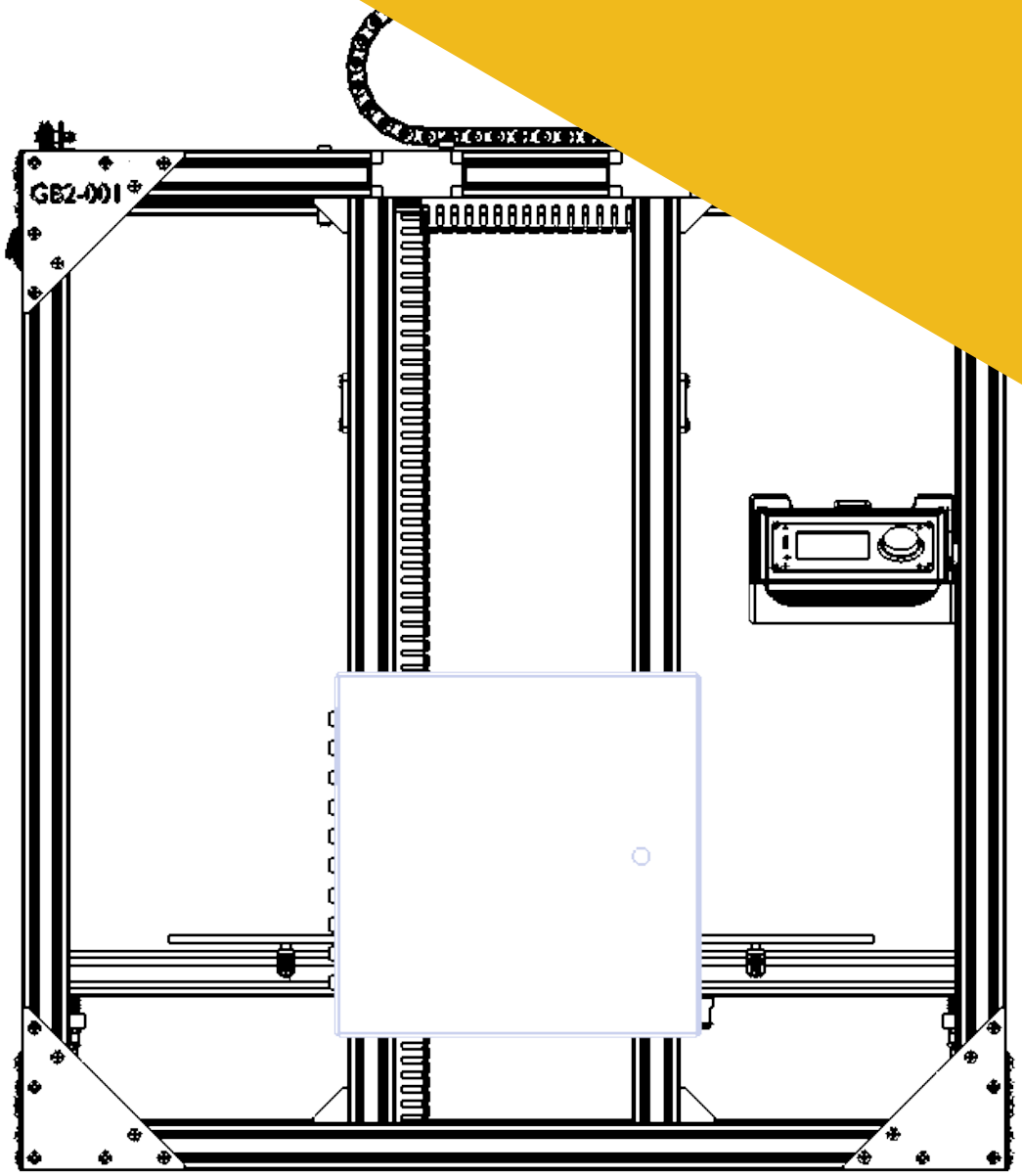
0 VIKI HOLDER INSTALLATION



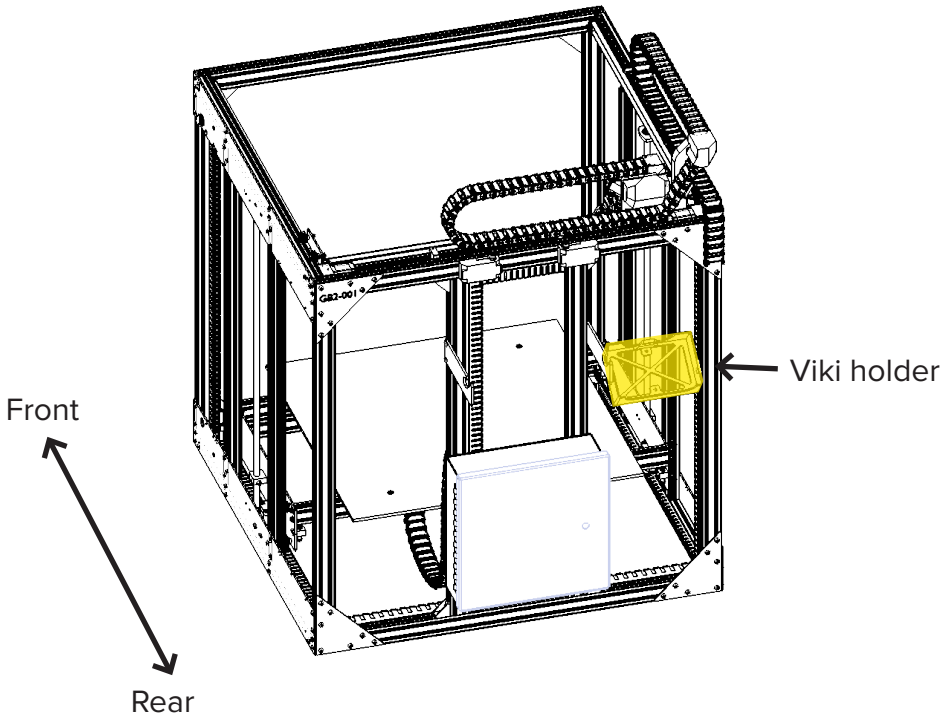
TOOLS & PARTS

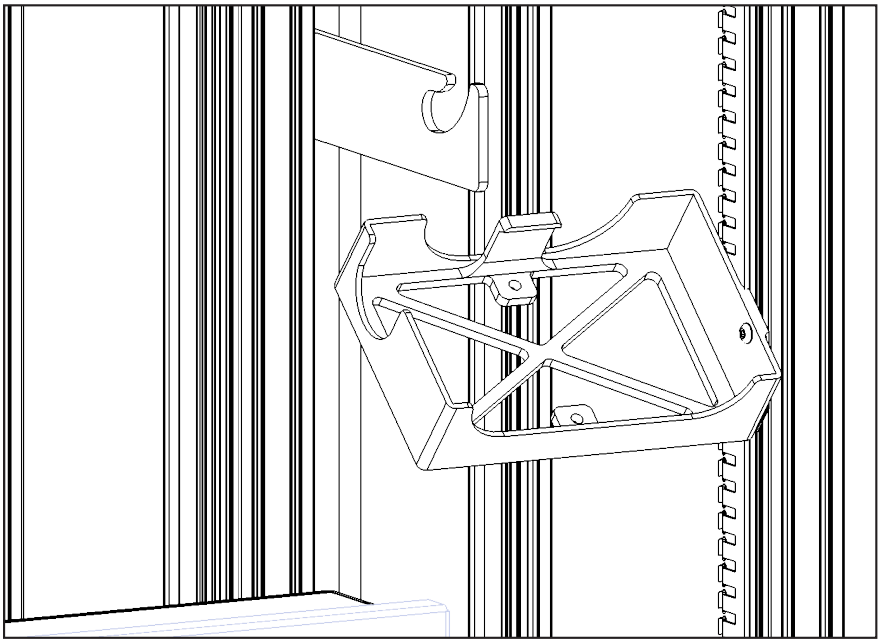
Refer to packing list to identify parts

BOX #	PART	QUANTITY
3	Viki holder	1
3	Magic T-nuts (attached to Viki)	2
3	M5x12 BHCS (attached to Viki)	2
6	3mm Allen Key	1
WATCH THE ACCOMPANYING VIDEO:	https://www.youtube.com/watch?v=4HUxKQiil_c	

OVERVIEW

Next you will mount the Viki to the frame. You will need to install the Viki holder to a corner upright using magic T-nuts (post assembly T-nuts).





TIPS & TRICKS

#1 Do not overcompress the leaf springs on the magic T-nuts, or they will no longer hold their place within the rail.

#2 Do not overtighten the screws on the Viki holder, or you risk breaking the plastic.

#3 Do not place too much tension or strain on the Viki wires.

#4 When arranging where the Gigabot will be placed in a room, try to prioritize having easy access to the Viki.

01

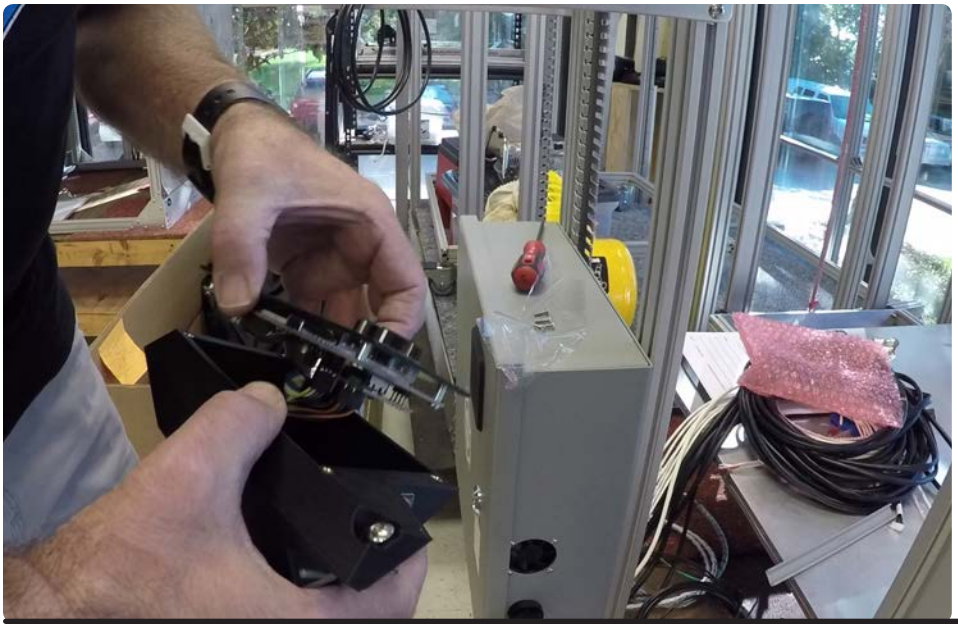
The Viki LCD is already enclosed and attached to the electrical box. Remove the protective bubble wrap.

02

Use the 2mm Allen Key to remove the 4 M3 BHCS securing the Viki LCD to its enclosure.

03

Also, usncrew the grommet cap on the rear of the enclosure to allow the Viki wires to move freely through the grommet.



04

Gently remove the Viki from the enclosure so you have access to the interior of the enclosure.

05

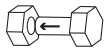
There is 1 M5x12 BHCS set inside the enclosure. Remove the magic T-nut from this.

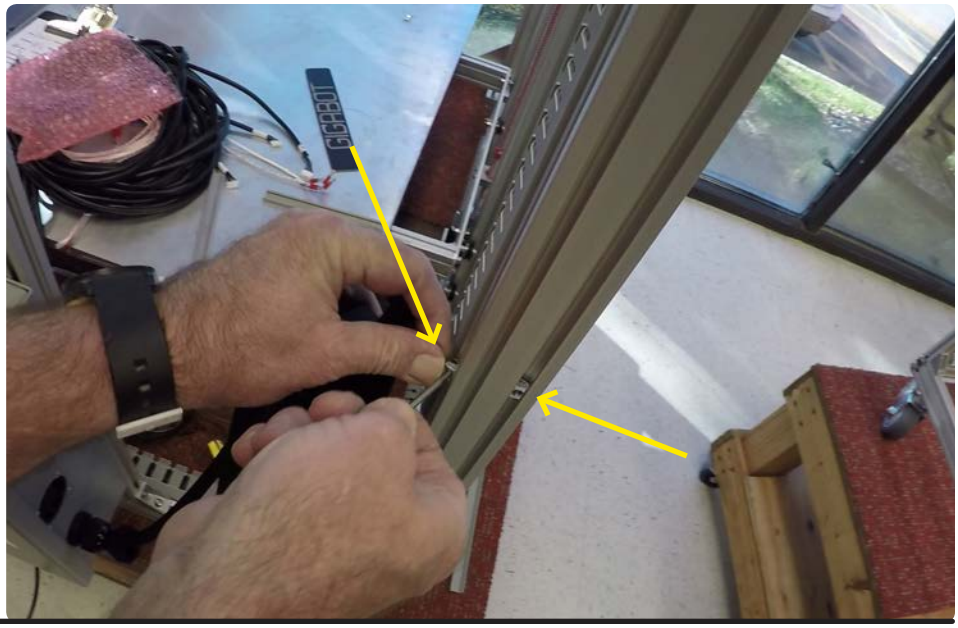
06

Remove the magic T-nut from the other M5x12 BHCS.

07

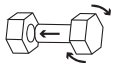
Insert the M5 magic T-nuts into the rail as shown. Refer to the Overview page of this section to see the location of this rail.





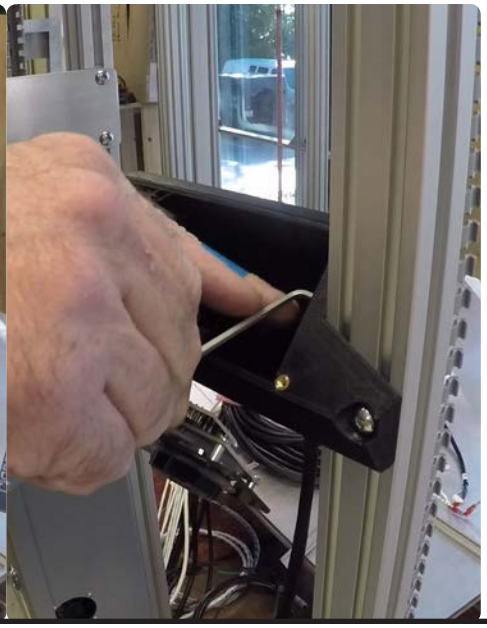
08

Use the 3mm Allen Key and 2 M5x12 BHCS to loosely fasten the enclosure to the rail. Do not fully tighten them yet.



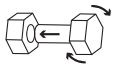
09

Place the Viki LCD on the on its enclosure again. Slide the enclosure up and down along the rail until it is in an easy to access position for operation. Ensure that there is still some slack in the Viki cable.



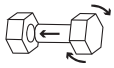
010

Once the Viki enclosure is in the desired position, use the 3mm Allen Key to fully fasten it into place. You will need to temporarily move the Viki LCD to access the interior M5x12 BHCS.



011

Next, fasten the Viki LCD to the enclosure using the 4 M3 BHCS from step O2 and a 2mm Allen Key. Also, re-tighten the grommet cap on the back of the enclosure.



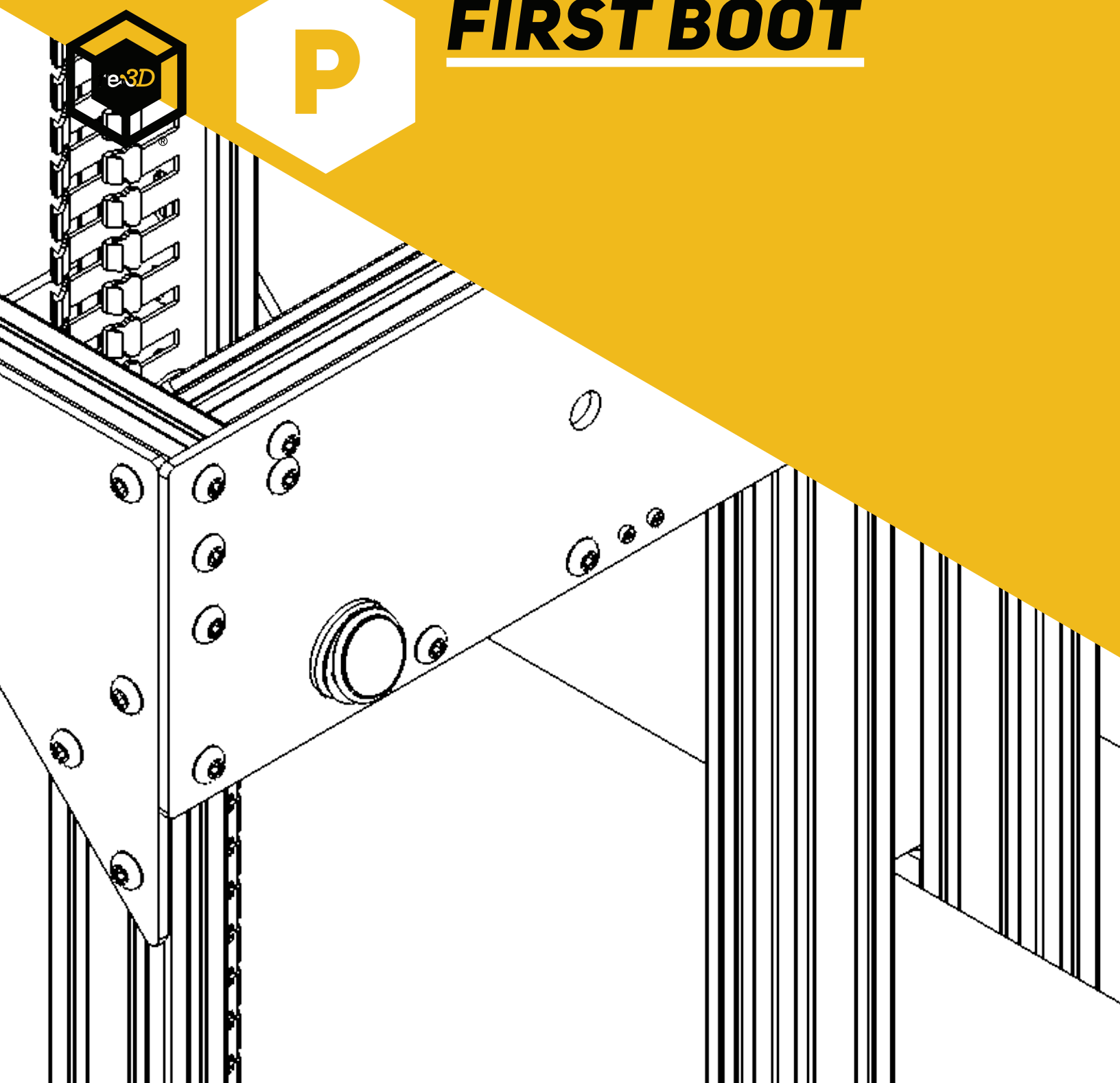
012

The Viki LCD is now set in place.

013

For a more detailed demonstration, please watch our video to install the Viki enclosure.

P FIRST BOOT



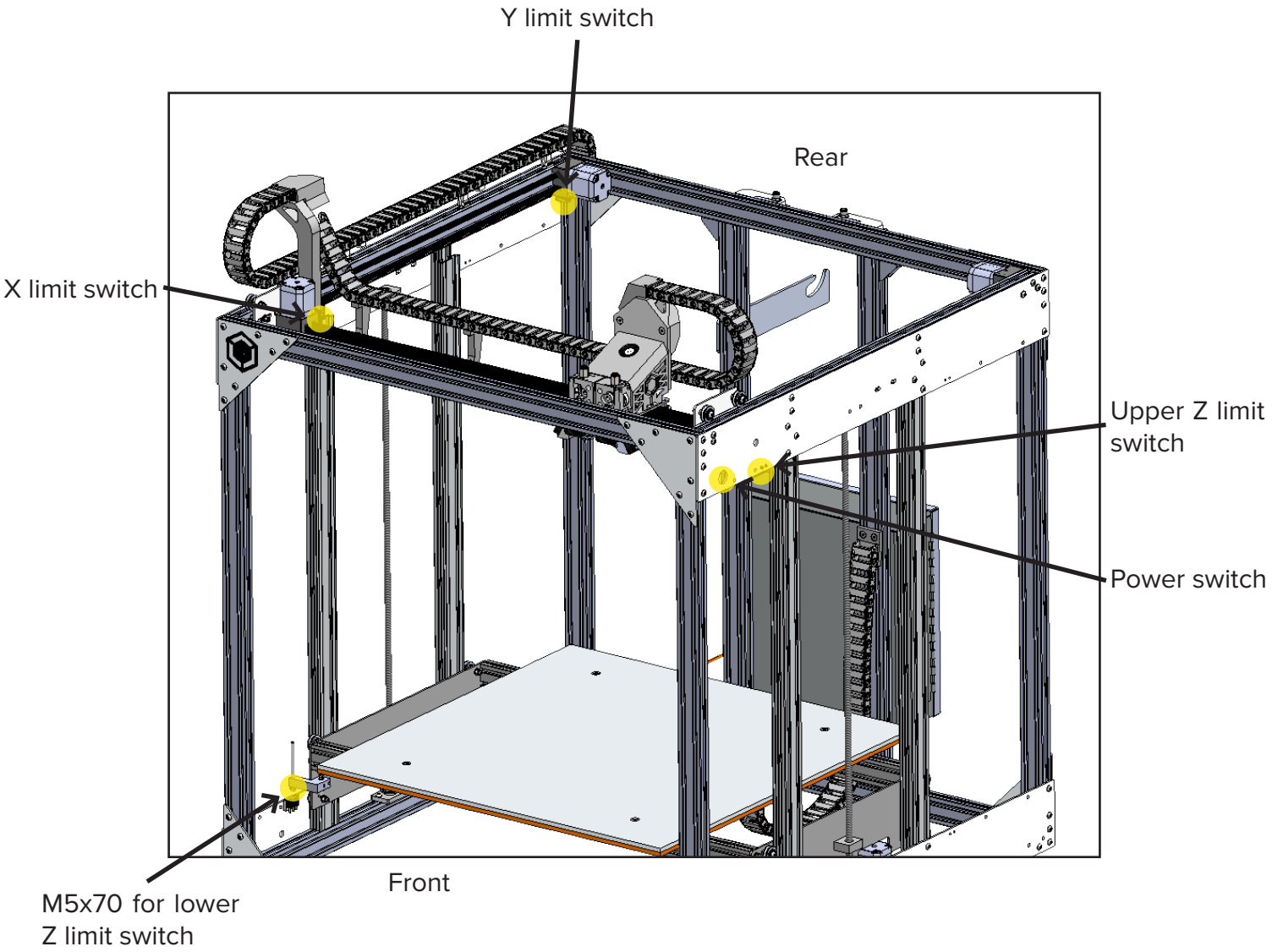
TOOLS & PARTS

Refer to packing list to identify parts

BOX #	PART	QUANTITY
Snappybox	8mm combo wrench	1
7	Rear trolley bracket cover (on trolley)	1
7	M4x12 FHS (on trolley)	2
6	2.5mm Allen Key	1
WATCH THE ACCOMPANYING VIDEO:	https://youtu.be/V66-3DNGrzY	

OVERVIEW

During the first boot, you will perform some preliminary checks to make sure your Gigabot® is functioning normally. These include checking all of the limit switches and setting the M5x70 hex head screw for the lower Z limit switch.



TIPS & TRICKS

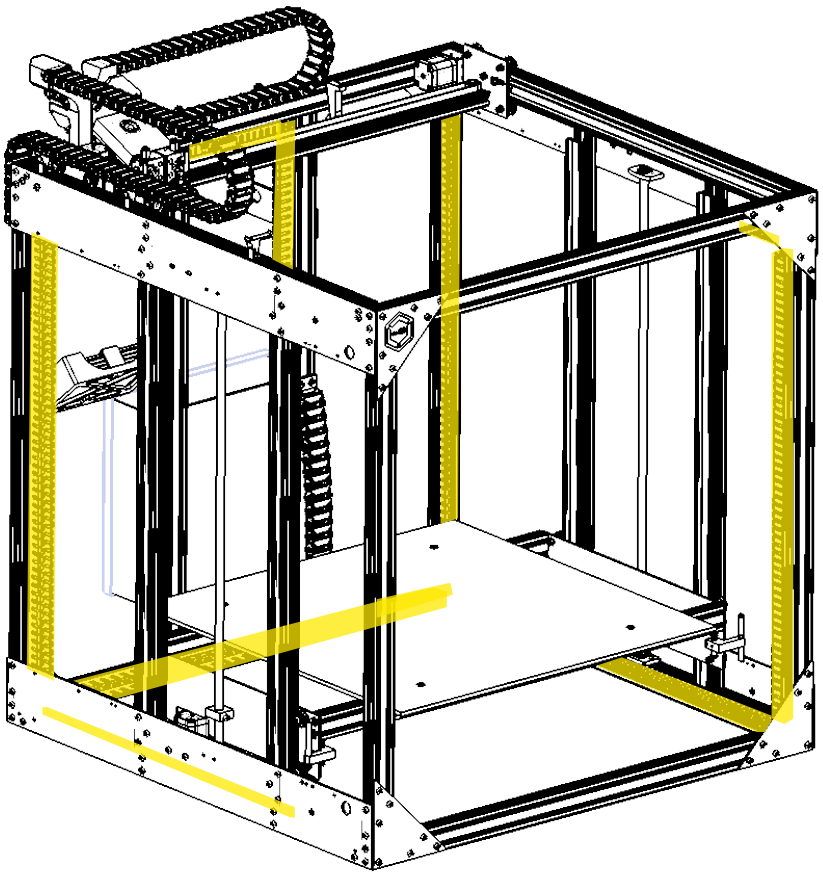
#1 During the preliminary checks, be prepared to shut off Gigabot® at any time by switching off the power button.

#2 Do not overtighten the rear trolley cover, or you risk breaking the plastic.

#3 The switch may already be in the “on” position, and if so the Gigabot® will turn on as soon as it is plugged in.

P1

Check Gigabot® to make sure all components are connected: Left Z motor, right Z motor, lower Z limit switch, FD1, FD2 (if applicable), left Y motor, Y limit switch, right Y motor, power switch, upper Z limit switch, X limit switch, X motor, E1 motor, E2 motor (if applicable), TC1, TC2 (if applicable), head cable (fans & hot ends).

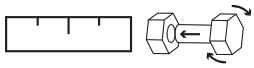


P2

Also check that all of the cables are neatly organized in the Panduits and that all Panduits have covers. Please refer to our Panduit diagram for all Panduit sizes and locations: http://wiki.re3d.org/images/3/39/Panduit_Sizes.pdf

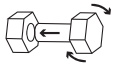
P3

On the Lower Z limit switch, check that the hex head screw has been brought down to fully engage the limit switch. After raising the bed the first time, the hex head screw needs to be brought down even lower, approximately 0.100” or 2.5mm to provide clearance between the Z motors and bed frame.



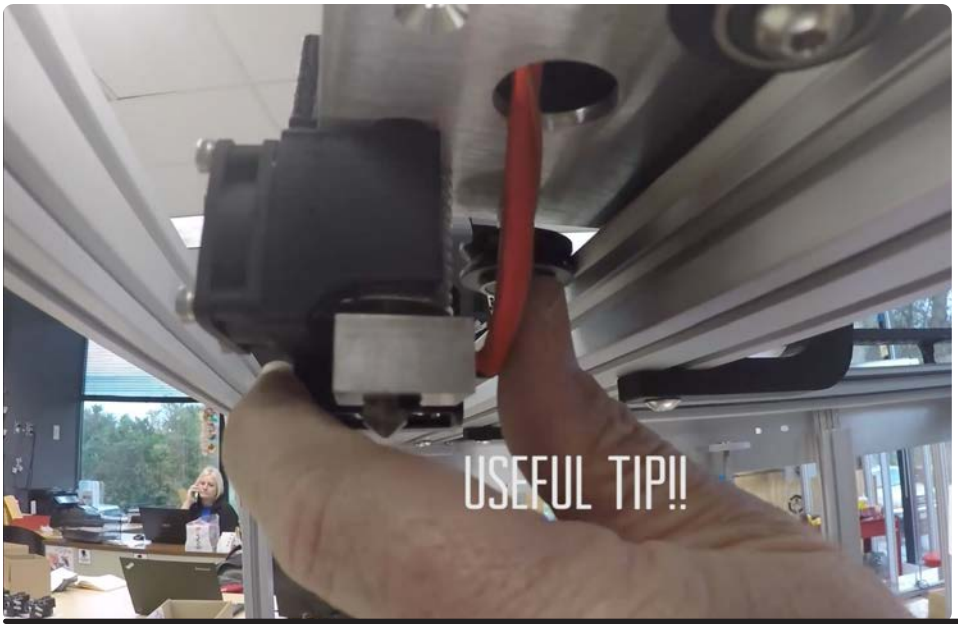
P4

Check that the trolley cover is fastened with 2 M3x14 SHCS.



P5

Place the rear trolley cover on the trolley bracket and fasten it with 2 M4x12 FHS.

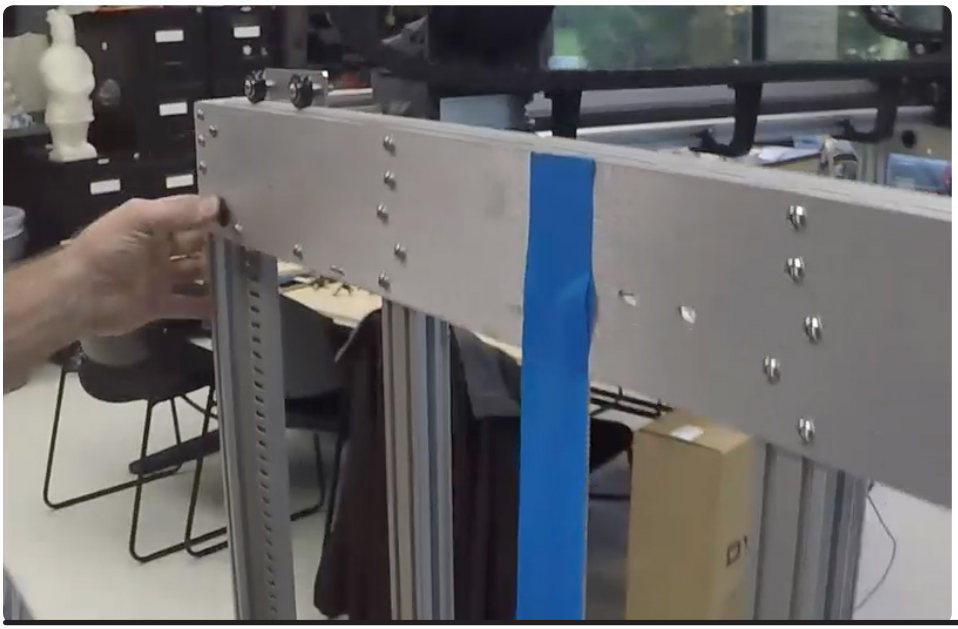


P6

Underneath the trolley, push the hot end wires (thermocouple and heater cartridge) up through the hole in the trolley plate. This keeps them out of the way of the trolley wheels and also makes sure they are not rubbing against the bridge rail.

P7

You are now ready to power on Gigabot. Plug the female end of the power cord into the electrical box, and then plug the other end into an 120V or 240V A/C outlet.



P8

Turn on the power switch at the front of the Gigabot and the machine will power on.

P9

Once on, you will see the Viki LCD light up and you will be able to control Gigabot.

P10

Next you will test that the limit switches work. Verify the locations of the X limit switch, Y limit switch, and upper Z limit switch. You will command Gigabot to go home, and then press the switches yourself to see if it will stop.

P11

Press the button to reach the main menu.

P12

Scroll down to Prepare and press the button.

P13

Scroll down to Auto home and press the button to make Gigabot go home.

P14

Press the X limit switch (you may need to press twice) and the trolley should stop moving. If it does not stop, turn off the Gigabot using the power switch and double check your wiring.

P15

Do the same for the Y limit switch as it homes in the Y direction, and the upper Z limit switch as it homes in the Z direction. For each axis, the trolley, bridge, and bed should move towards the limit switch as it homes.

P16

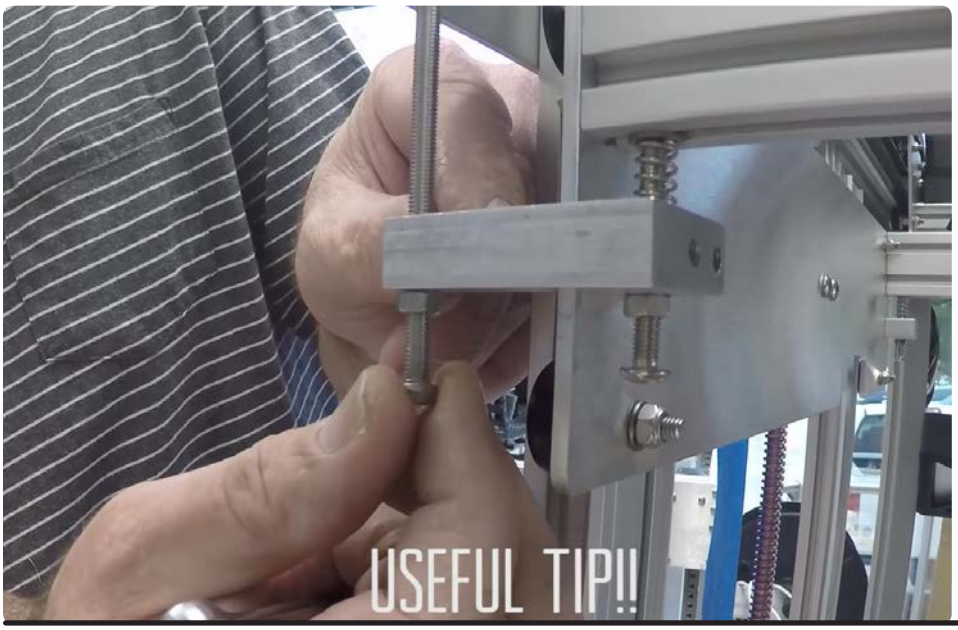
Once you have confirmed proper homing, execute Auto home again and let the Gigabot home all axes on its own.

P17

As the Z axis homes, watch the distance between the plate and the hot ends and also the distance between the upper Z limit switch and the hex head screw beneath it.

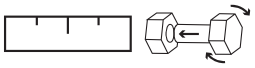
P18

The screw should engage the limit switch before the hot ends can contact the bed. If this is not the case, be prepared to manual engage the upper Z limit switch to avoid damaging your hot end.



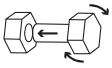
P19

After homing once, take a moment to readjust the hex head screw for the lower Z limit switch. Lower it about 0.100” or 2.5mm, or just over 3 full rotations of the screw.



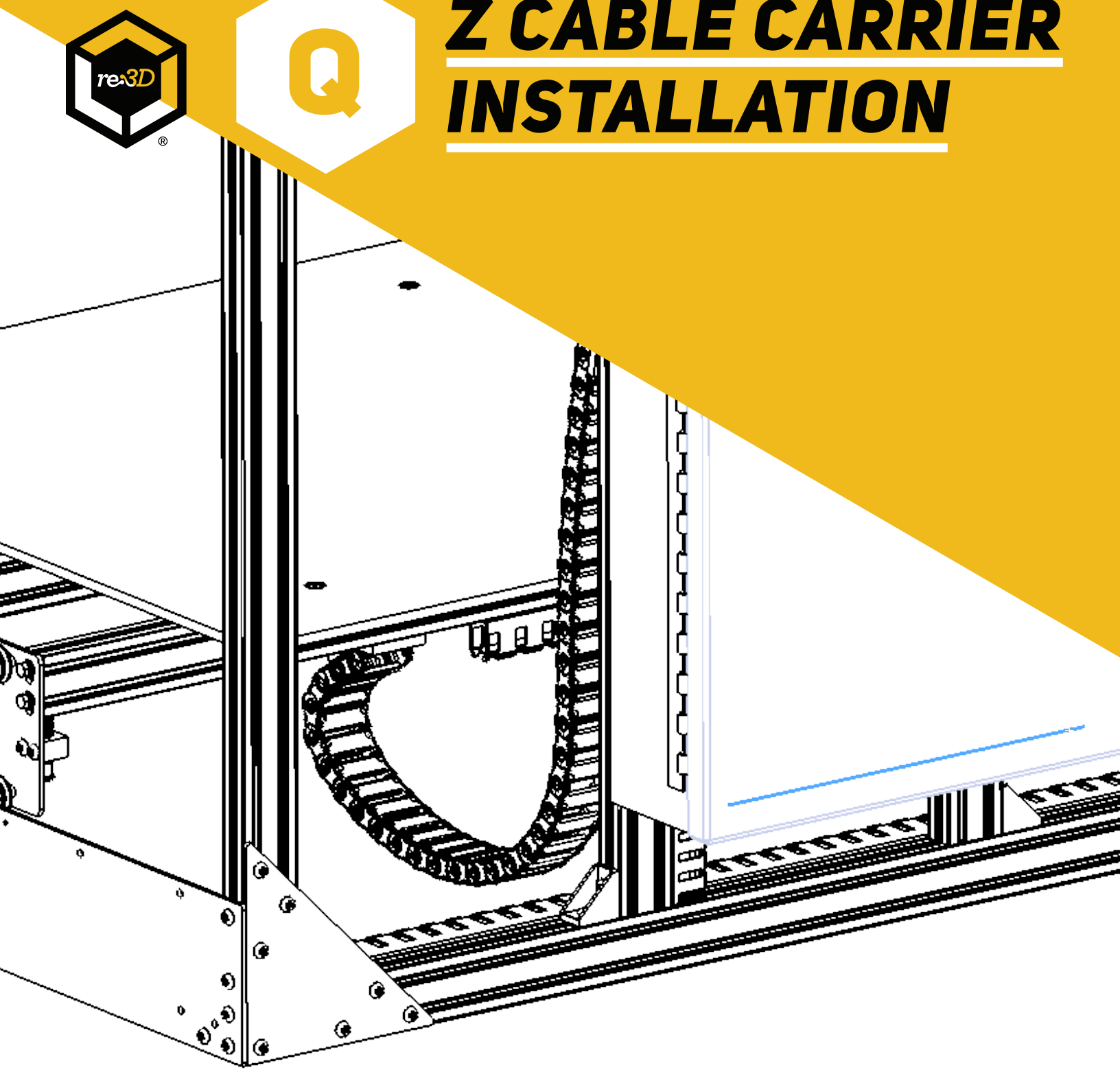
P20

Once adjusted, tighten the jam nut on the hex head screw against the leveling block.



Q

Z CABLE CARRIER INSTALLATION



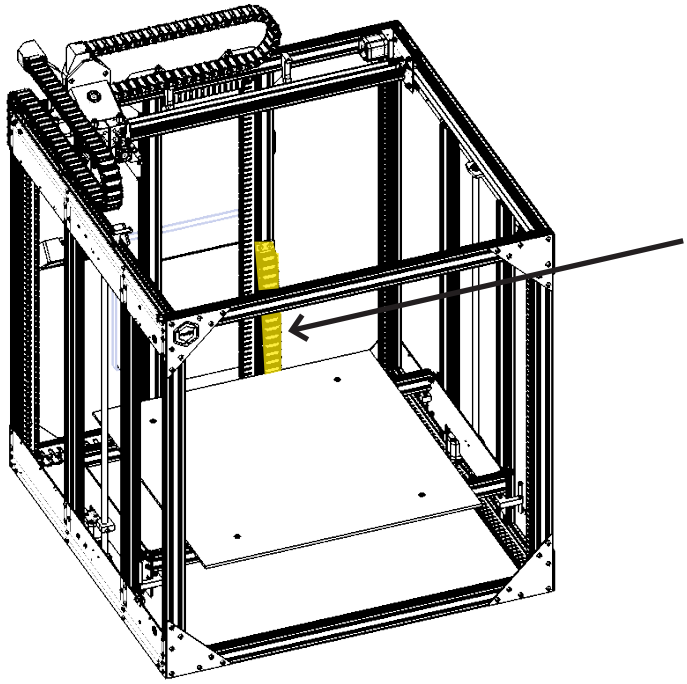
TOOLS & PARTS

Refer to packing list to identify parts

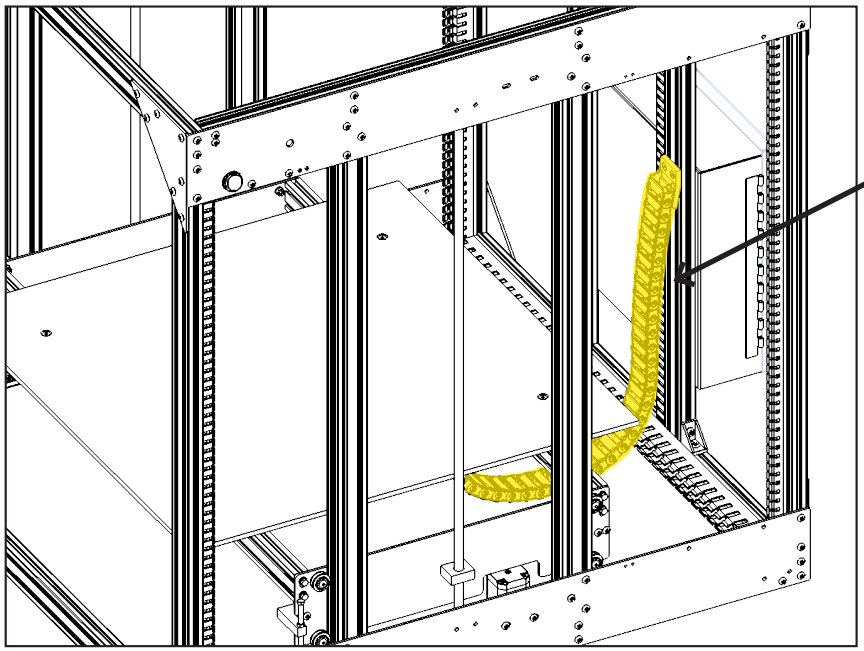
BOX #	PART	QUANTITY
8	Z cable carrier (full roll)	1
Snappybox	Magic T-nuts	2
Snappybox	Frameside Z bracket	1
Snappybox	M5x12 FHS	4
Snappybox	Bedside Z bracket	1
Snappybox	M3x25 BHCS	4
6	3mm Allen Key	1
6	2.5mm Allen Key	1
WATCH THE ACCOMPANYING VIDEO:	https://youtu.be/V66-3DNGrzY	

OVERVIEW

Previously, it was not possible to easily install the Z cable carrier because the bed frame would have needed to be propped up in order to do so. Now that the machine is completely wired and assembled, it is simple to install the Z cable carrier after homing the bed for the first time.



Once you have installed the Z cable carrier, it will have no problems extending for the bed's full length of travel.



An alternate view of how the Z cable carrier will fit below the bed frame.

TIPS & TRICKS

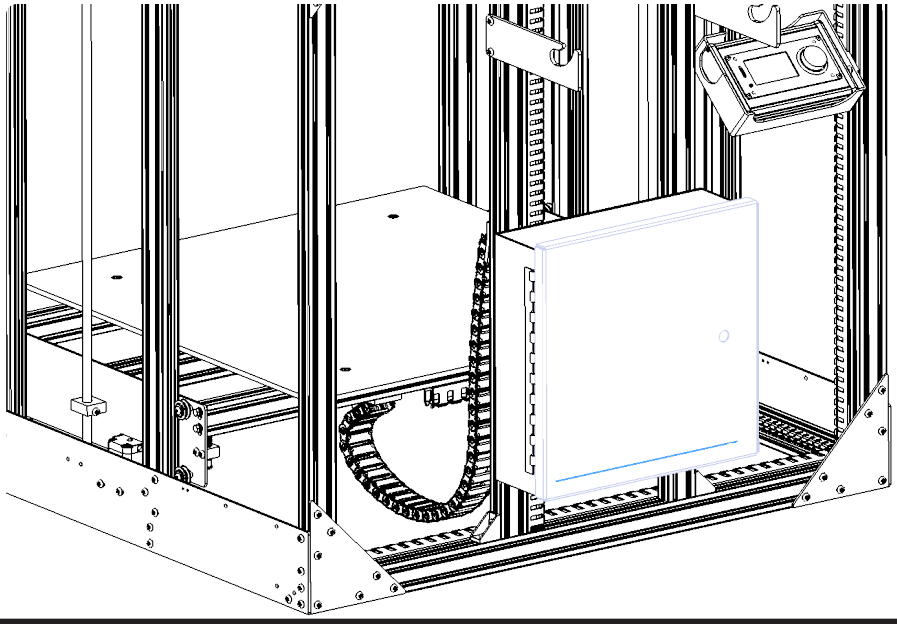
#1 Do not overtighten the M5x12 FHS on the Z cable carrier brackets, or you risk breaking the plastic parts.

#2 Before fully tightening the Z brackets, ensure that the two are aligned with each other. If not, this will introduce extra strain in the Z cable carrier as it moves.

#3 Be mindful of which part is which--the frameside bracket is more flat than the bedside bracket.

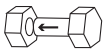
Q1

You are now ready to install the Z cable carrier. You do not need to separate this into shorter sections, as you did with X and Y.



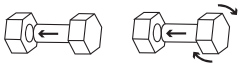
Q2

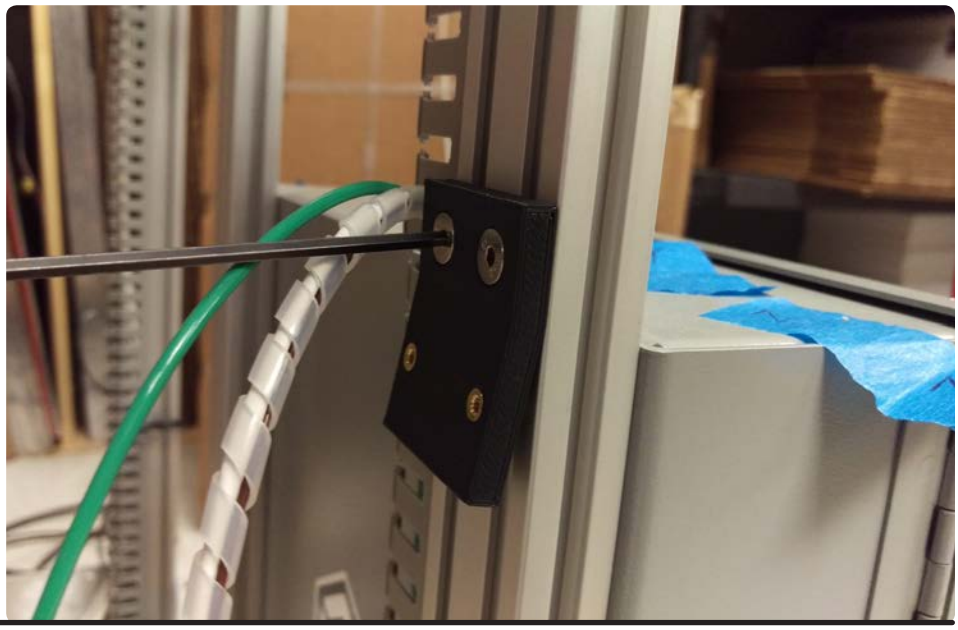
Insert 2 magic T-nuts into the right electrical box upright near the top of the electrical box, as shown.



Q3

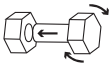
Fasten the frame side Z cable carrier bracket here using 2 M5x12 FHS as shown.





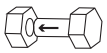
Q4

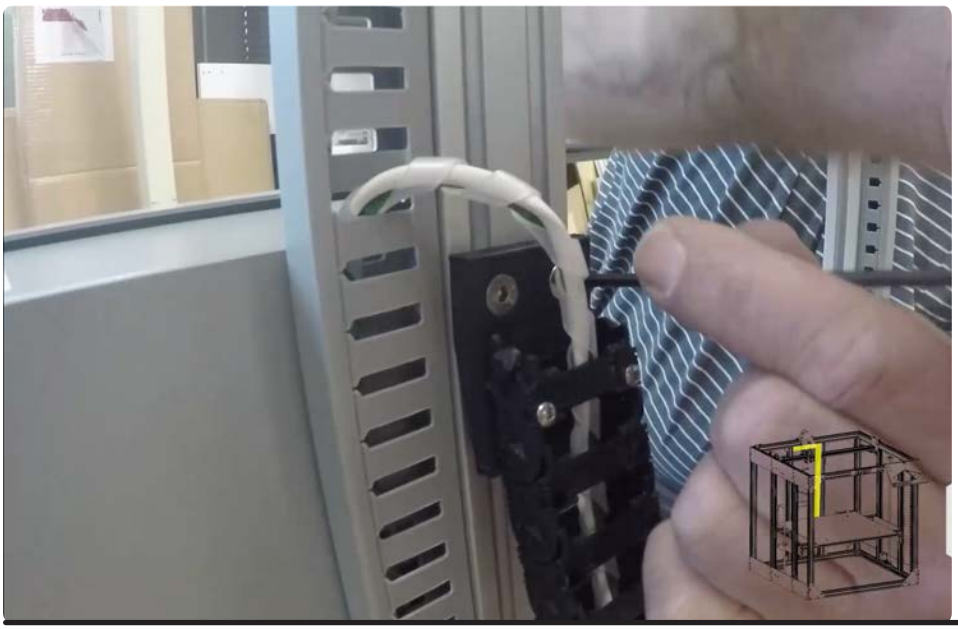
Underneath the rear bed cross rail, fasten the bed side Z cable carrier bracket using 2 M5x12 FHS as shown.



Q5

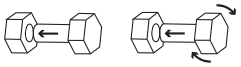
Starting closer to the frame side bracket, insert the heated bed cables into the Z cable carrier and close the doors on the links until the entire cable carrier has been attached.





Q6

Fasten each end of the Z cable carrier to each bracket with M3x25 BHCS.



Q7

The fully installed Z cable carrier should look as shown. Double check that both the frameside and bedside Z brackets are aligned with each other.

Q8

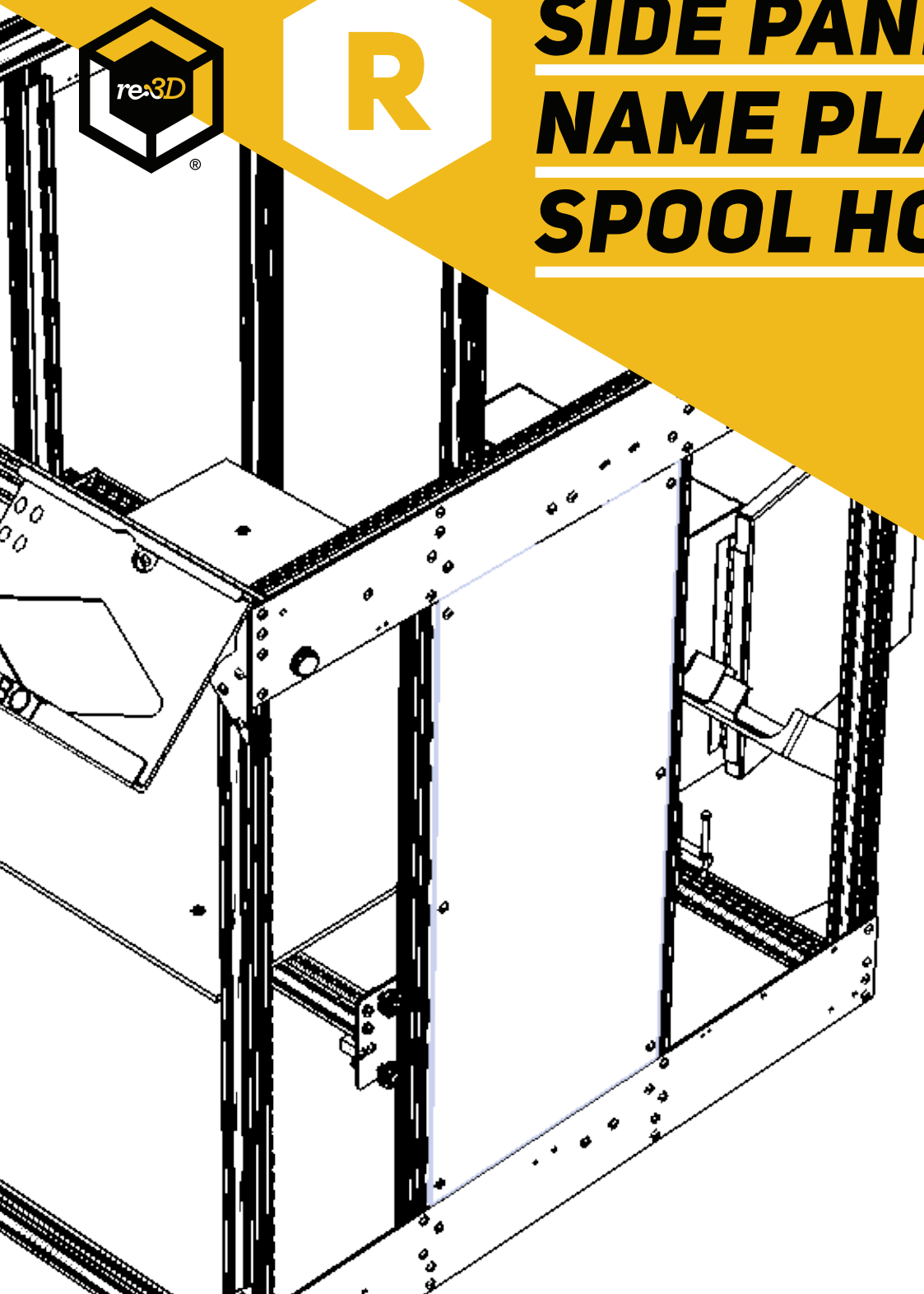
Finally, organize the excess wiring into the #2 Panduit on the bed cross rail and cover the Panduit.

Q9

For a step-by-step demonstration of these instructions, please see our video for this section.

R

SIDE PANEL, NAME PLATE, & SPOOL HOLDER



TOOLS & PARTS

Refer to packing list to identify parts

BOX #	PART	QUANTITY
Snappybox	Magic T-nuts	20 or 44*
Snappybox	M5x8 BHCS	12 or 36*
1	Center Side Panels (29 9/16” x 12”)	2
1	Front Side Panels (29 9/16” x 8 3/4”)	0 or 2*
1	Rear Side Panels (29 9/16” x 12 1/4”)	0 or 2*
6	3mm Allen Key	1
Snappybox	M3x8 BHCS	4
6	2mm Allen Key	1
8	Gigabot 3+ Name Plate	1
Snappybox	M3 flat washers	4
8	GB3+ Spool Holder	2
8	M5x12 BHCS	8

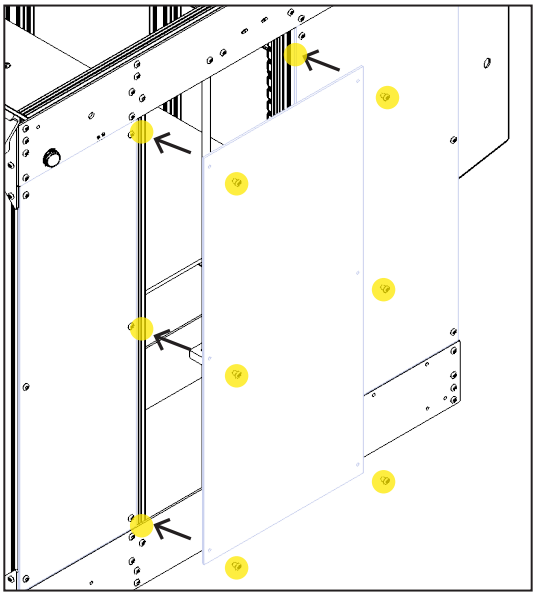
WATCH THE ACCOMPANYING VIDEO:

- Using Magic T-nuts
- Installing spool holders
- Installing the name plate

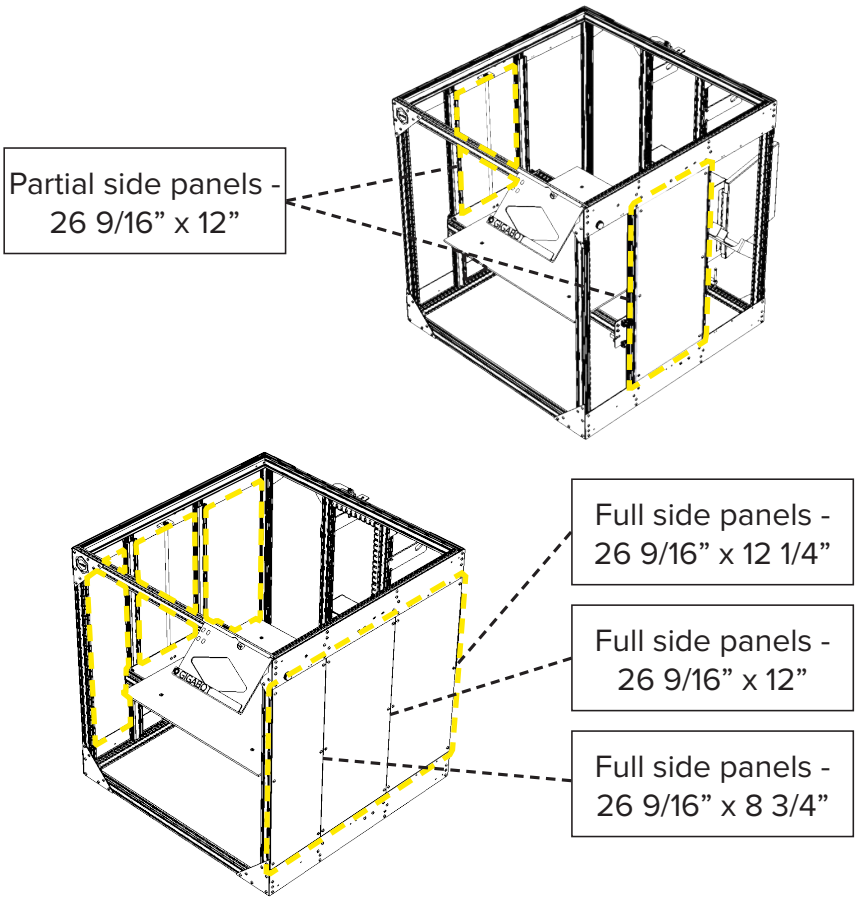
* The Gigabot® kit includes only the Center Side Panels by default. If you ordered the full set of Side Panels, you will also receive the Front and Rear Side Panels along with the necessary hardware to install them.

OVERVIEW

Previously, it was not possible to easily install the Z cable carrier because the bed frame would have needed to be propped up in order to do so. Now that the machine is completely wired and assembled, it is simple to install the Z cable carrier after homing the bed for the first time.



Installing the side panels requires 6 magic T-nuts and 6 M5x8 BHCS per panel.

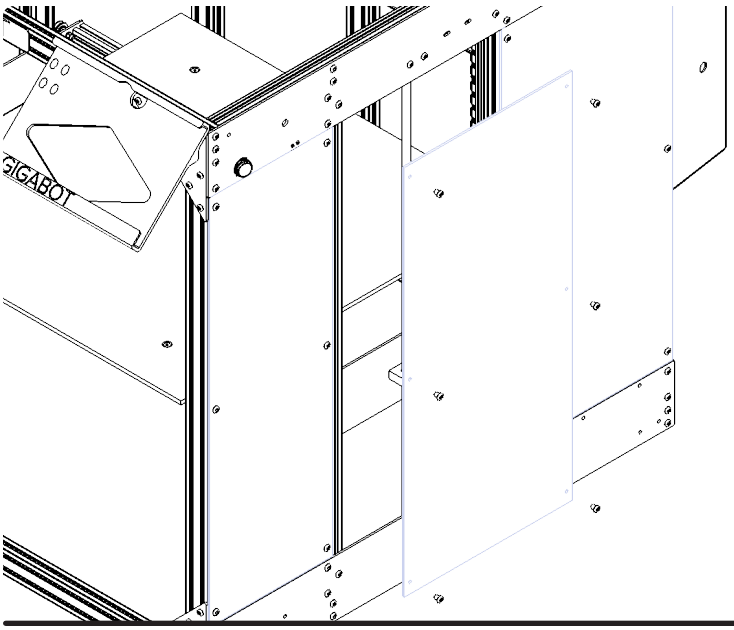


TIPS & TRICKS

#1 Do not overcompress the leaf springs on the magic T-nuts, or they will no longer hold their positions in the slot of the rail.

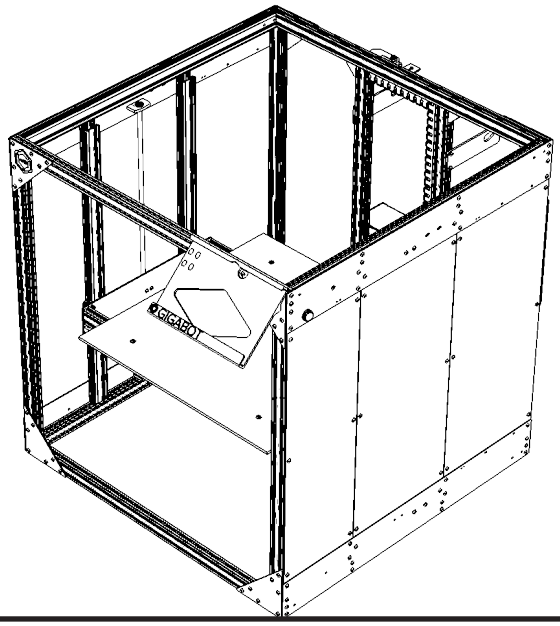
#2 Do not overtighten the screws on the panels, or you may crack the panel.

#3 Avoid completely removing the protective film on any of the panels until they have been fully fastened to the frame. This will minimize the amount of fingerprints collected on the panel during assembly.



R1

As the finishing touch, you will now install the side panels to your Gigabot.



R2

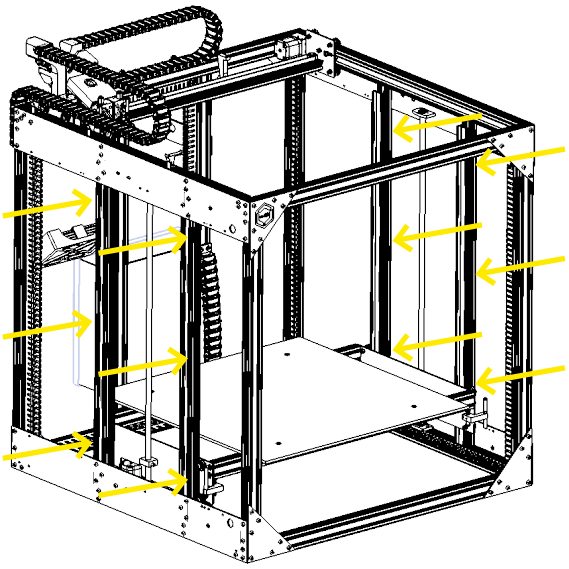
Identify the location of each panel (see overview). GB3s come standard with the center side panels (29 9/16” x 12”). A full set of side panels also include the front side panels (29 9/16” x 8 ¾”) and rear side panels (29 9/16” x 12 ¼”).

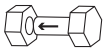
R3

Without peeling off the protective film, use each panel to approximate the location of each magic T-nut.

R4

Insert the magic T-nuts into the upright rails corresponding to the locations as determined above.



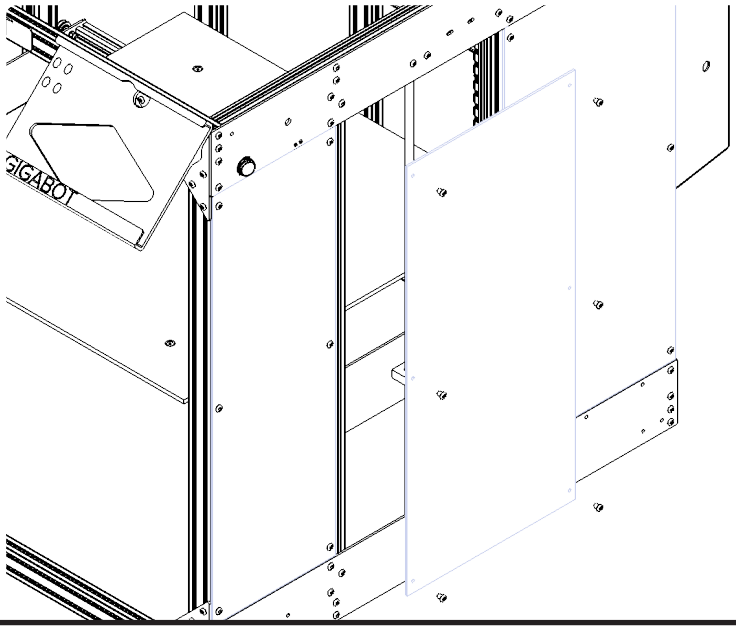


R5

Remove the protective film from one side of one of the center panels.

R6

Place the panel in its corresponding location. The bare side of the panel should be touching the rails, and the side with the remaining protective film should be facing outward from the frame. (Diagram may not respresent final construction of Gigabot®)



R7

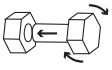
Peel back the protective film near each hole on the panel, just enough to uncover the hole.

R8

Use your Allen Key or another object to align the T-nut with the hole.

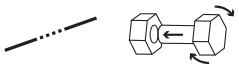
R9

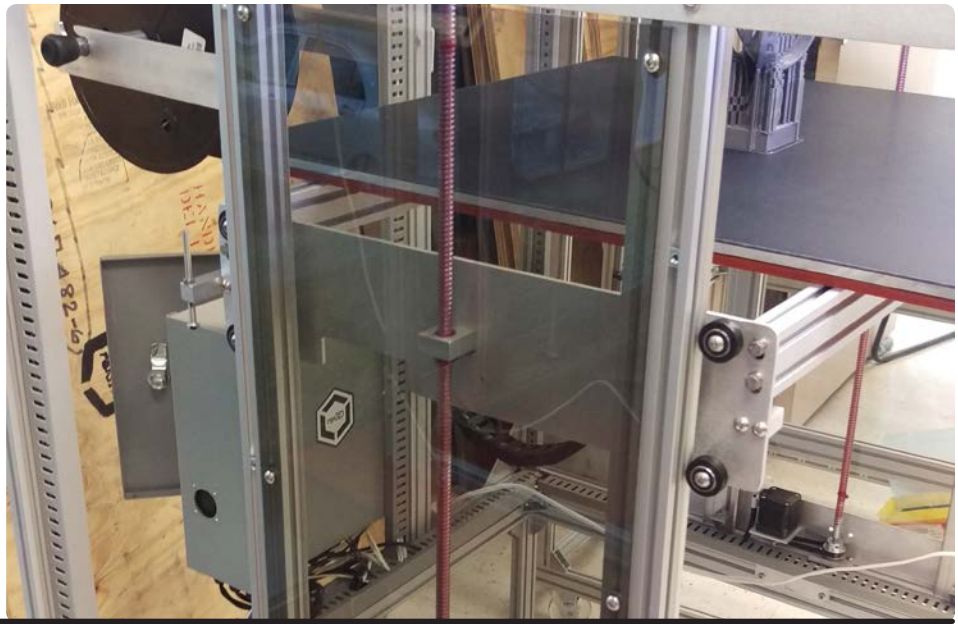
Fasten the panel to the frame using a M5x8 BHCS and the 3mm Allen Key.



R10

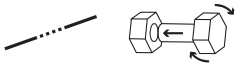
Repeat steps R7-R9 for each hole until the panel is totally secured to the frame.

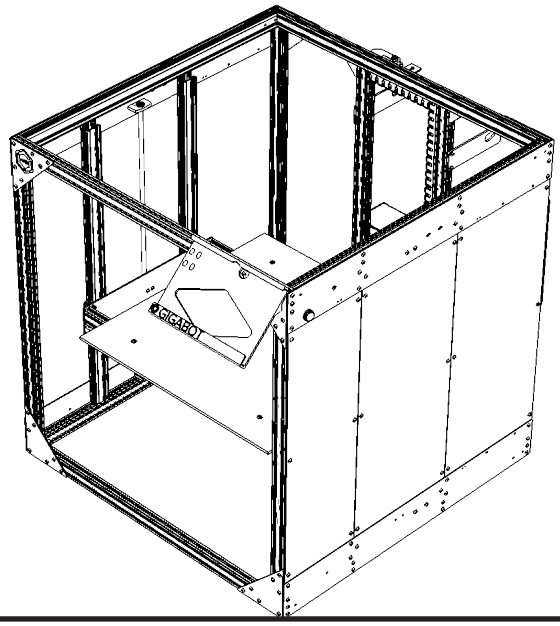




R11

Repeat steps 5-9 on the remaining panel(s) until all panels are secured to the frame. (Diagram may not respresent final construction of Gigabot®)



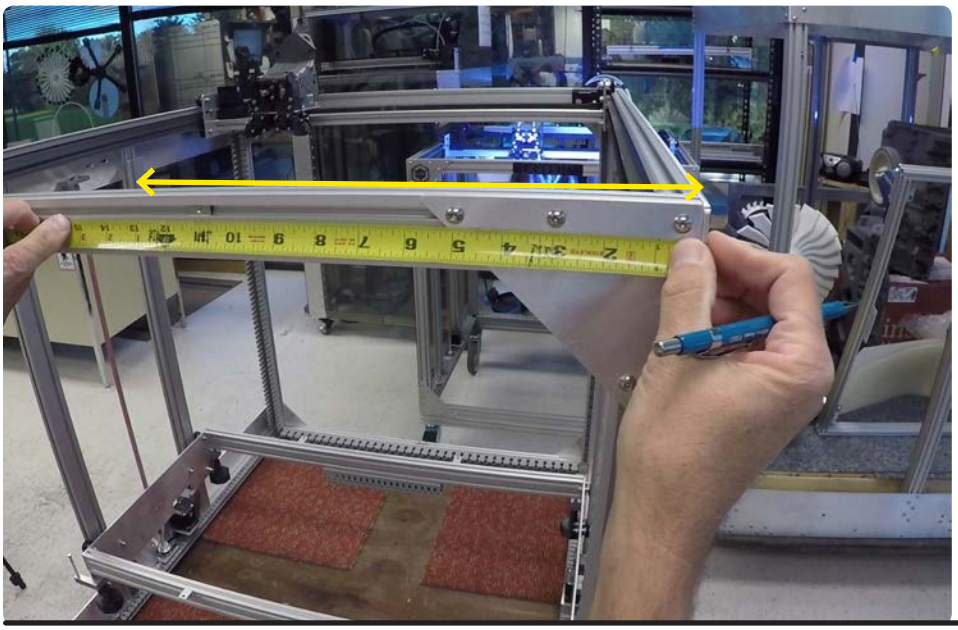


R12

Once the panels are all secured, completely peel off the remaining protective film. (Full panels are shown).

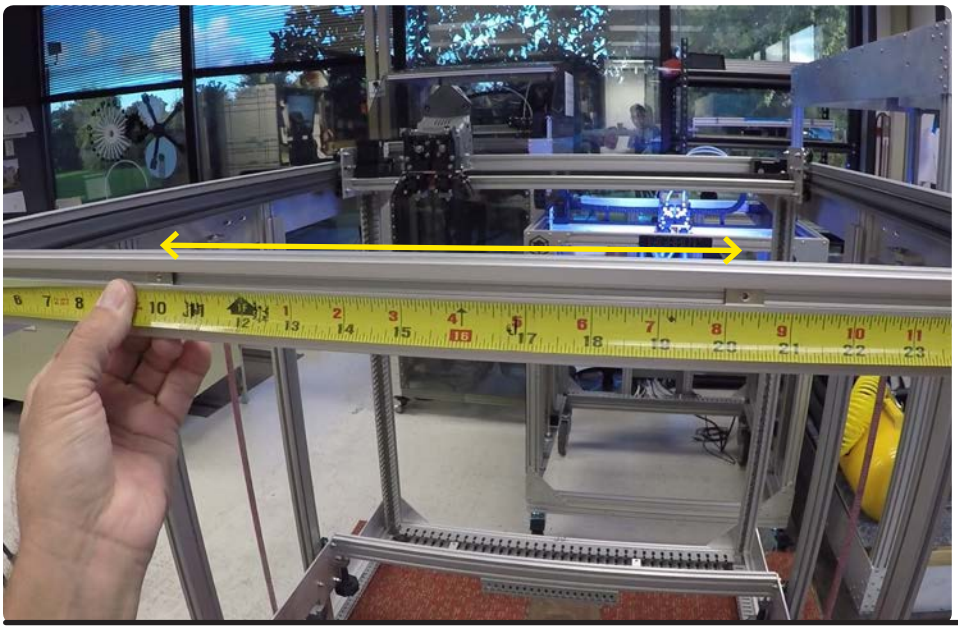
R13

Make a pencil mark 12 3/8” from the left edge of the front header. This is the approximate location of the left-side M3 T-nuts for the name plate.



R14

Repeat step R13 for the right side to indicate the location for right-side M3 T-nuts.

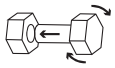


R15

Slide the M3 T-nuts so that they are at their corresponding locations. They should be very roughly 9” apart from each other.

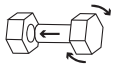
R16

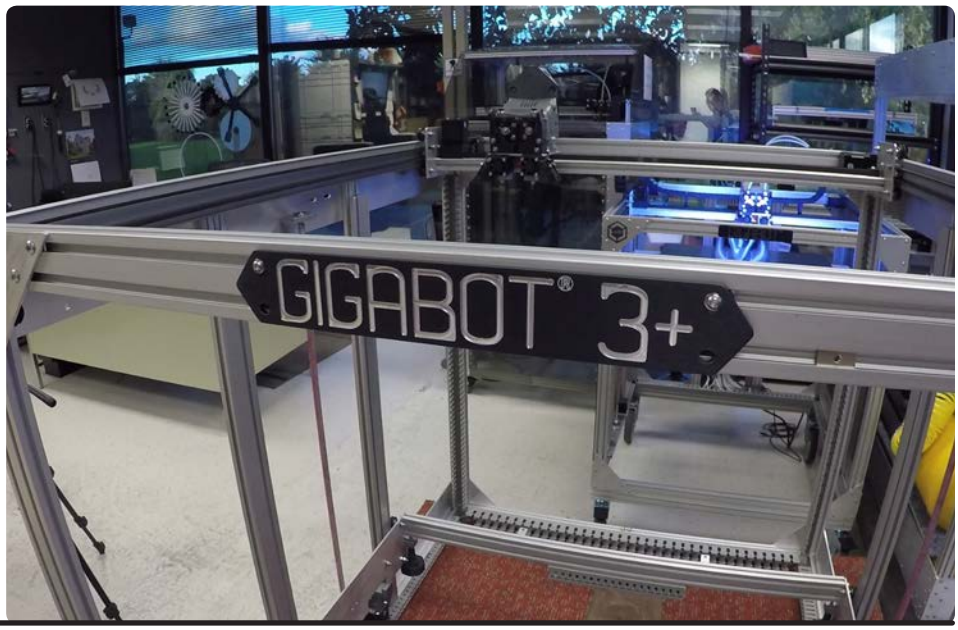
Loosely fasten one of the upper corners to an M3 T-nut using an M3 flat washer, M3x8 BHCS, and 2mm Allen Key.



R17

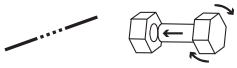
Repeat R16 for the other upper corner. You may need to slide the name plate to make the hole align with the T-nut.

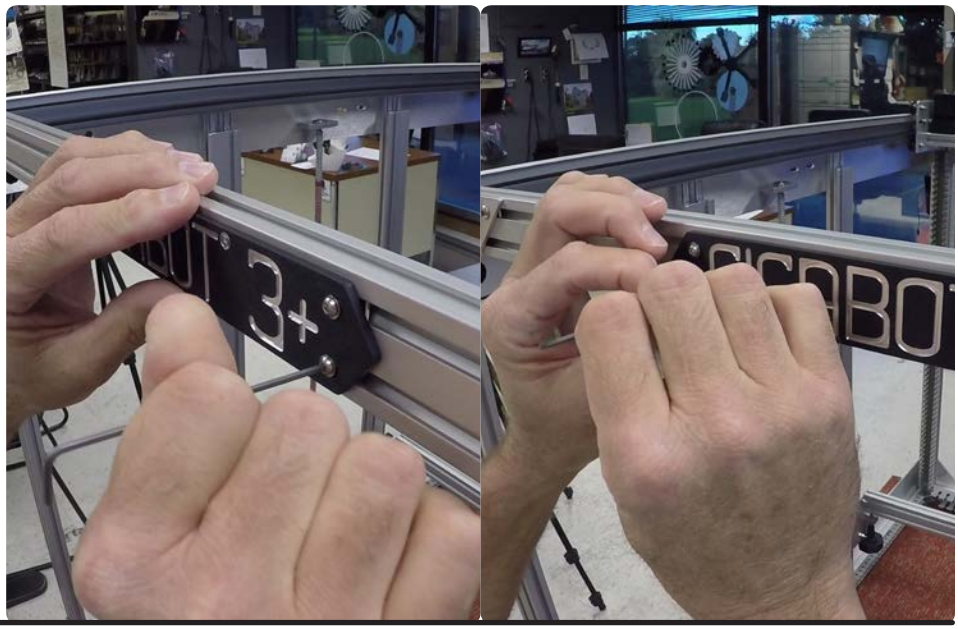


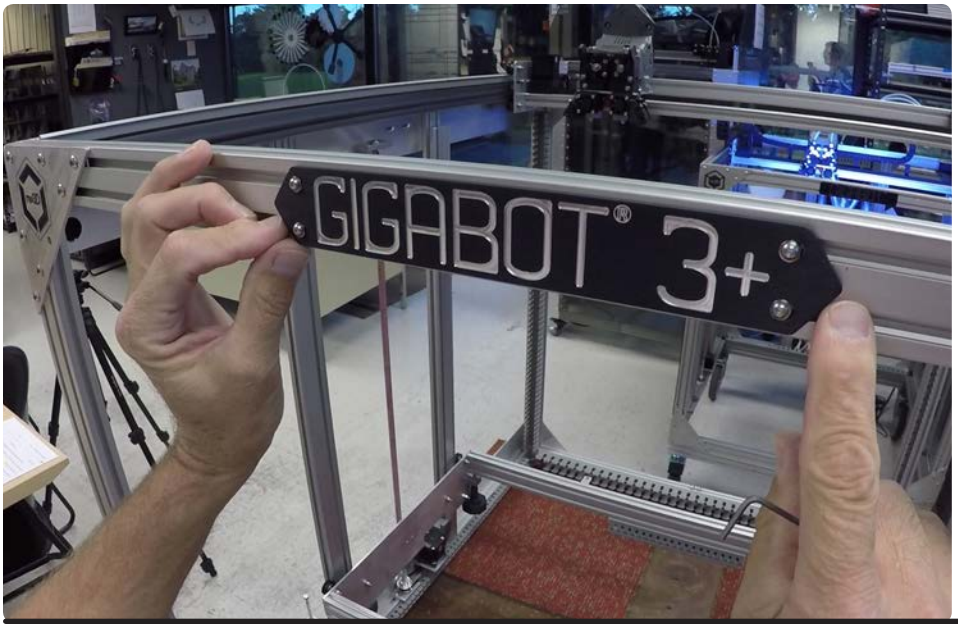


R18

Align the other M3 T-nuts and fasten those in the same way as in R16.

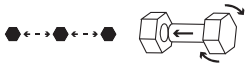


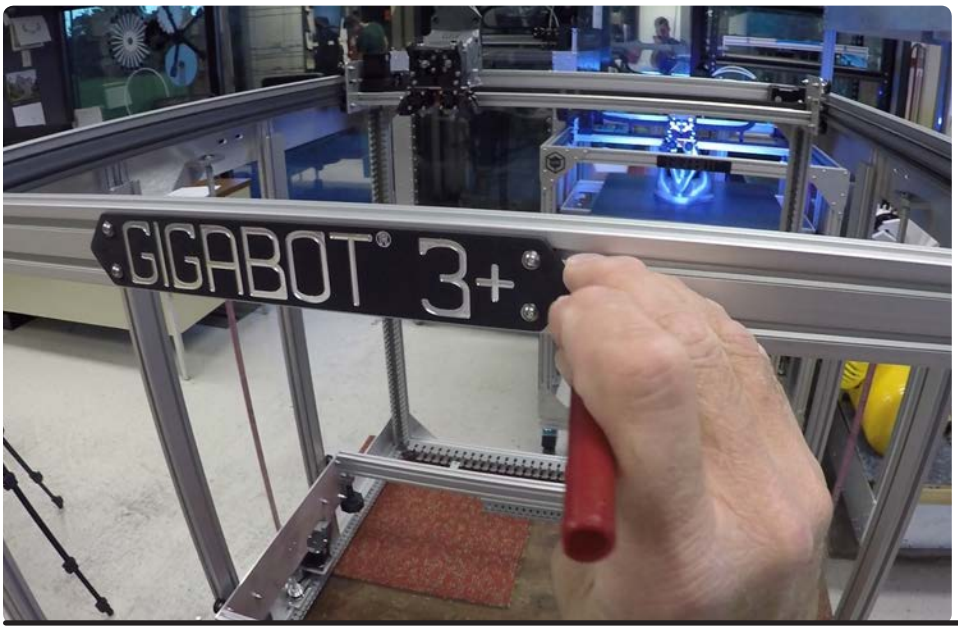




R19

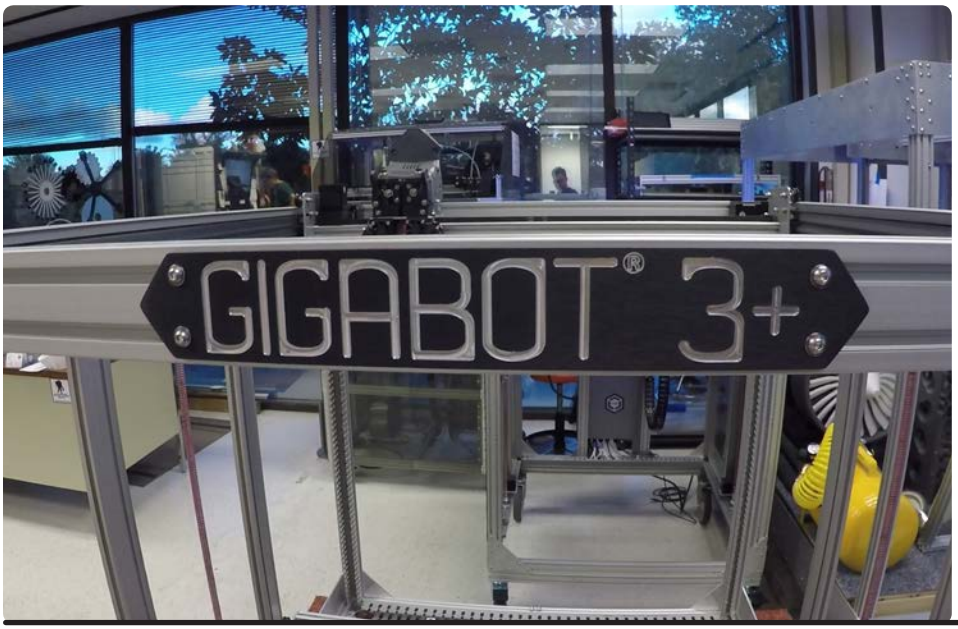
Center the name plate between the previously made pencil marks and then fully fasten the M3x8 BHCS with the 2mm Allen Key to secure the name plate in its location.





R20

If desired, erase the pencil marks.

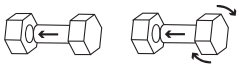


R21

The name plate is now fastened in place.

R22

Install the spool holder(s) to the back of Gigabot® with 2 magic T-nuts and 2 M5x12 BHCS each. Use the 3mm Allen Key to fasten the hardware. Users may decide how far up or down the rail these are located.



R23

For a more detailed demonstration, please watch the videos below:

- Using Magic T-nuts
- Installing spool holders
- Installing the name plate

NEXT STEPS

CHECK YOUR WORK

This is a good time to skim over your previous work and make sure you have not missed anything. Otherwise, you will have to fix any errors prior to calibrating the machine.

GETTING STARTED

Now that you have completed assembly, you must now calibrate your machine. Please refer to our Wiki page (http://wiki.re3d.org/index.php?title=Calibrating_your_Gigabot) and our Getting Started Guide (http://wiki.re3d.org/index.php?title=Fully_Assembled_Gigabot) for calibration steps.

PRINT SURFACES

It is typical to place a print surface on top of the bare metal plate to give the printed plastic something to adhere to as it is printed, and to help it stay adhered through the entirety of the print without warping or coming loose from the bed altogether. The cheapest solution is laying down blue painters tape, but we recommend using BuildTak or PrintinZ (Zebra Skin), which are available in 24”x24” sizes from our online store (shop.re3d.org). You will need to recalibrate the offset between the hot end and bed by adjusting the hex head screw for the upper Z limit switch.

CONCLUSION

CONGRATULATIONS! YOU HAVE NOW COMPLETED THE ASSEMBLY OF YOUR VERY OWN GIGABOT®!

We are confident that you will find the Gigabot® to be a high quality and very capable machine, but please do not hesitate to contact us for any further issues or questions. Feedback on assembly instructions, support, and other aspects of your experience are welcome. Reach out to us at:

FORUM: https://re3d.zendesk.com/hc/en-us/community/topics

WIKI: wiki.re3d.org

EMAIL: support@re3d.org

PHONE: 512-730-0033

Happy printing!

REFERENCES & DOCUMENTS

GIGABOT®: UNASSEMBLED (COMPLETE DIY KIT) MANUAL PDF:	http://wiki.re3d.org/index.php?title=Gigabot_Kit
RE:3D, INC.® YOUTUBE CHANNEL:	https://www.youtube.com/user/GigaBot3D
GIGABOT® AZTEEG WIRING DIAGRAMS:	http://wiki.re3d.org/index.php?title=Gigabot_Kit (scroll to the bottom of the page)
VIKI 2.0 WIRING DIAGRAM:	http://panucattdevices.freshdesk.com/support/solutions/articles/1000158562-viki-lcd-2-0-support-files
GIGABOT® PRINTED PARTS:	https://sketchfab.com/re3d
GIGABOT® QUICK START GUIDE:	https://www.dropbox.com/s/muss3ypu7k7unta/GB3%2B%20Quick%20Start%20rev02%20reduced.pdf?dl=0

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