

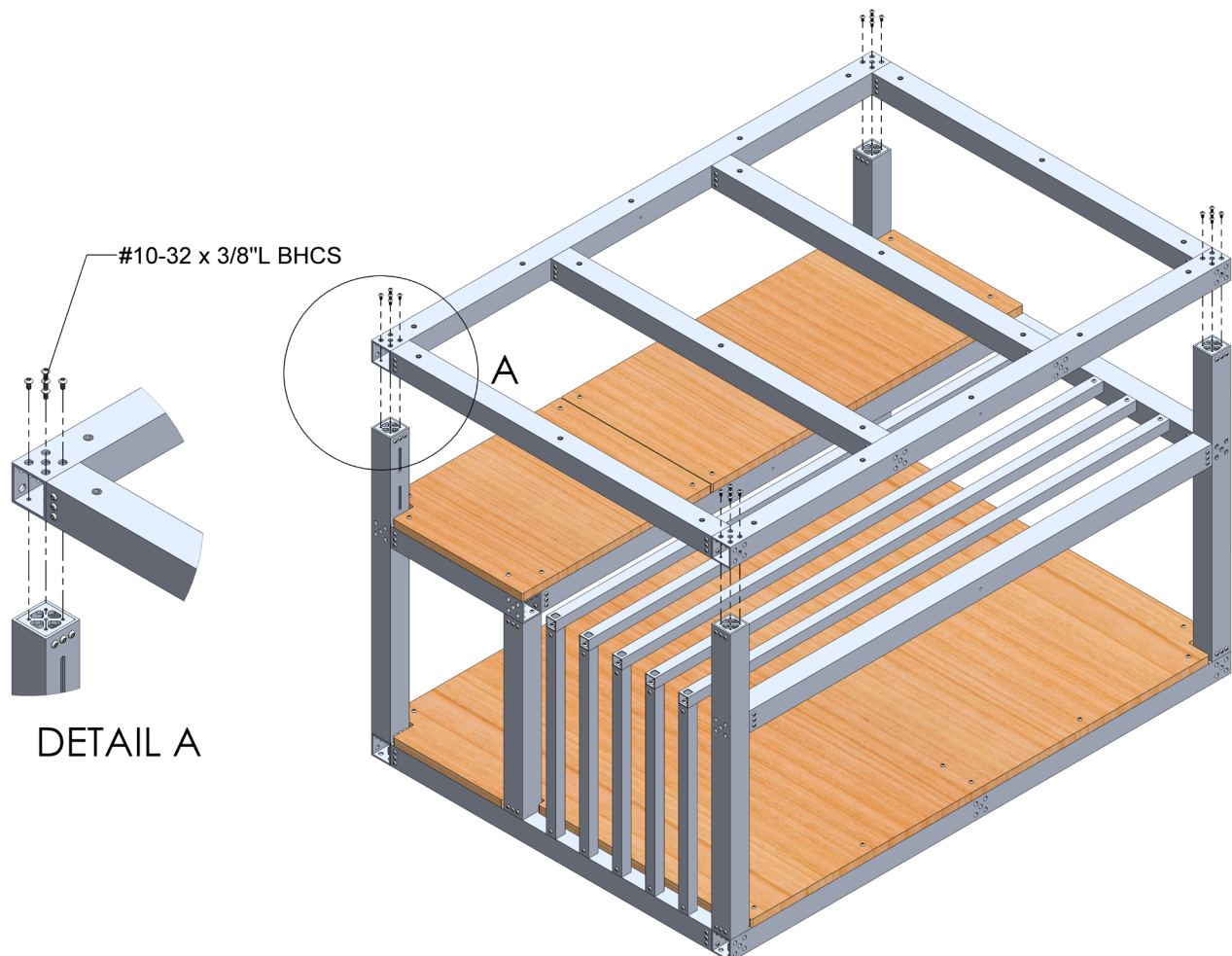
Note: Assembly for this step will be easier if all components are placed on a table so that there is access to the side holes.





Step 10

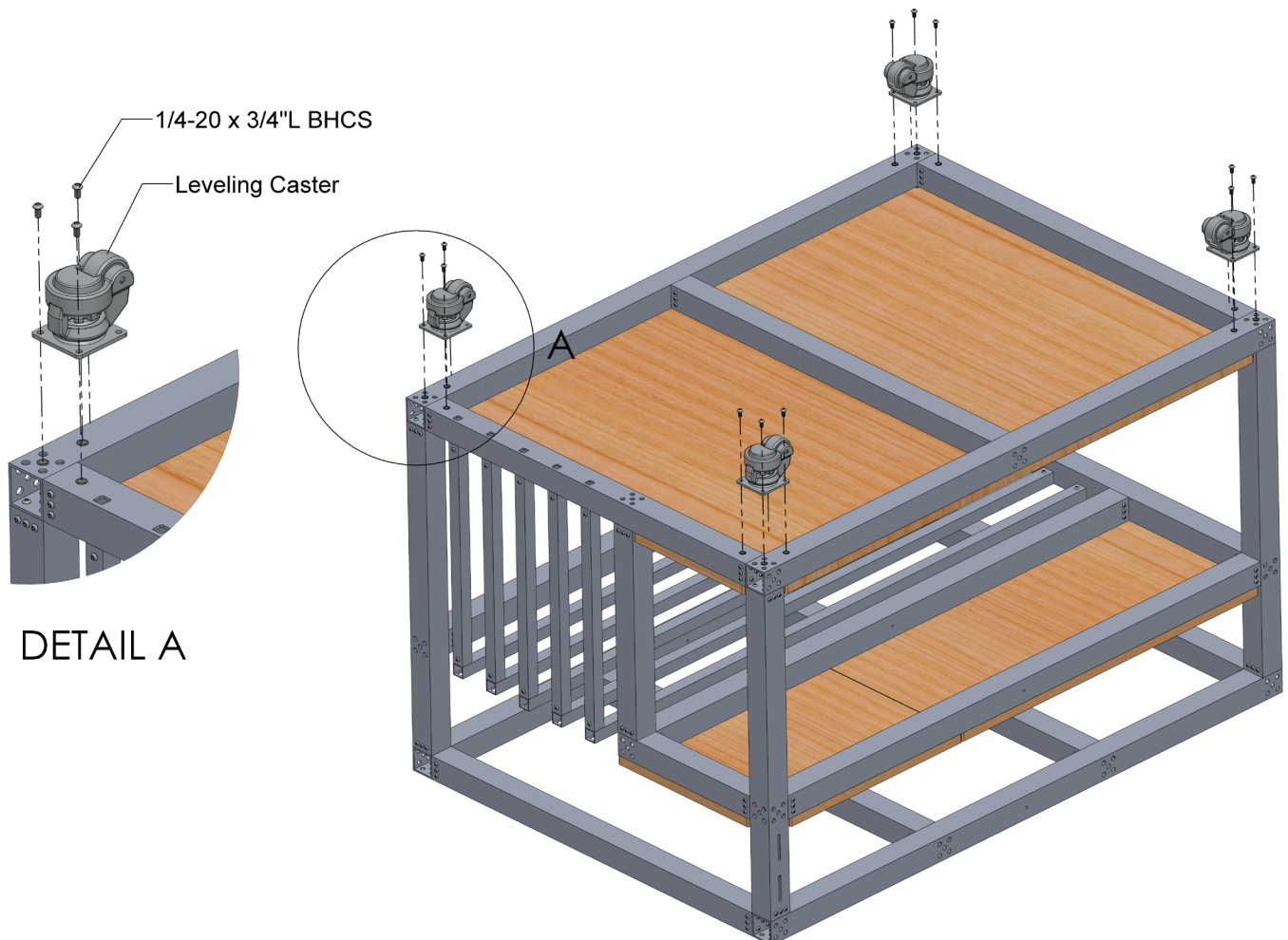
Install the assembly from the previous step onto the assembly from step 8. Use five #10-32 x 3/8" L BHCS in each tube plug in the shown locations.





Step 11

Flip the assembly from the previous step upside down, as shown in the image below. Attach each caster using three 1/4-20 x 3/4" L BHCS.

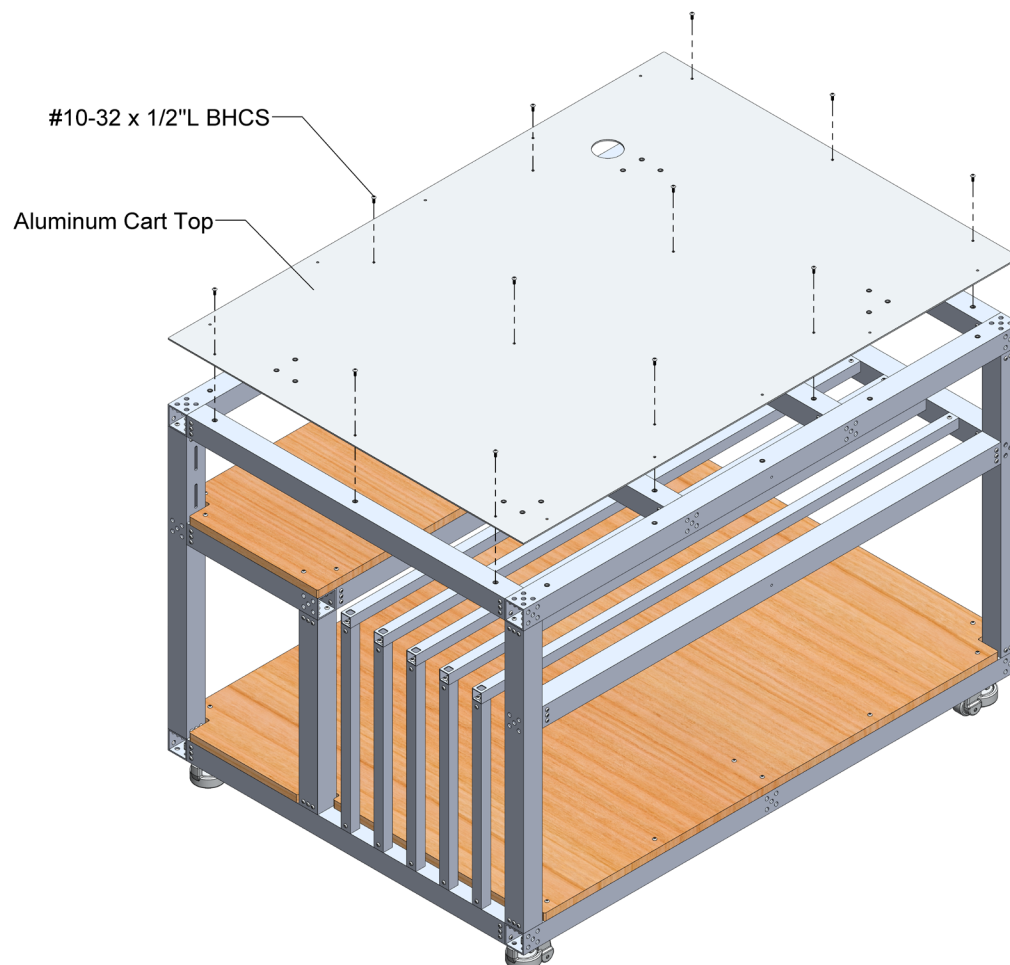




Step 12

Flip the assembly right side up, as seen below. Align the Aluminum Cart Top with the rivnuts in the top of the cart assembly. The counter bores in the aluminum sheet will be facing the rivnuts. Use twelve #10-32 x 1/2" L BHCS to attach the sheet to the cart.

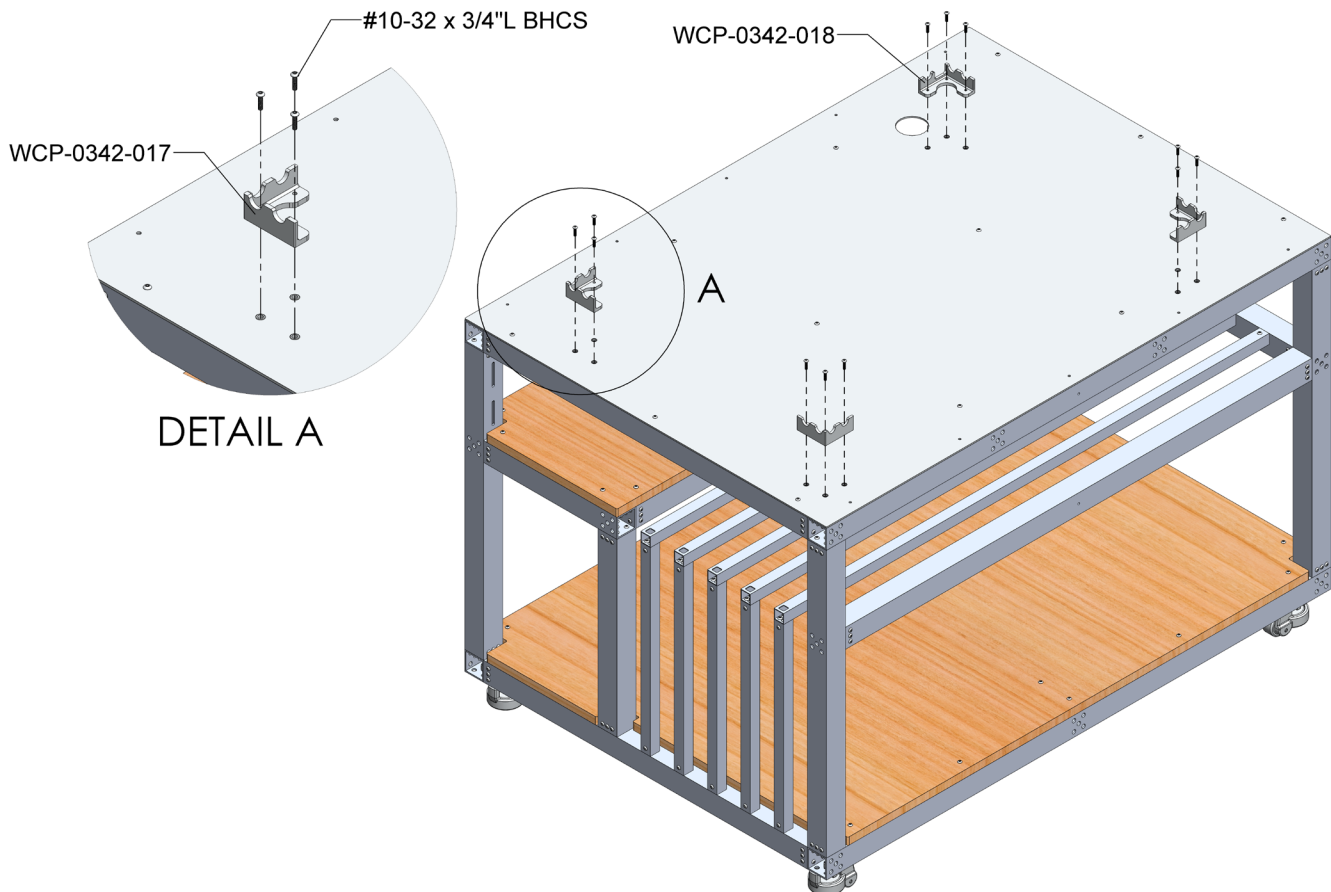
Note: If an enclosure is not to be installed, additional #10-32 x 1/2" L BHCS can be added into the unused holes.





Step 13

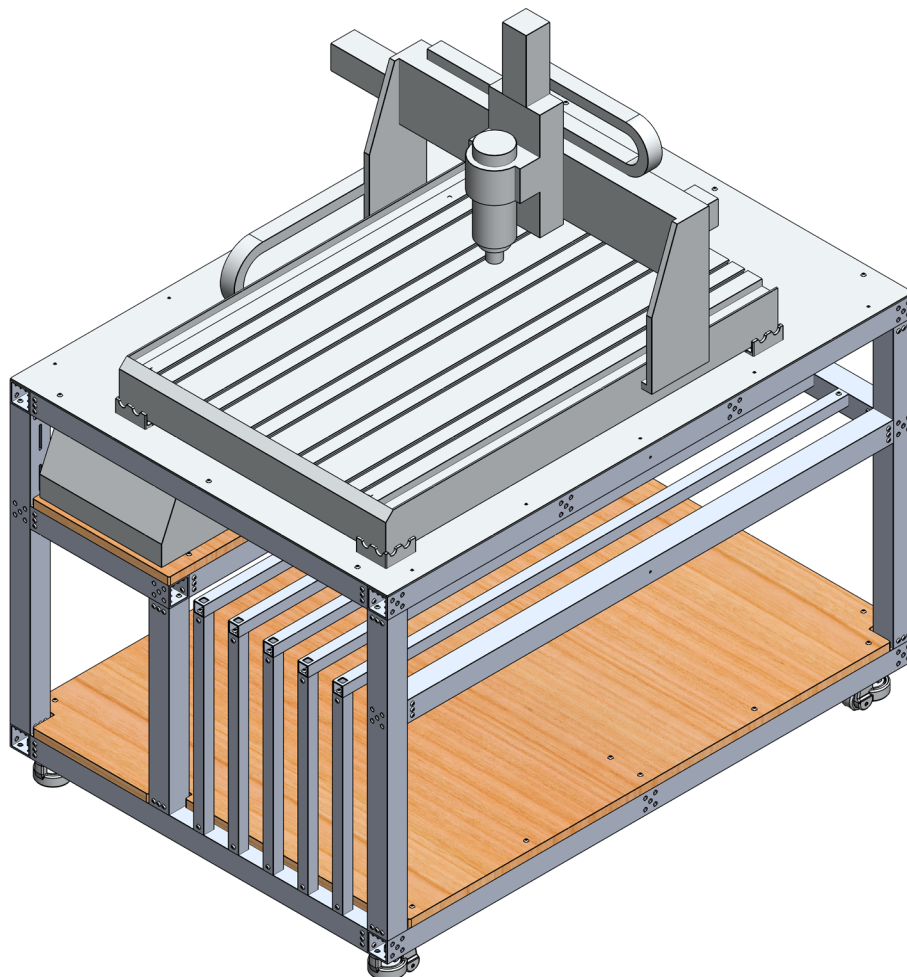
Install the four 3D printed Corner Guards using three #10-32 x 3/4" L bolts each. There are two different versions of this part that look very similar. The limit switch version (WCP-0342-018) will have a clearance notch for the Y axis limit switch. This part will go in the back left corner, as seen in the image below.





Installing Omio X8 CNC Router

If possible, it is recommended to build the Omio router in place on the cart. Once fully assembled, the router is hard to move around and will require multiple people to get in place on the cart.



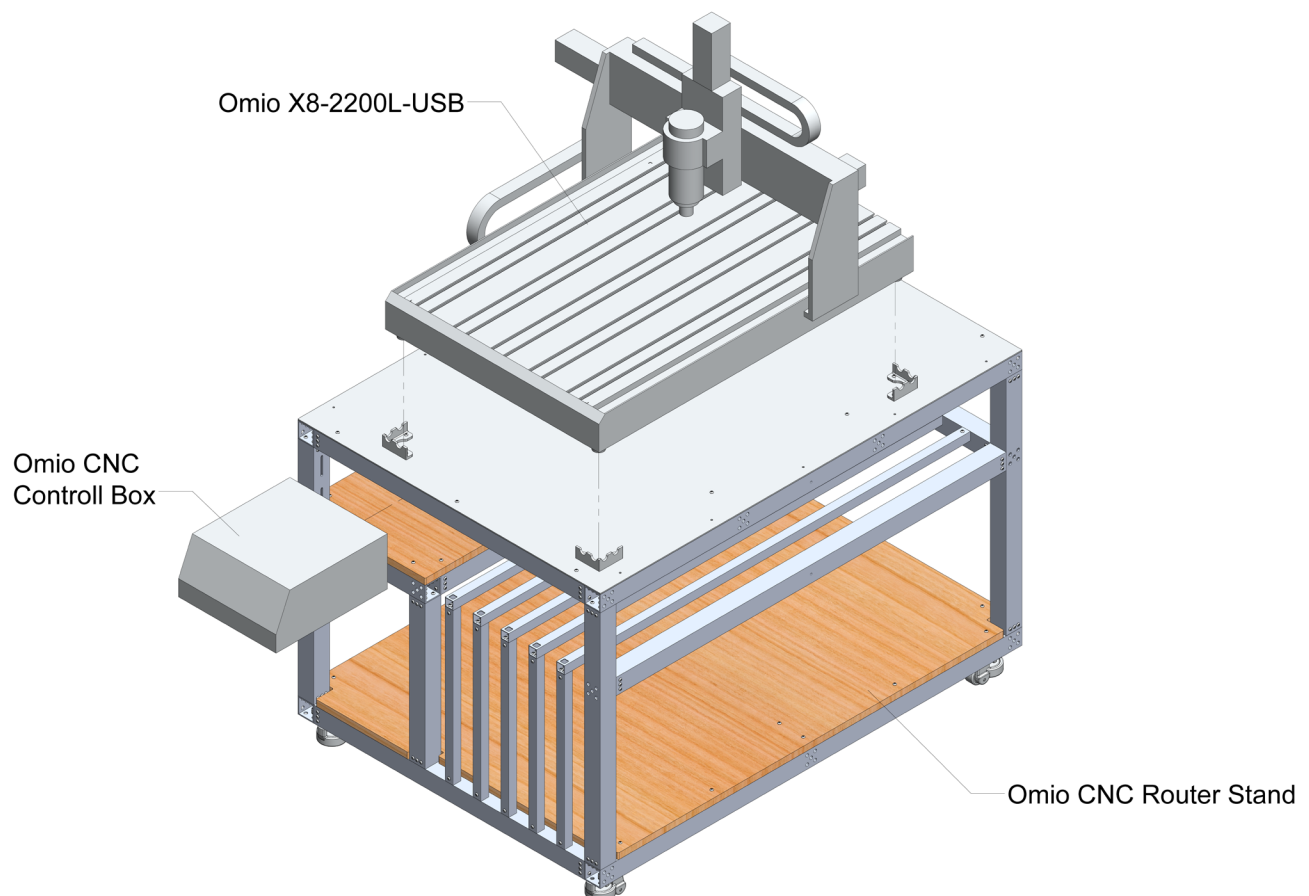


Step 1

Use two or more people to lift the Omio Router and help position it.

Place the Omio router on the stand between the four corner guards. There should be a small amount of space between the inside of the corner guards and the router on all sides.

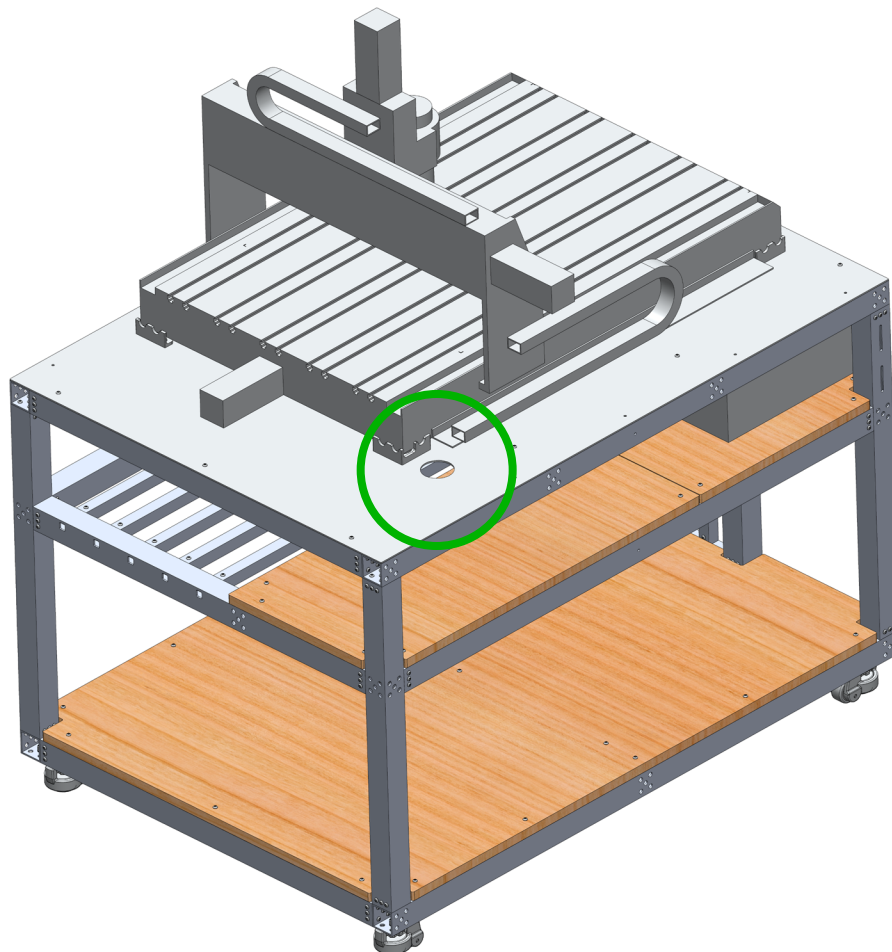
Slide the control box onto shelf.





Step 2

After the Omio router is in place, run all cable from the machine through the hole in the aluminum top plate. Ziptie the cables as needed and connect them to the controller.

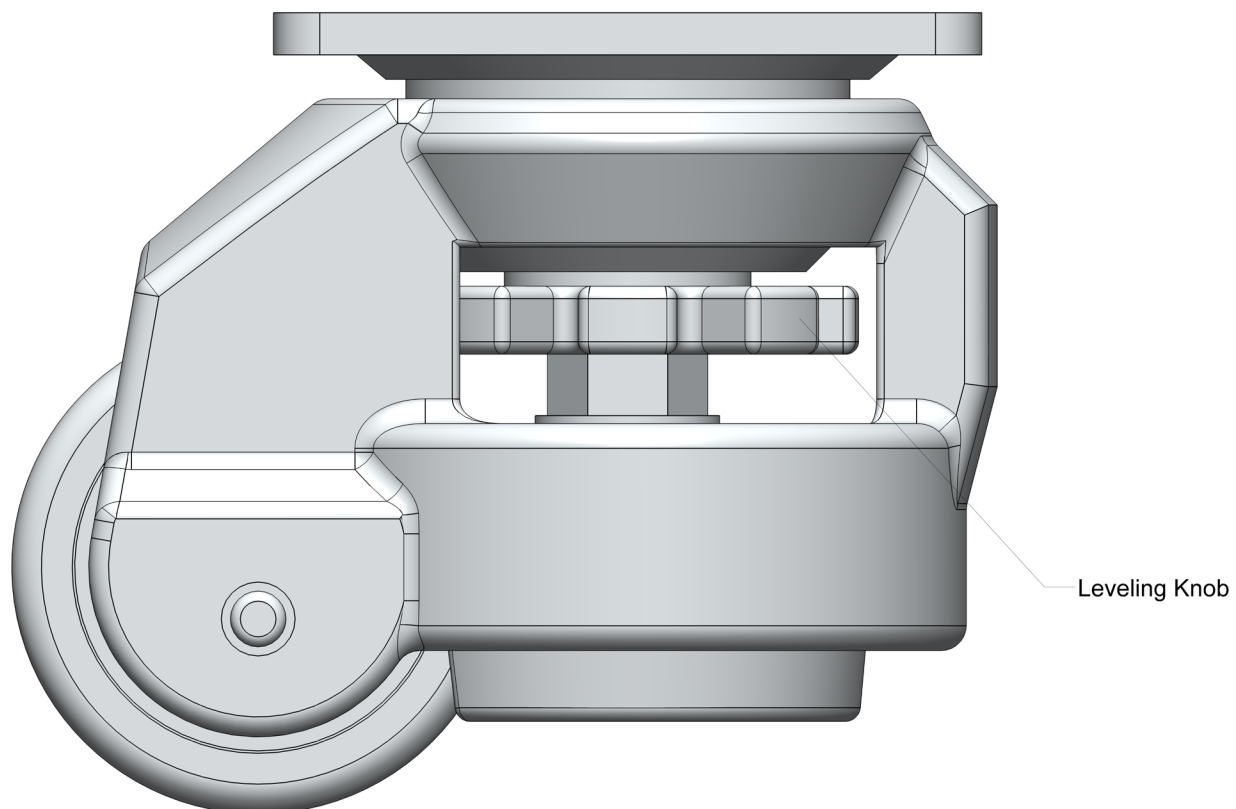




Leveling Router Stand

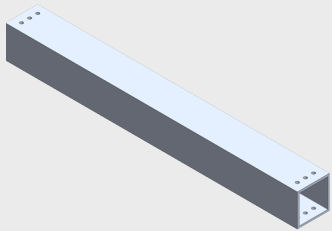
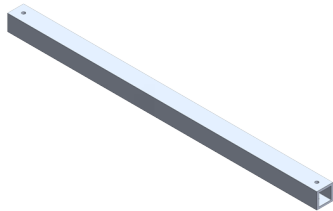
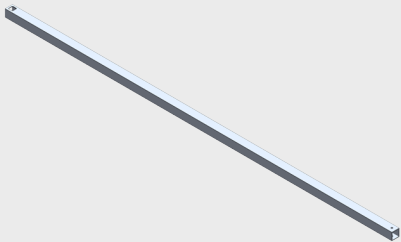
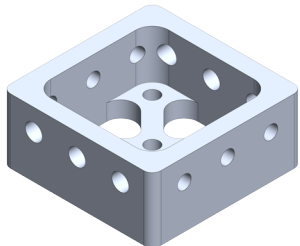
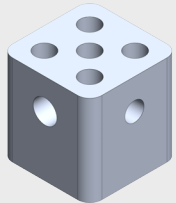
After moving the Router Stand to desired location, the Router Stand can be locked into place to prevent movement and can be leveled as well. The leveling process does not require precision and is mainly to prevent the Router Stand from rocking as the machine is operated.

To prevent movement, rotate the red knob located inside the caster. This knob will lower or raise pad in the caster. Lower the pad till the wheel is lifted off the ground. Repeat this step will the remaining casters. Ensure that each pad is touching the ground.



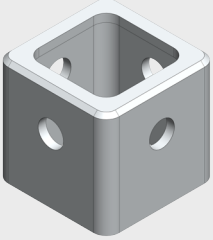
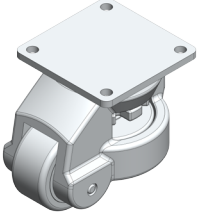





Kit Contents

Picture	Name	QTY	Kit
	2" x 2" x .125" Tubing	21	Base Kit
	1" x 1" x .125" Tubing	5	Base Kit
	1" x 1" x .0625" Tubing	5	Base Kit
	2" x 2" Tube Plug	33	Base Kit (pre-installed)
	1" x 1" Tube Plug	15	Base Kit (pre-installed)

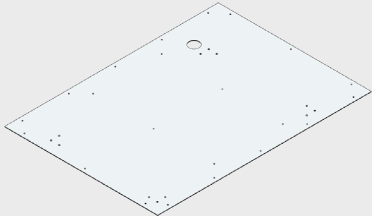
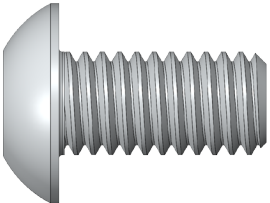
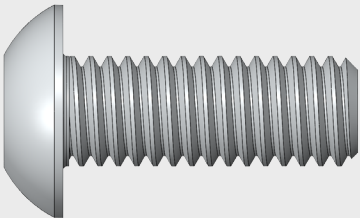
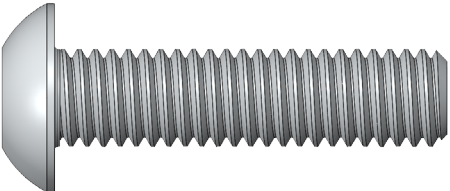
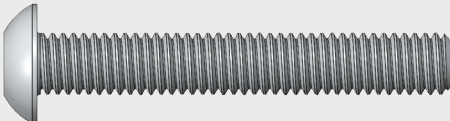
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Picture	Name	QTY	Kit
	1" x 1" Tube Plug Sleeve	5	Base Kit (pre-installed)
	Leveling Caster	4	Base Kit
	MDF Cart Base	1	Base Kit
	MDF Short Shelf	1	Base Kit
	MDF Long Shelf	1	Base Kit

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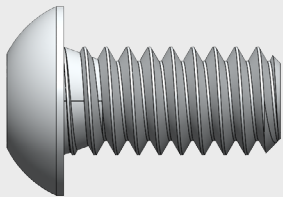
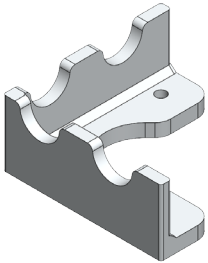
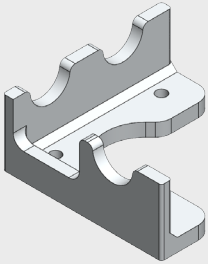


Picture	Name	QTY	Kit
	Aluminum Cart Top	1	Base Kit
	#10-32 x 3/8"L BHCS	354*	Base Kit
	#10-32 x 1/2"L BHCS	12	Base Kit
	#10-32 x 3/4"L BHCS	12	Base Kit
	#10-32 x 1.25"L BHCS	28	Base Kit

***162 pre-installed with 192 loose**

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Picture	Name	QTY	Kit
	1/4-20 x 3/4"L BHCS	12	Base Kit
	3D Printed Corner Guards	3	Base Kit
	3D Printed Corner Guards (Limit Switch)	1	Base Kit



FAQ

Q: Will the Omio CNC Router Stand work with other machines?

A: It is not guaranteed to fit other machines but any machine that is a similar size should fit fine. Some components, such as the 3D printed guards, may not fit and need to be removed.



Revision Table

Revision Date	Revision #	Description
5/4/2021	1.0	First revision created.
9/8/2021	1.1	Updated screw count and not on pre-installed tube plugs.