



## VORON 2.4 CNC Z JOINT KIT BUILD GUIDE

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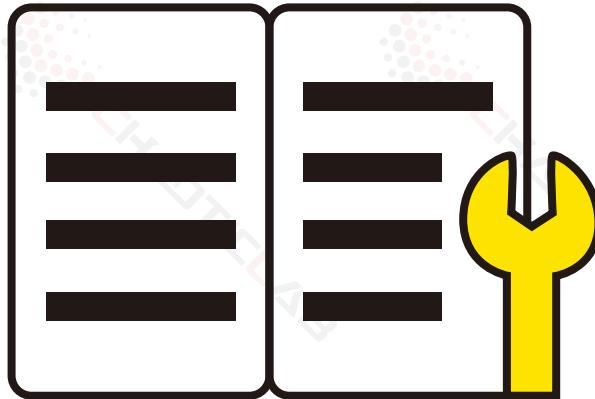
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VERSION 2024-05-23

## READ BEFORE ASSEMBLY

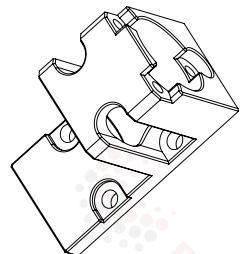
WWW.CHAOTICLAB.XYZ



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

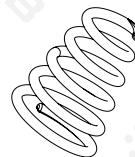
## PACKING LIST

WWW.CHAOTICLAB.XYZ



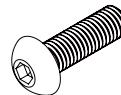
Z JOINT LOWER

4 pcs



CONICAL SPRING

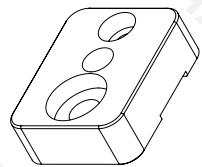
4 pcs



BUTTON HEAD CAP SCREW (BHCS)

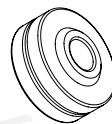
M5x14  
M3x6

12 pcs  
12 pcs



Z JOINT UPPER

4 pcs



PB5 BEARING

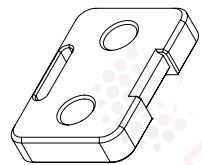
4 pcs



SOCKET HEAD CAP SCREW (SHCS)

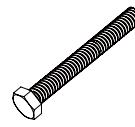
M3x14  
M3x6

4 pcs  
16 pcs



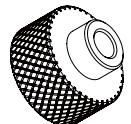
Z BELT CLAMP

4 pcs



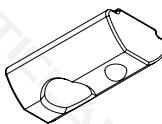
HEX BOLT

M5x40mm      4 pcs



M5 THUMB NUT

4 pcs



DROP-IN T-NUT (2020)\*

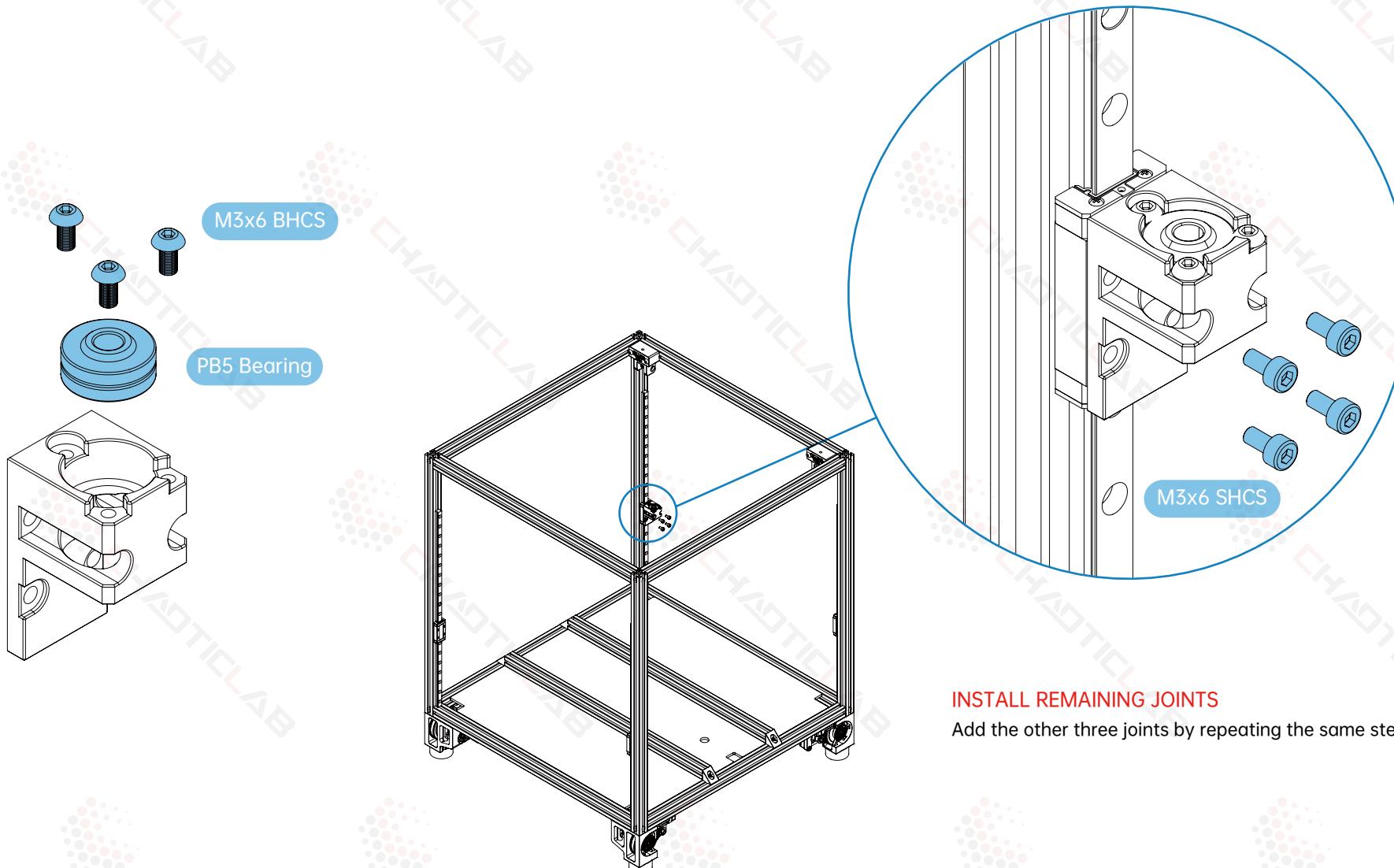
M3                  4 pcs  
M5                  12 pcs



SPACER

5x8x4.5mm      4 pcs

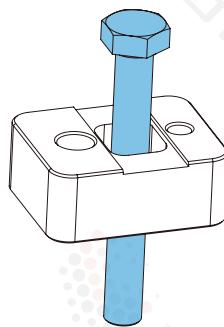
\*The 16pcs T-nuts must already be placed inside the gantry extrusion during the assembly of the A/B DRIVE. As a result, this guide does not specifically address them. For further information, please refer to the CNC A/B DRIVE KIT user manual included in the CHAOTICLAB VORON 2.4 CNC PART KIT V2.0 or official VORON manuals for details.

**INSTALL REMAINING JOINTS**

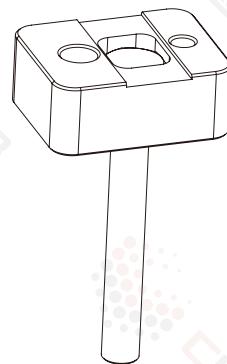
Add the other three joints by repeating the same steps.

**FLIP GANTRY**

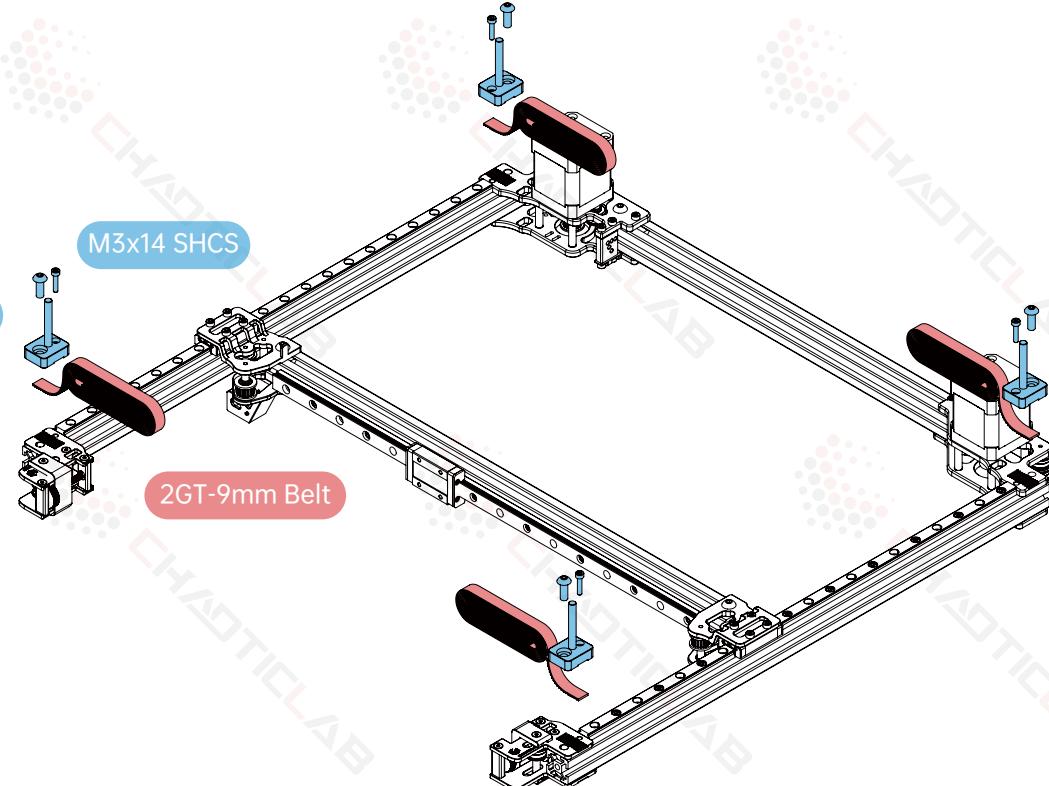
Turn the gantry around for this step.



Hex Bolt M5x40



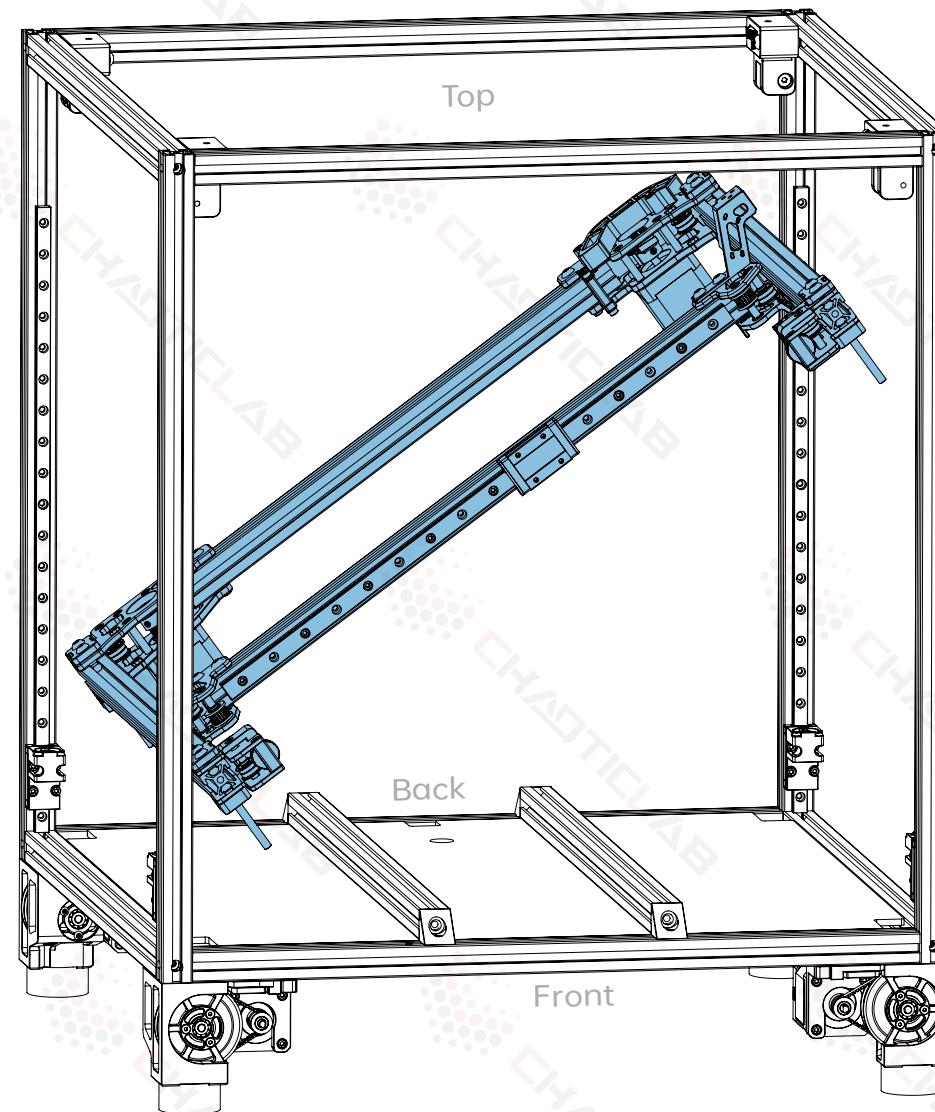
M5x14 BHCS

**BELT ORIENTATION**

Refer to the images, paying attention to the direction of the belt teeth.

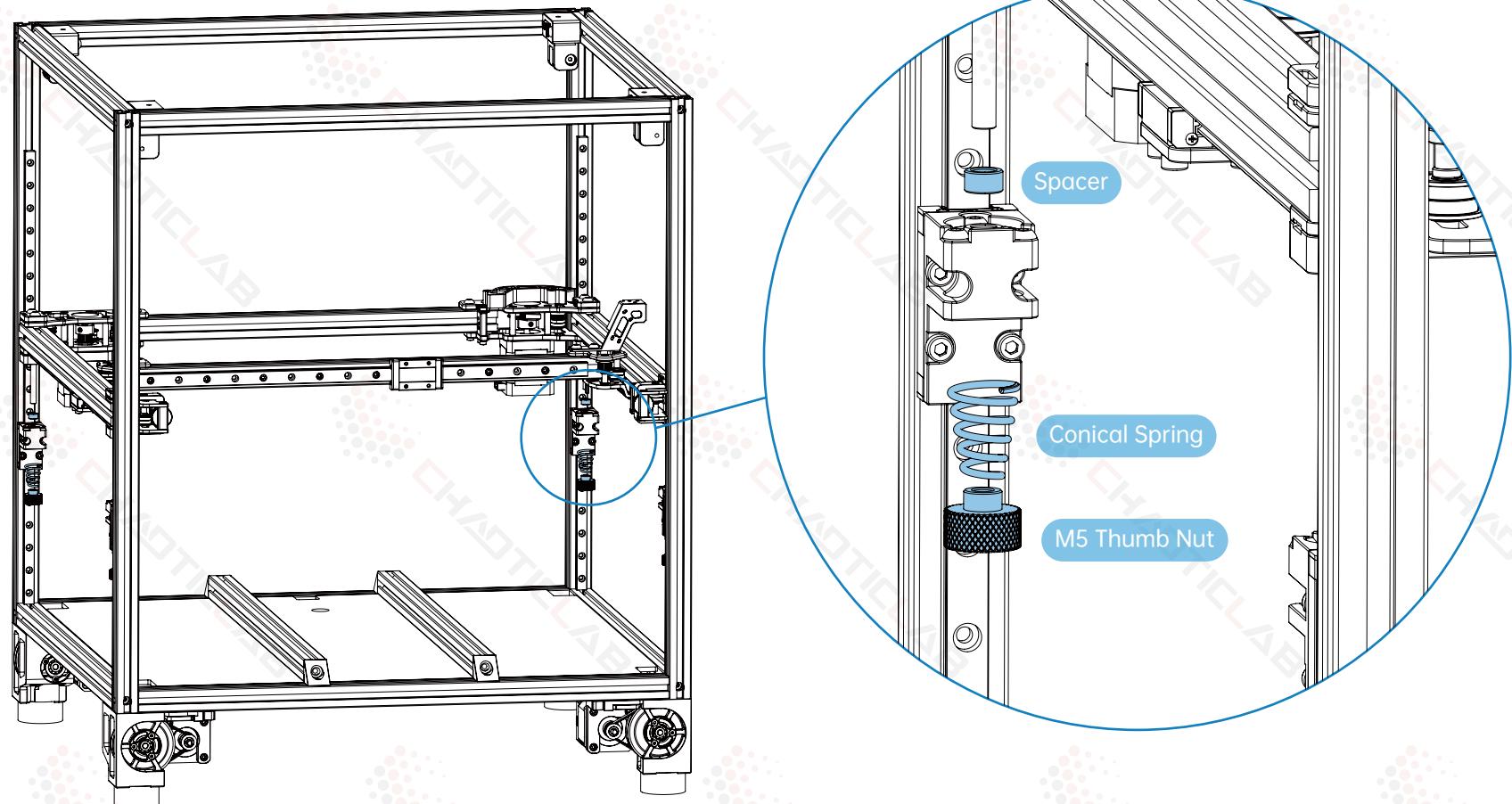
**INSERT AT AN ANGLE**

Tilt the gantry at angle to move it past the vertical structure.

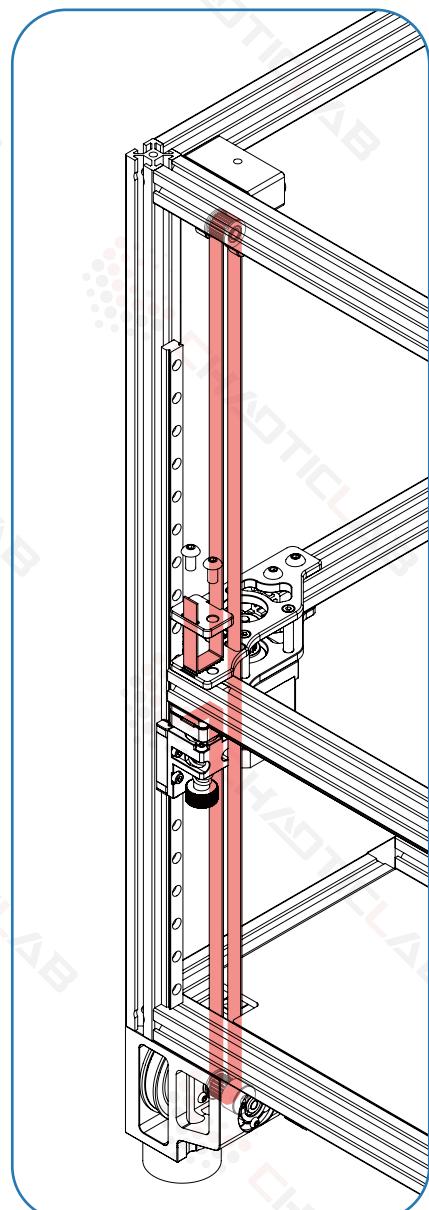


**TIGHTEN THE FOUR THUMB NUTS**

To secure the gantry to the Z joints as shown in the diagram.

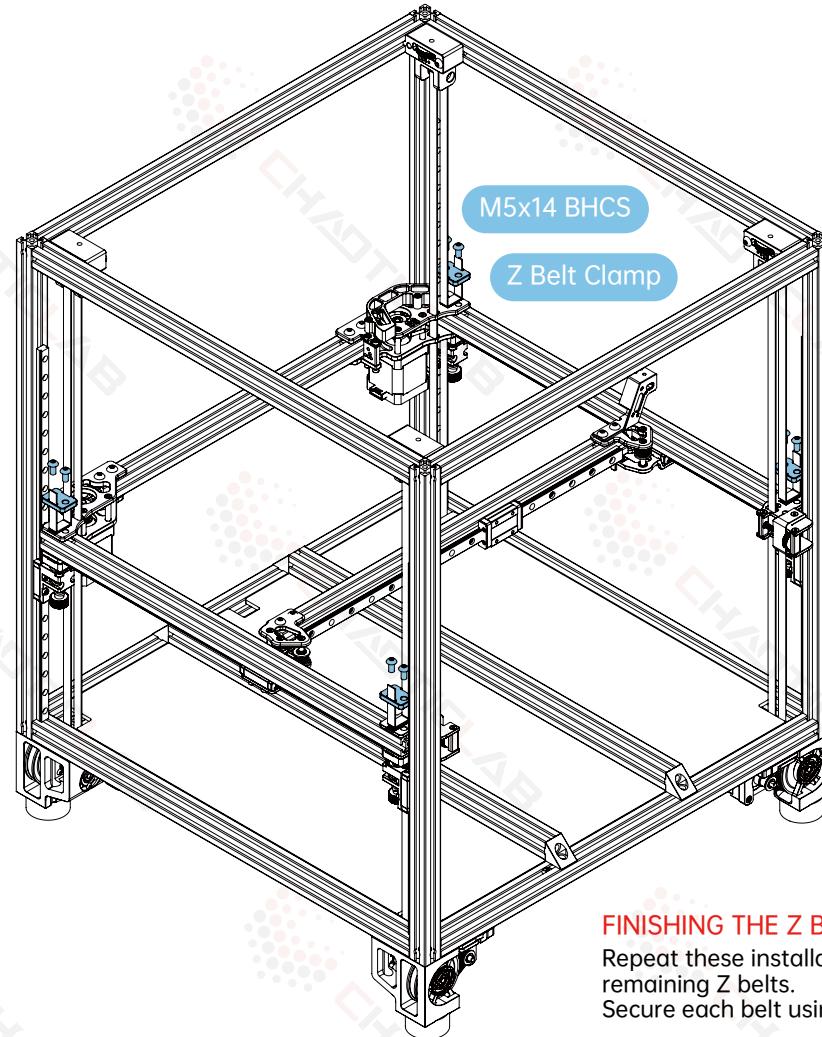
**CONICAL SPRING ORIENTATION**

Ensure the conical spring is oriented correctly, with the smaller end facing the M5 thumb nut.

**Z BELT ROUTING**

Follow the path as shown in the diagram.  
You can use needle-nose pliers, tweezers, or similar tools to help you with this step.

The belt teeth are on the inside of the loop.

**FINISHING THE Z BELT INSTALLATION**

Repeat these installation instructions when installing the three remaining Z belts.  
Secure each belt using the belt clamps and screws.



**CHAOTICLAB**



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**Website**  
[www.chaoticlab.xyz](http://www.chaoticlab.xyz)

**GitHub**  
[github.com/chaoticlab](https://github.com/chaoticlab)

**Discord**  
[discord.gg/uUCX666tk2](https://discord.gg/uUCX666tk2)

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