



# GIGABOT<sup>®</sup> RETROFIT KIT ASSEMBLY INSTRUCTIONS



**TALL WHEELED PLATFORM**





Rev. November 2015

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**READ INSTRUCTIONS :** All the safety and operating instructions should be read before the printer is operated.

**RETAIN INSTRUCTIONS :** The safety and operating instructions should be retained for future reference.

**HEED WARNINGS :** All warnings on the product and in the operating instructions should be adhered to.

**FOLLOW INSTRUCTIONS :** All operating and use instructions should be followed.

**CLEANING :** Unplug this product from the wall outlet before cleaning. Do not use liquid or aerosol cleaners.

**ATTACHMENTS :** Do not use attachments or enhancements not recommended by the product manufacturer as they may cause hazards.

**WATER AND MOISTURE :** Do not use Gigabot near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, and the like.

**PLACEMENT :** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

**VENTILATION :** Slots and openings in the electrical box are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**POWER SOURCES :** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home consult your appliance dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

# LEGALESE

**GROUNDING OR POLARIZATION :** This product may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. The 2-wire polarized plug will outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug. The 3-wire grounding type plug will fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

**POWER-CORD PROTECTION :** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

**LIGHTNING :** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

**OVERLOADING :** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

**OBJECT AND LIQUID ENTRY :** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

## **THANK YOU FOR PURCHASING THE TALL WHEELED PLATFORM RETROFIT KIT FROM re:3D Inc.®!**

This upgrade will let you place Gigabot® on top of a rolling platform for both easier accessibility and greater mobility. You will find that this is especially helpful for working with the Gigabot® while standing, or if you need to move the Gigabot® to another spot in the room. If you have purchased a kit for the Gigabot® XL, only the common rails will be longer. Assembly will remain the same.

### **REFERENCES & HELPFUL DOCUMENTS :**

Some external resources may be helpful during the assembly process. For example, knowing the correct names for different parts on the Gigabot®, or proper use of certain tools. Resources that we thought may be helpful have been linked to at the end of this guide.

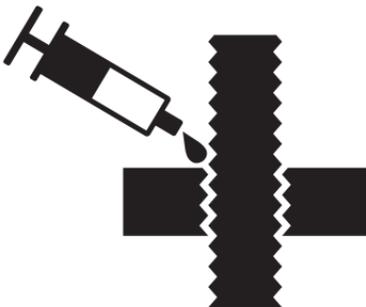
### **VIDEO INSTRUCTIONS :**

If you prefer a video guide, please search for “re3D Tech” on YouTube and find our “Wheeled Platform” video.

# BEFORE YOU BUILD

## IT'S HIP TO BE SQUARE!

When assembling the Gigabot®, it is essential to work on a flat surface and to carefully square perpendicular parts as much as possible. This is especially important while assembling the side plates, Z-axis uprights and vertical common rails, bed frame, upper and lower cross rails, and bridge assembly. Use large clamps to help square up frames if needed.



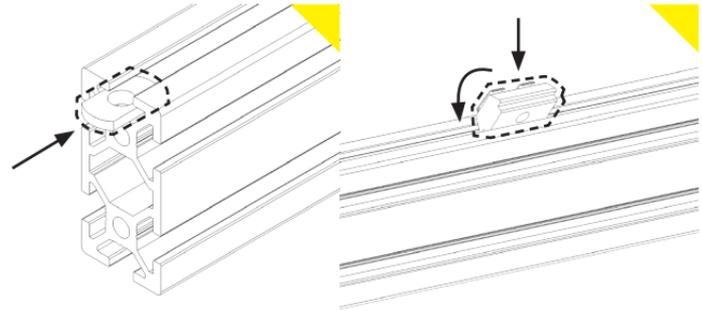
## THE USES OF GREASE

A little bit of grease is helpful when installing the V-groove wheels and assembling the Z-axis ACME threaded rods. These will help hold the eccentric spacers when installing the V-groove wheels and also keep them from damaging the side plates or end trucks during adjustment. Likewise, it will ensure smooth, quiet operation when applied to the Z-axis ACME threaded rods. Refer to our YouTube page for a video example ([link in the References & Documents page at the end of this guide](#)).

## BEFORE YOU BUILD

### T-NUTS, HOW DO THEY WORK?

T-nuts are an essential part of assembling the Gigabot®. These are inserted into the aluminum extrusion in order to fasten parts to the frame. Post assembly T-nuts are also used. These hold their positions well without sliding around, and are useful when installing retrofits.



### MEASURING AND MARKING

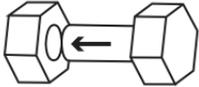
There are parts of the instructions that suggest marking spots on the Gigabot® to properly place parts. When marking, be sure to only use a pencil--using a permanent marker will leave unsightly marks on the metal!



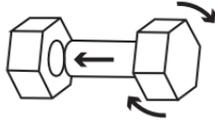
# LEGEND

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Insert



Fasten



Place



Align

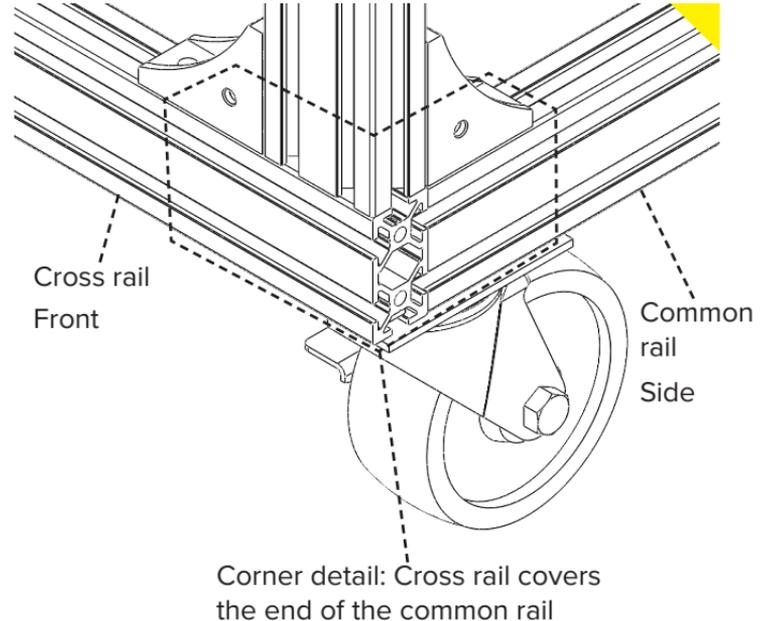
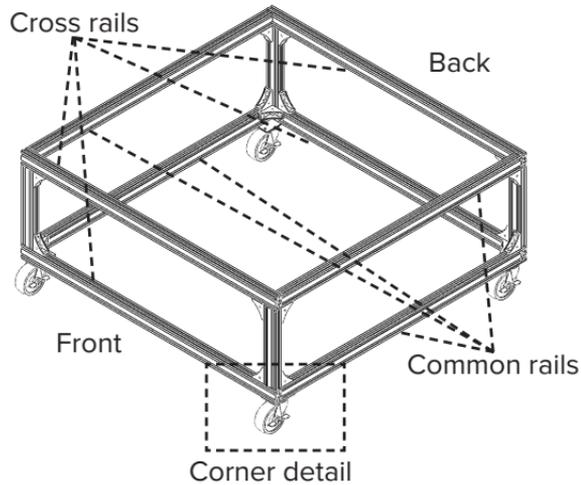


Remove



Objects of importance are outlined with dotted lines

# OVERVIEW



# BILL OF MATERIALS

Cross rails (33.5"/850mm)



4

Common rails (31.5"/800mm)\*



4

Caster wheels



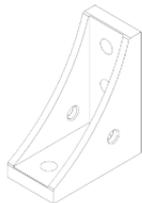
4

M5x8mm BHCS



16

Corner angle bracket



24

M5x10mm BHCS



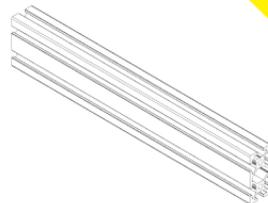
48

M5 T-nuts



64

Upright rails (9"/229mm)



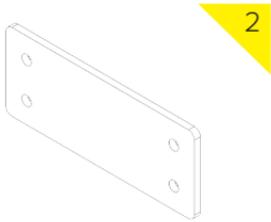
4

\*XL Gigabot® includes 37.5"/954mm common rails

# BILL OF MATERIALS

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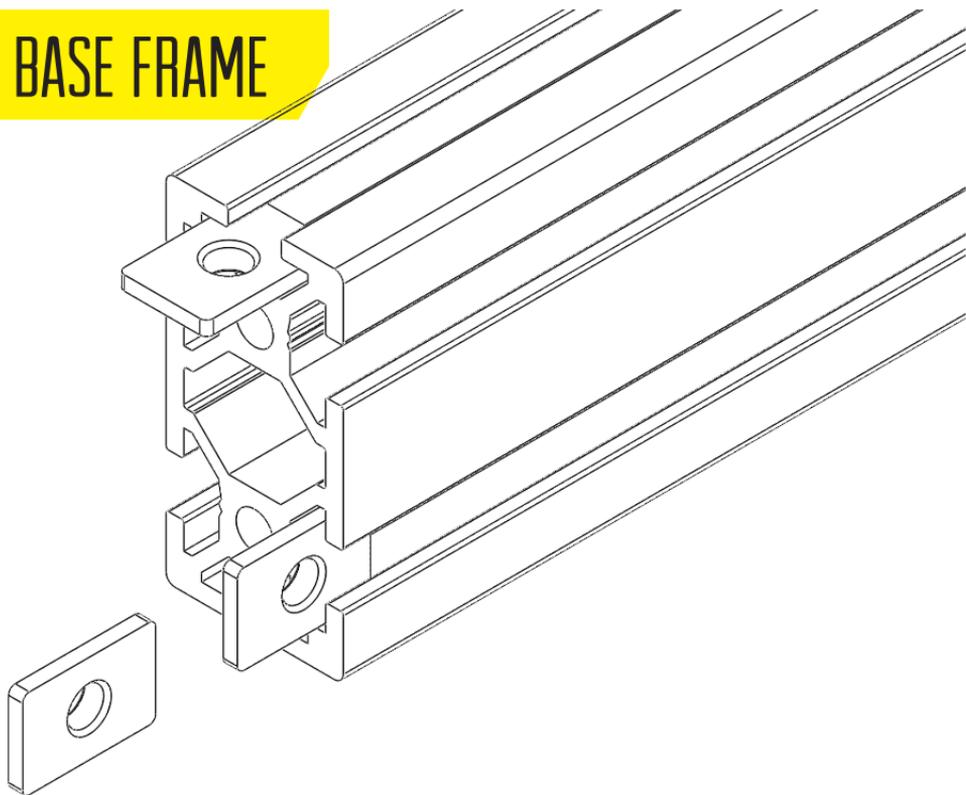
Tie plates



## TOOLS NEEDED

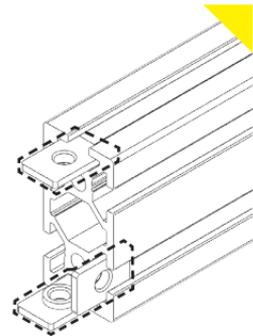
- 3mm Allen Key
- Precision square

# INSERT T-NUTS FOR BASE FRAME



## A1

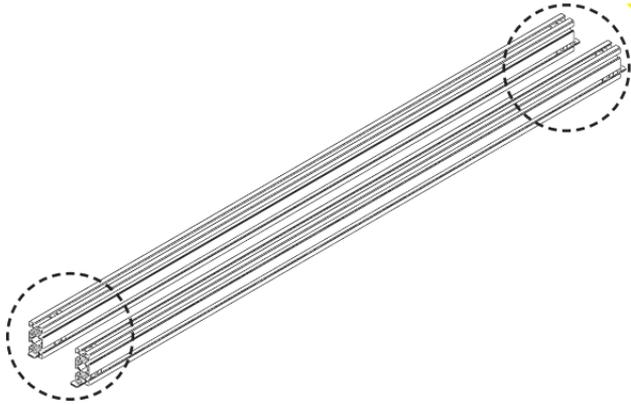
The common rails are wrapped in green plastic. Tear the plastic to access the rails, but do not remove them for future reference. On one end of a common rail, insert 1 T-nut in the top surface slot, 1 T-nut in the lower slot of the front surface, and 1 T-nut in the bottom surface slot. Refer to “Before you Build” section page 9 for T-nut notes



## A2

Do this for both ends of the common rail. The common rail should have 6 T-nuts total.





### A3

Repeat for the other common rail. Each rail should have 6 T-nuts total.

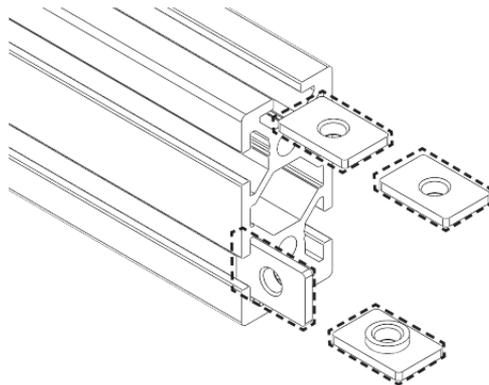


### A4

Move these aside for now, but do not change their orientation! The cross rails are wrapped in blue plastic. Tear the plastic to access the rails, but do not remove them for future reference.

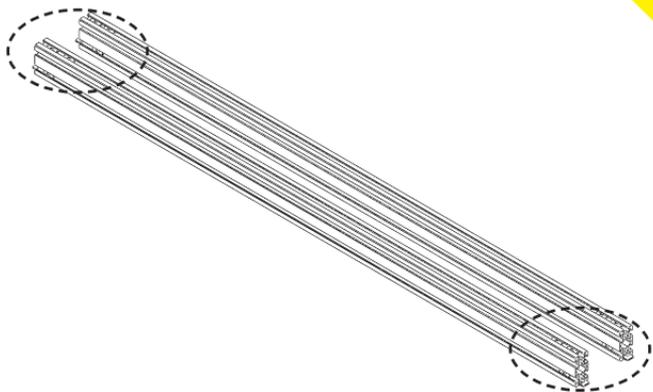
**A5** 

On one end of a cross rail insert 2 T-nuts in the top surface slot, 1 T-nut in the lower slot of the front surface, and 1 T-nut in the bottom surface slot.

**A6**

Do this for both ends of the cross rail. The cross rail should have 8 T-nuts total.

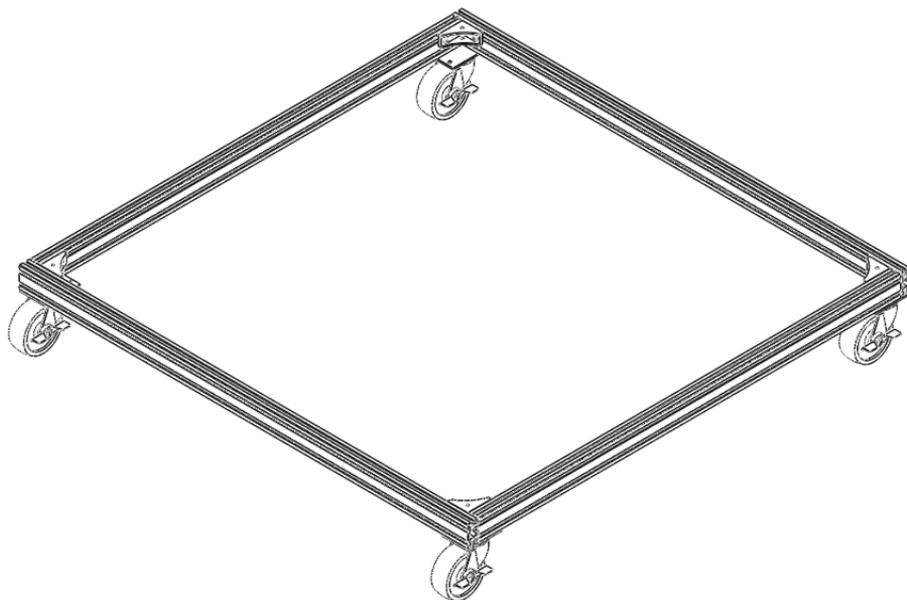




**A7**

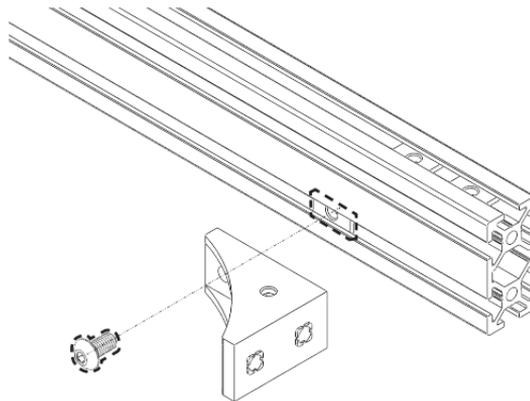
Repeat for the other cross rail

# ASSEMBLE FRAME WITH WHEELS



## B1

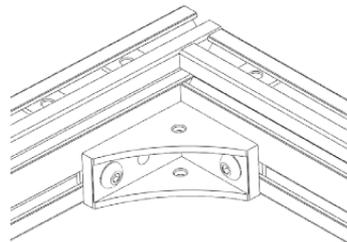
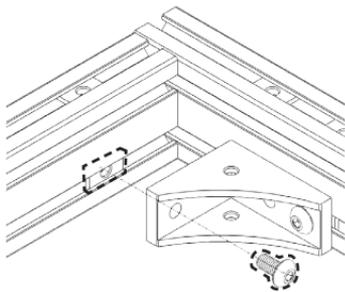
Loosely fasten a corner angle bracket to each end of the cross rail as shown. Use a M5x10mm BHCS to attach to the T-nut. This will also help distinguish the common rails from the cross rails now. *Use 2 brackets per cross rail and make sure the brackets can still slide. Refer to BOM @ beginning for screw images*



## B2

Repeat this for the other cross rail. Place cross rail end over the common rail end as shown. Be careful not to tilt the rails so that hardware slides out. *Ways to ID common rails: They should have been set aside at the beginning, they are a different length than the cross rail (refer to BOM), they do not have brackets fastened*



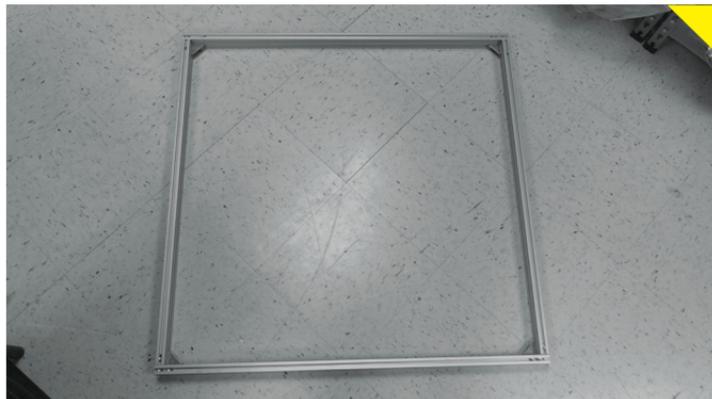


### B3

Align the common rail T-nut to the bracket hole and fasten with M5x10mm BHCS. Refer to BOM to ID parts. Attach another common rail to the other end of the cross rail. Fasten the same way as before. Check to make sure the cross rail “captures” the common rail end as shown. Also check the orientation of both rails and the attached brackets

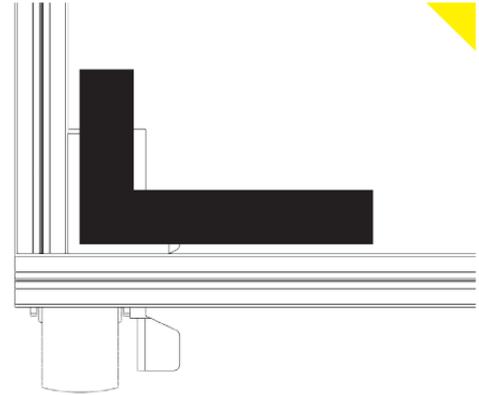
### B4

Finally, use 2 M5x10mm BHCS and the remaining two corner angle brackets to attach the other cross rail to the common rail ends. Again, pay attention to orientation



## B5

Use the precision square to square the frame assembly.  
Fully hand tighten all bracket screws

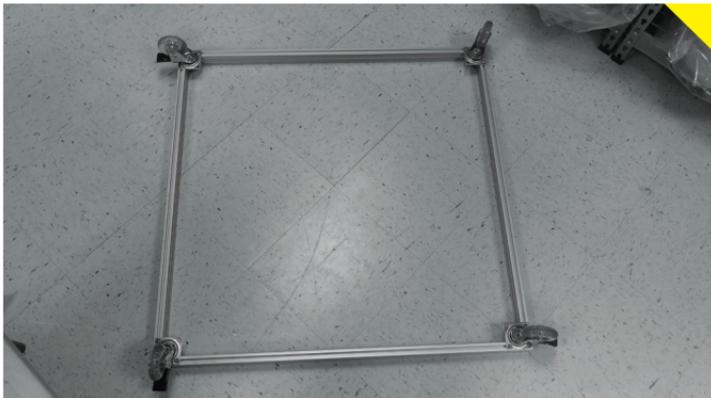


## B6

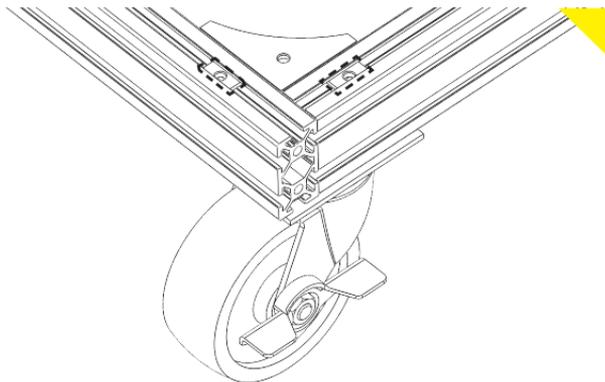


At each corner of the frame assembly, align the T-nuts to the holes of one of the castor wheels. Fasten the castor wheel with 3 M5x8mm BHCS. *Refer to the BOM if needed*



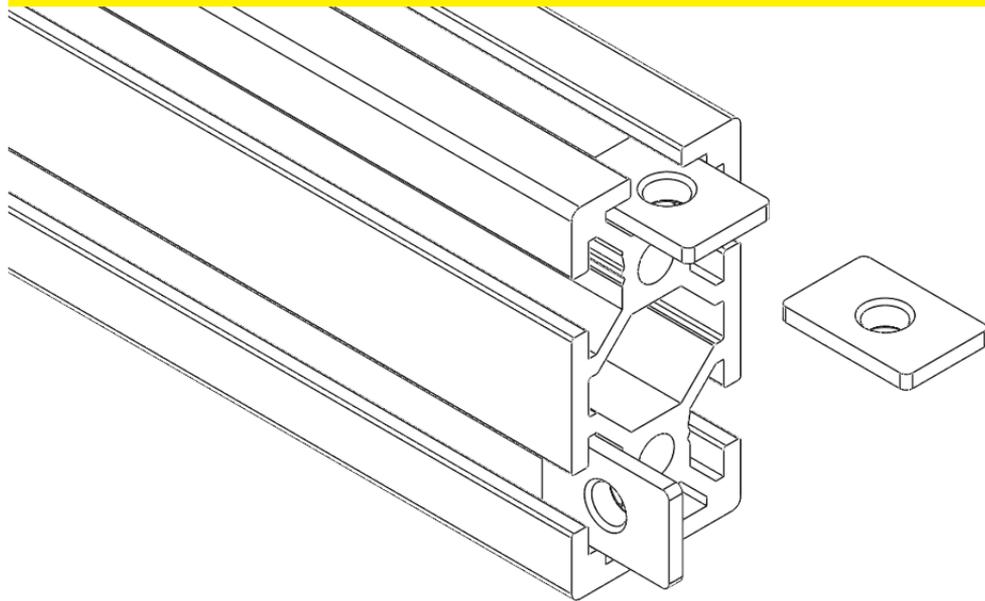
**B7**

Repeat this for the 3 other caster wheels in the other corners

**B8**

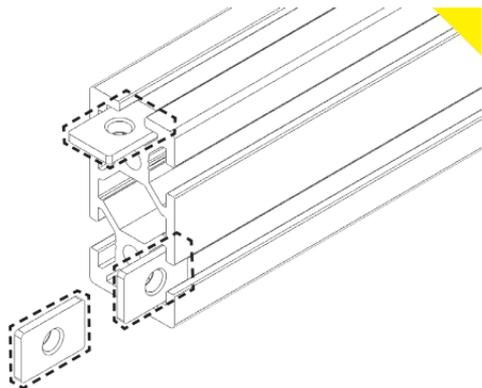
Flip the assembly over and set aside. Wheels can be locked to keep the frame from rolling. Note that there are 8 unused T-nuts underneath (what will be the top later)—this is for attaching the top frame later

# INSERT T-NUTS FOR TOP FRAME AND UPRIGHTS

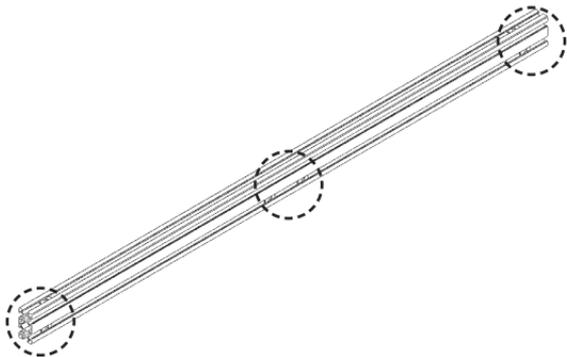


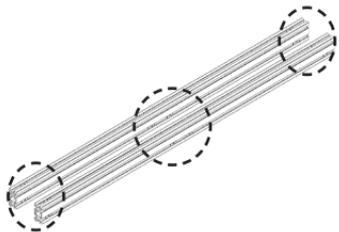
**C1**

You should have 2 common remaining common rails. Completely remove any remaining plastic. On one end of a common rail, insert 1 T-nut in the top surface slot and 2 T-nuts in the lower slot of the front surface

**C2**

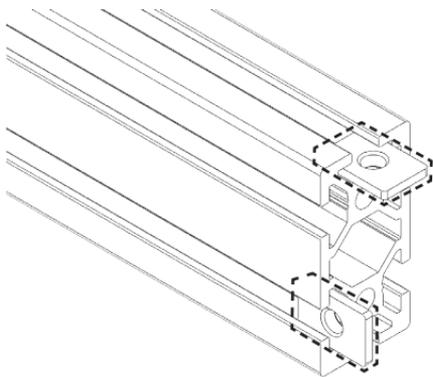
Do this for both ends of the common rail. The common rail should have 6 T-nuts total





### C3

Repeat for the last common rail. Move these aside for now, but do not change their orientation!



### C4



There should be 2 remaining cross rails. Completely remove any remaining plastic. On one end of a cross rail, insert 1 T-nut in the top surface slot and 1 T-nut in the lower slot of the front surface

## C5

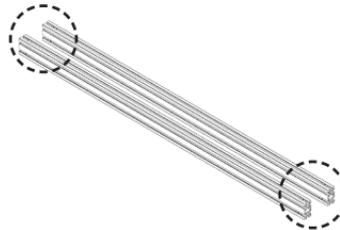
Do this for both ends of the cross rail. The cross rail should have 4 T-nuts total

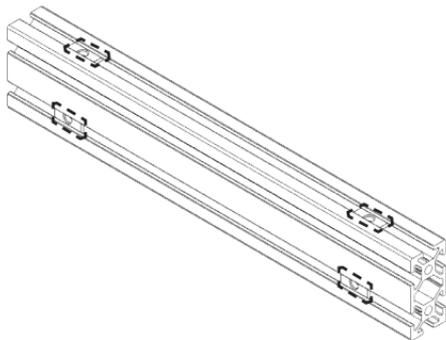


## C6

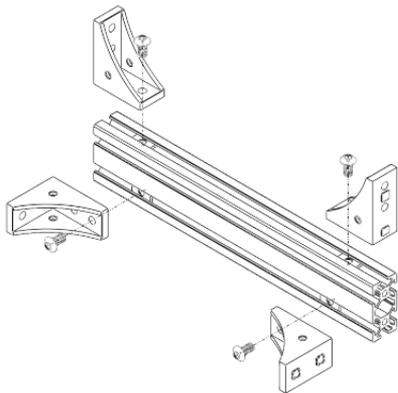


Repeat for the last cross rail. The upright rails are the shortest rails in the packaging. Remove the tape wrapped around the uprights.



**C7** 

On one end of an upright rail, insert 1 T-nut in the top slot and 1 T-nut in the lower slot of the front surface. Do this for both ends of the upright. The upright rail should have 4 T-nuts total

**C8** 

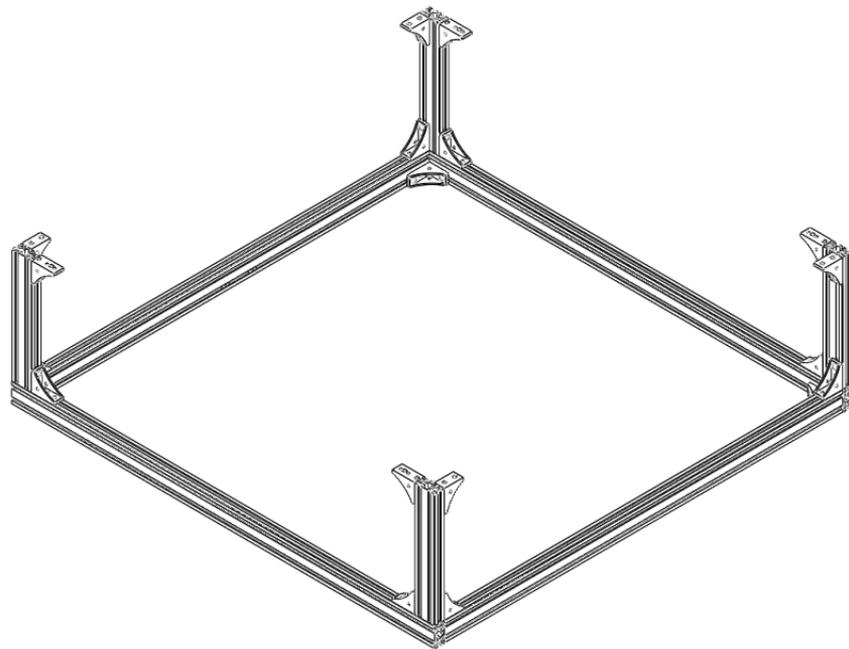
Loosely fasten corner angle brackets to each T-nut on the upright rail with M5x10mm BHCS as shown.

**C9**

Repeat for the other 3 upright rails. Place uprights with brackets aside.

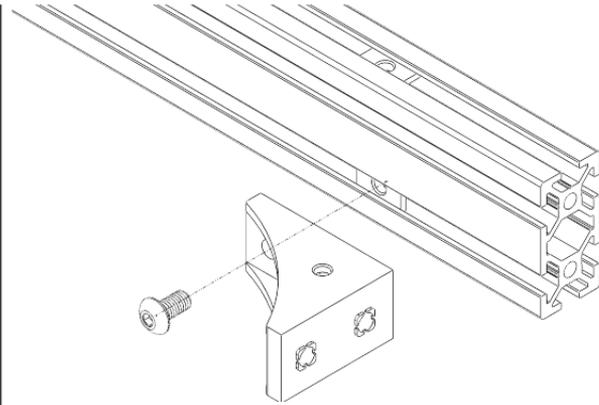


# ASSEMBLE TOP FRAME WITH UPRIGHTS



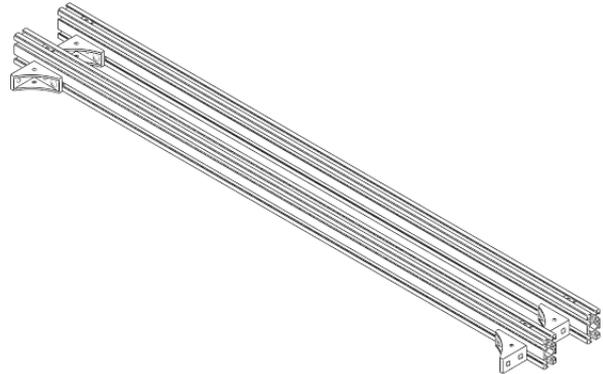
## D1

Loosely fasten a corner angle bracket to each end of the cross rail as shown. Use a M5x10mm BHCS to attach to the T-nut. This will also help distinguish the common rails from the cross rails now. *Use 2 brackets per cross rail and make sure the brackets can still slide. Refer to BOM @ beginning for screw images*



## D2

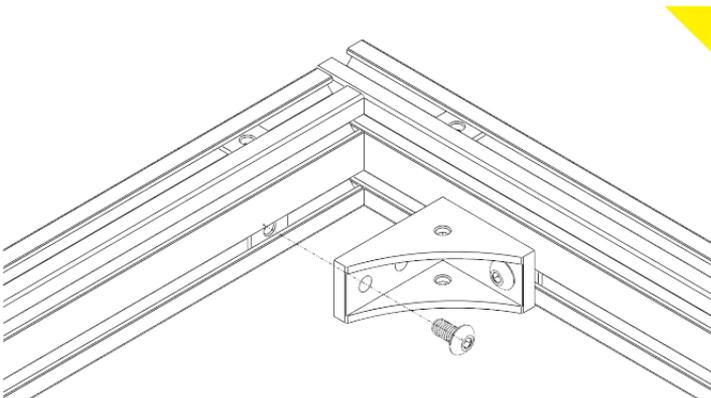
Repeat this for the other cross rail





### D3

Place cross rail end over the common rail end as shown. Be careful not to tilt the rails so that hardware slides out. *Ways to ID common rails: They should have been set aside at the beginning, they are a different length than the cross rail (refer to BOM), they do not have brackets fastened*



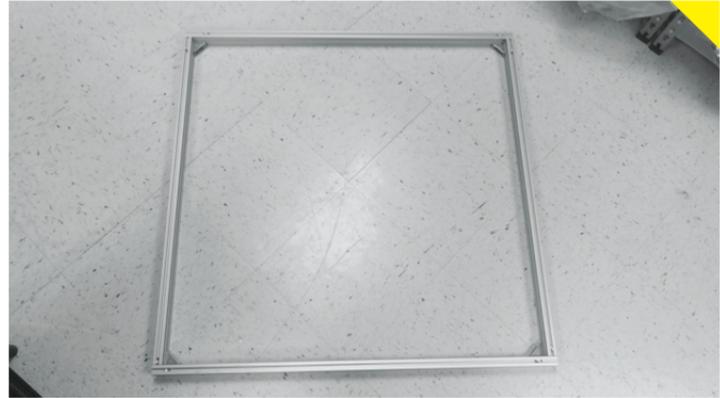
### D4

Align the common rail T-nut to the bracket hole and fasten with M5x10mm BHCS. *Refer to BOM to ID parts.* Attach another common rail to the other end of the cross rail. Fasten the same way as before. *Check to make sure the cross rail “captures” the common rail end as shown. Also check the orientation of both rails and the attached brackets*

## D5

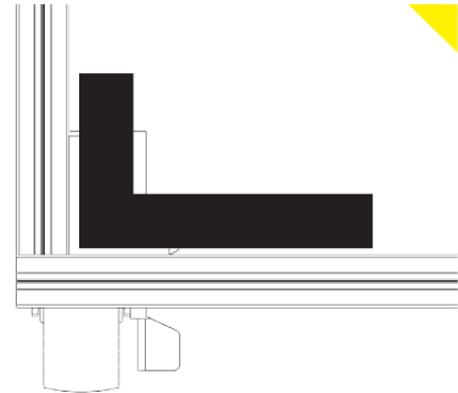


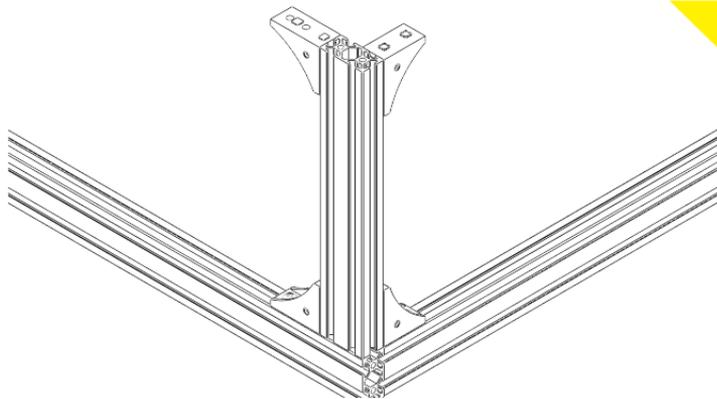
Finally, use 2 M5x10mm BHCS and the remaining two corner angle brackets to attach the other cross rail to the common rail ends. Again, pay attention to orientation



## D6

Use the precision square to square the frame assembly. Fully hand tighten all bracket screws.

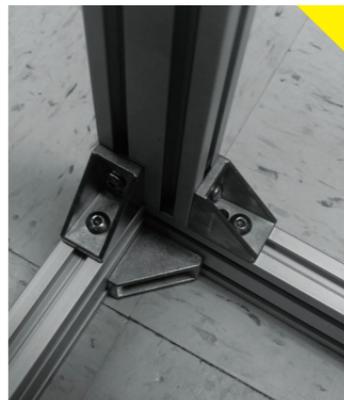




**D7**



Align the long side of the upright with the cross rail as shown. Align the angle brackets on the upright with the T-nuts on the top frame

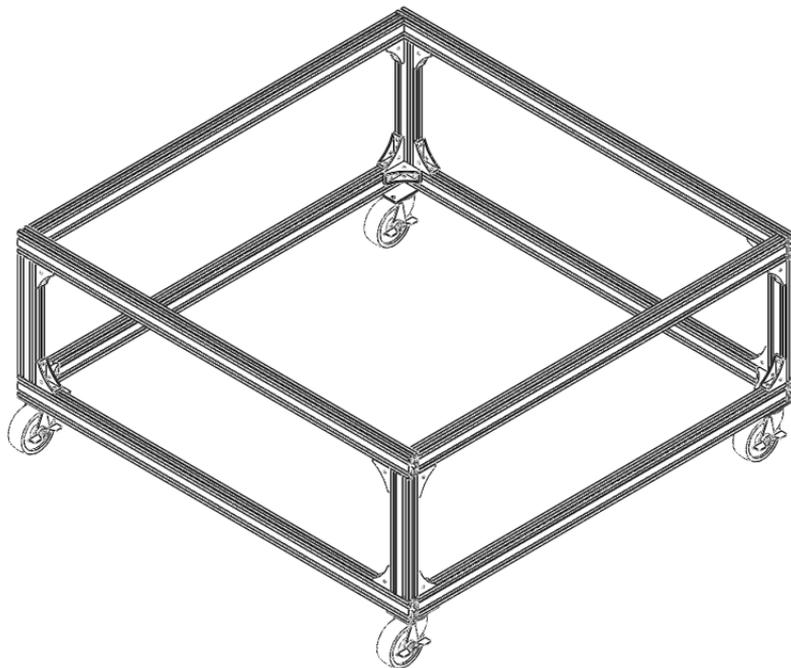


**D8**



Attach upright to frame by fastening the brackets with M5x10mm BHCS. Repeat for the 3 other uprights. Double check the alignment of the upright with the cross rail

# ATTACH TOP FRAME TO BASE FRAME





**E1**



Flip the top frame over and place it on top of the base frame. *Be sure that the rails align—cross rails with cross rails and common rails with common rails—or the two frames will not fit together correctly*



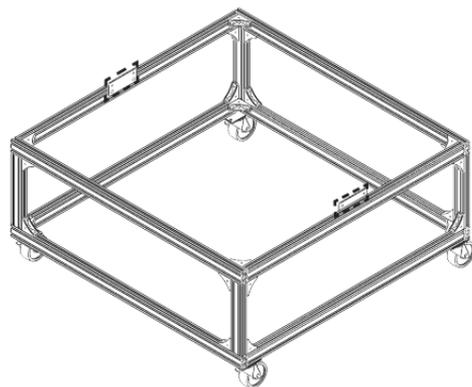
**E2**



Align the base frame T-nuts with the upright angle bracket holes. Fasten all brackets with M5x10mm BHCS

### E3

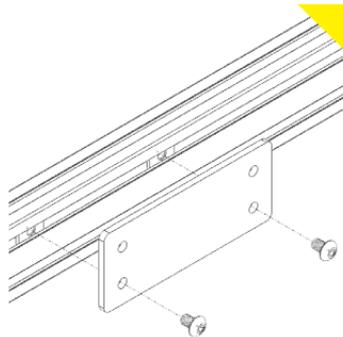
The tie plates will be placed inside of the top frame, in the center of the common rails.



### E4



Align the T-nuts with the tie plate holes. Fasten the tie plates onto the common rails with M5x8mm BHCS





## E5

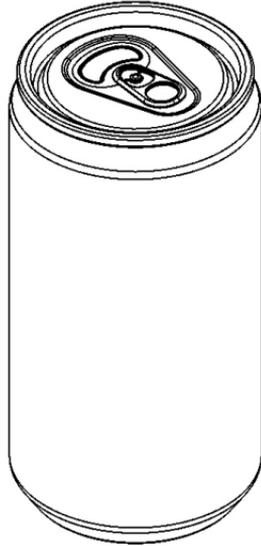
Double check that the frame is square and the fasteners are all secure. Your wheeled platform is now ready to use. Please do not attempt to move the Gigabot onto the platform alone. Lift the Gigabot with at least one other person to avoid injury to yourself and/or Gigabot

## E6

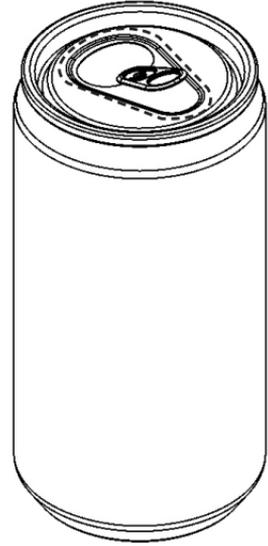
Please look over your completed kit and make sure everything has been assembled correctly. If you have further questions, please refer to the video instructions (search “re3D Tech” on YouTube and find “Wheeled Platform” video) or contact us through the references listed in the Conclusion.

# NOW IS A GOOD STOPPING POINT...

Acquire beverage of  
your choice.



Actuate pull tab.  
*Consume.*



# CONCLUSION

## **CONGRATULATIONS! YOU HAVE NOW COMPLETED THE TALL WHEELED PLATFORM RETROFIT ON YOUR GIGABOT®.**

We are confident that you will find this upgrade very helpful in your every day use of the Gigabot®, 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:

**WIKI :** [wiki.re3d.org](http://wiki.re3d.org)

**EMAIL :** [support@re3d.org](mailto:support@re3d.org)

**PHONE :** 512-730-0033

Happy printing!

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From the re:3D Inc.® team

# REFERENCES & DOCUMENTS

**TALL WHEELED  
PLATFORM MANUAL PDF :**

[http://wiki.re3d.org/index.php?title=Retrofit\\_Instructions](http://wiki.re3d.org/index.php?title=Retrofit_Instructions)

**re:3D Inc.® YouTube  
CHANNEL :**

<https://www.youtube.com/user/GigaBot3D>









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