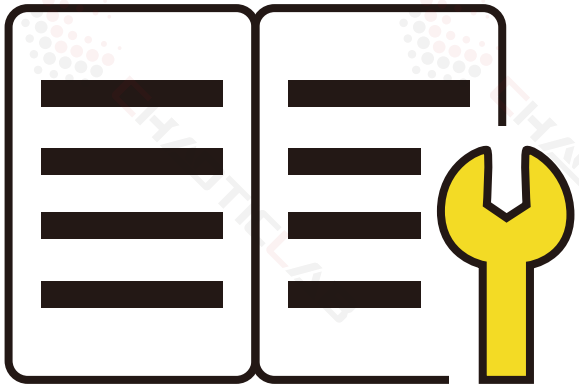
CHAOTICLAB

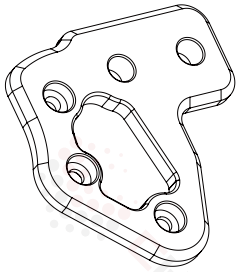
VORON 2.4 CNC XY JOINT KIT BUILD GUIDE

VERSION 2024-05-23

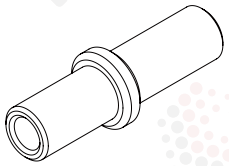


- Parts highlighted in blue are included in this CNC XY Joint Kit.
- Parts highlighted in red are NOT included and will need to be prepared separately.

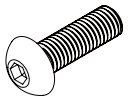
PACKAGING LIST



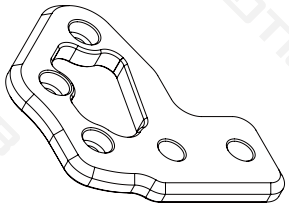
XY JOINT UPPER LEFT
1pc



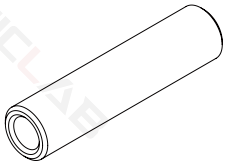
BEARING STANDOFF
4pcs



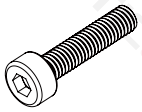
BUTTON HEAD CAP SCREW(BHCS)
M5x10 6pcs



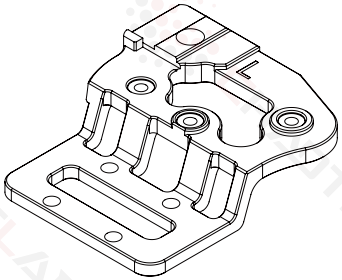
XY JOINT UPPER RIGHT
1pc



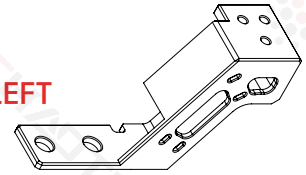
SUPPORT COLUMN
2pcs



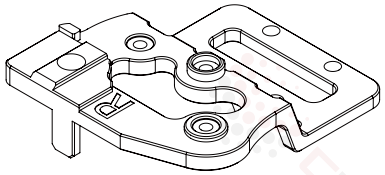
SOCKET HEAD CAP SCREW(SHCS)
M3x25 6pcs



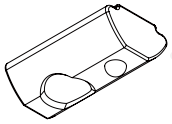
XY JOINT LOWER LEFT
1pc



CABLE DRAG CHAIN BRIDGE
1pc

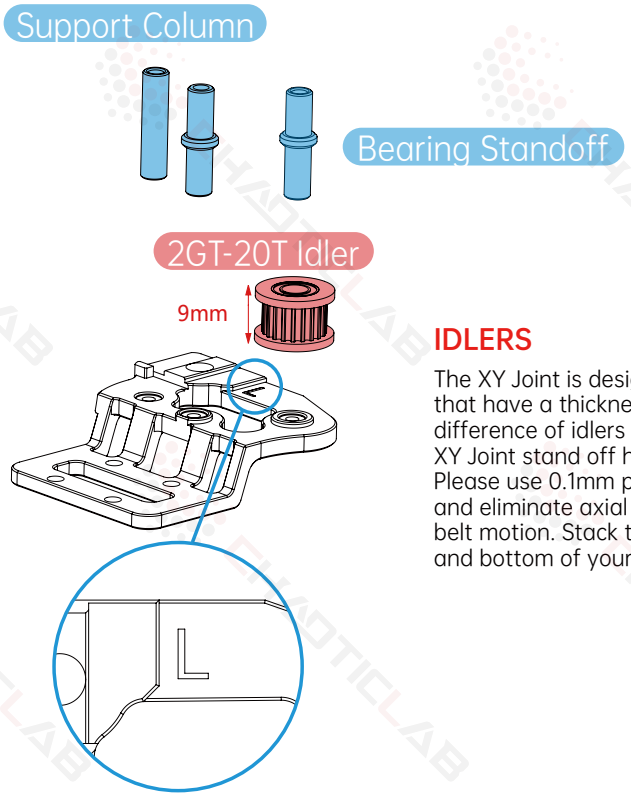


XY JOINT LOWER RIGHT
1pc



DROP-IN T-NUT, M5 (2020)
6pcs

XY JOINT LEFT

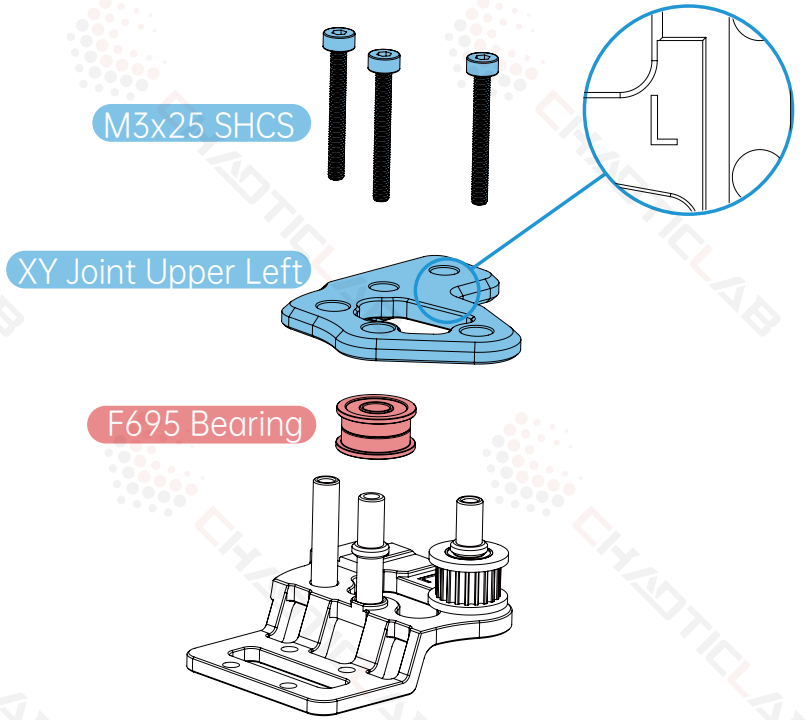


IDLERS

The XY Joint is designed to be compatible with idlers that have a thickness of 9mm or less. Due to tolerance difference of idlers from different manufacturers, the XY Joint stand off has been designed with extra tolerance. Please use 0.1mm precision shims to adjust the idler height and eliminate axial movement of the Idler to ensure smooth belt motion. Stack the shims as evenly as possible at the top and bottom of your idler. You will need to self source the shims.

XY JOINT LOWER LEFT

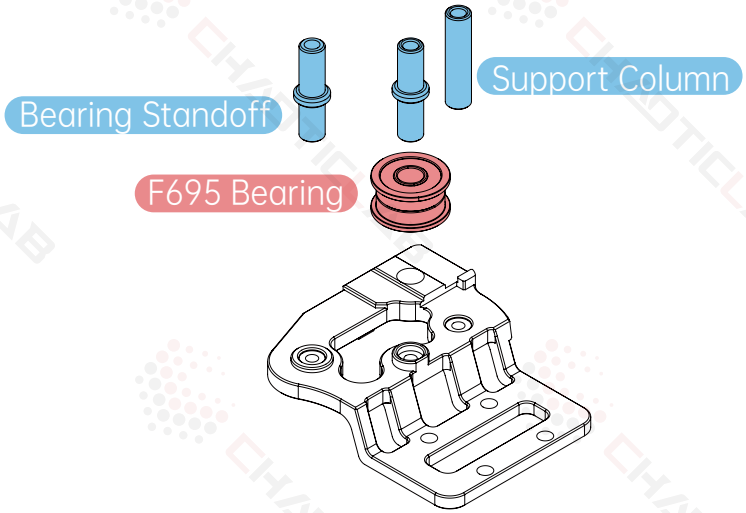
Marked with "L" or "R" to help you distinguish between the left and right parts.

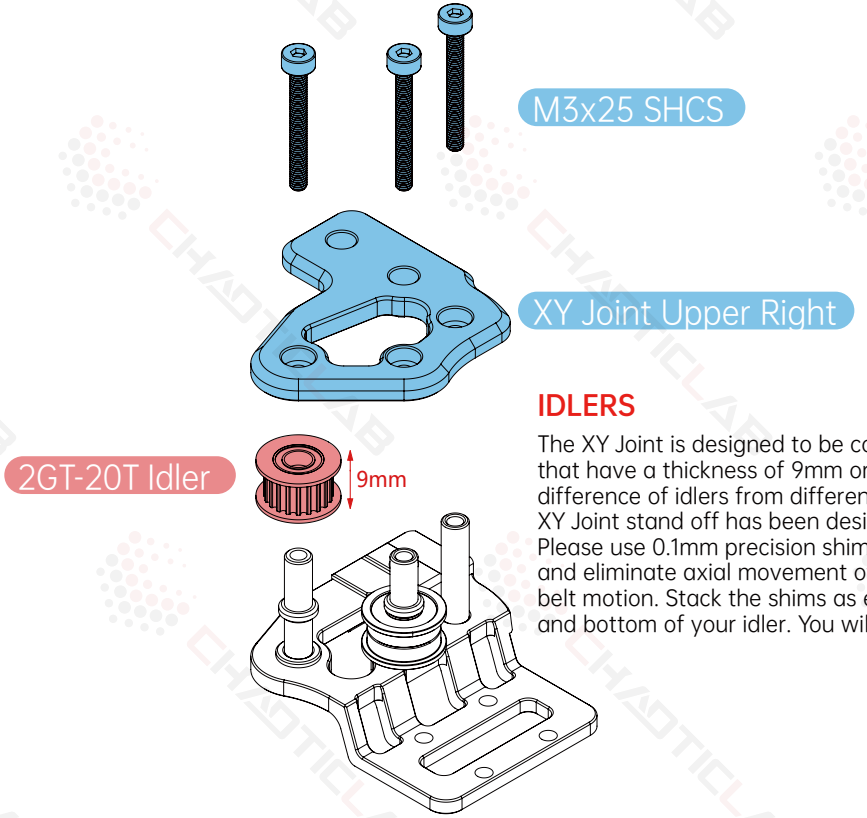


XY JOINT UPPER LEFT

Marked with "L" or "R" to help you distinguish between the left and right parts.

XY JOINT RIGHT





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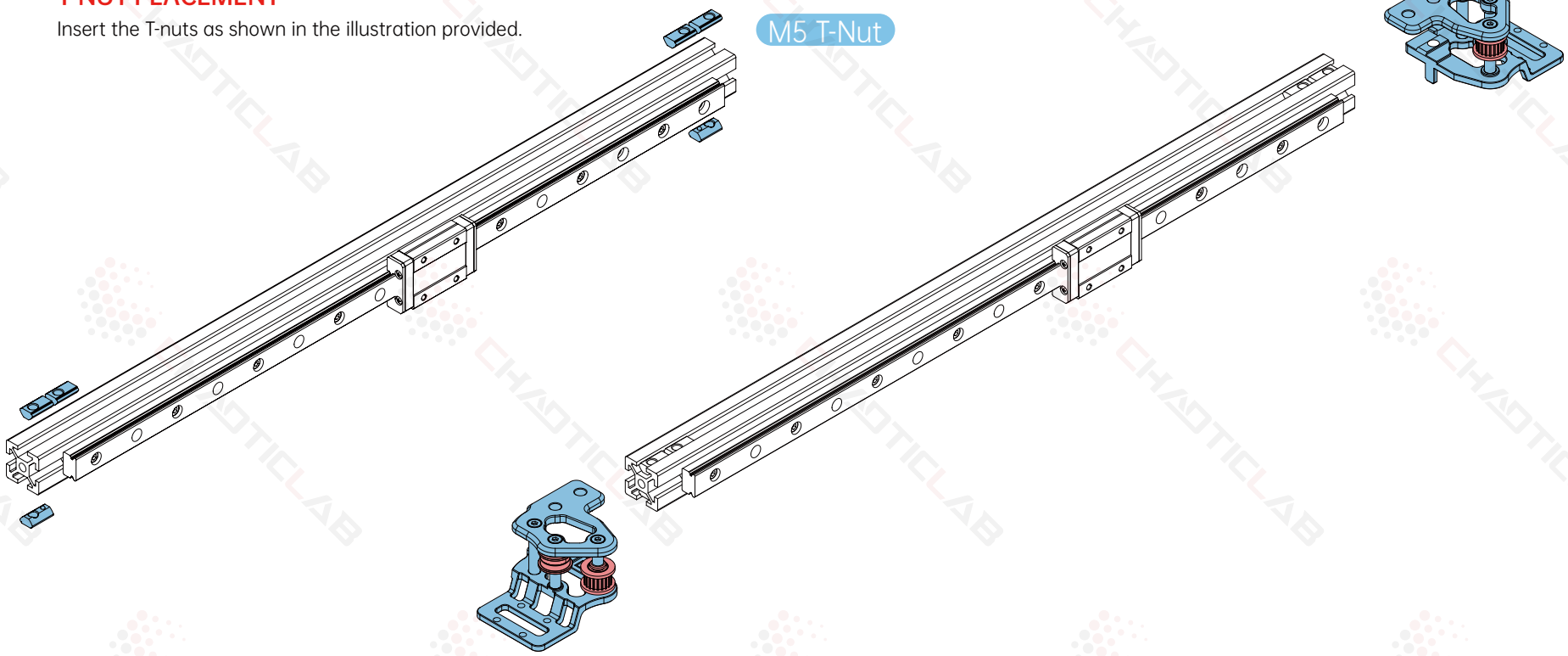
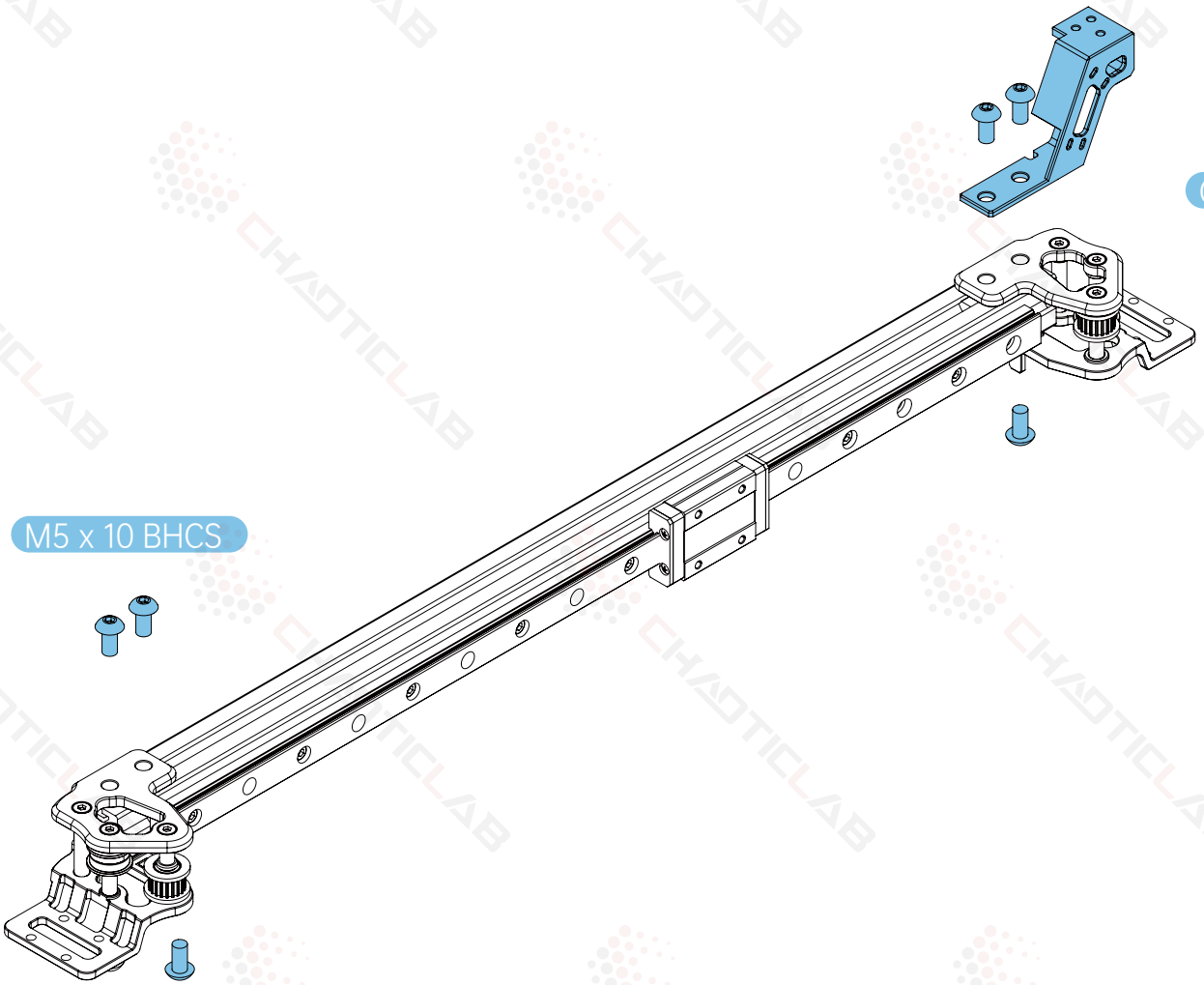
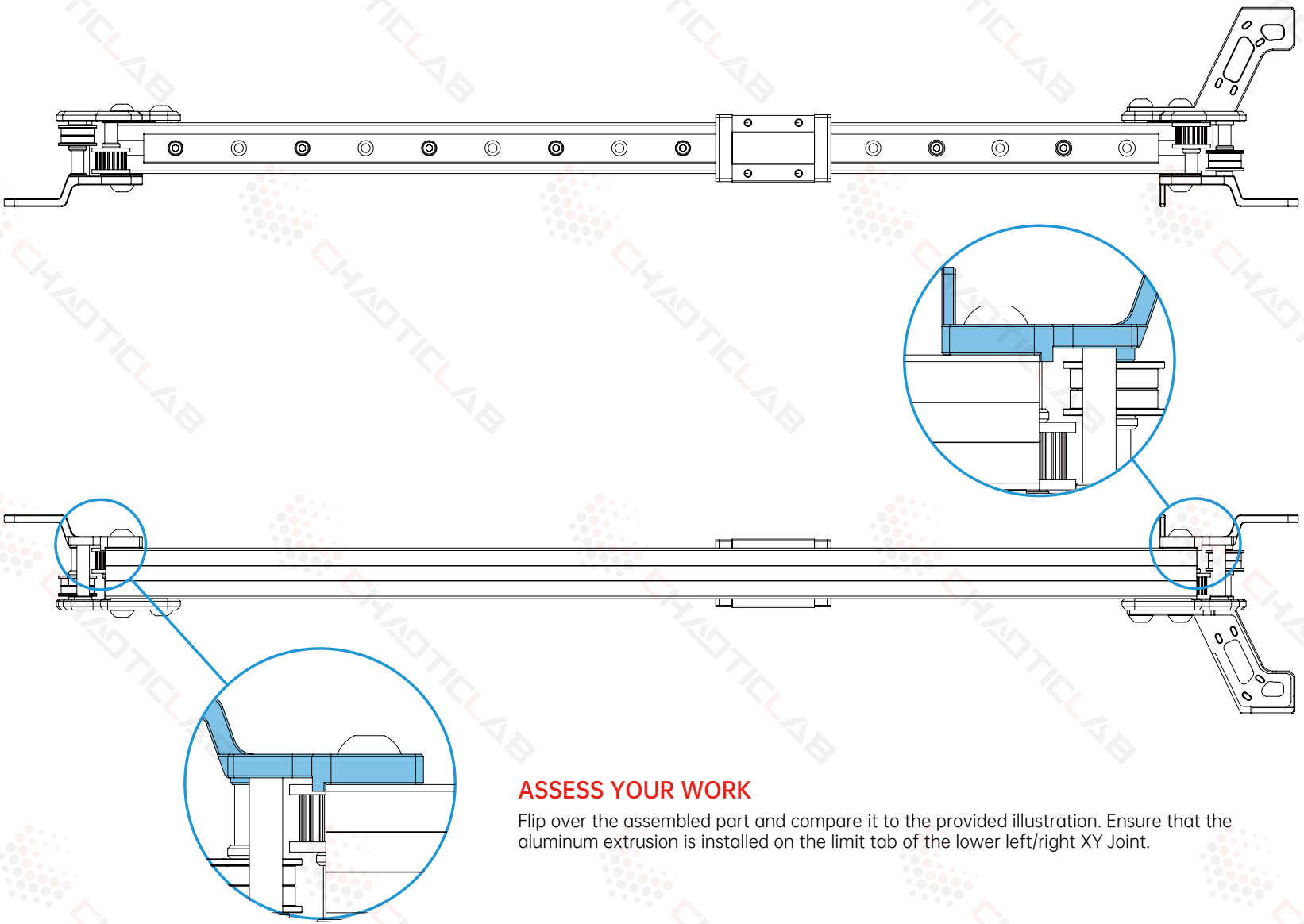
T-NUT PLACEMENT

Insert the T-nuts as shown in the illustration provided.

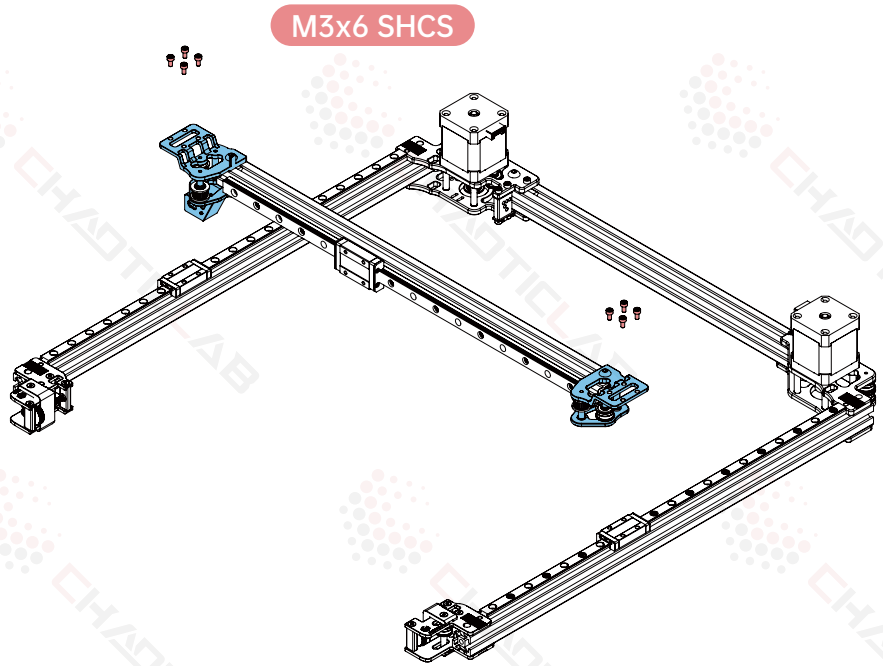



Cable Drag Chain Bridge
M5 x 10 BHCS



ASSESS YOUR WORK

Flip over the assembled part and compare it to the provided illustration. Ensure that the aluminum extrusion is installed on the limit tab of the lower left/right XY Joint.



ENSURING PROPER GANTRY ALIGNMENT

Since the CNC parts in the kit have higher precision and rigidity compared to the printed parts, it's important to keep the whole gantry relatively level before fully tightening the eight screws. Follow these steps for optimal setup:
Push the X-axis to the far end towards the XY motor, making sure it is completely parallel to the gantry motor side profile, then fully tighten the screws.
Alternatively, after the assembly is complete, you can slightly loosen these 8 screws. Perform the initial QGL, then move the Z-axis to the appropriate height. Unlock the motor, push the X-axis towards the X-MAX direction, and then re-tighten the screws.

CHAOTICLAB

Website
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