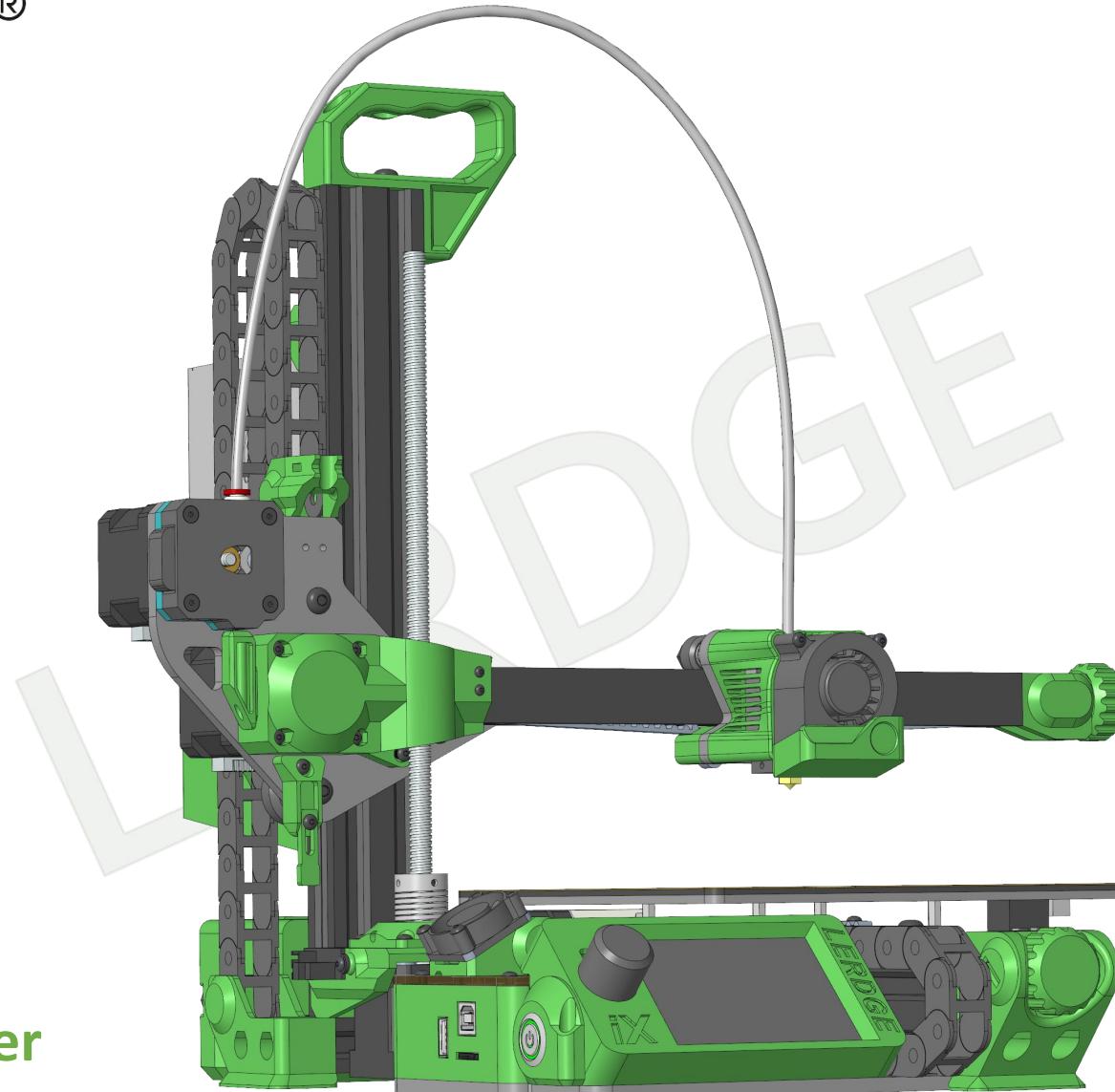


LERDGE®



Lerdge-iX 3D Printer

KIT Assembly Manual

Lerdge Tech

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[2. Assemble Frame Components](#)

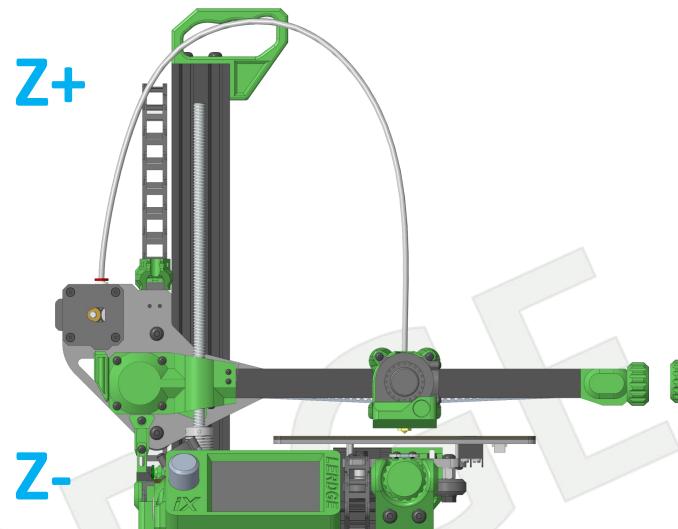
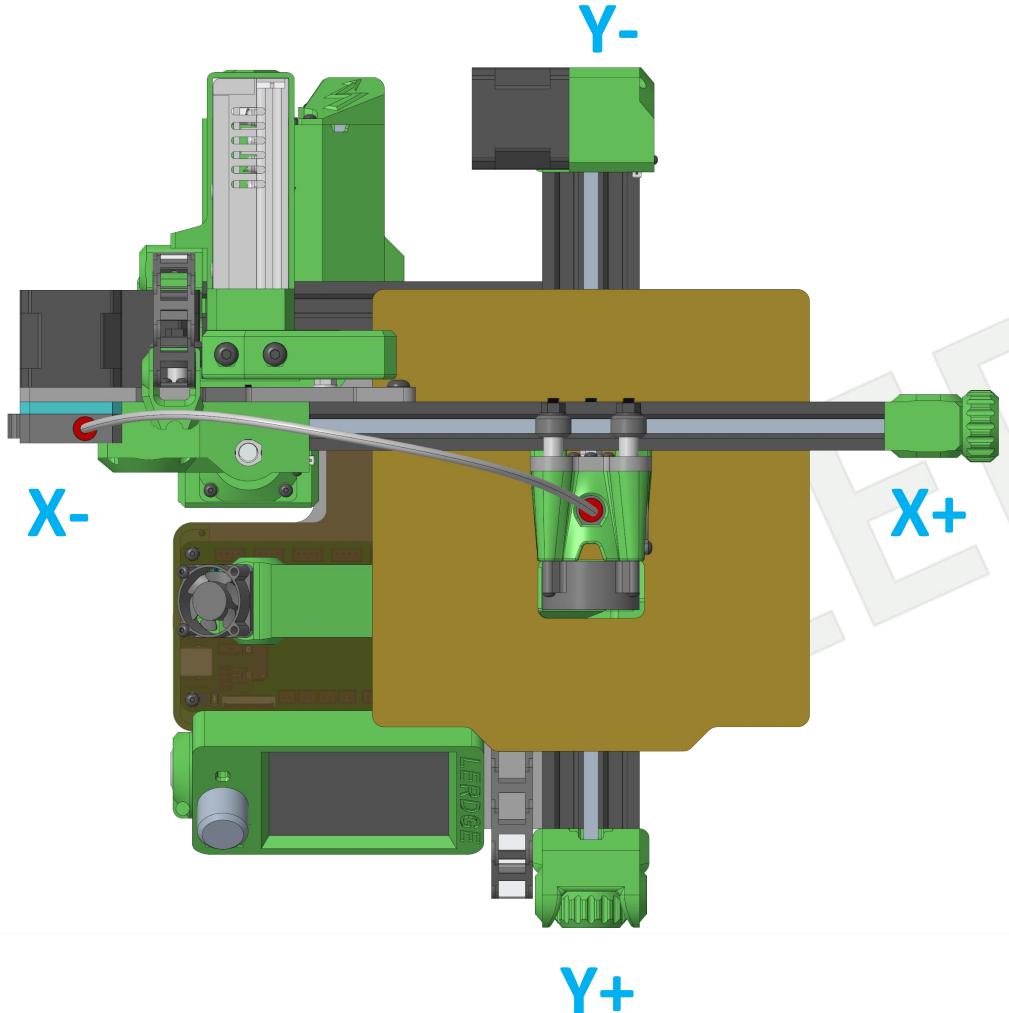
[3. Assemble Print Head](#)

[4. Assemble X-axis Cantilever](#)

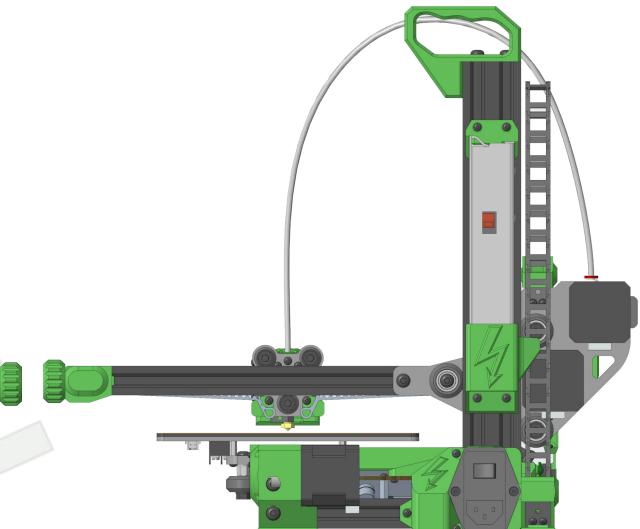
[5. Assemble Z-axis Components](#)

[6. Assemble Electrical Components](#)

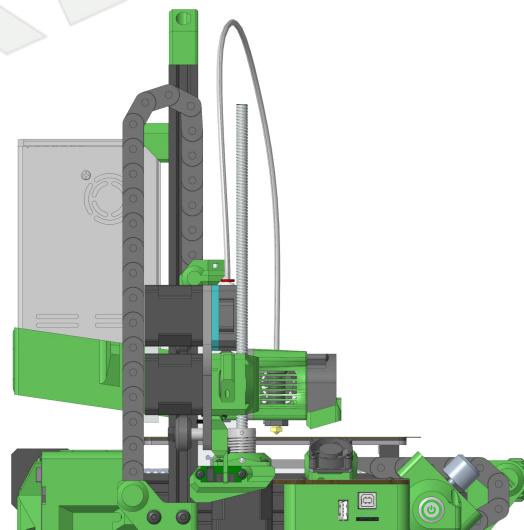
Lerdge-iX Ring View:



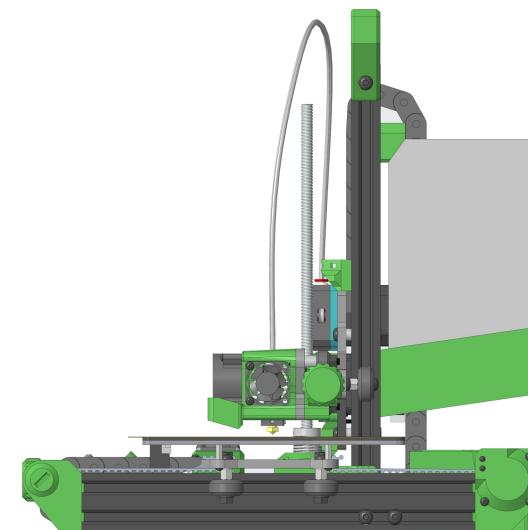
Front View



Back View



Left View



Right View

Screw Introduction:

Four types of screws are used in Lerdge-iX 3D printer.

The figure below shows the shape difference between several screws:



Disclaimer:

Before you begin on your journey, a word of caution.

In the comfort of your own home you are about to assemble a robot. This machine can **maim, burn, and electrocute** you if you are not careful.

Please do not become the first Lerdge iX victim. There is no special Reddit flair for that.

Please read the entire manual before you start assembly. As you begin wrenching, please check Lerdge-iX web for any tips and questions that may halt your progress.

For mechanical damage or electrical damage caused by improper operation during the assembly process, Lerdge Tech does not provide warranty and replacement services.

For the hazards and risks caused by the assembly not in accordance with this assembly manual, Lerdge Tech does not assume any maintenance or other responsibilities.

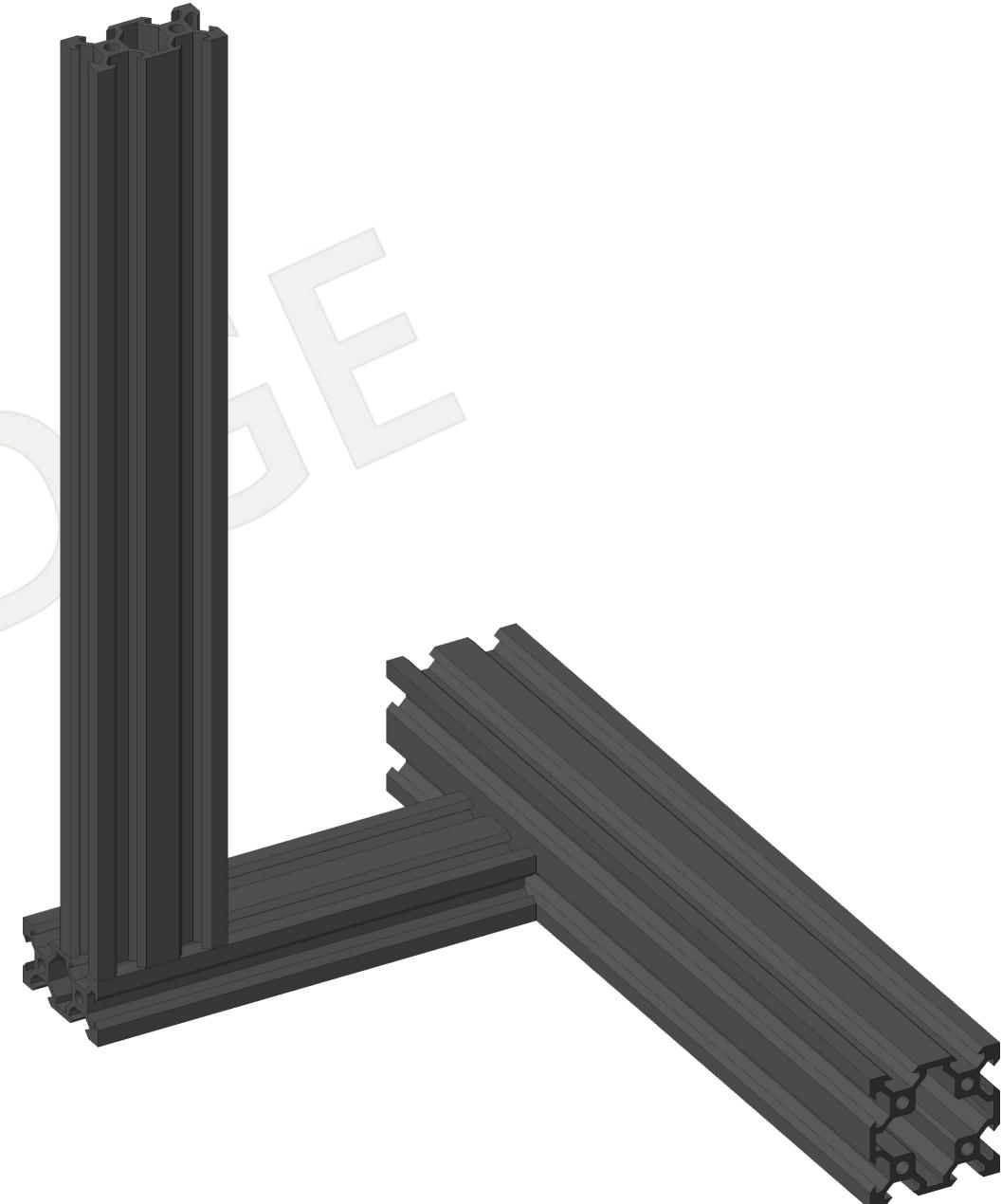
Most of all, good luck!

Lerdge Team



Step 1

Assemble
Aluminum Frame



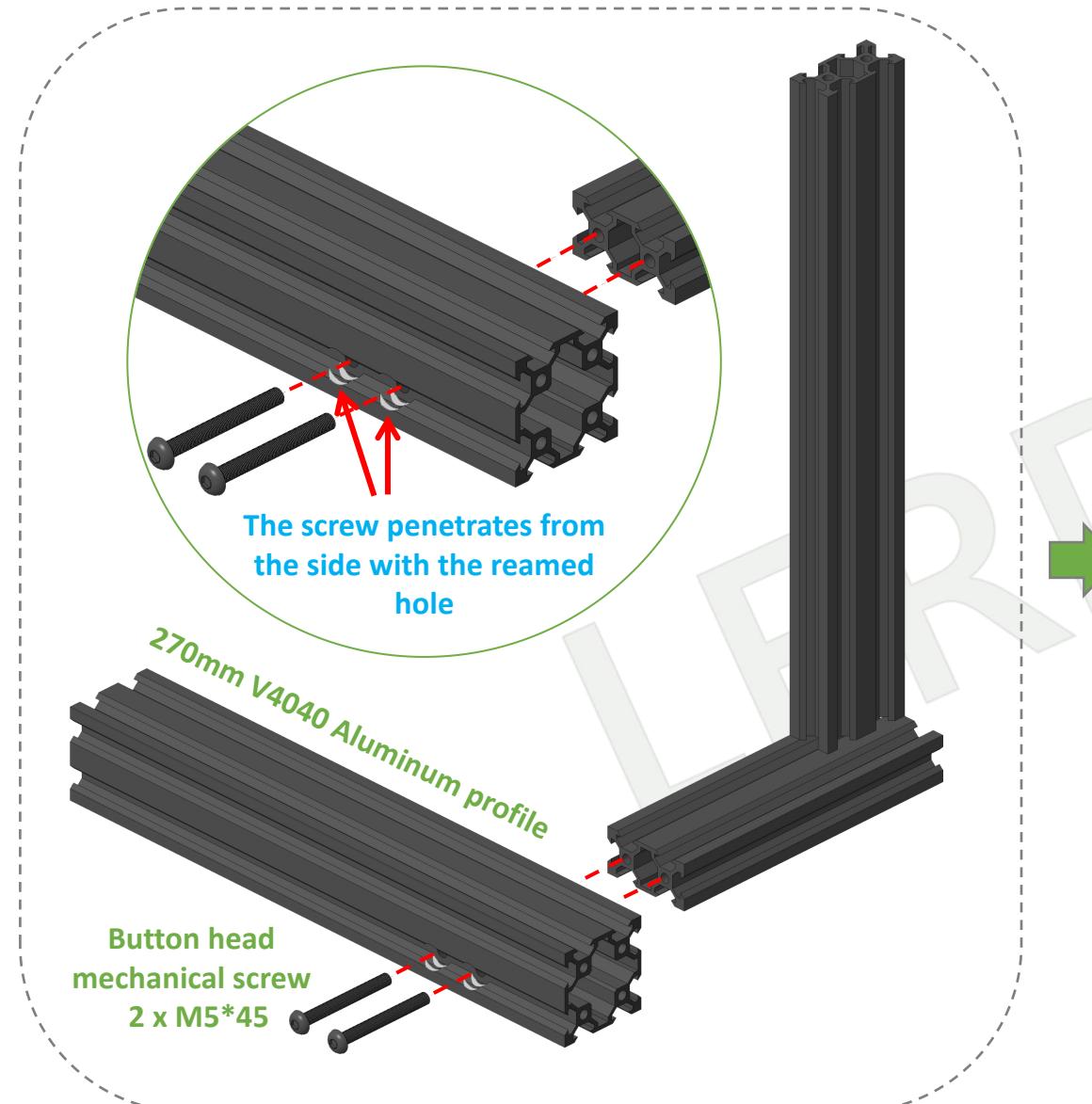
1.1-Assemble the Z-axis aluminum profile

www.lerdge.com



1.2-Assemble the Y-axis aluminum profile

www.lerdge.com

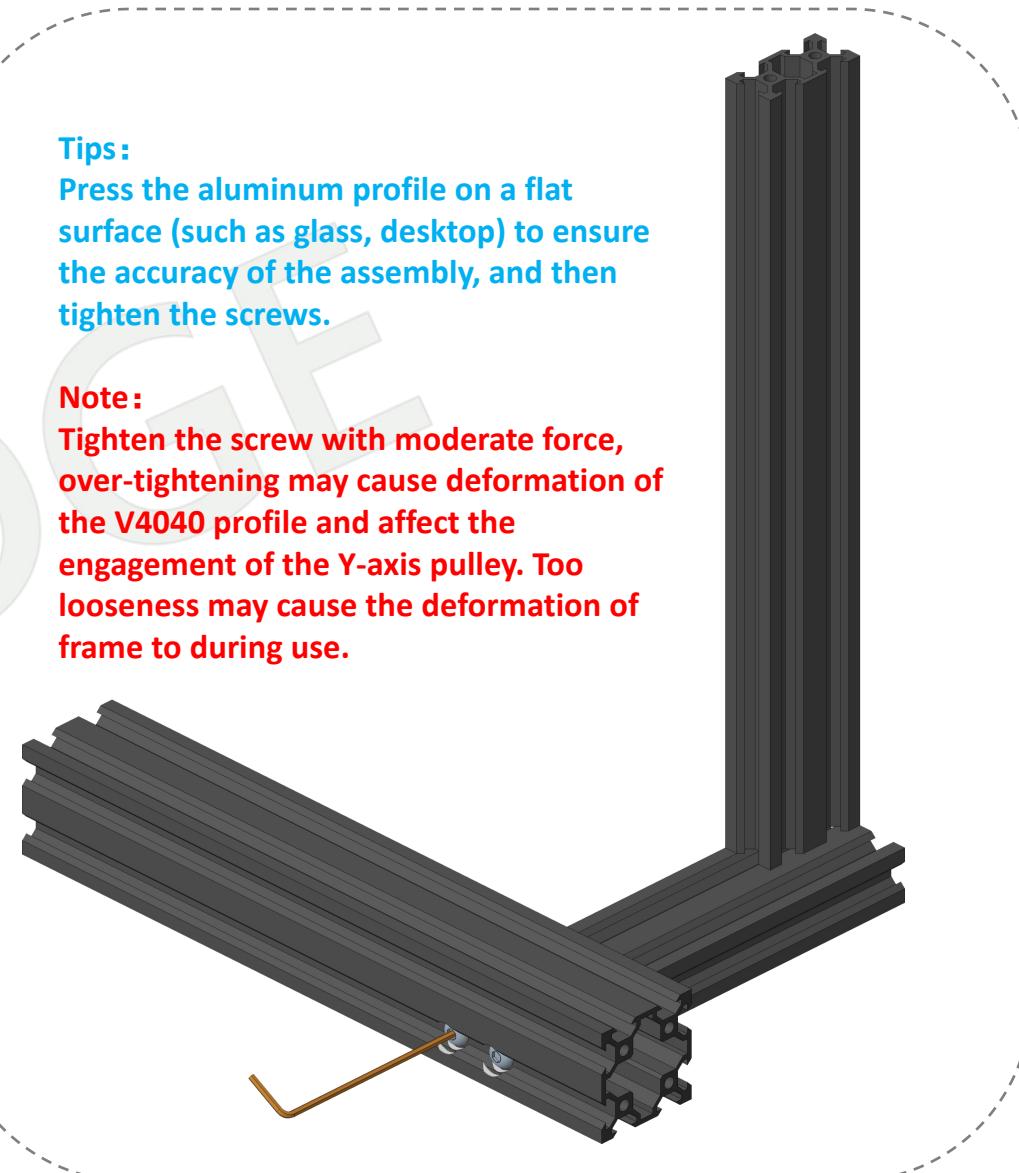


Tips:

Press the aluminum profile on a flat surface (such as glass, desktop) to ensure the accuracy of the assembly, and then tighten the screws.

Note:

Tighten the screw with moderate force, over-tightening may cause deformation of the V4040 profile and affect the engagement of the Y-axis pulley. Too looseness may cause the deformation of frame to during use.



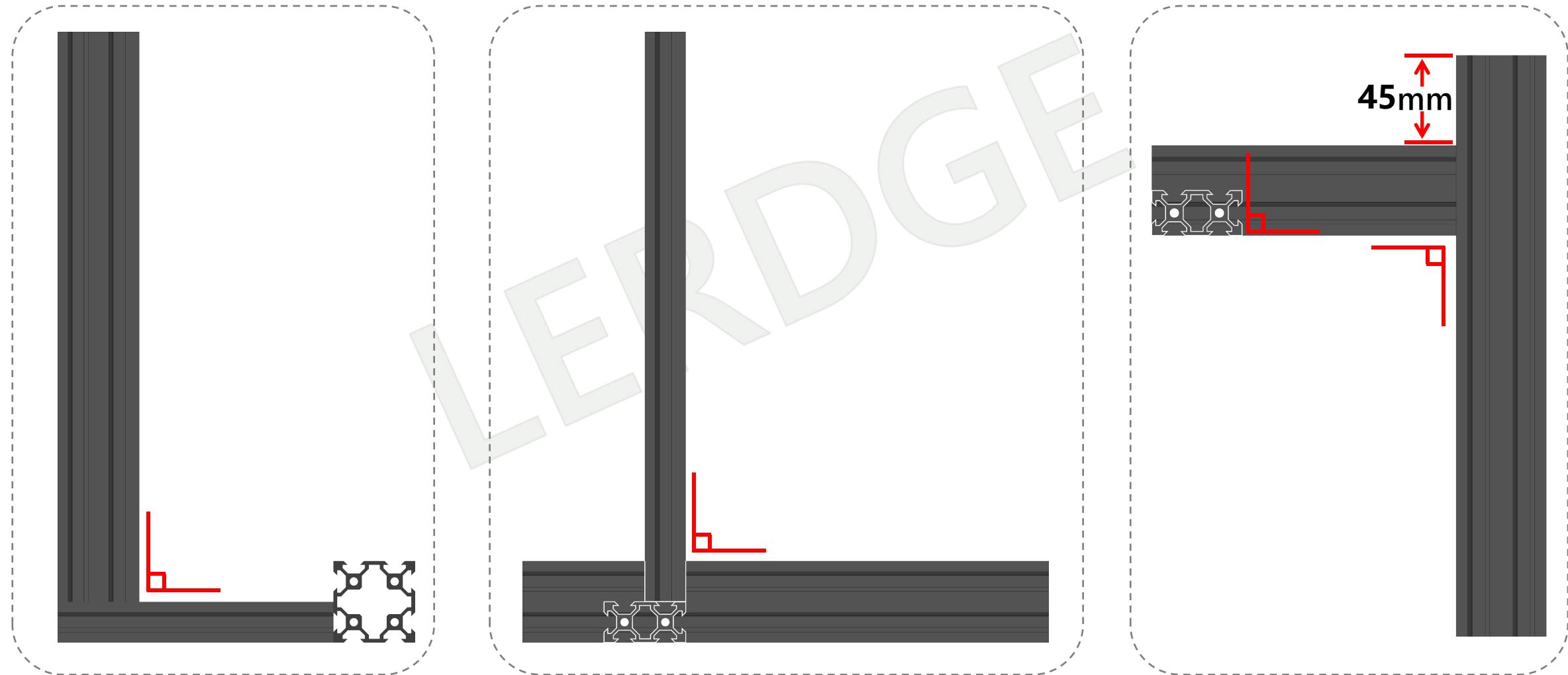
1.3- Frame size requirements

www.lerdge.com

Note:

Please spend your enough patience here. Make sure that the three aluminum profiles that make up the frame are perpendicular to each other as much as possible, and then use the connection blocks in the next step to further firmly fix the three profiles.

Profiles that are not perpendicular to each other can cause the printed model to appear skewed. Let's have a good start!

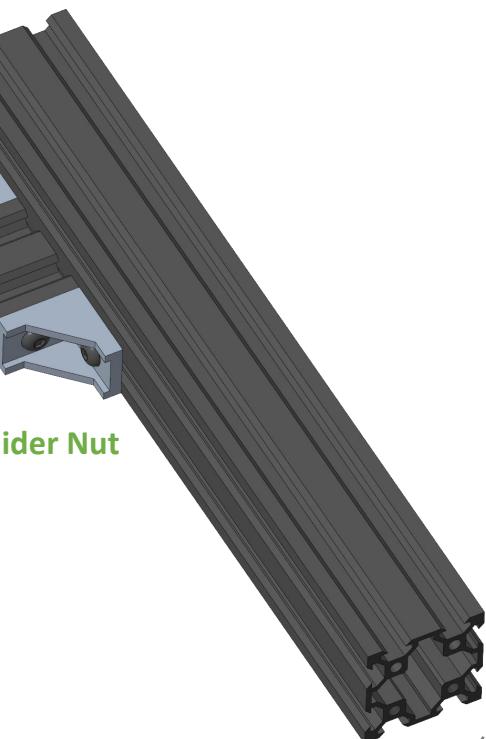
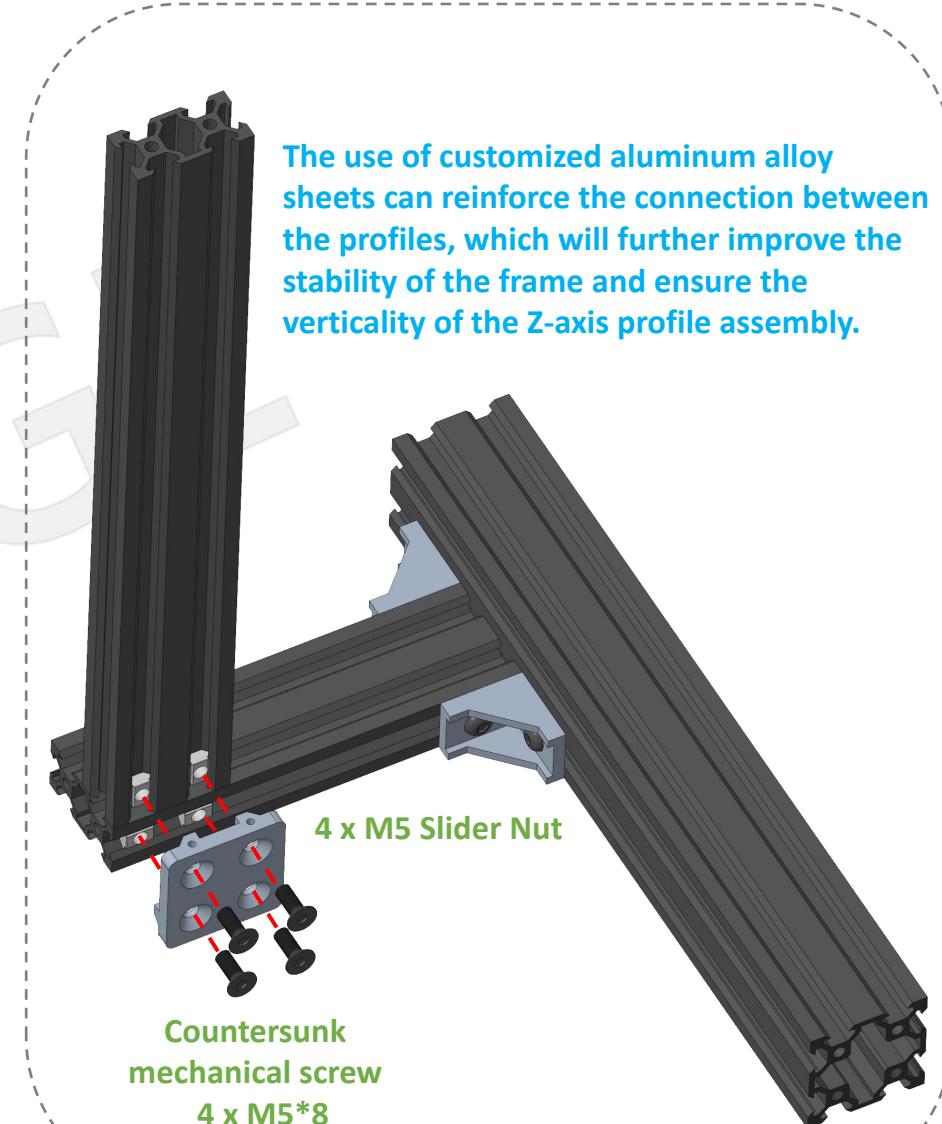


1.4- Strengthen the Frame

www.lerdge.com

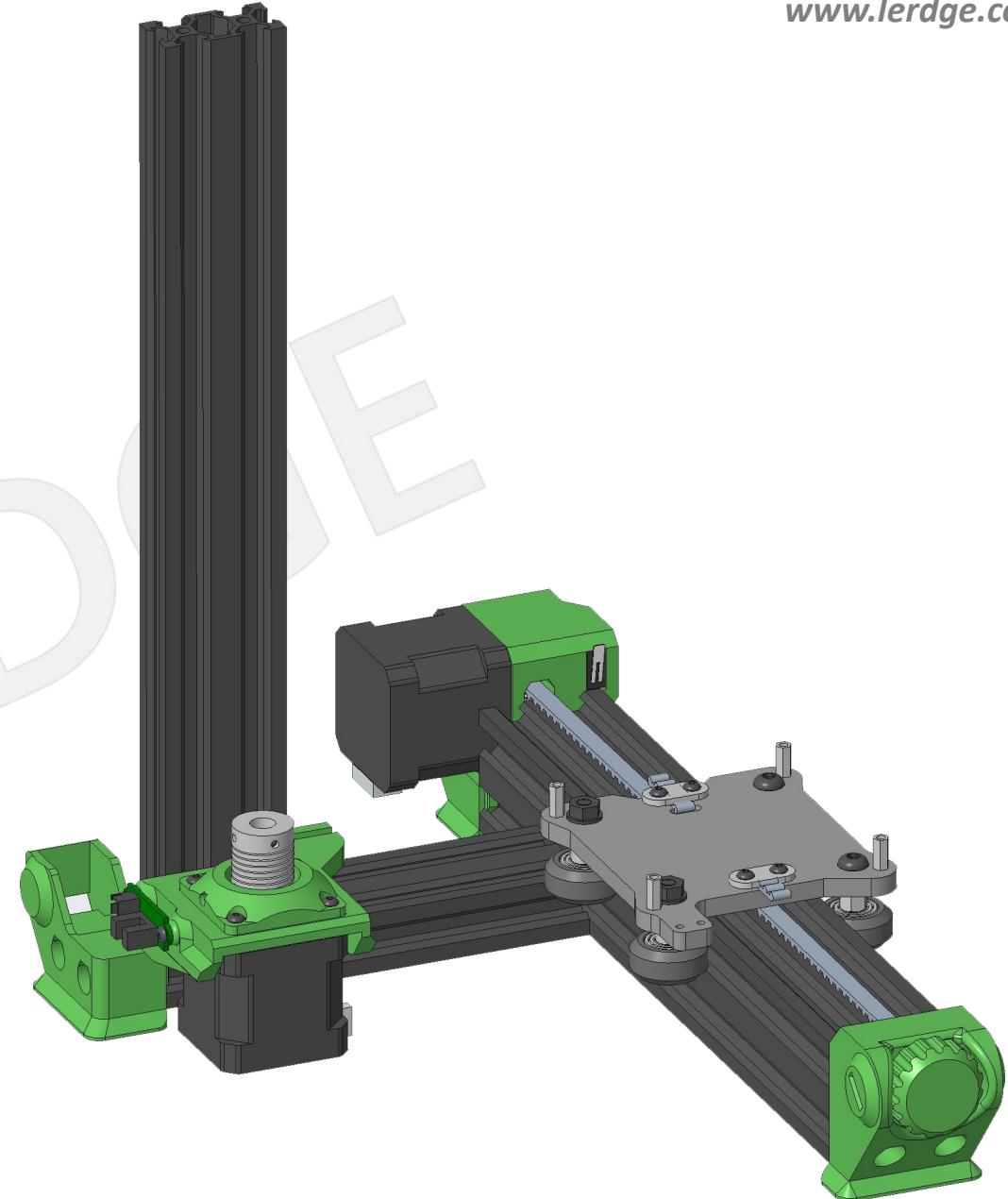


Use 2028 connection blocks to strengthen the connection between the profiles, which can further improve the stability of the frame.



Step 2

Assemble Frame Components

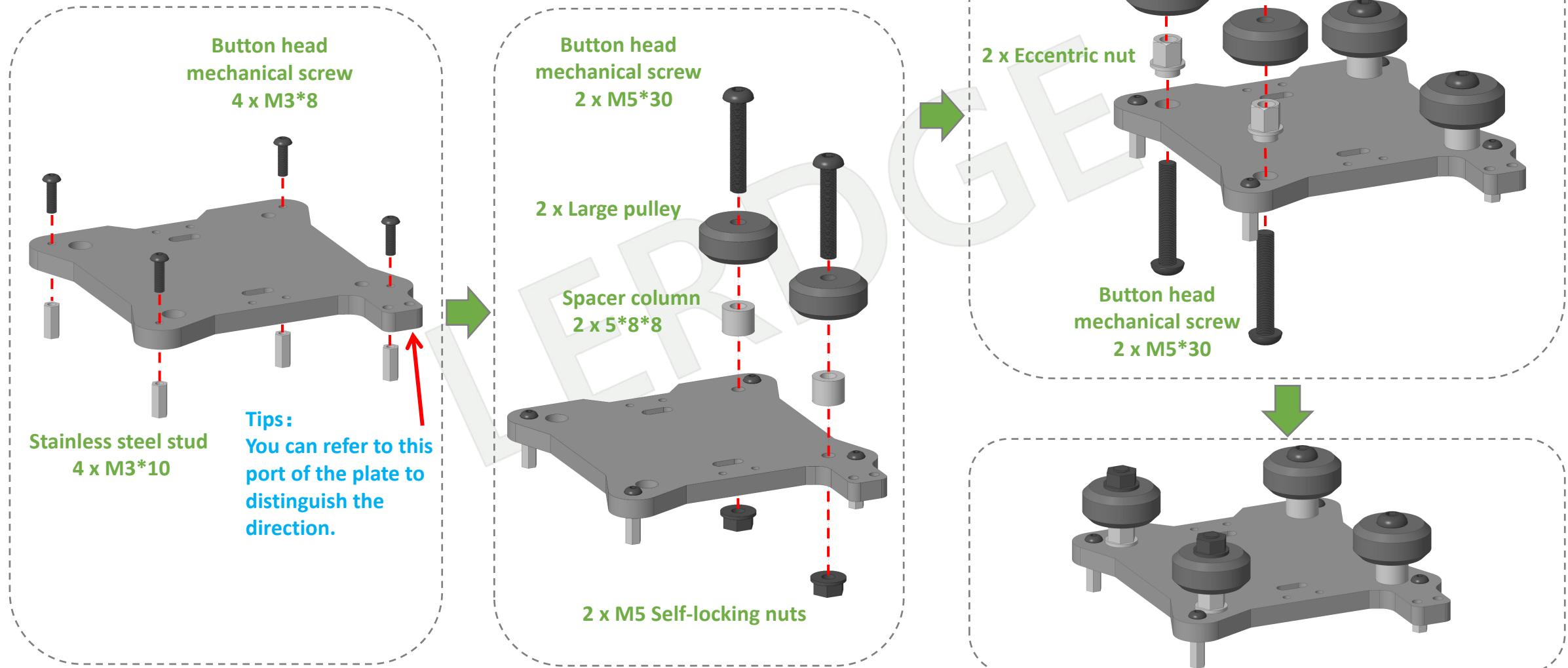


2.1-Assemble the Y-axis slider

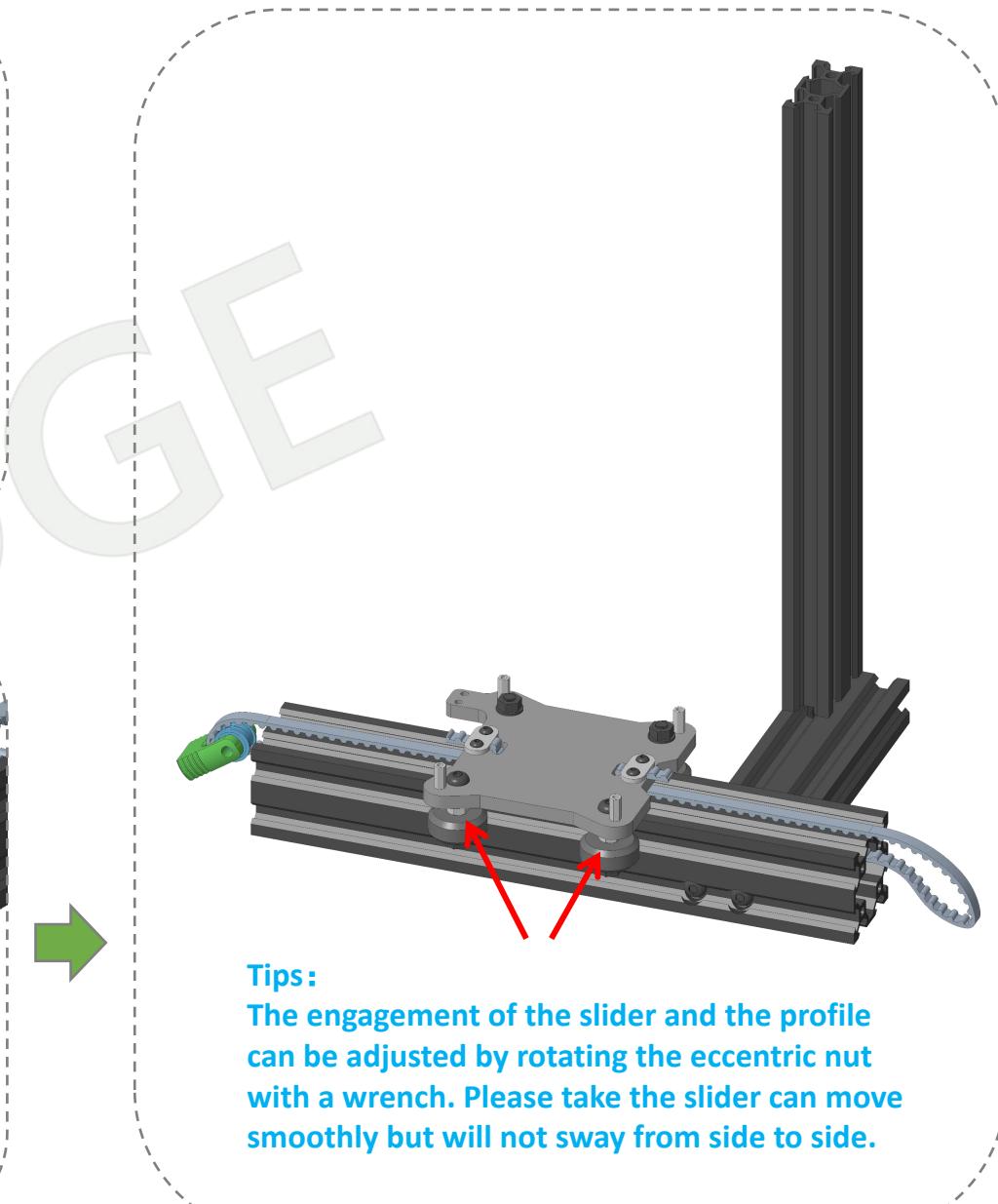
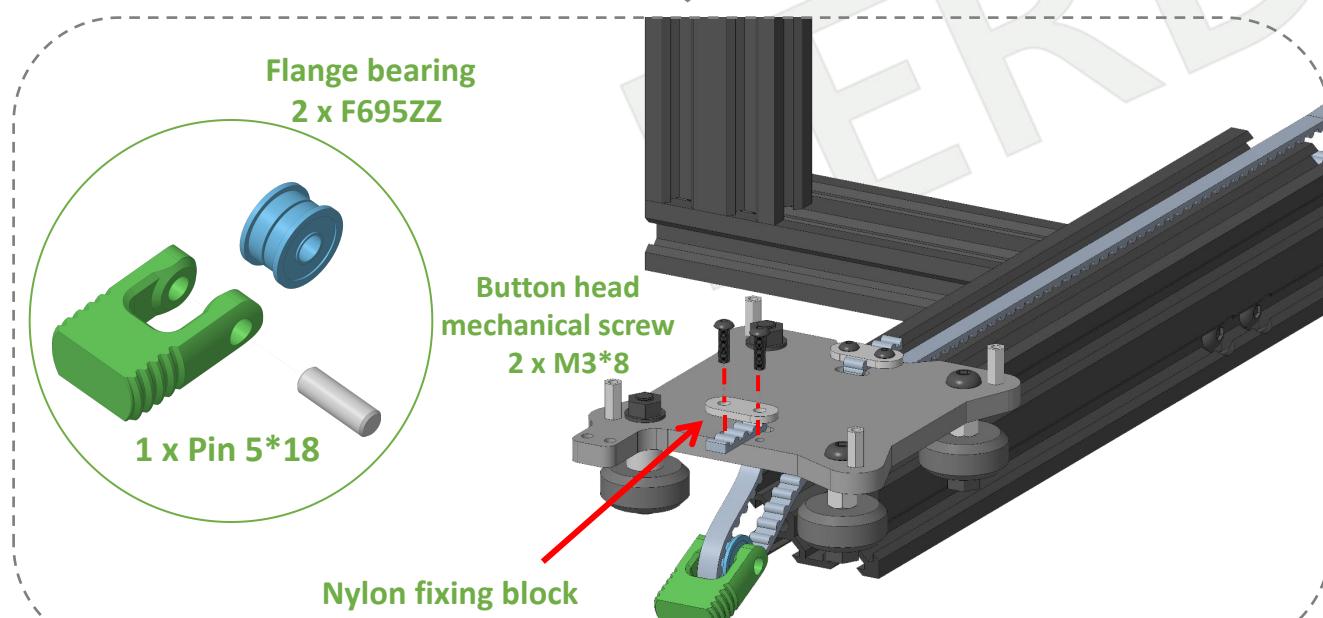
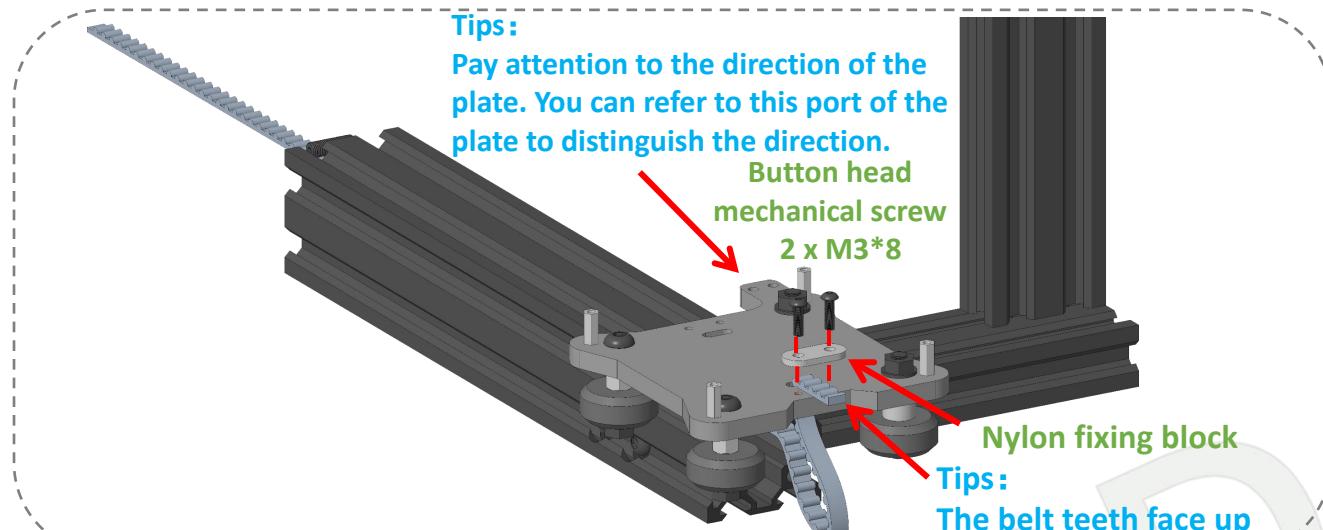
Note:

Please pay special attention to the direction of the plate when assembling the pulleys on plate.

Please make sure the M5 screws are assembled in the correct direction. Reversing the direction of the screws will cause structural issue for next assembly of the slider.

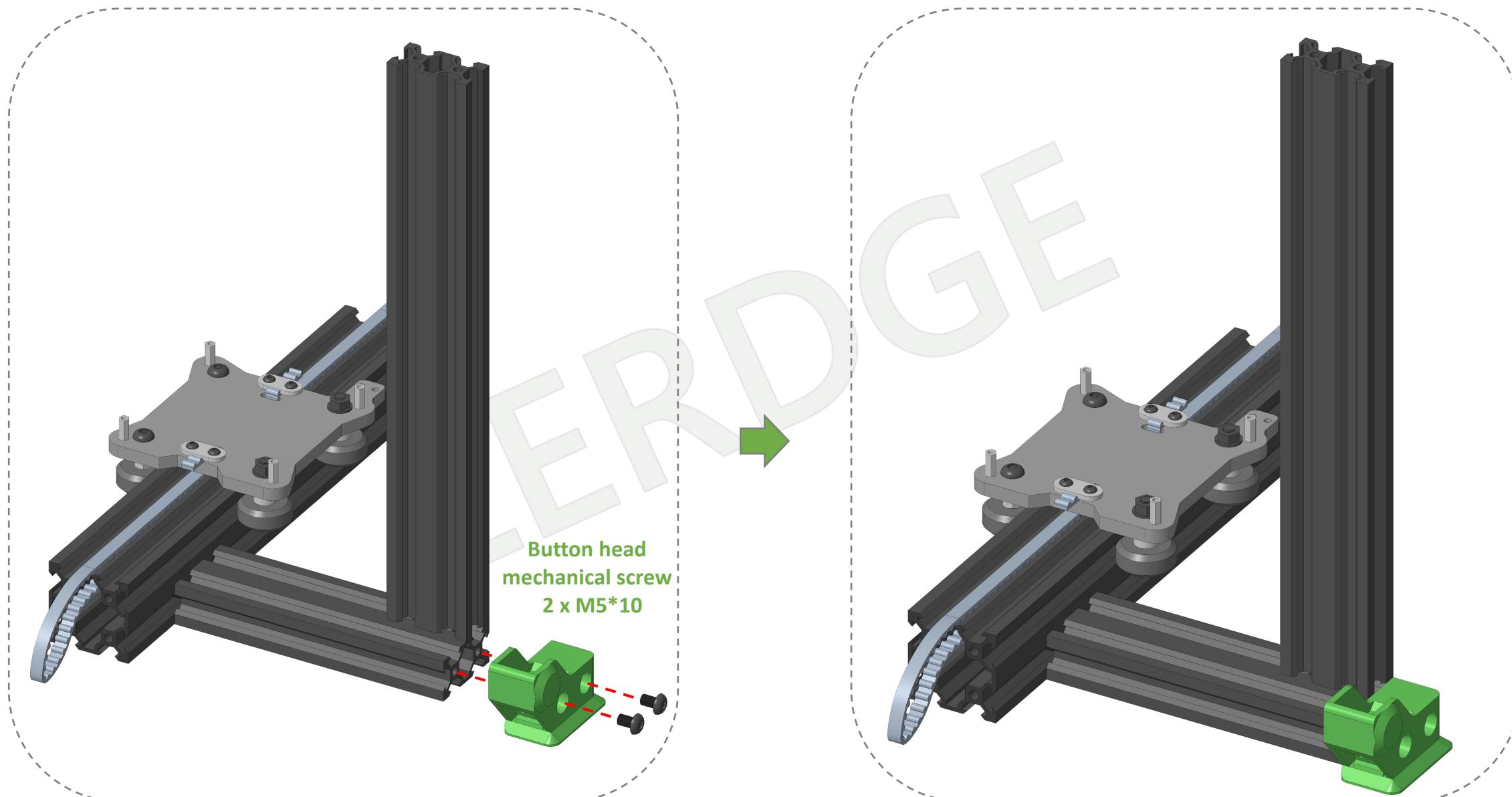


2.2- Assemble the Y-axis belt



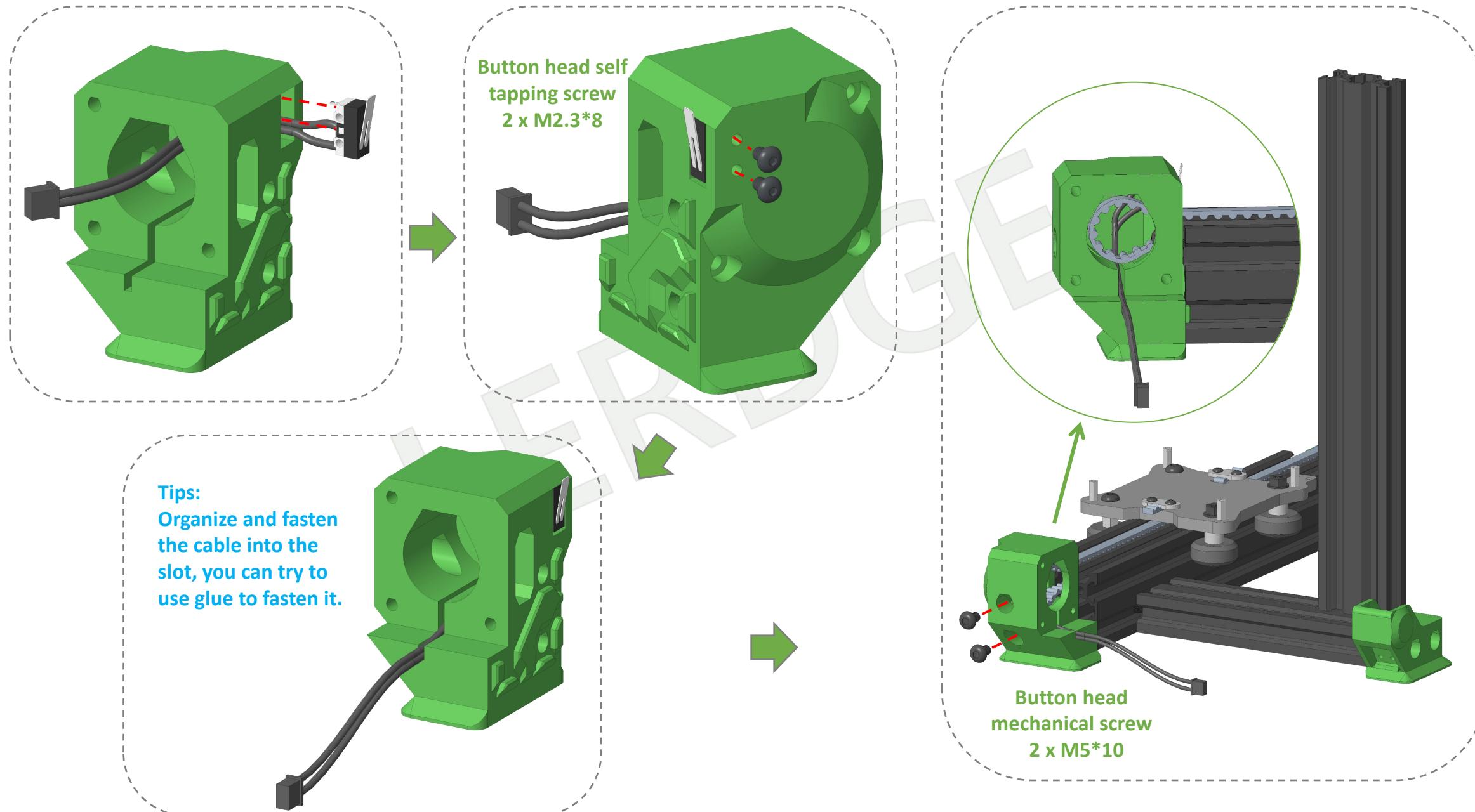
2.3- Assemble drag chain support

www.lerdge.com

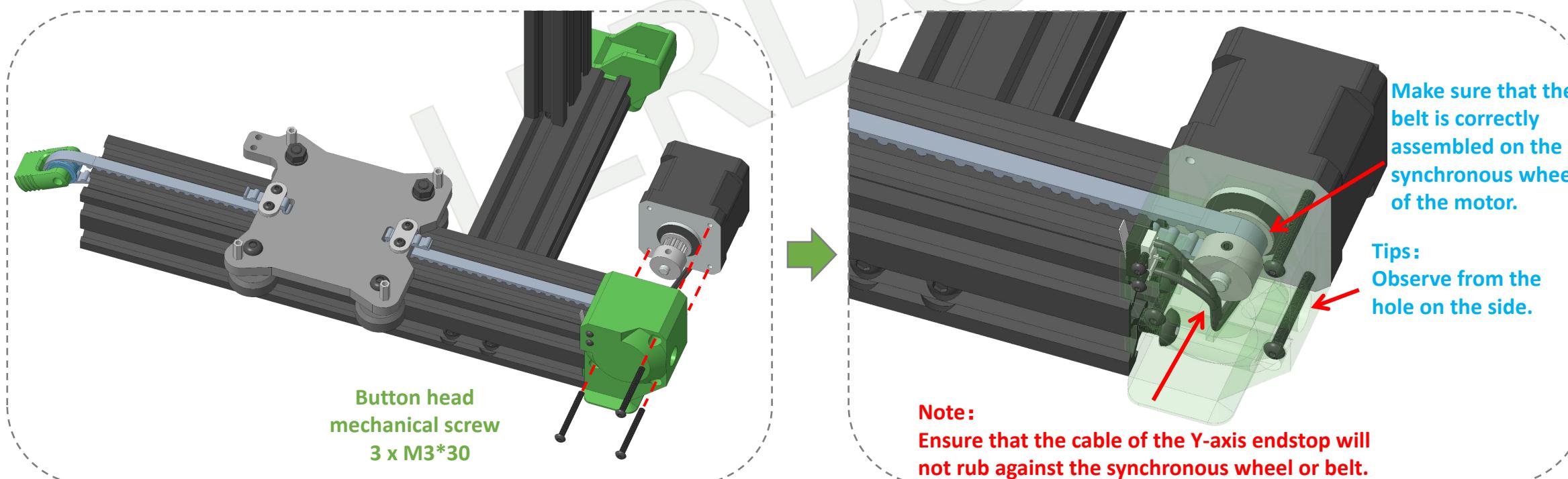
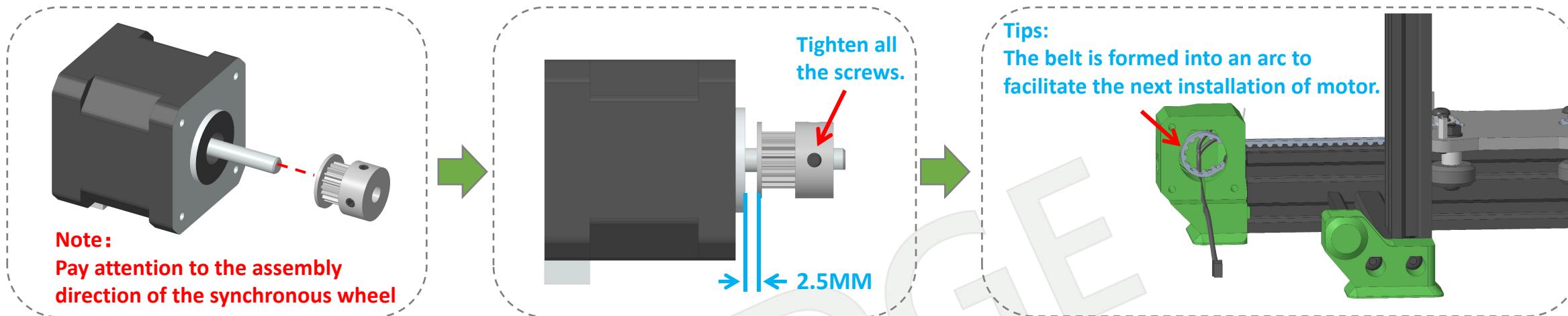


2.4- Assemble the Y-axis motor base

www.lerdge.com

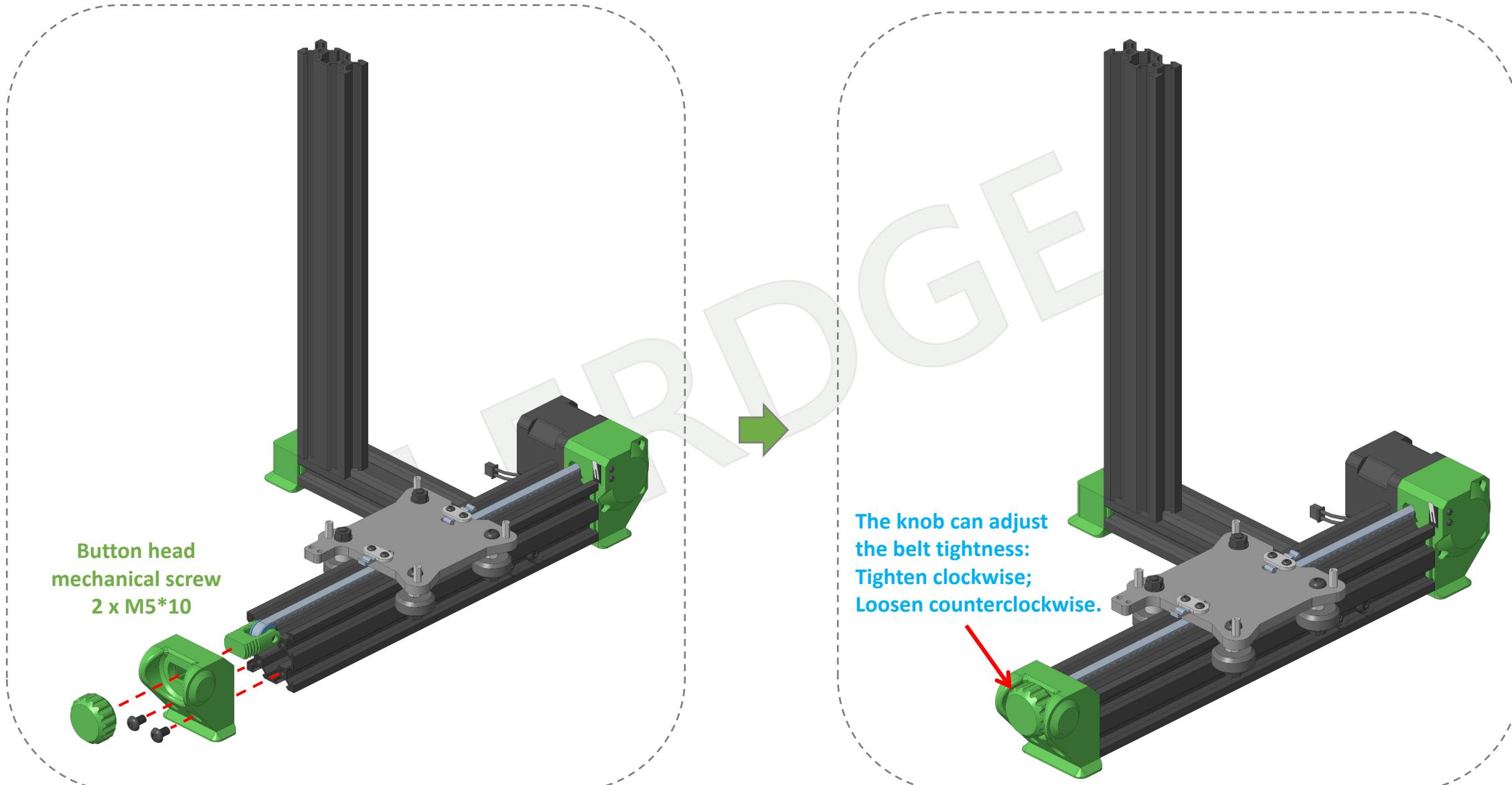


2.5- Assemble the Y-axis motor



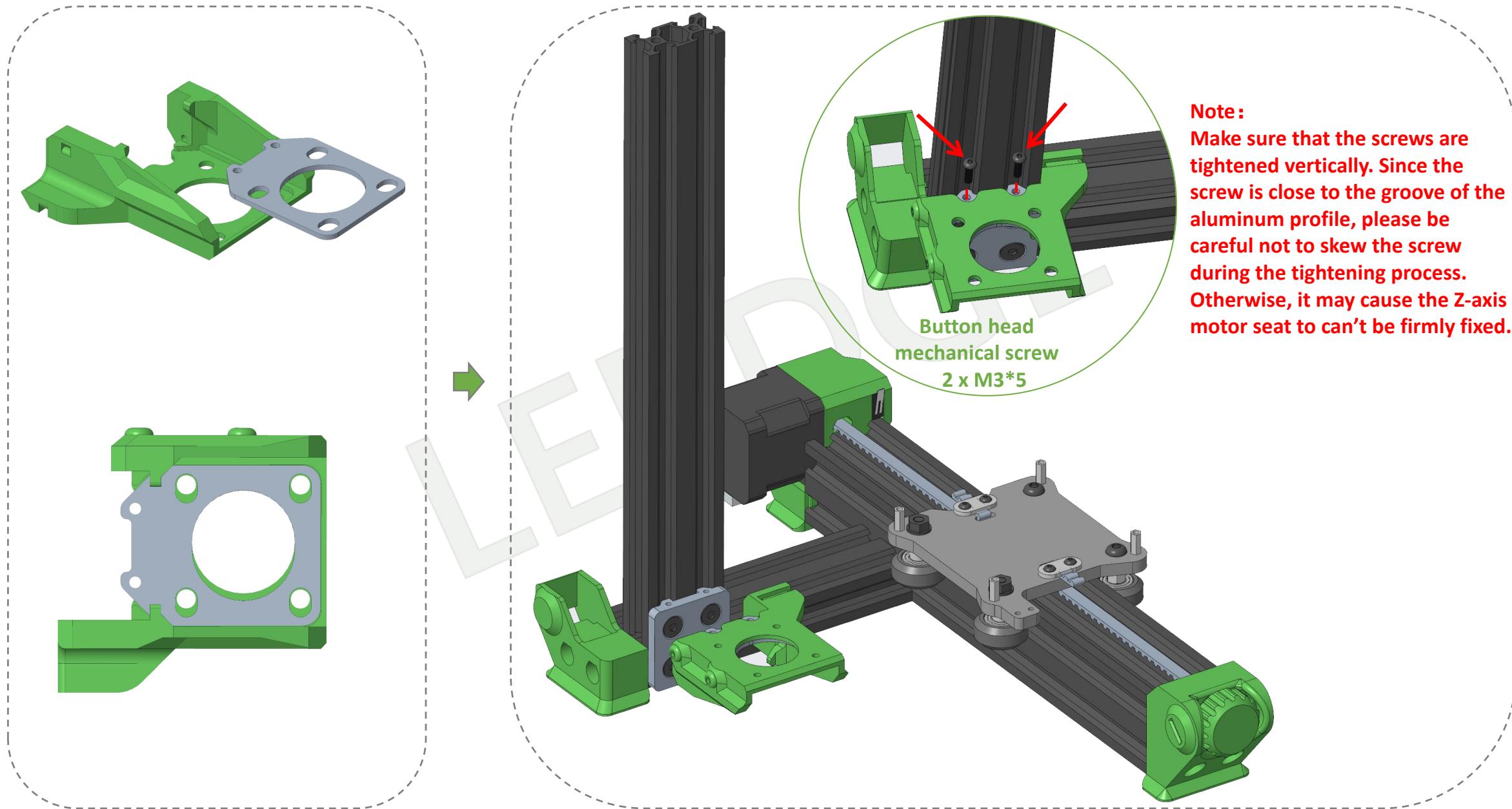
2.6- Assemble Y-axis adjustable belt knob

www.lerdge.com



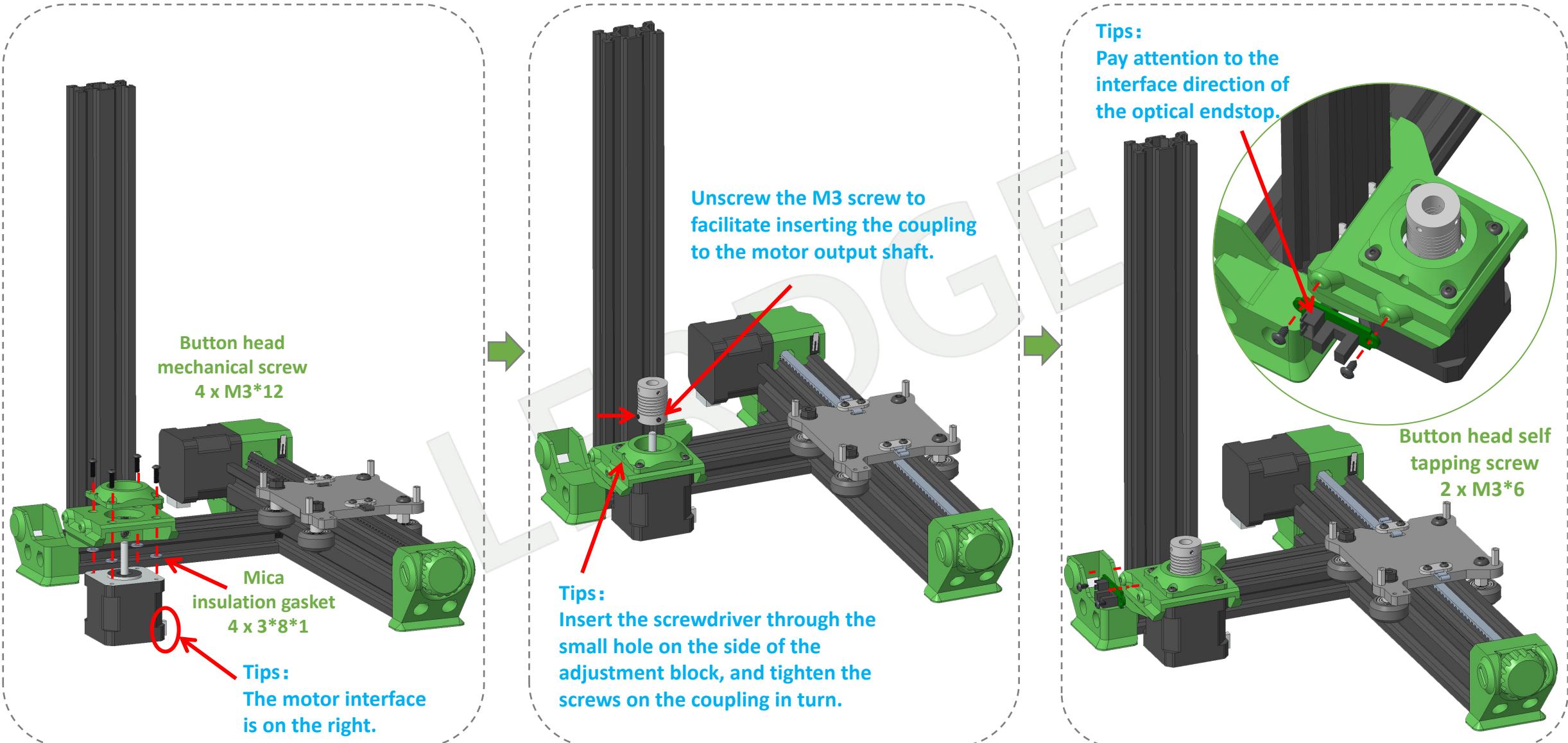
2.7- Assemble Z-axis motor seat

www.leridge.com



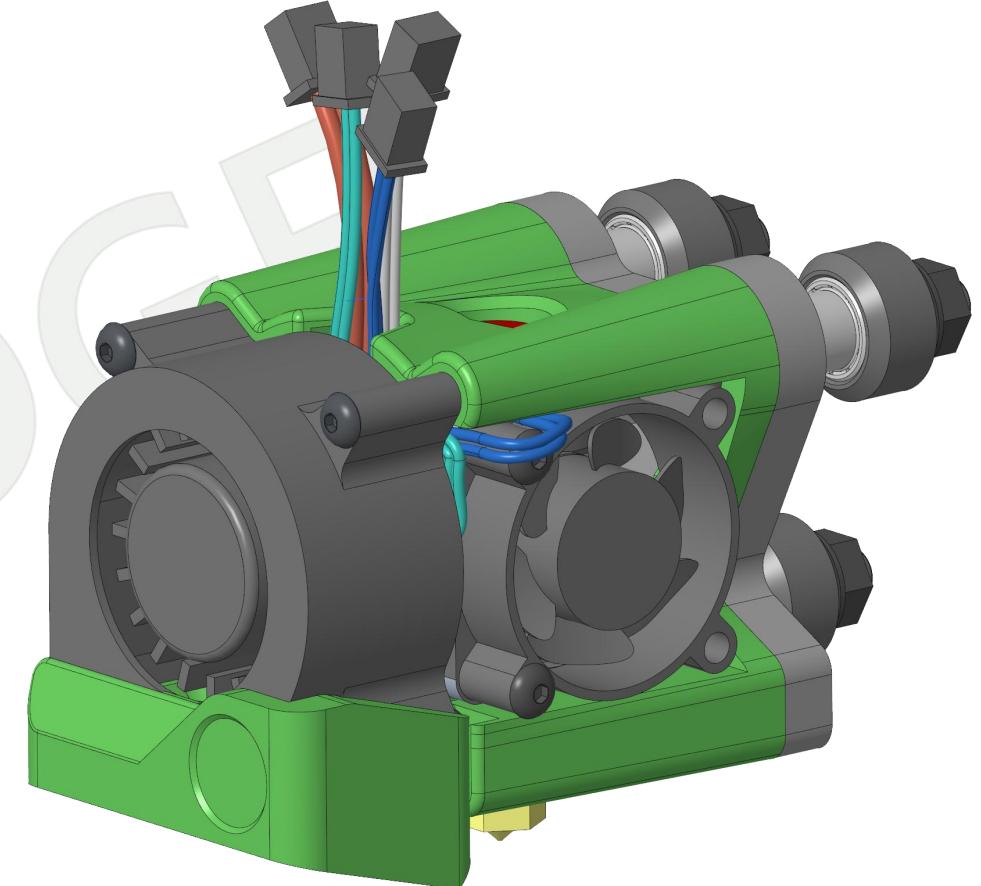
2.8- Assemble Z-axis motor

www.lerdge.com

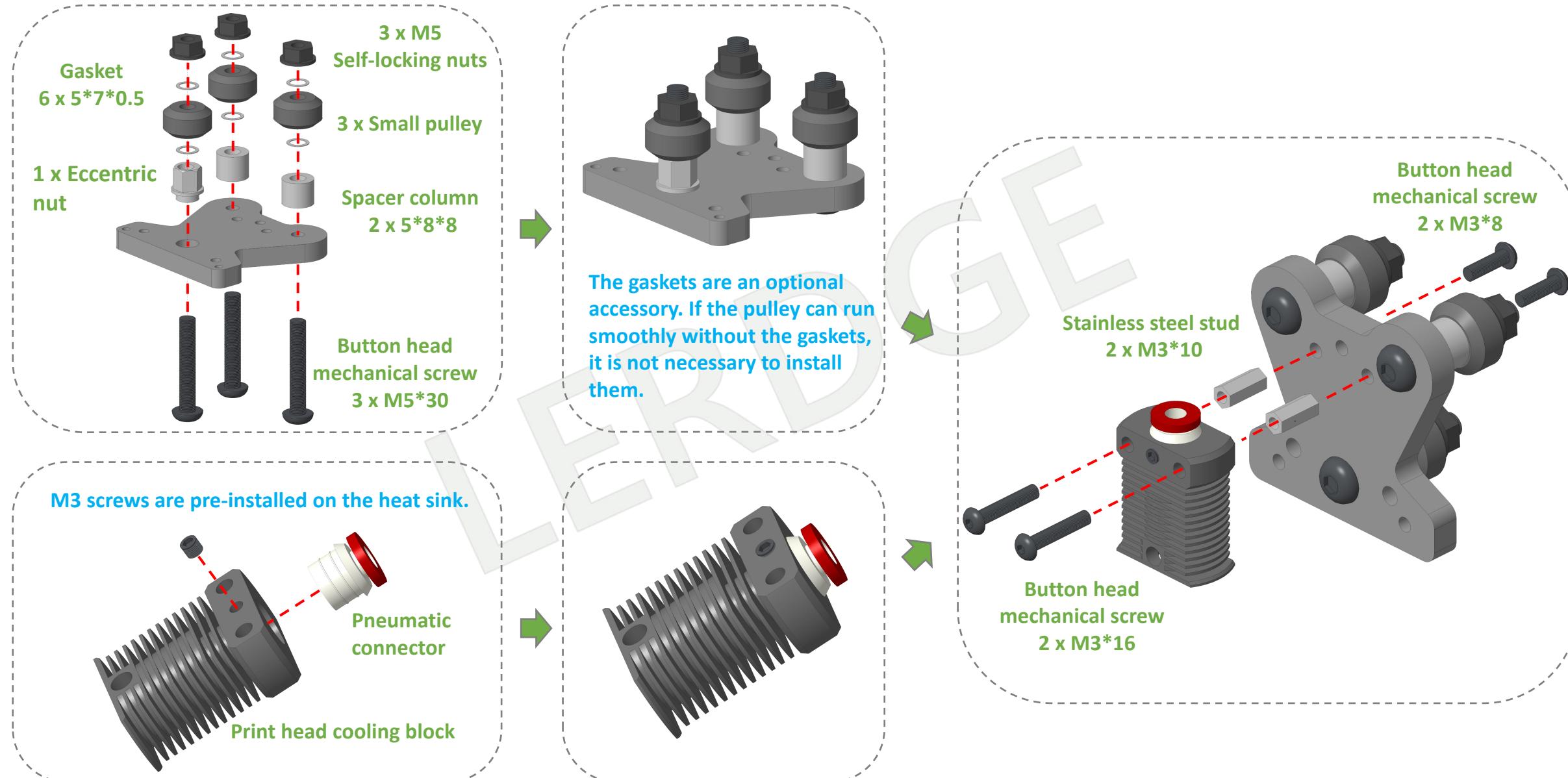


Step 3

Assemble Print Head



3.1- Assemble X-axis slider and heat sink

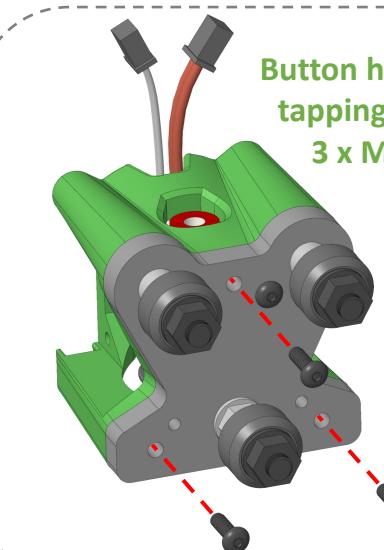
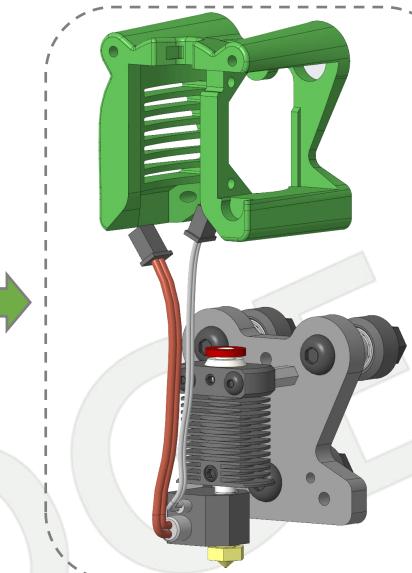
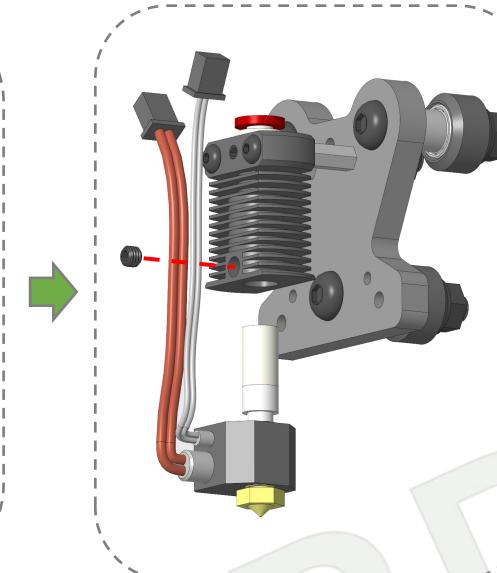


3.2- Assemble print head

Note:

Just lightly tighten the screw that fixes the thermistor sensor to ensure that it does not slide out automatically.

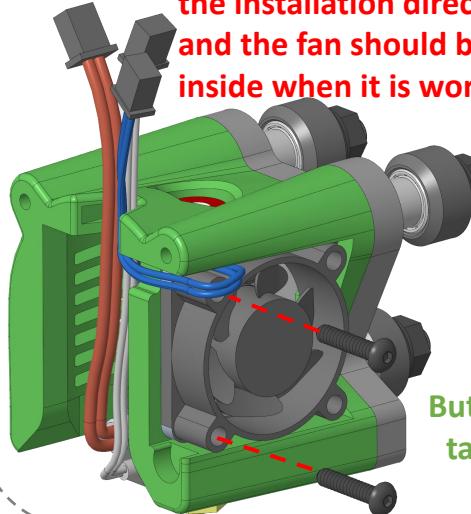
Over-tightening the screw may cause deformation of the sensor shell, and the sensor cannot be pulled out again.



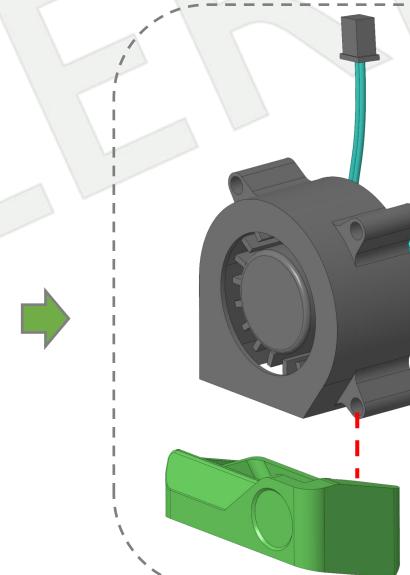
Button head self tapping screw
3 x M3*12

Note:

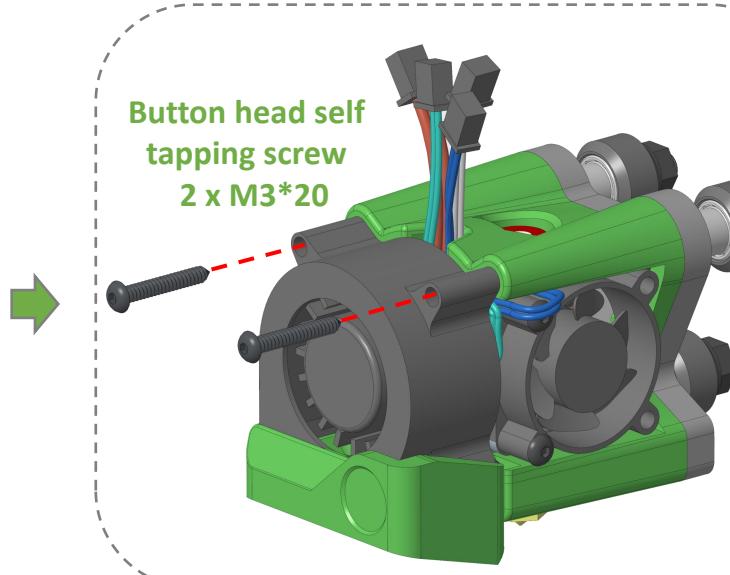
the installation direction of the fan, and the fan should blow air to the inside when it is working.



Button head self tapping screw
2 x M3*16



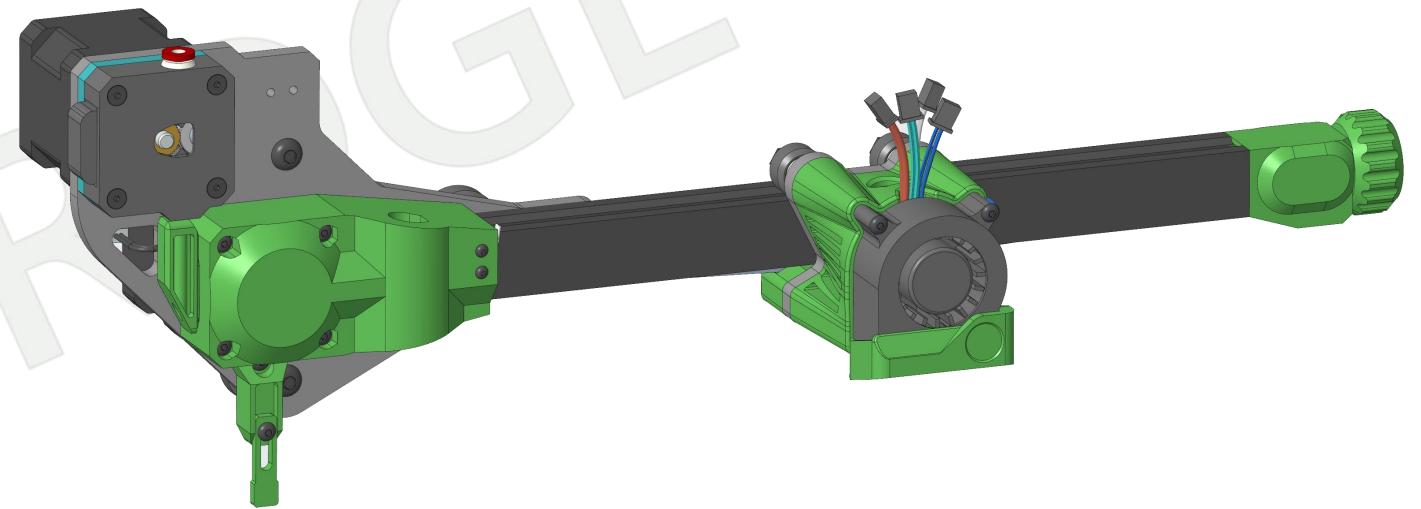
Button head self tapping screw
1 x M3*20



Button head self tapping screw
2 x M3*20

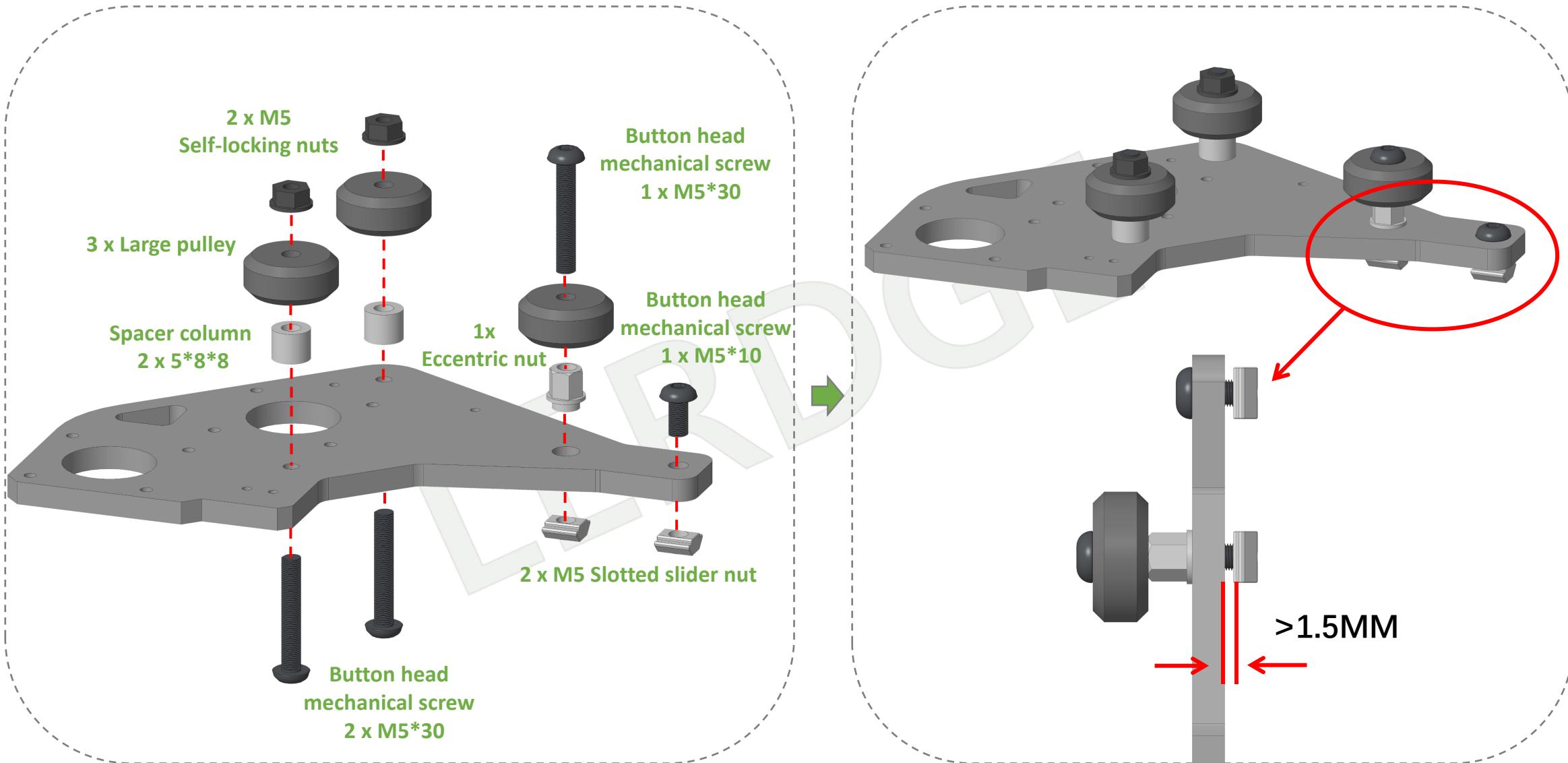
Step 4

Assemble X-axis Cantilever

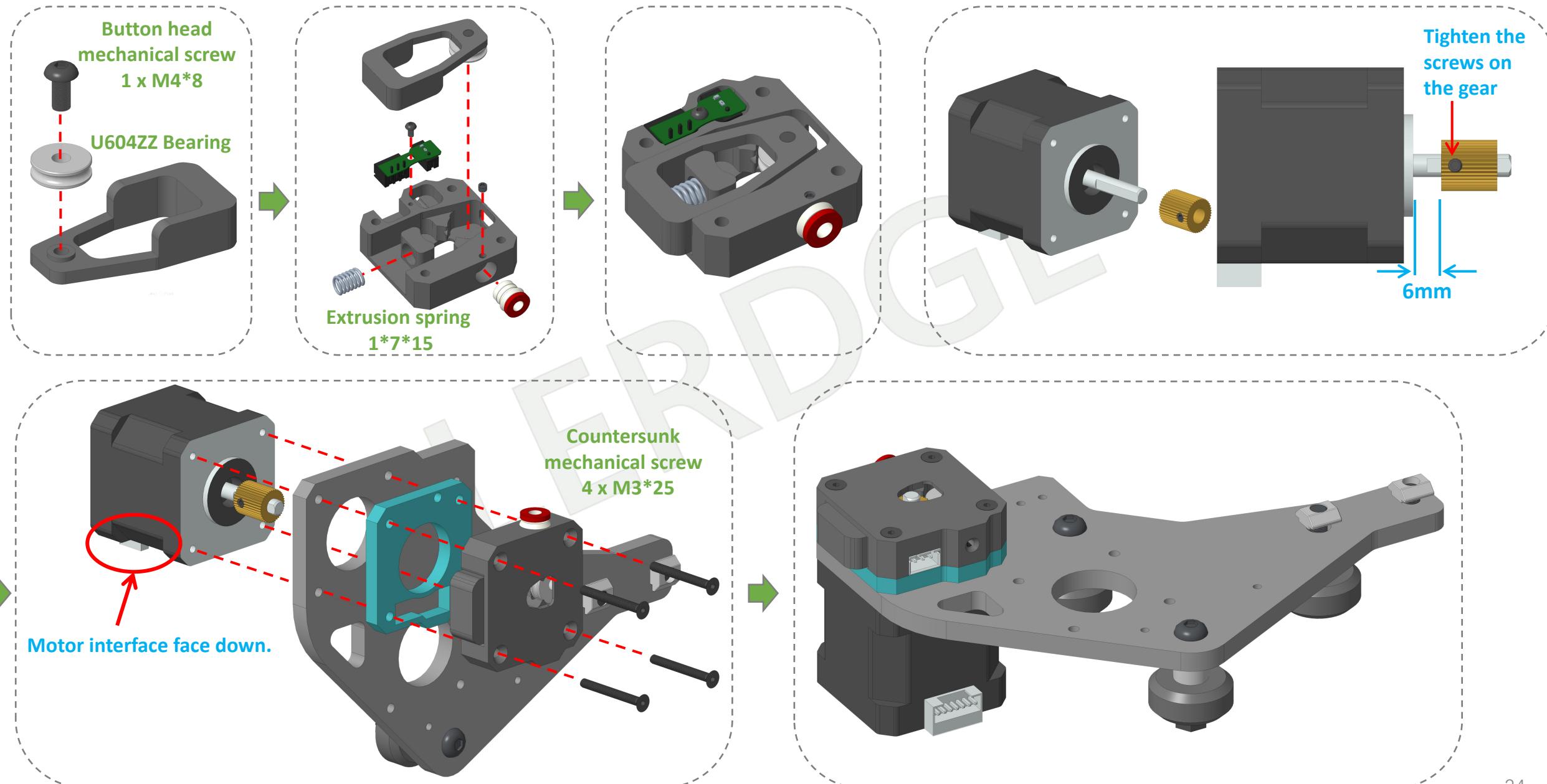


4.1- Assemble the Z-axis slider

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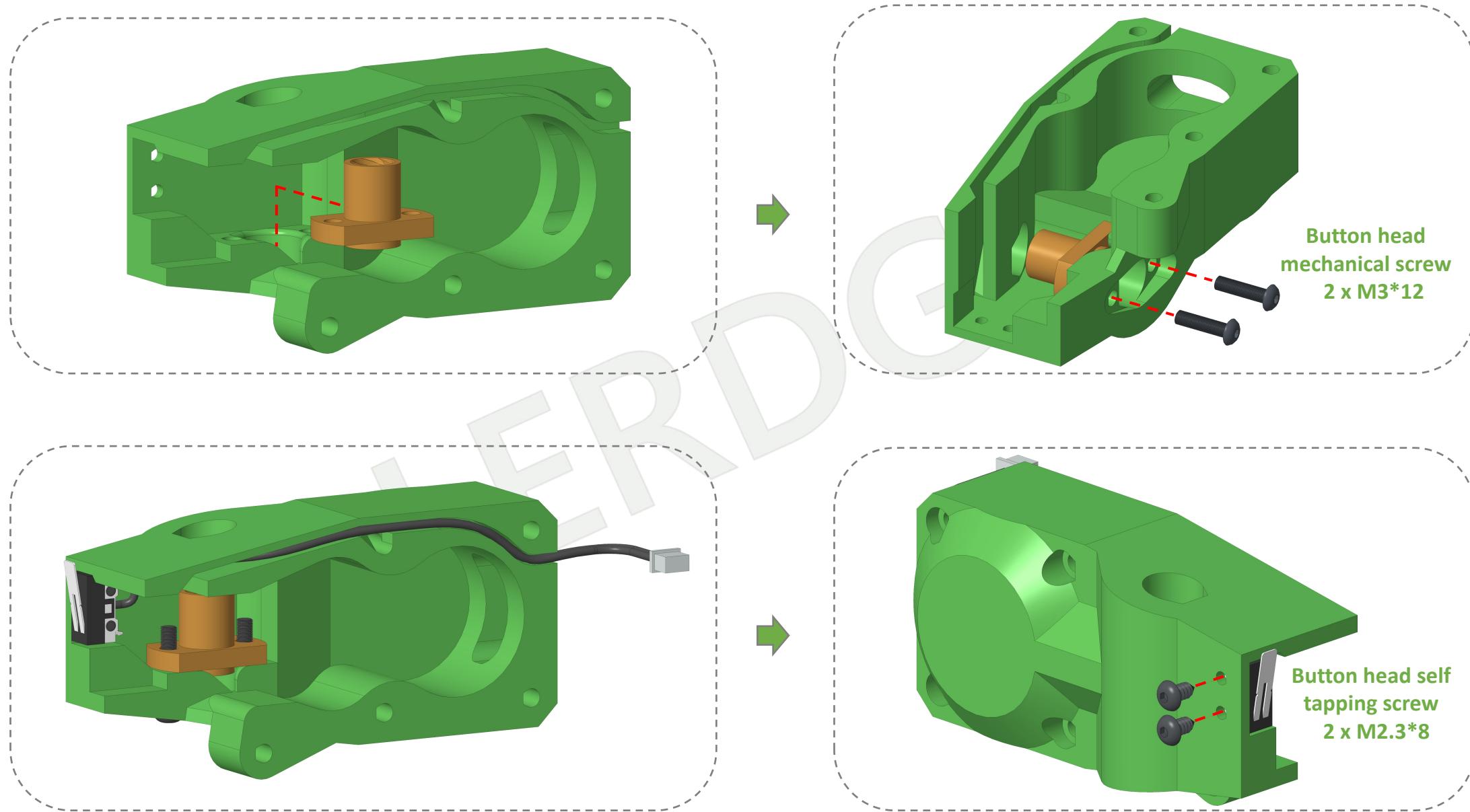


4.2- Assemble the extruder

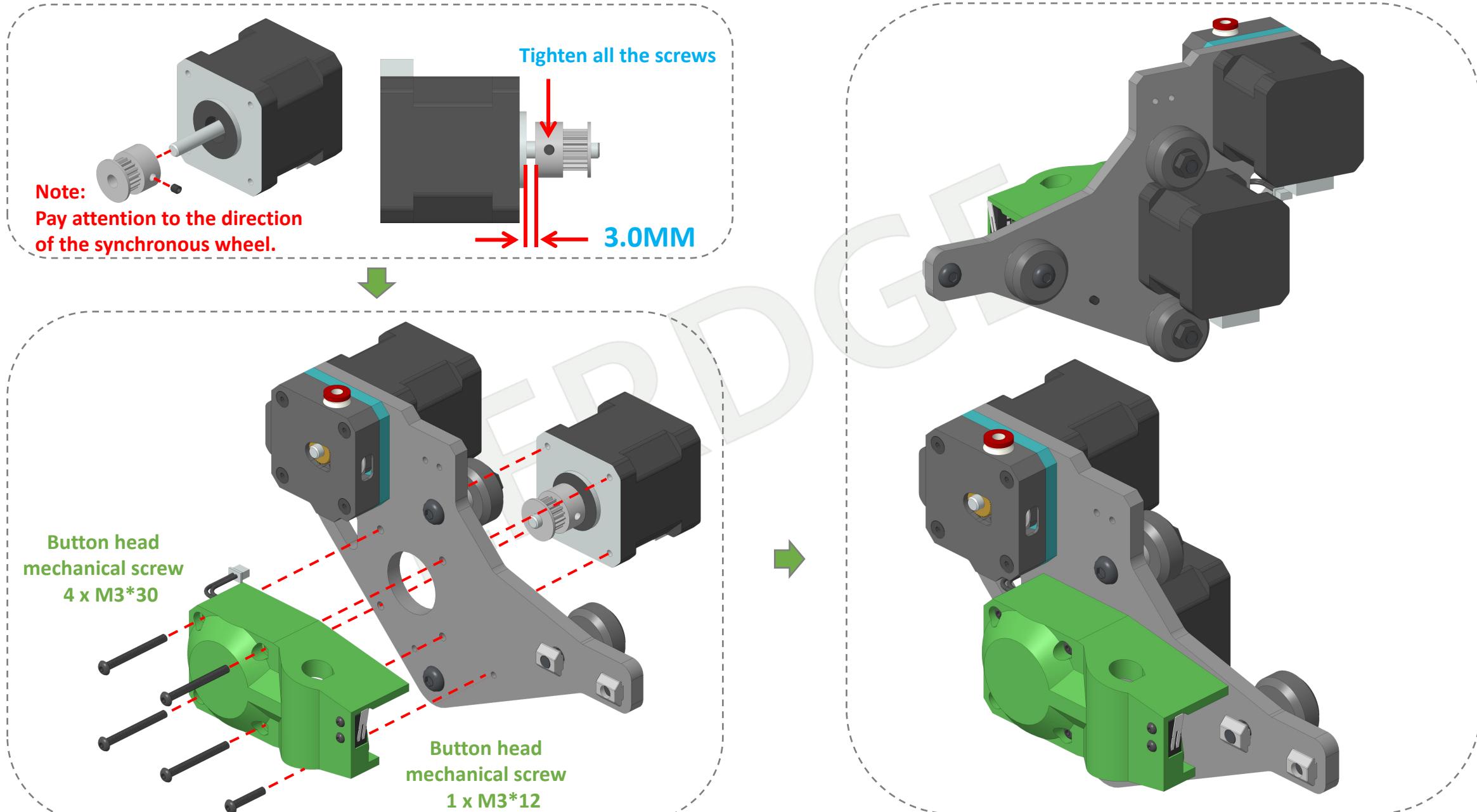


4.3- Assemble X-axis motor base

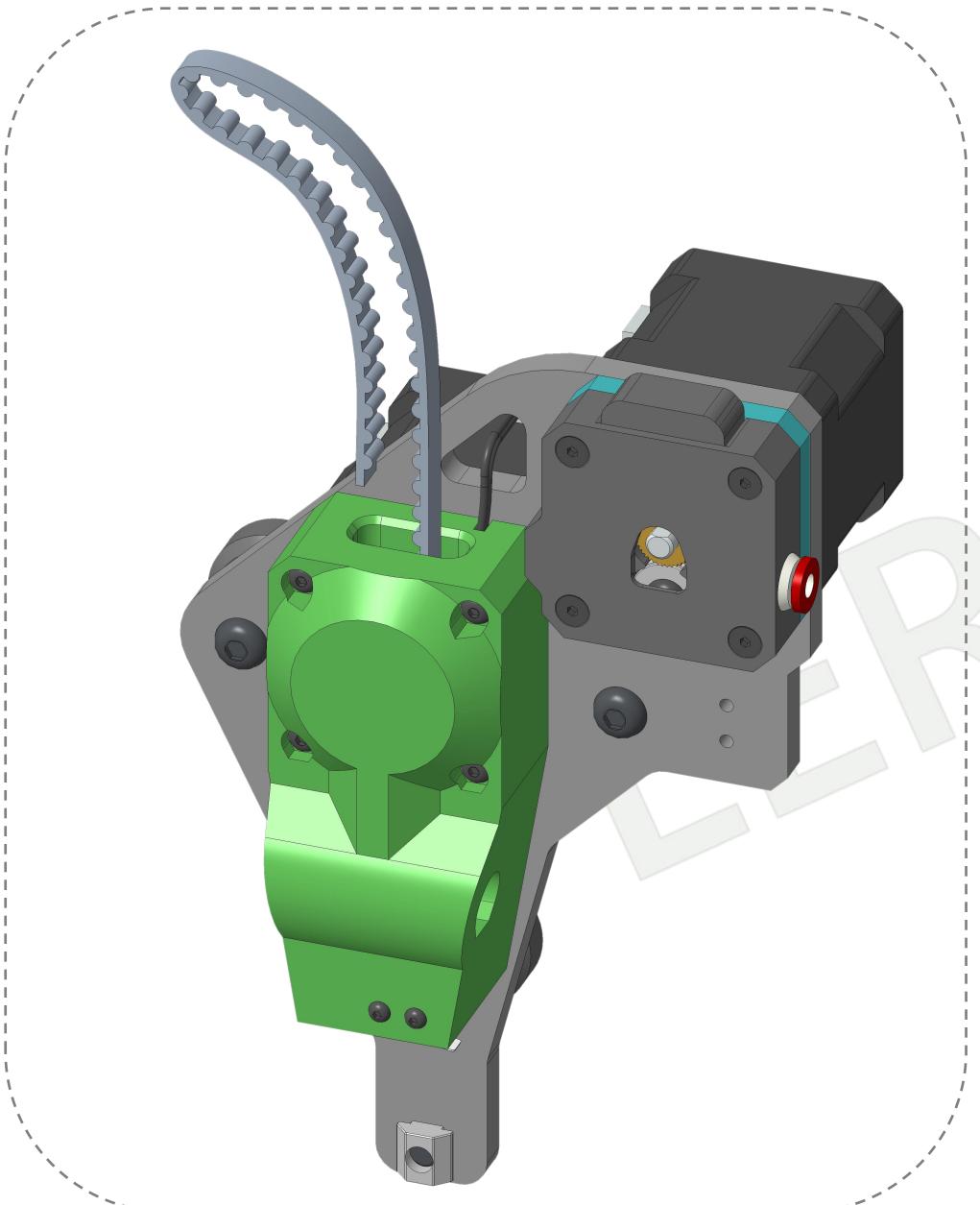
www.leridge.com



4.4- Assemble X-axis motor

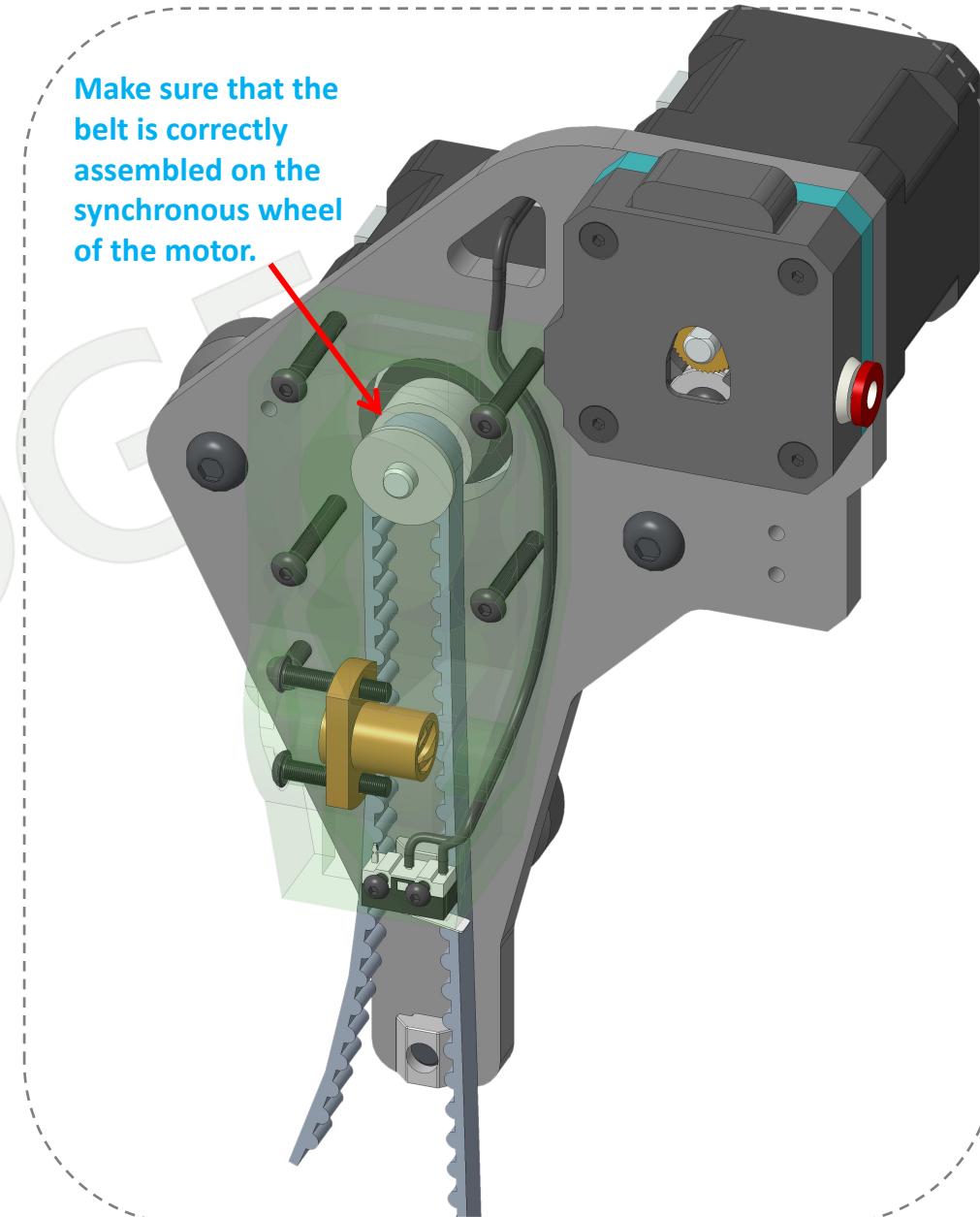


4.5- Assemble the X-axis belt



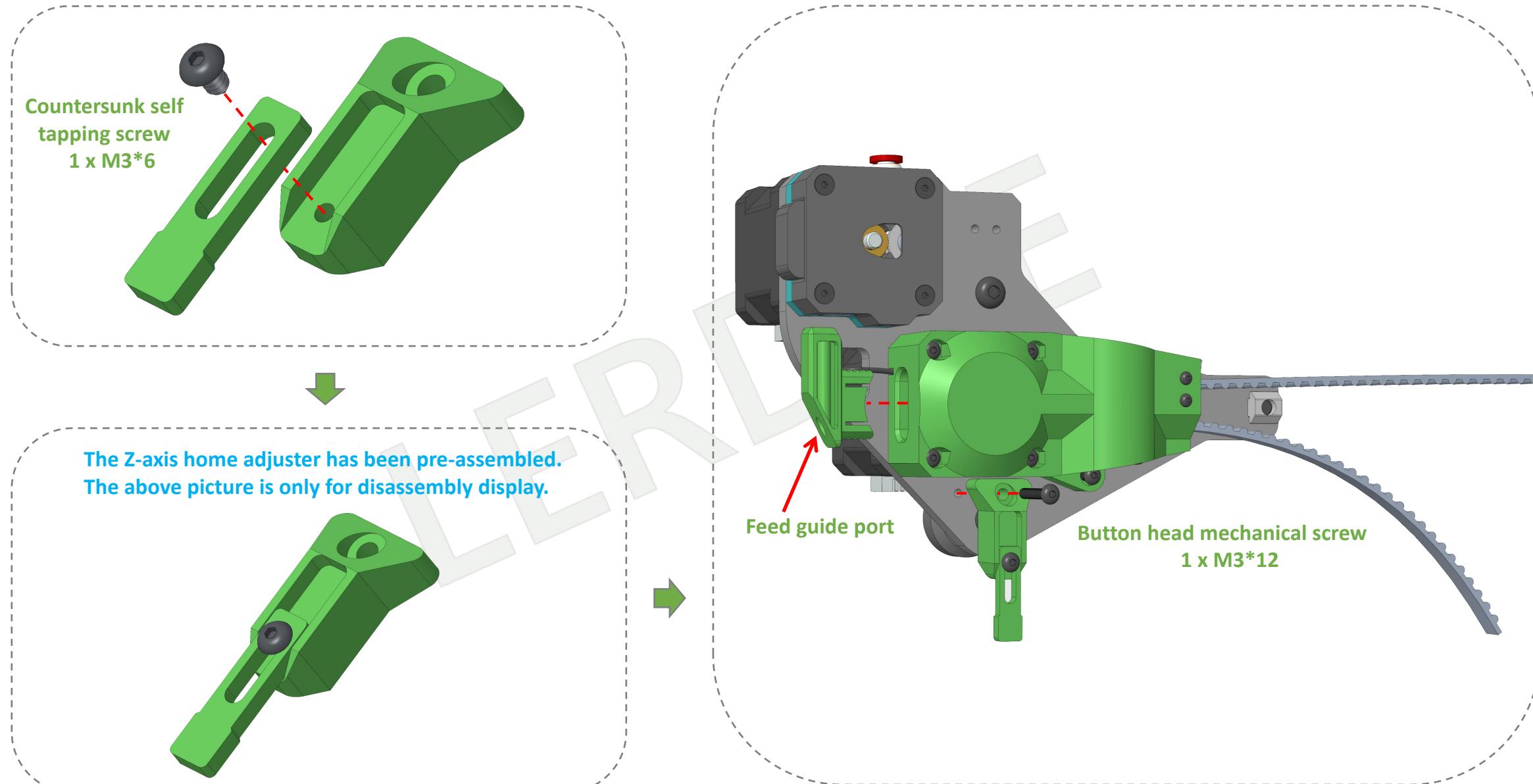
LERDGE

Make sure that the
belt is correctly
assembled on the
synchronous wheel
of the motor.



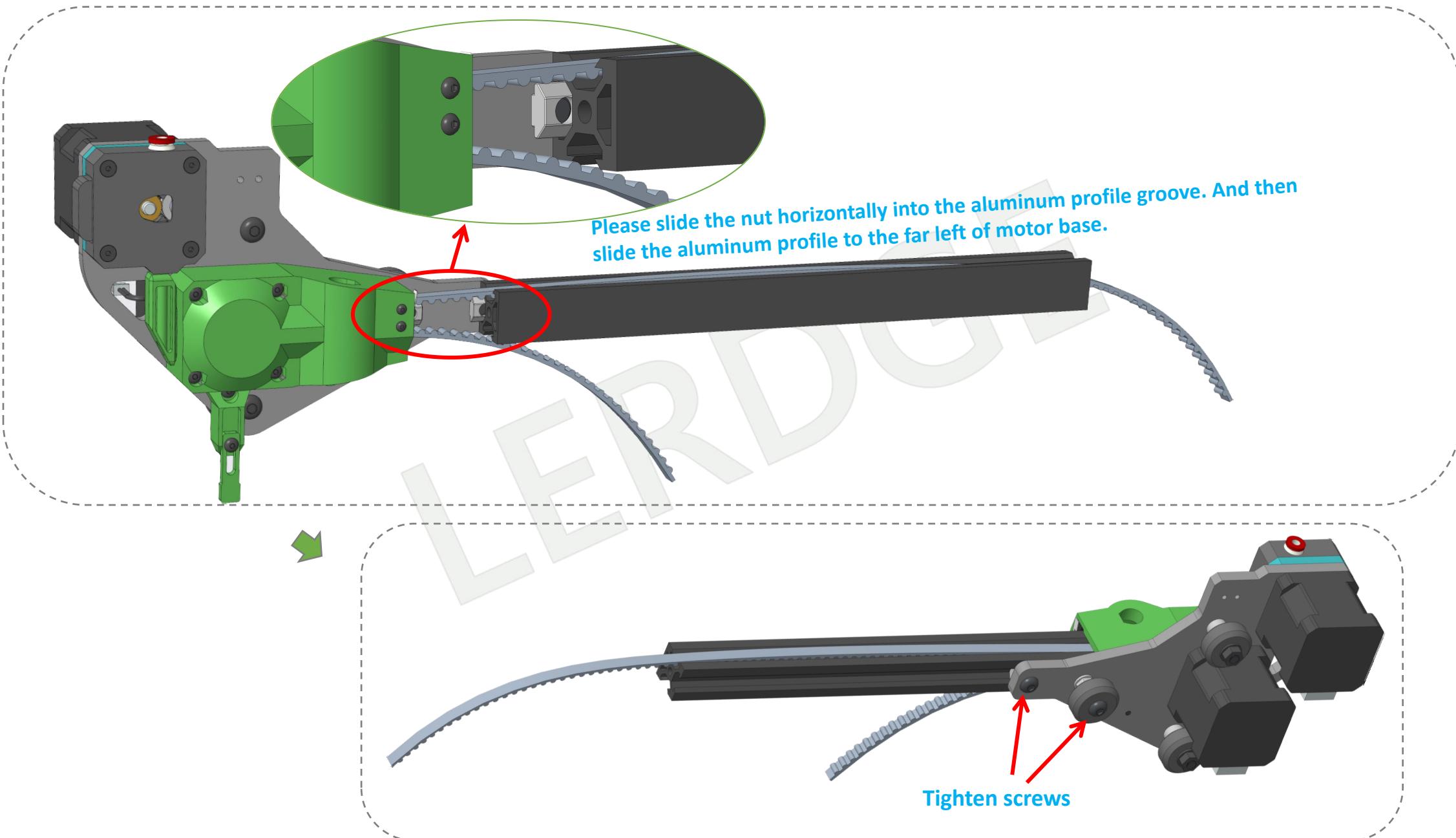
4.6- Assemble Z-axis home adjuster and feed guide port

www.lerdge.com

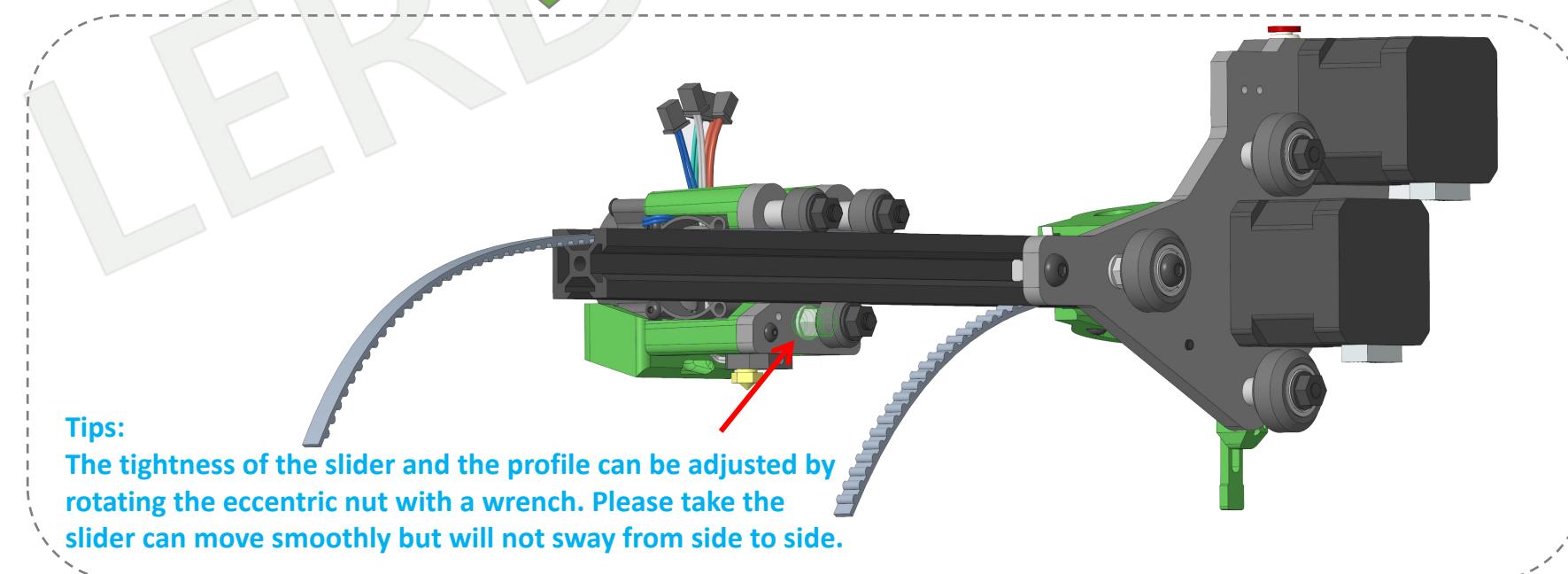


4.7- Assemble the X-axis profile

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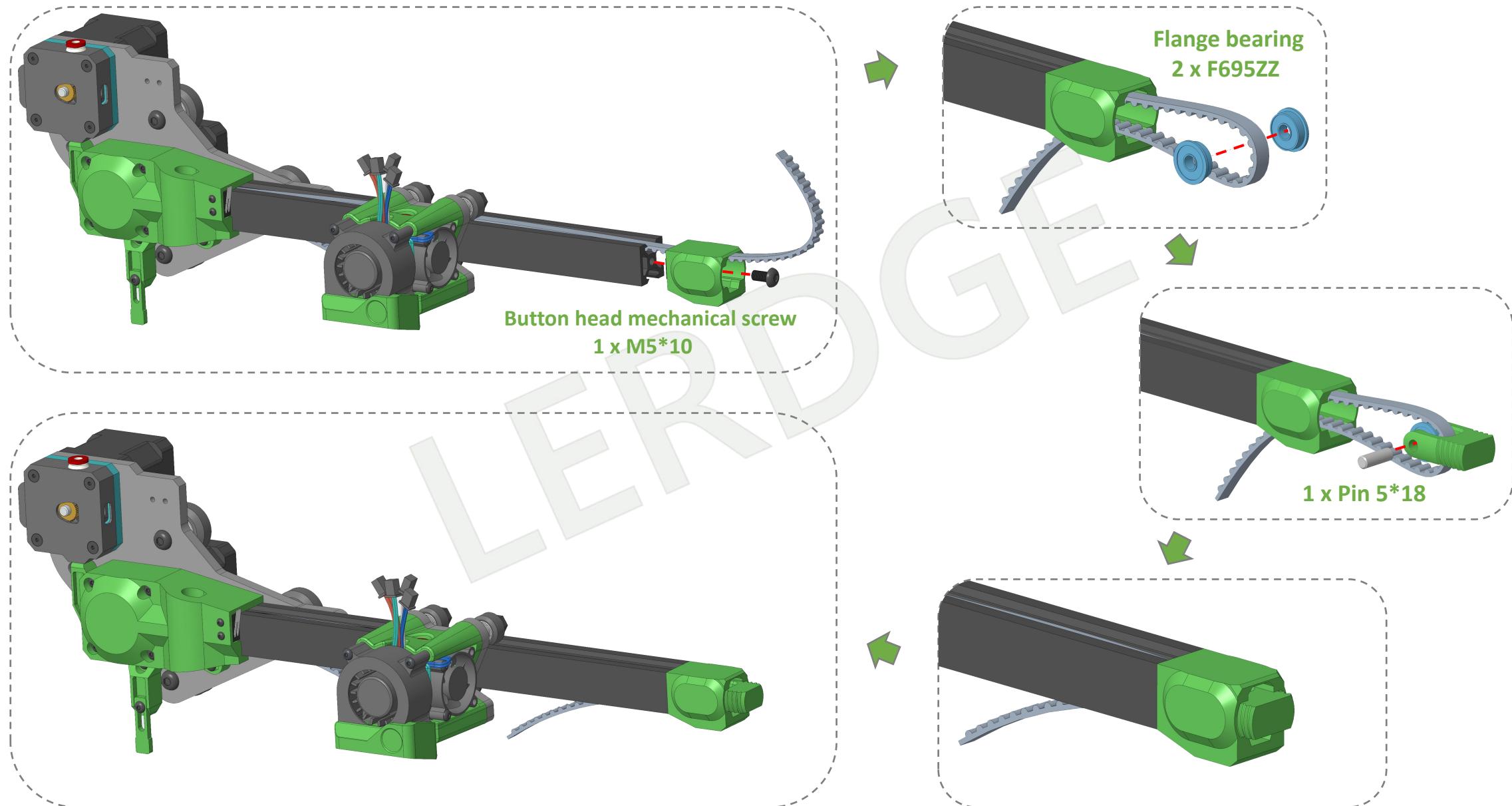


4.8- Slide the print head into the X-axis cantilever



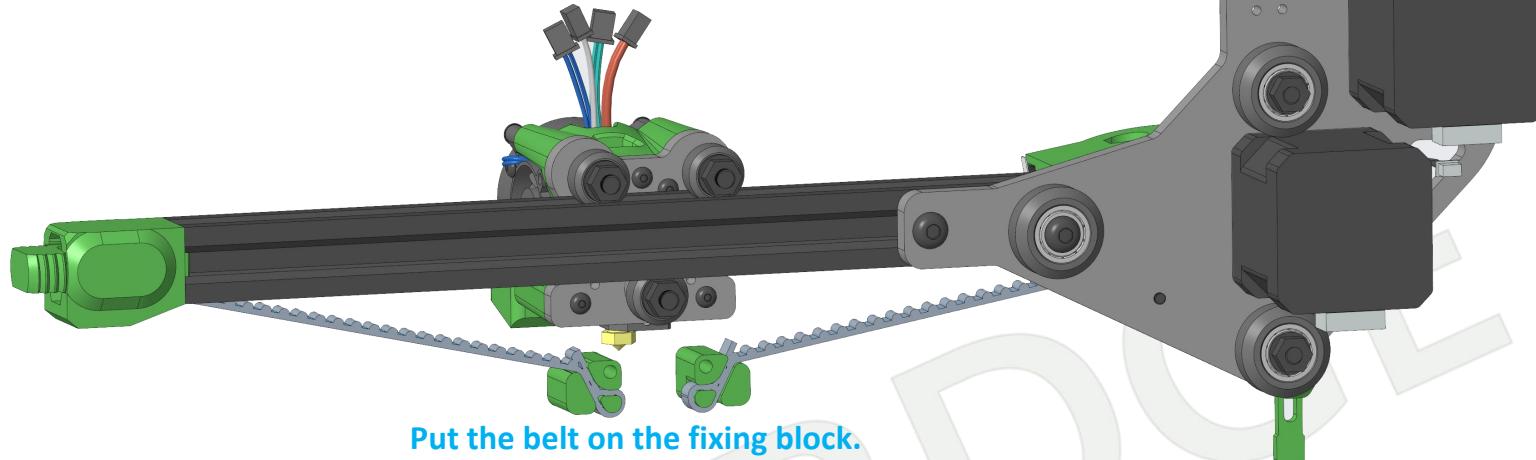
4.9- Assemble X-axis adjustable belt knob

www.lerdge.com



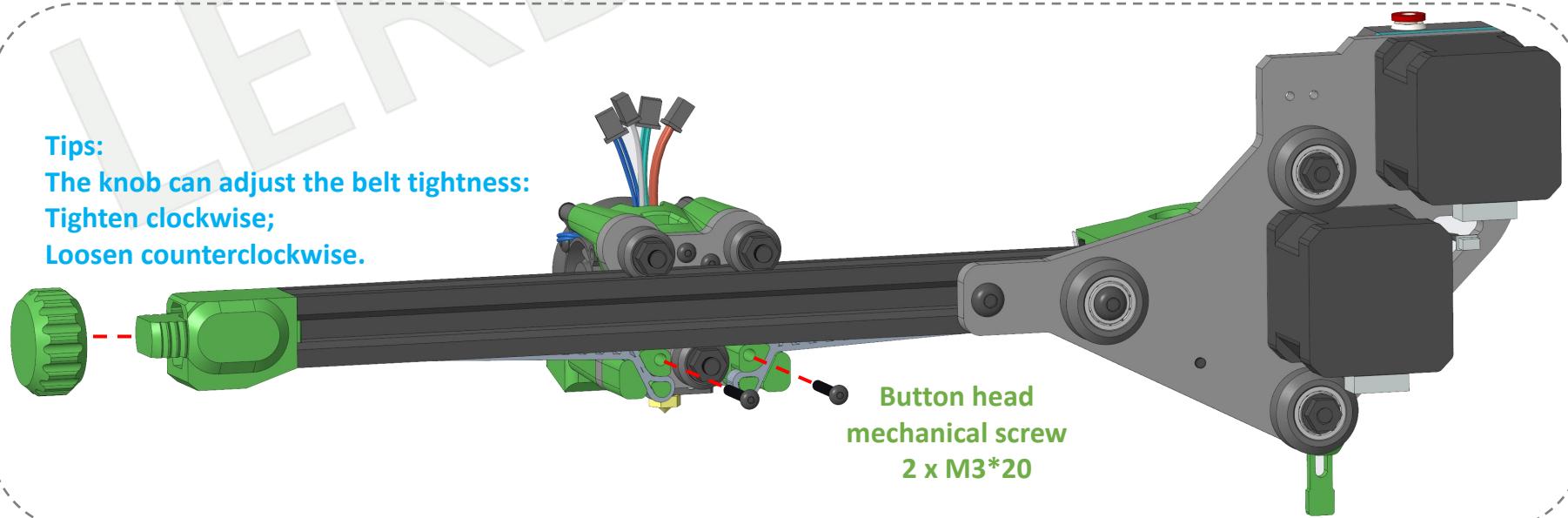
4.10- Fixed X-axis belt

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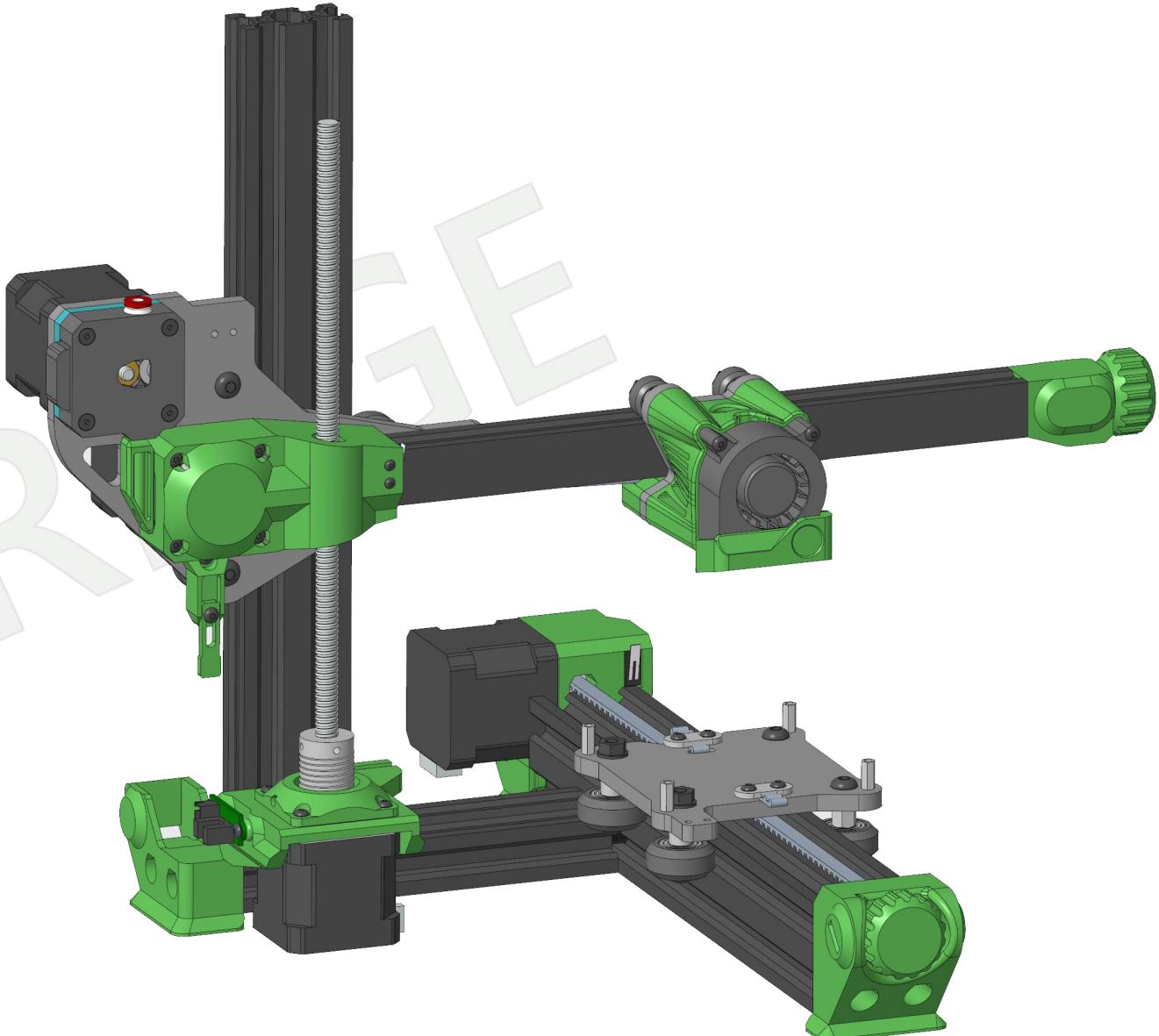
Put the belt on the fixing block.

Tips:
The knob can adjust the belt tightness:
Tighten clockwise;
Loosen counterclockwise.



Step 5

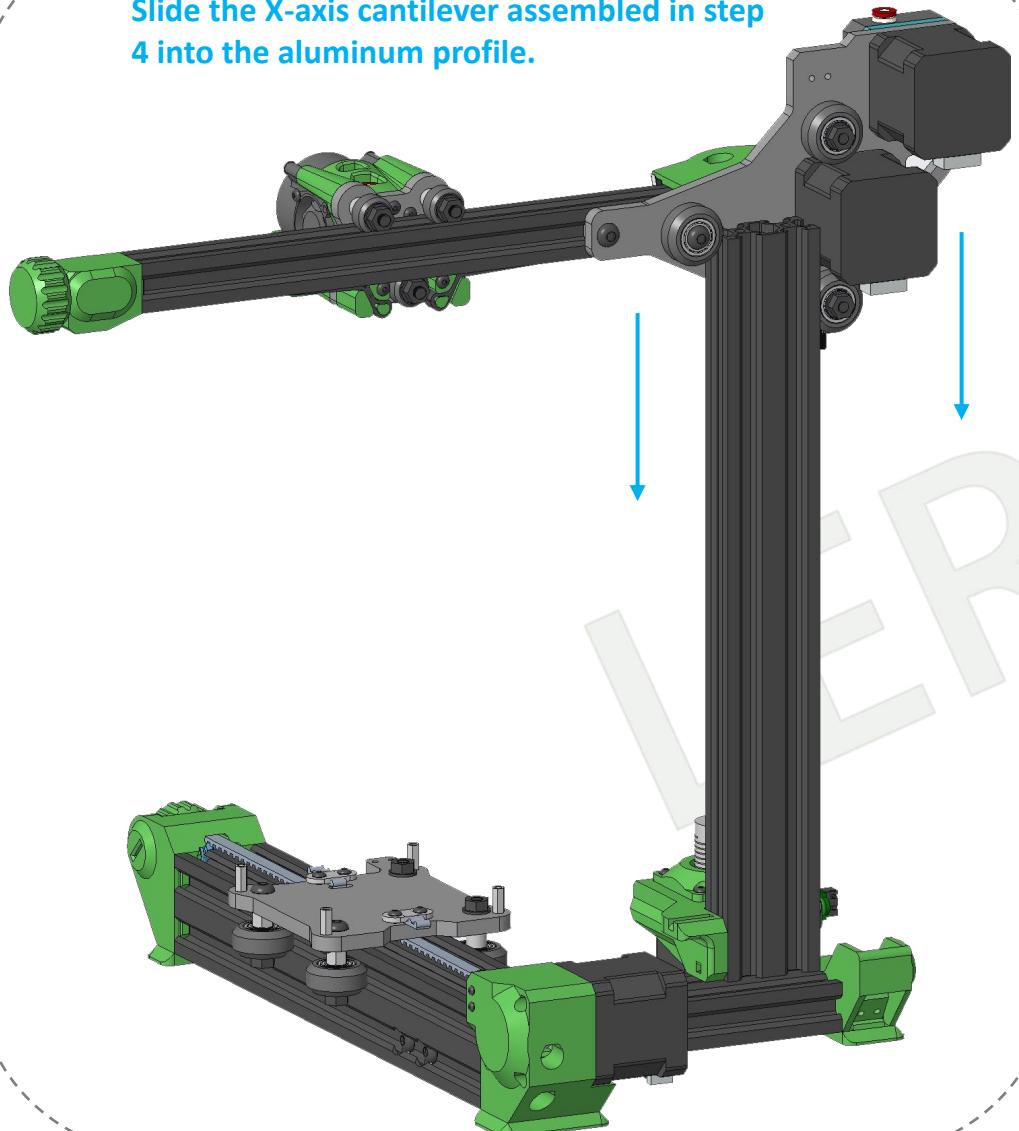
Assemble Z-axis Components



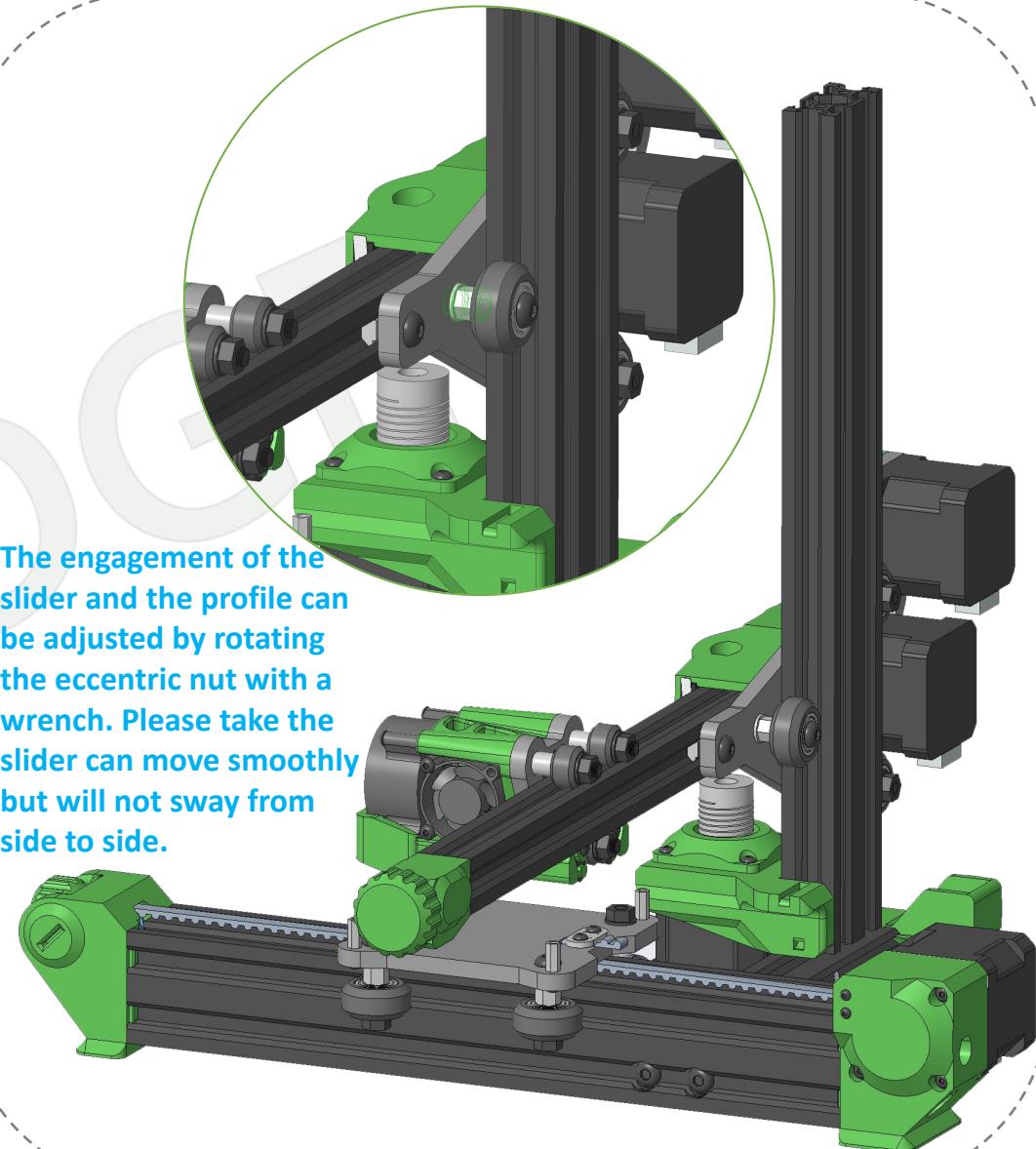
5.1- Slide the X-axis cantilever into the Z-axis aluminum profile

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Slide the X-axis cantilever assembled in step 4 into the aluminum profile.

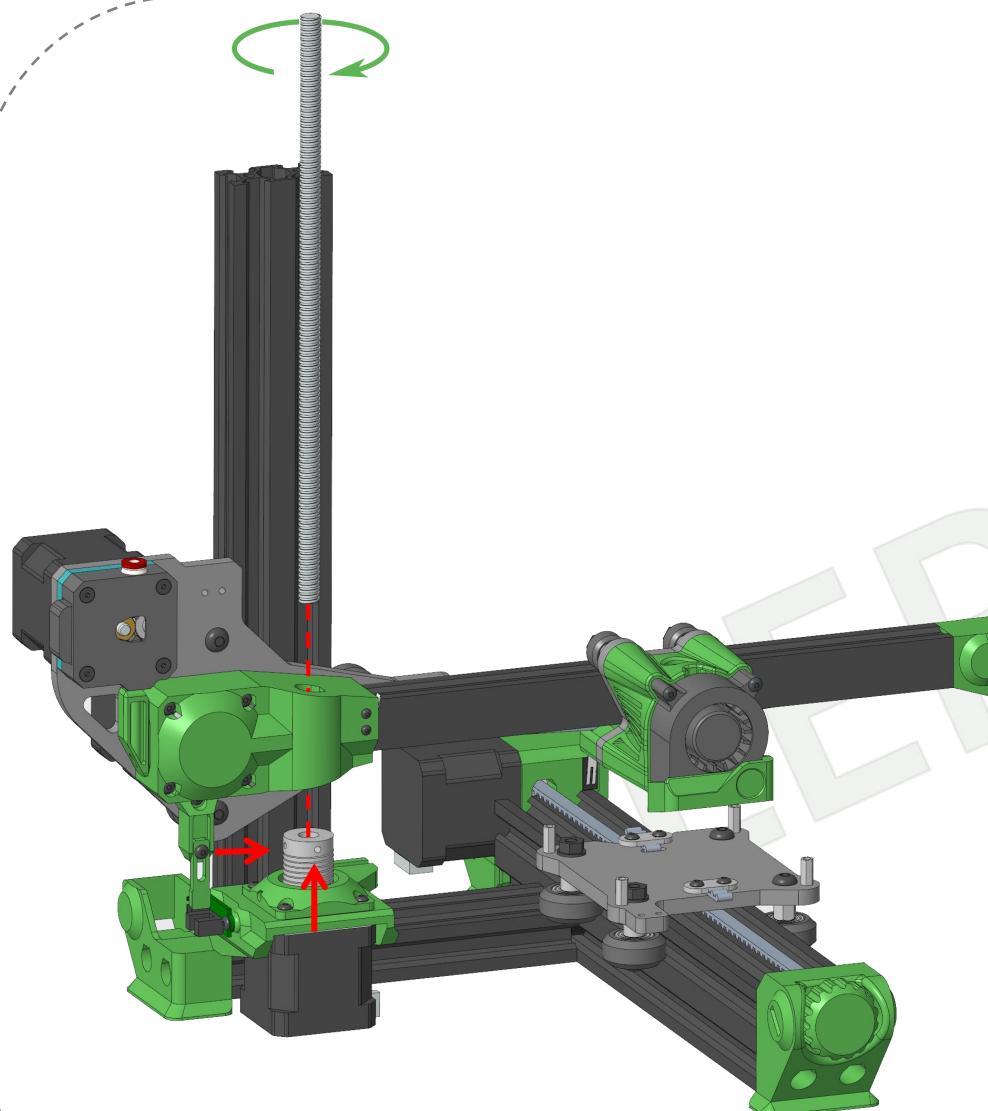


The engagement of the slider and the profile can be adjusted by rotating the eccentric nut with a wrench. Please take the slider can move smoothly but will not sway from side to side.

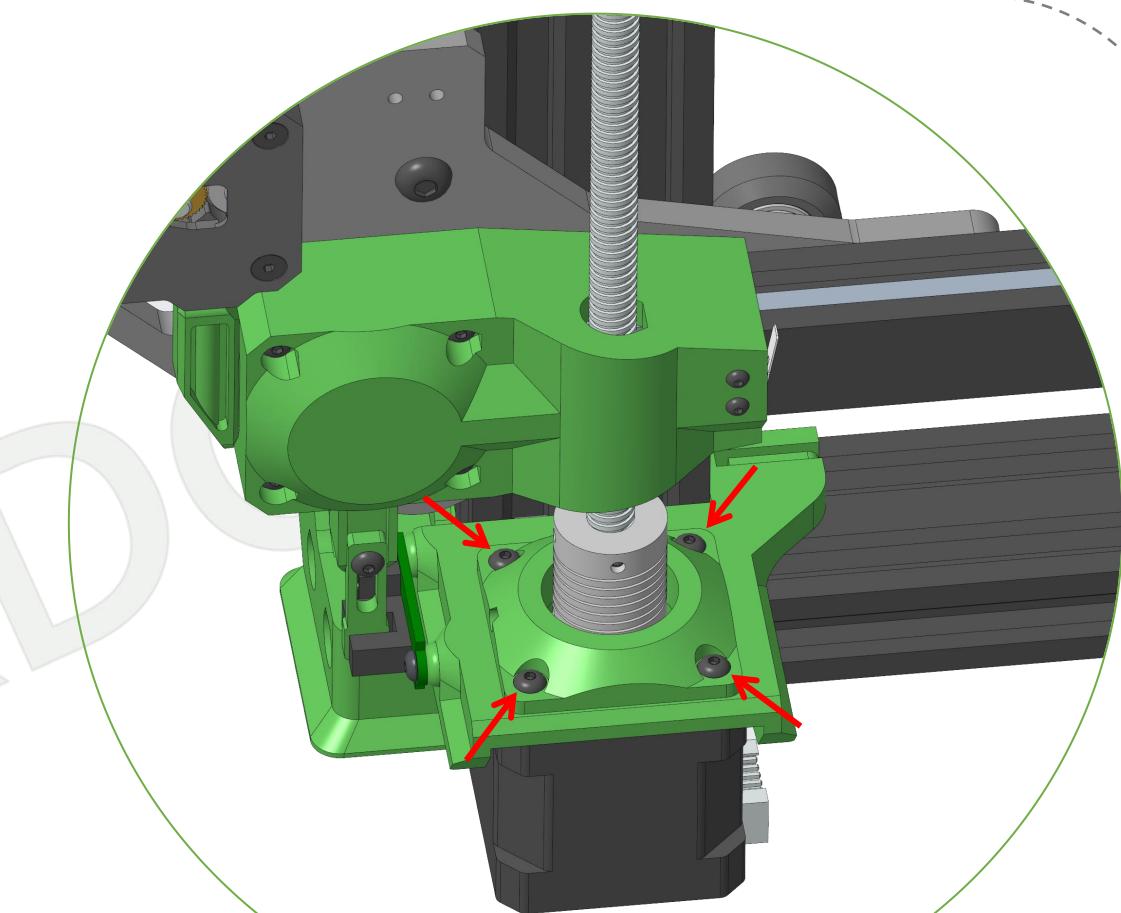


5.2- Assemble Z-axis lead screw

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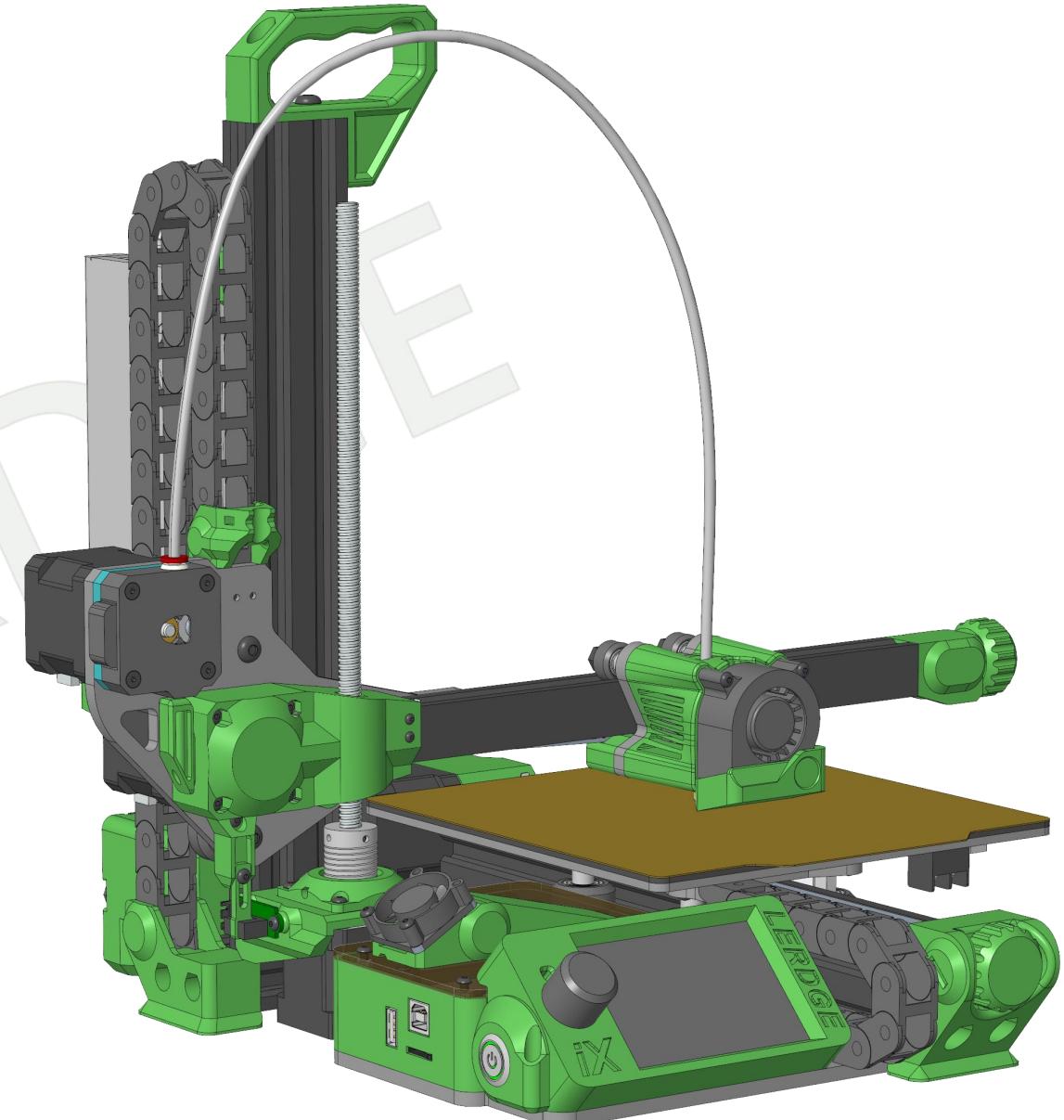
Loosen the screws on the coupling first, insert the lead screw into the coupling, and then lock the the screws.



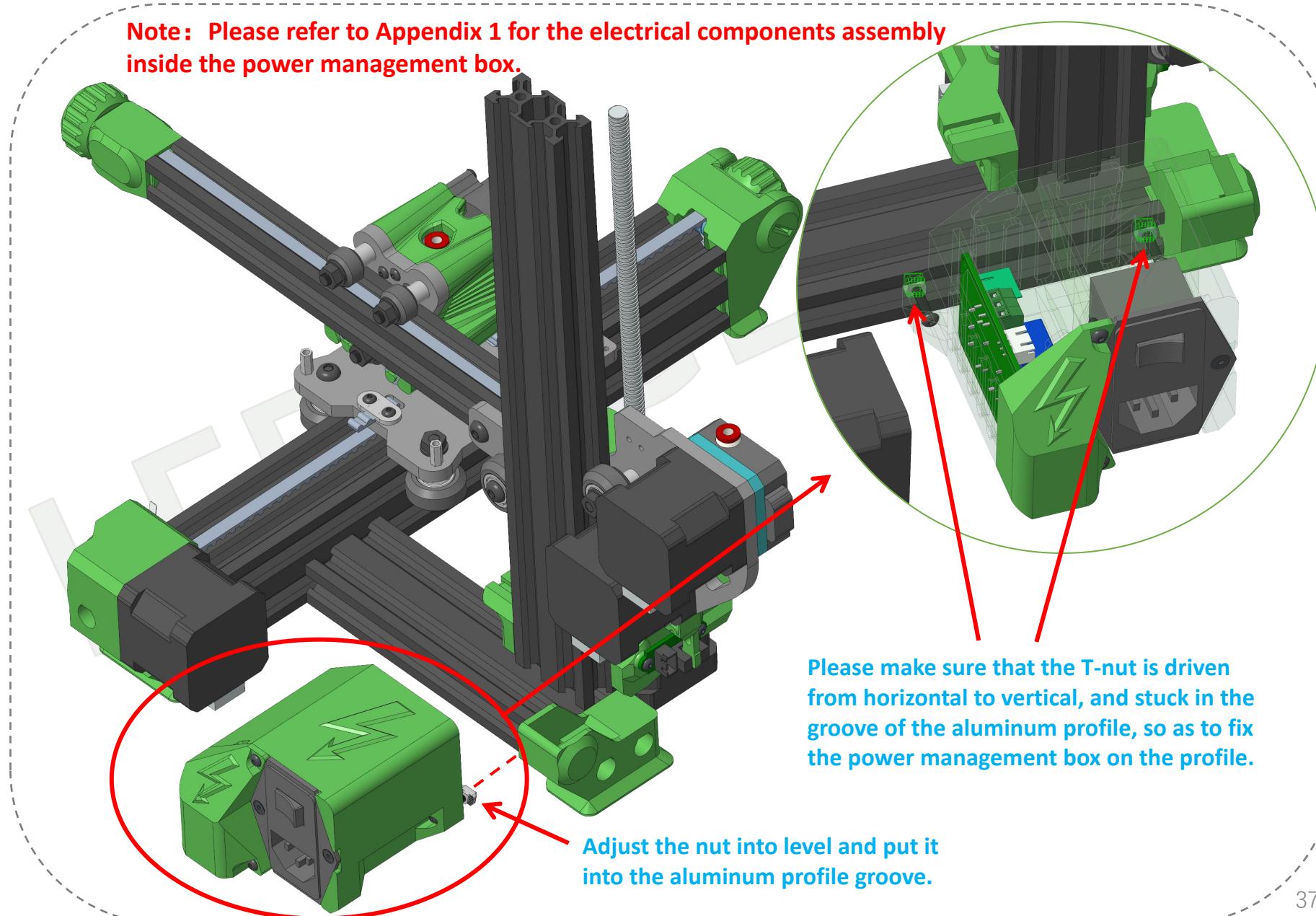
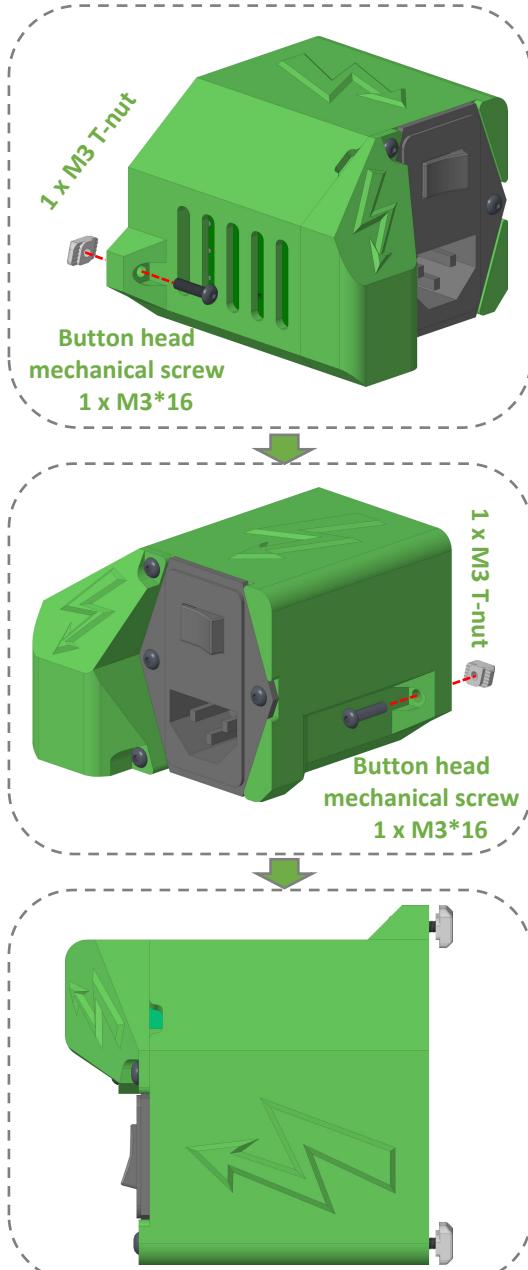
Loosen these four screws, you can fine-tune the position of the Z-axis motor from front to back, left and right, so as to adjust the verticality and concentricity of the lead screw assembly, and then tighten the screws again after the adjustment.

Step 6

Assemble Electrical Components

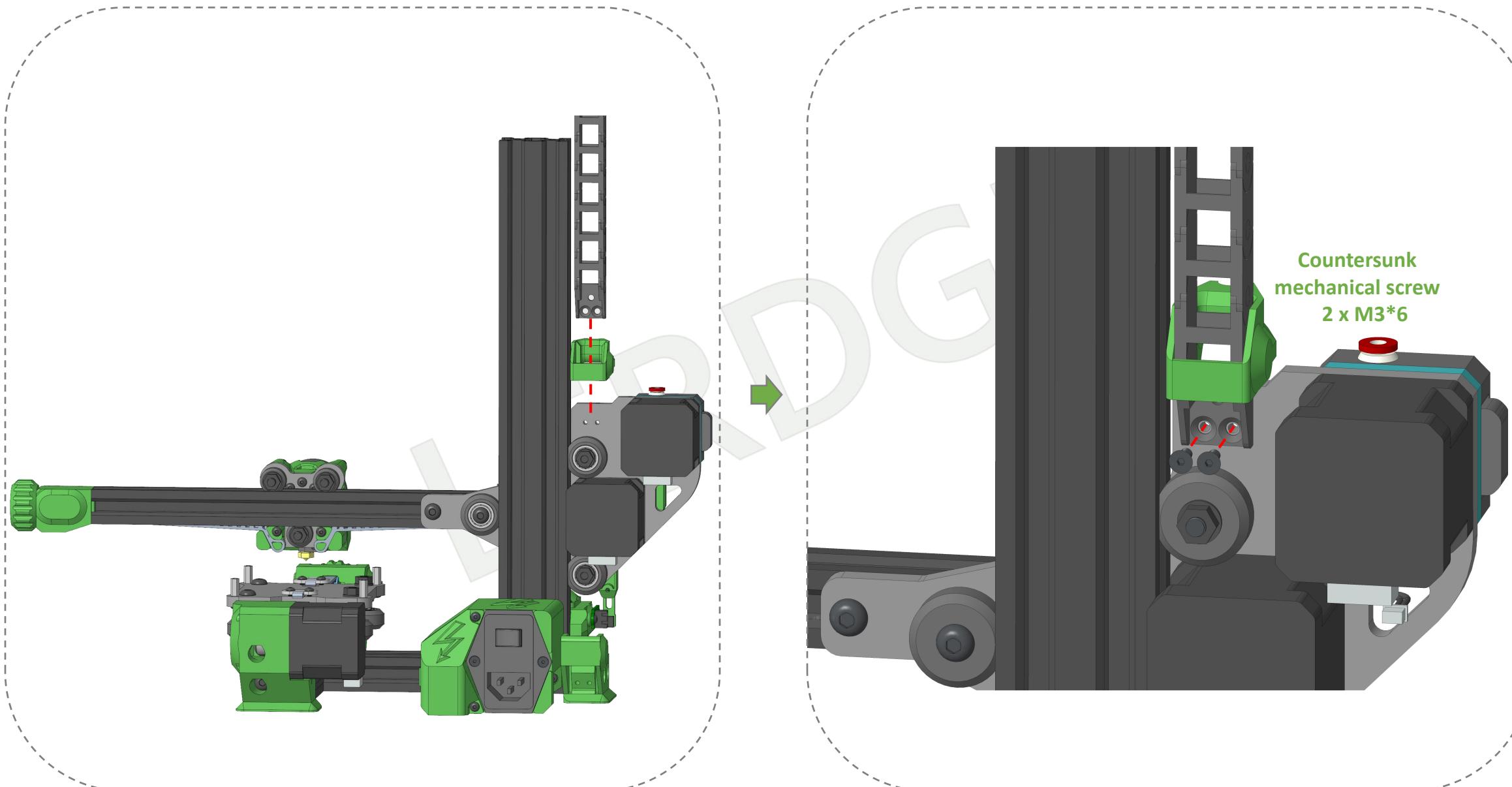


6.1- Assemble the main power switch



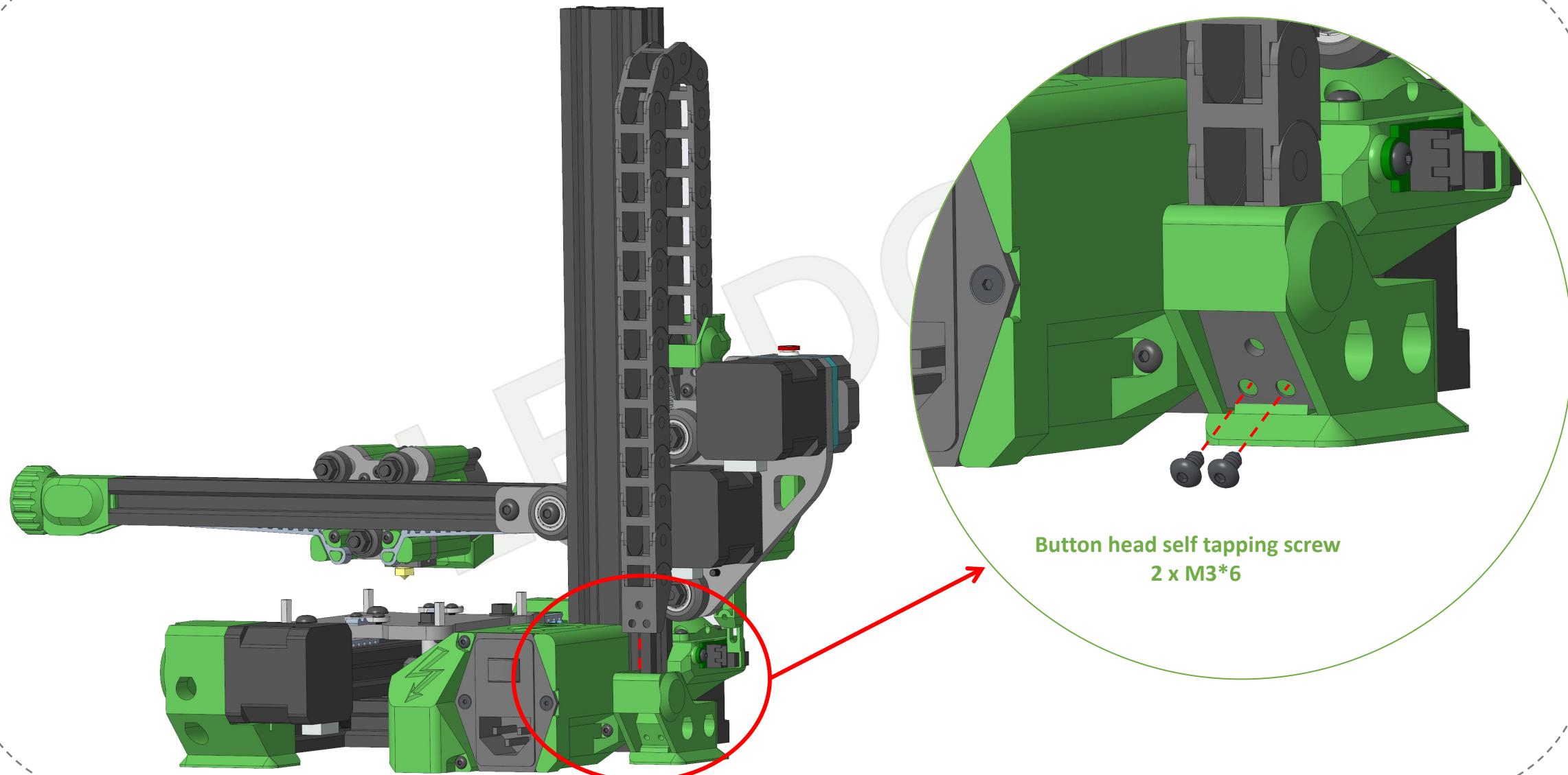
6.2.1- Assemble vertical drag chain

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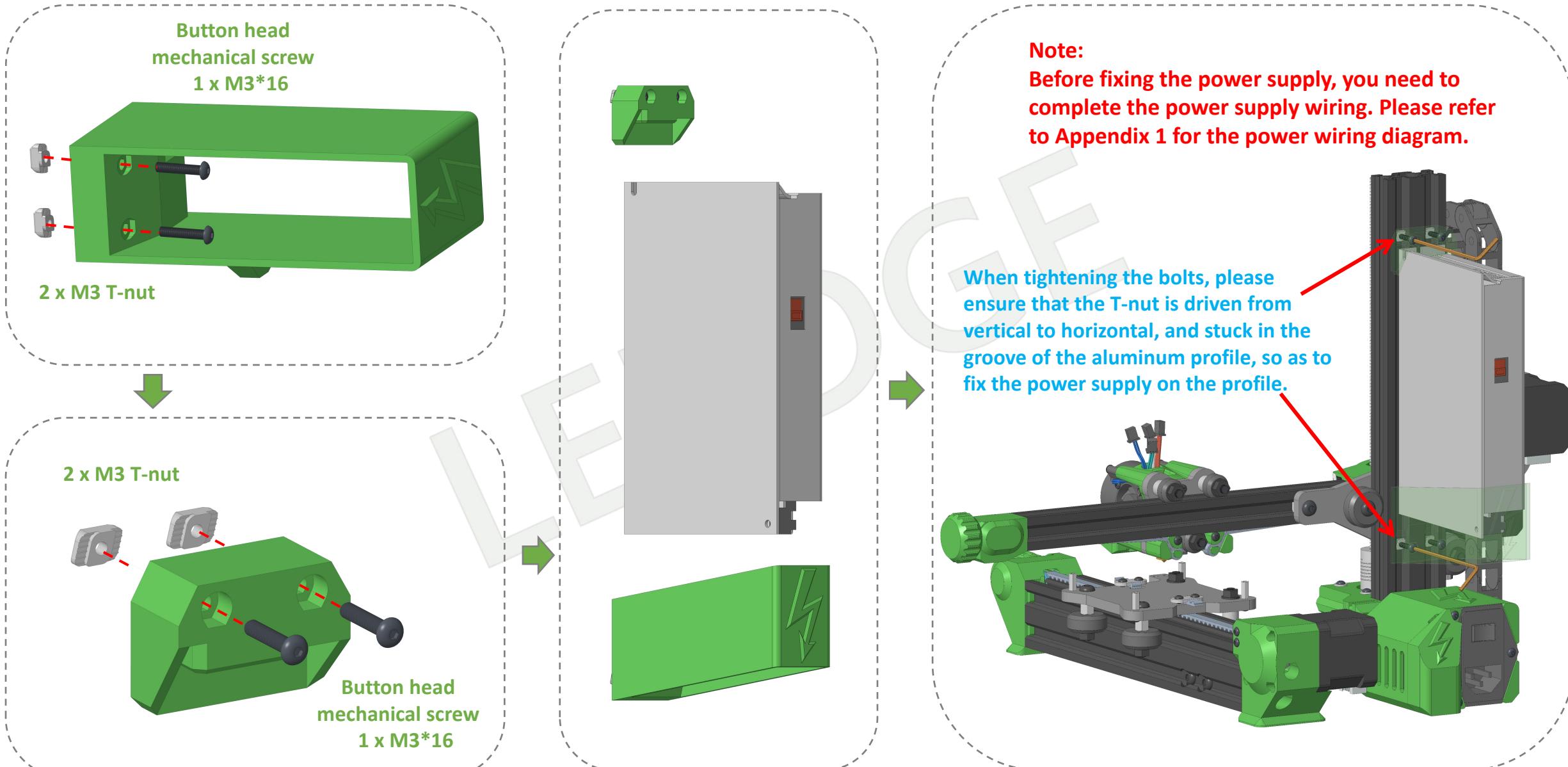
6.2.2- Assemble vertical drag chain

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6.3- Assemble the power adapter (suitable for the 300W power supply)

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6.4- Assemble interface panel

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The two pictures are the front and back view for the same part.

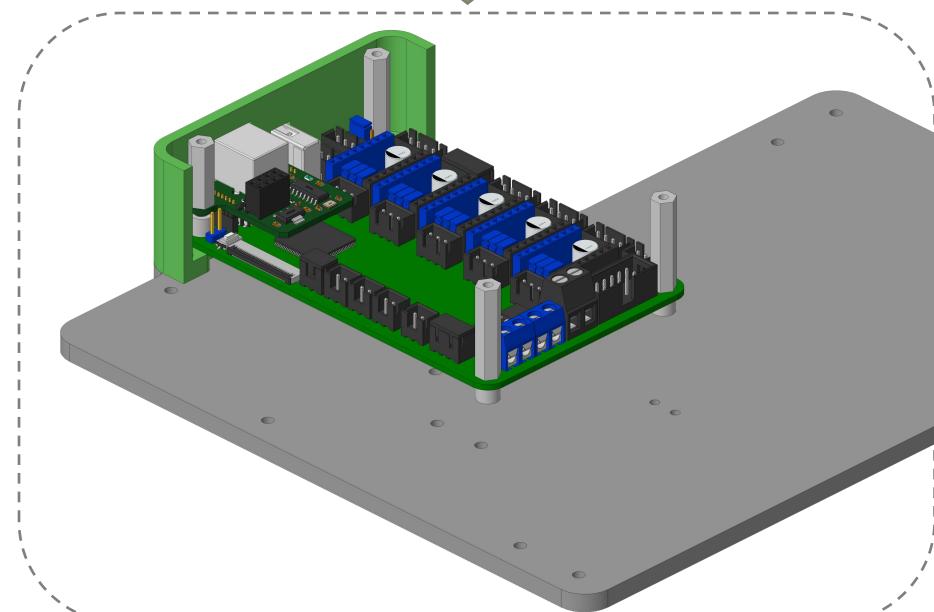
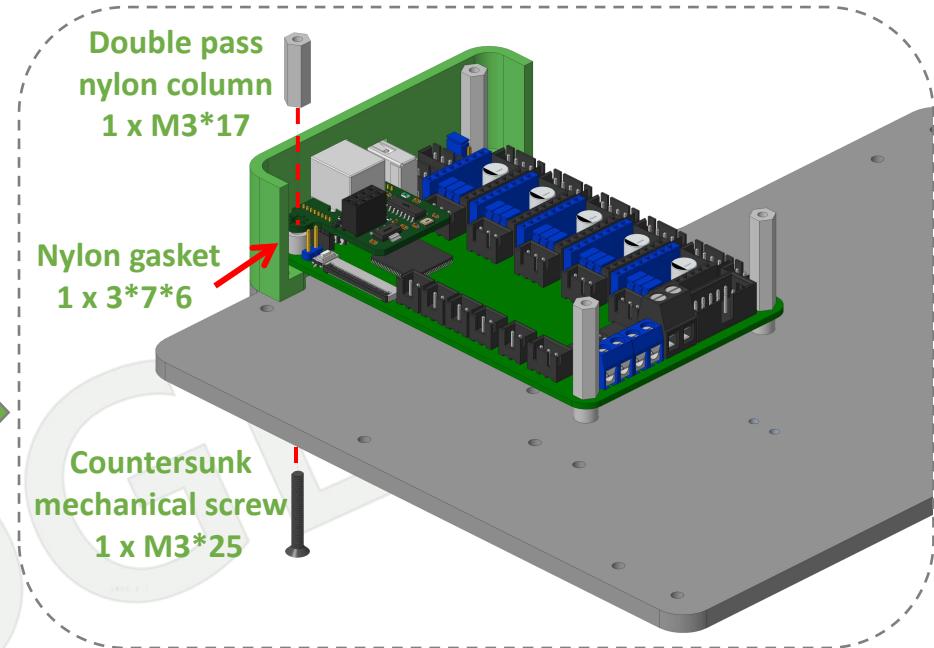
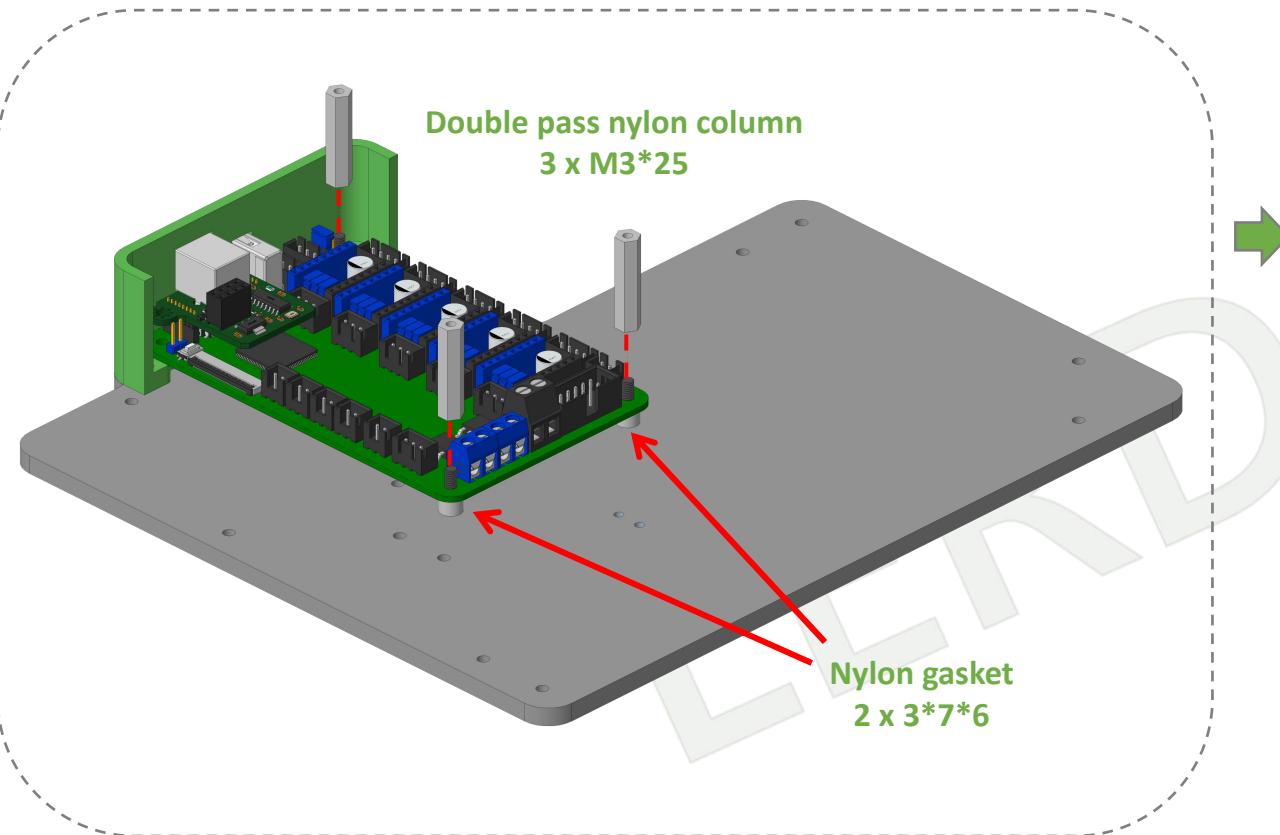
Countersunk self tapping screw
2 x M3*8

Countersunk mechanical screw
3 x M3*16

Nylon cushion 2 x 3*7*6

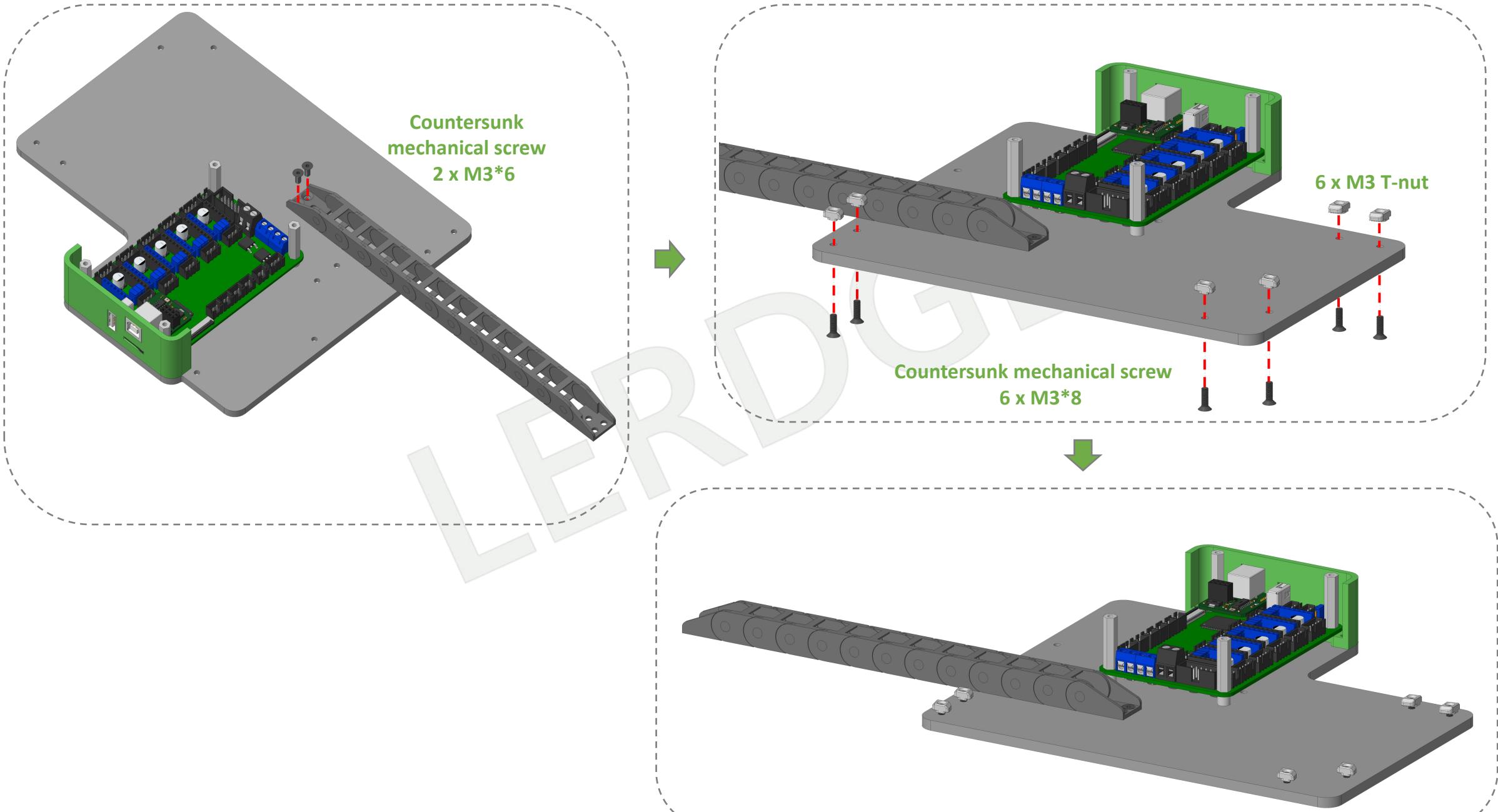
6.5- Assemble Lerdge board

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6.6- Assemble second drag chain

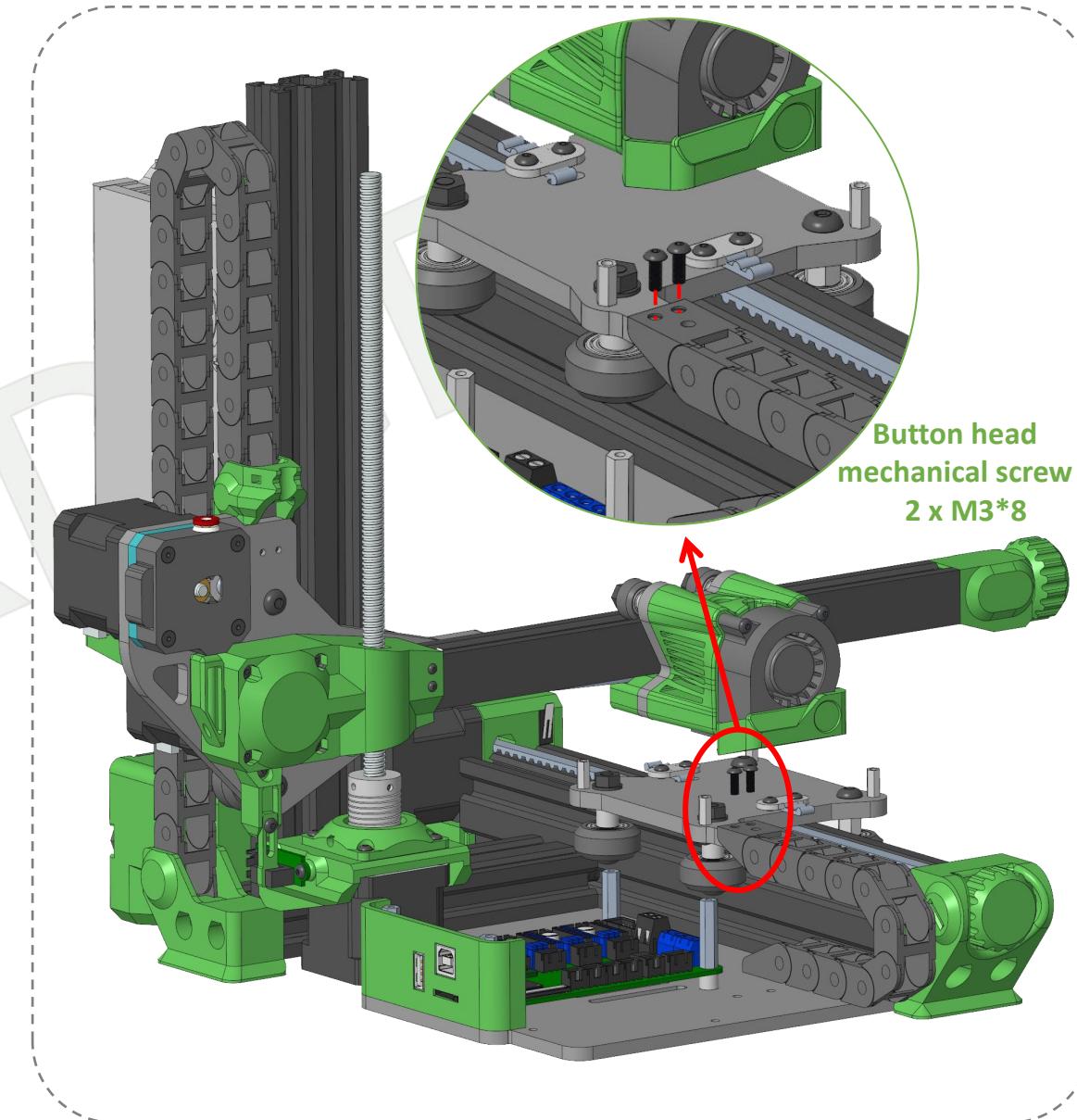
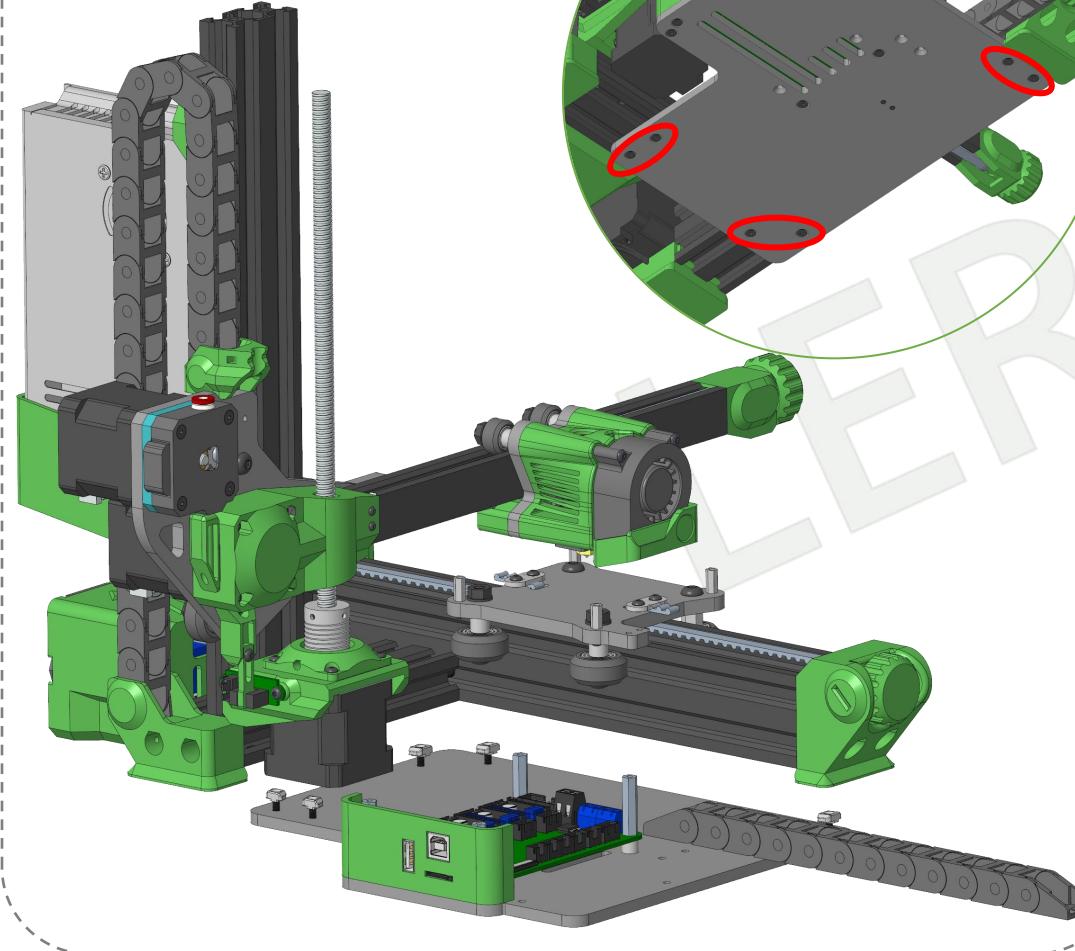
www.lerdge.com



6.7- Assemble the electrical base and drag chain

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When tightening the screws, please ensure that the T-nut is driven to rotate 90 degrees, and stuck in the groove of the aluminum profile, so as to fix the plate on the profile.



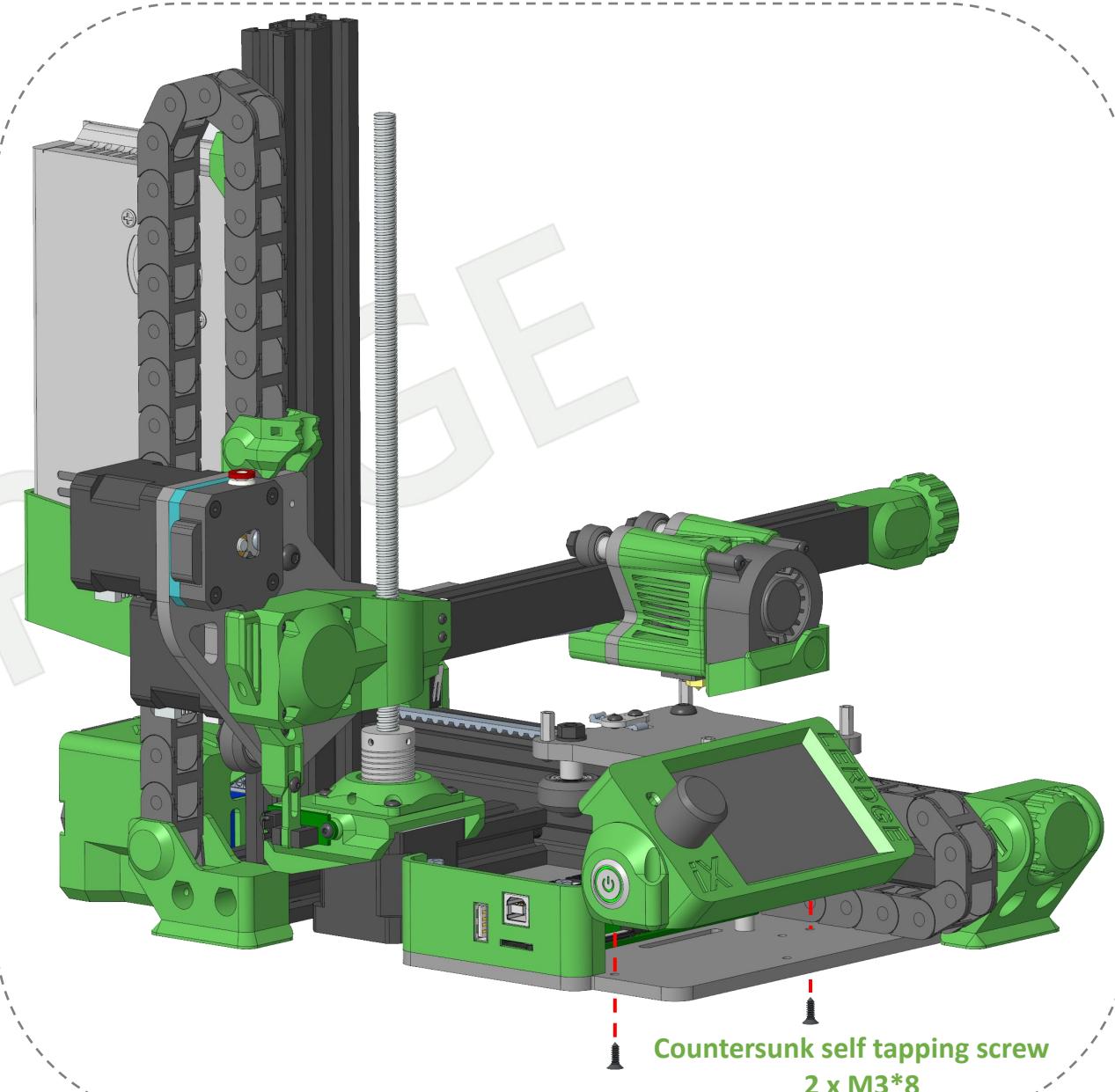
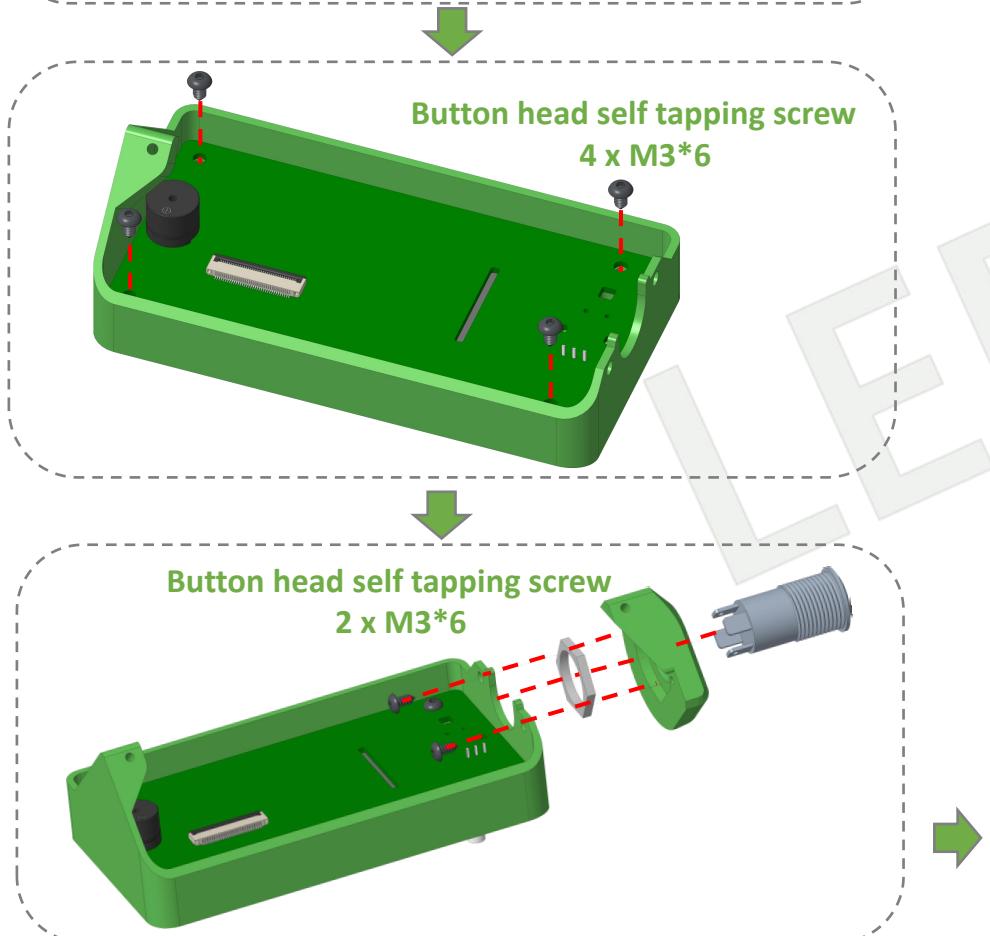
6.8- Assemble display

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Note:

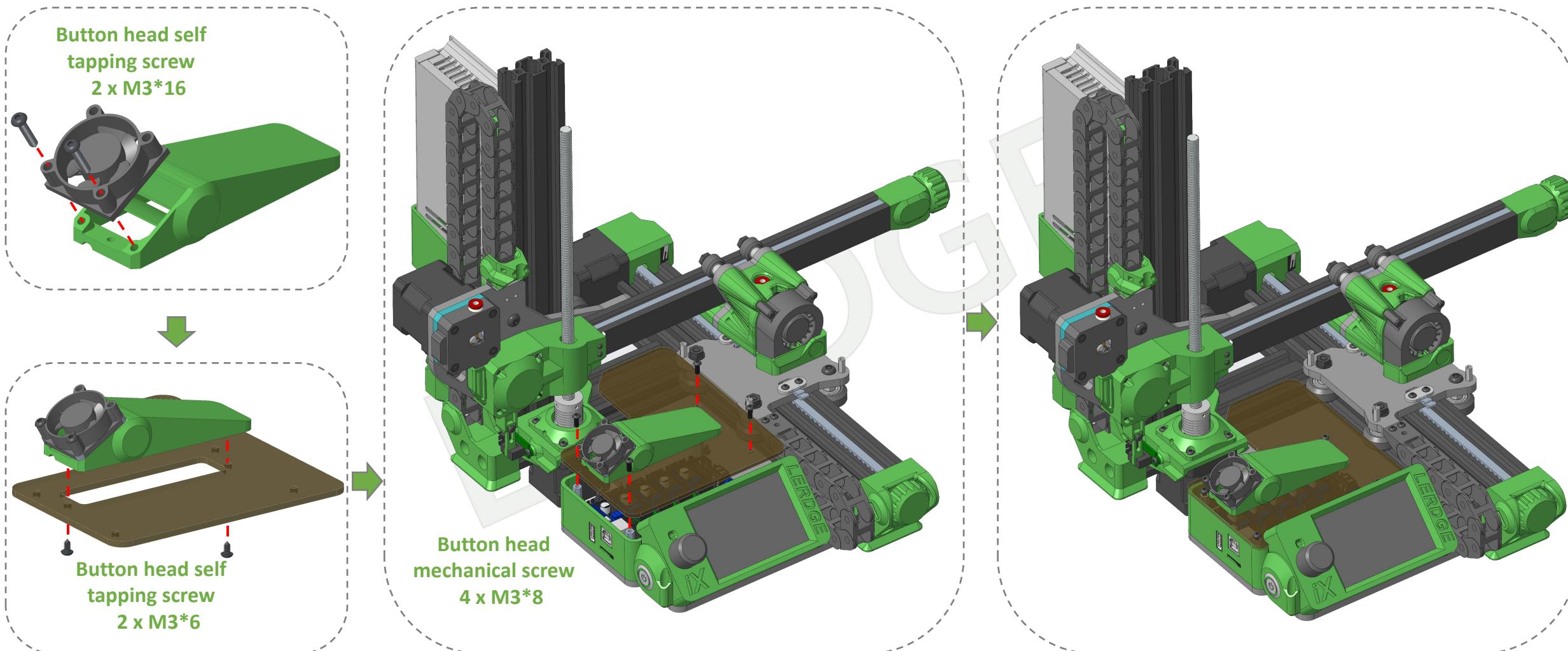
For convenience, you need to complete the wiring of the main board firstly, and arrange the cables to avoid winding or interfering with the movement of the Y-axis pulley before assembling the display.

Please refer to Appendix 2, Appendix 3 and Appendix 4 for details.



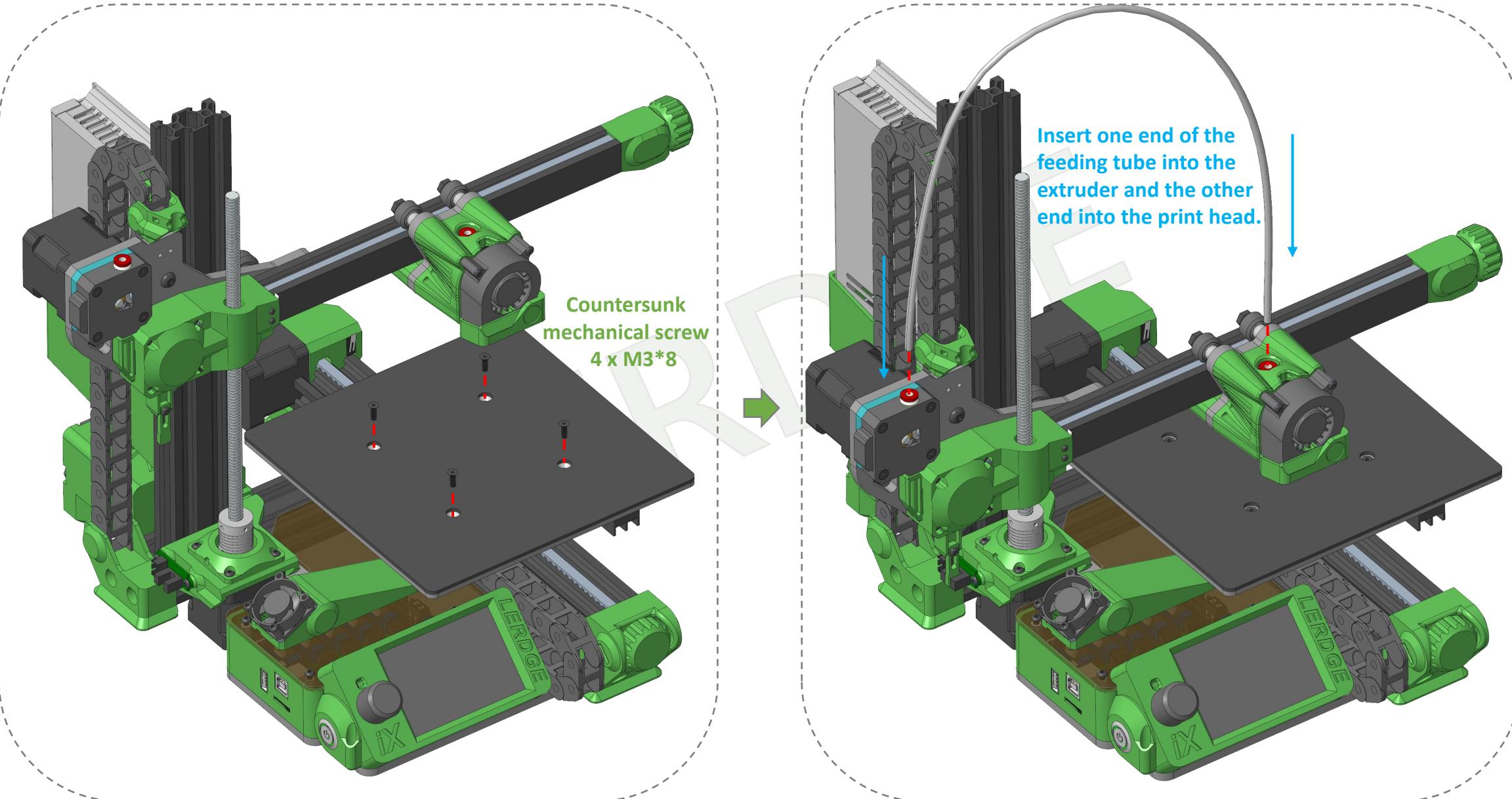
6.9- Assemble the heat dissipation cover of the board

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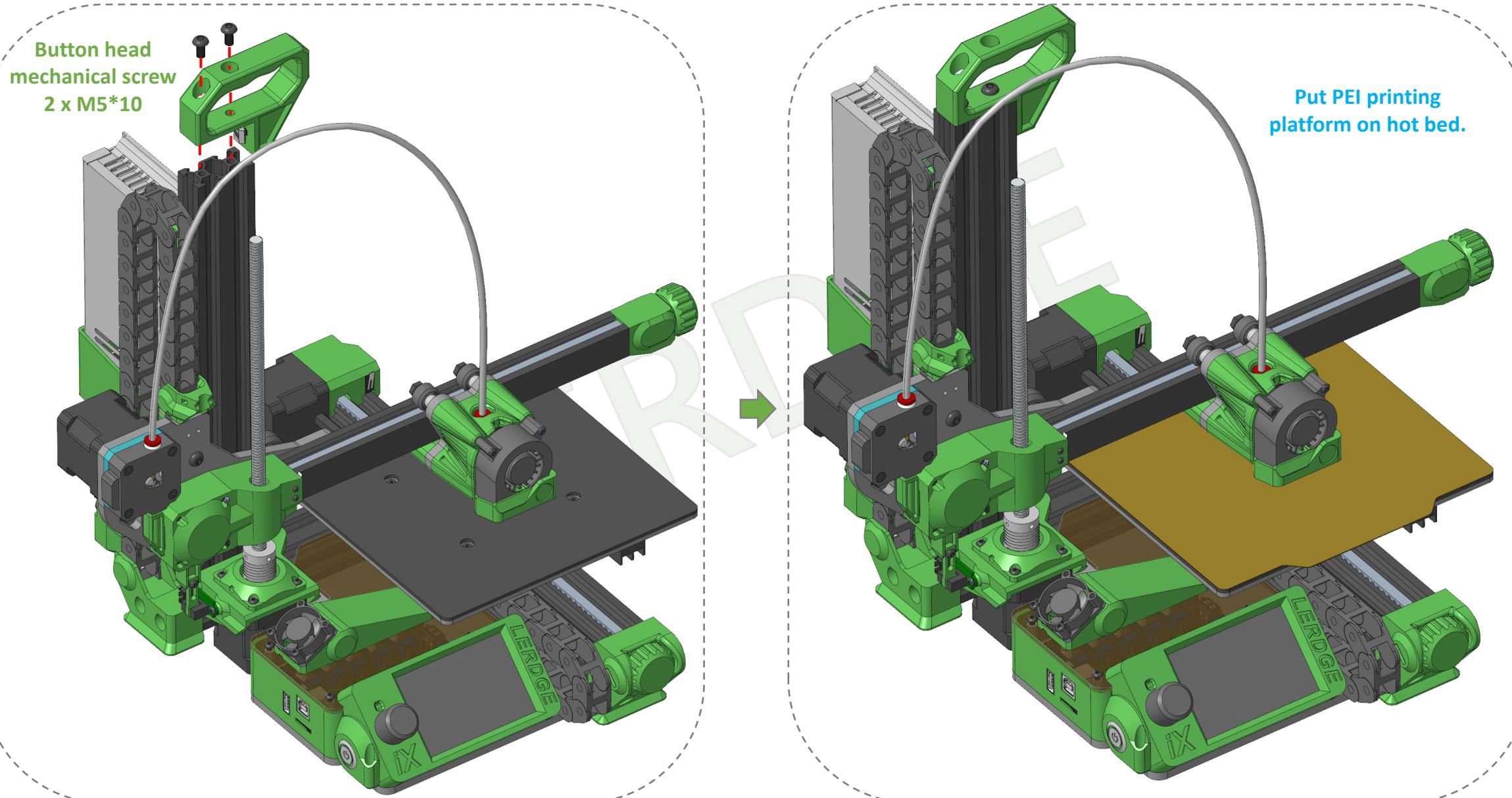
6.10- Assemble the printing platform and feeding tube

www.lerdge.com

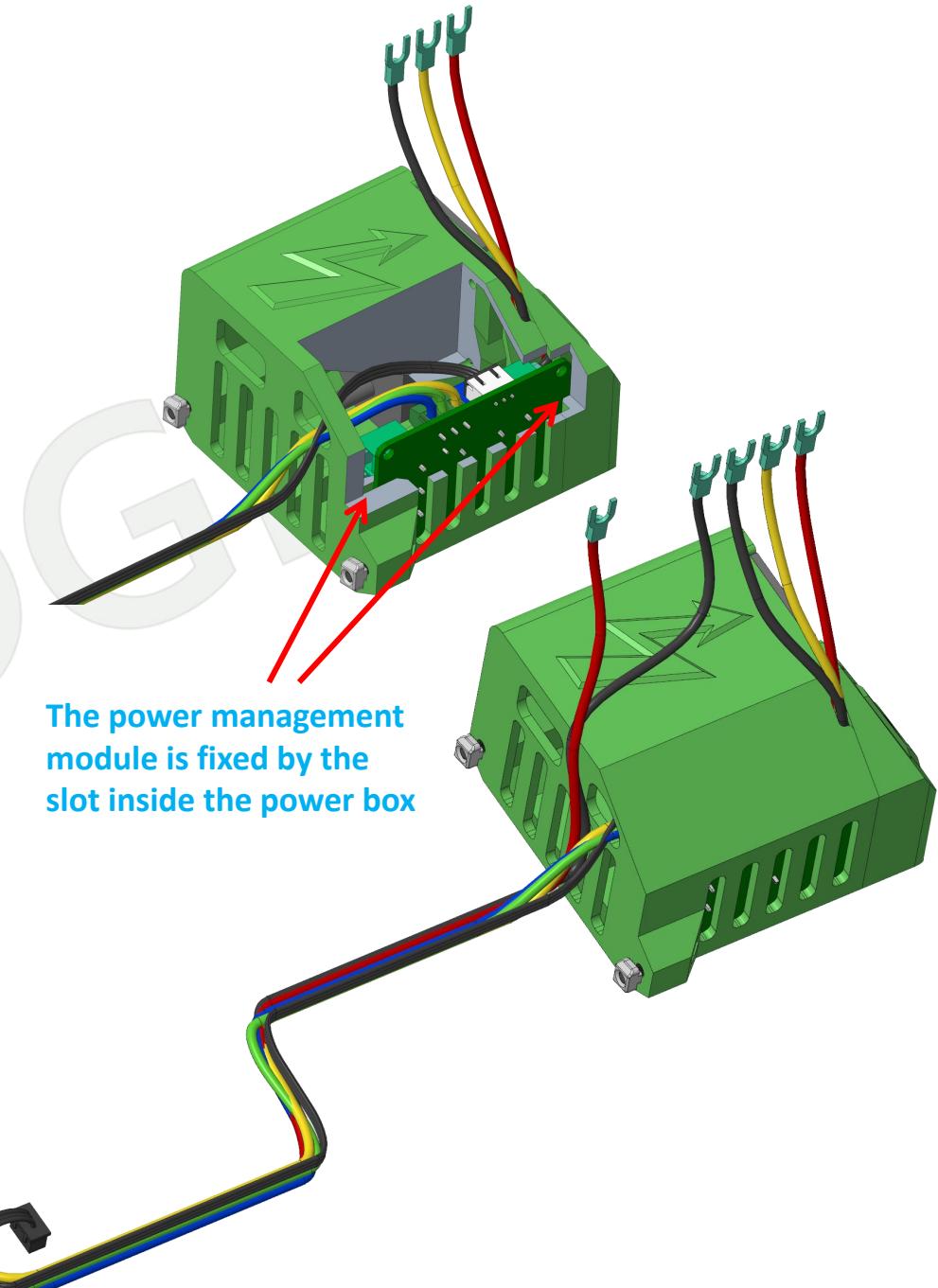
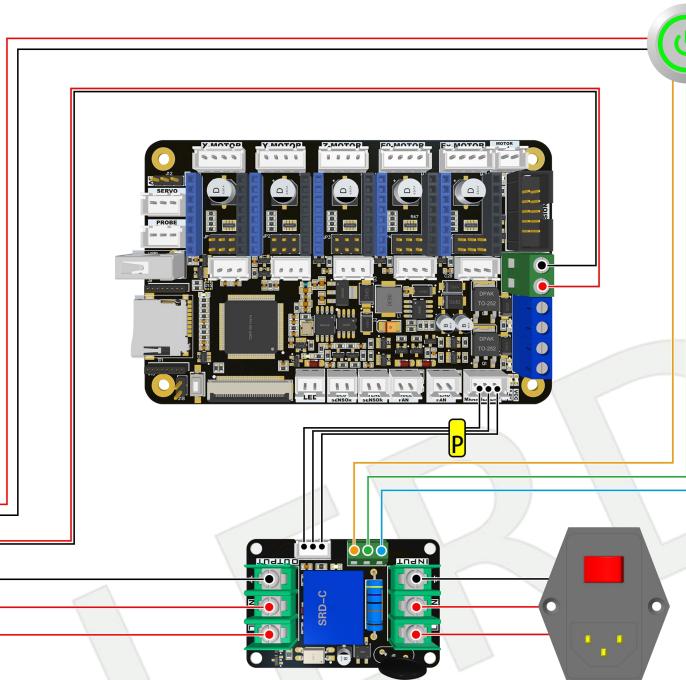


6.11- Install the handle

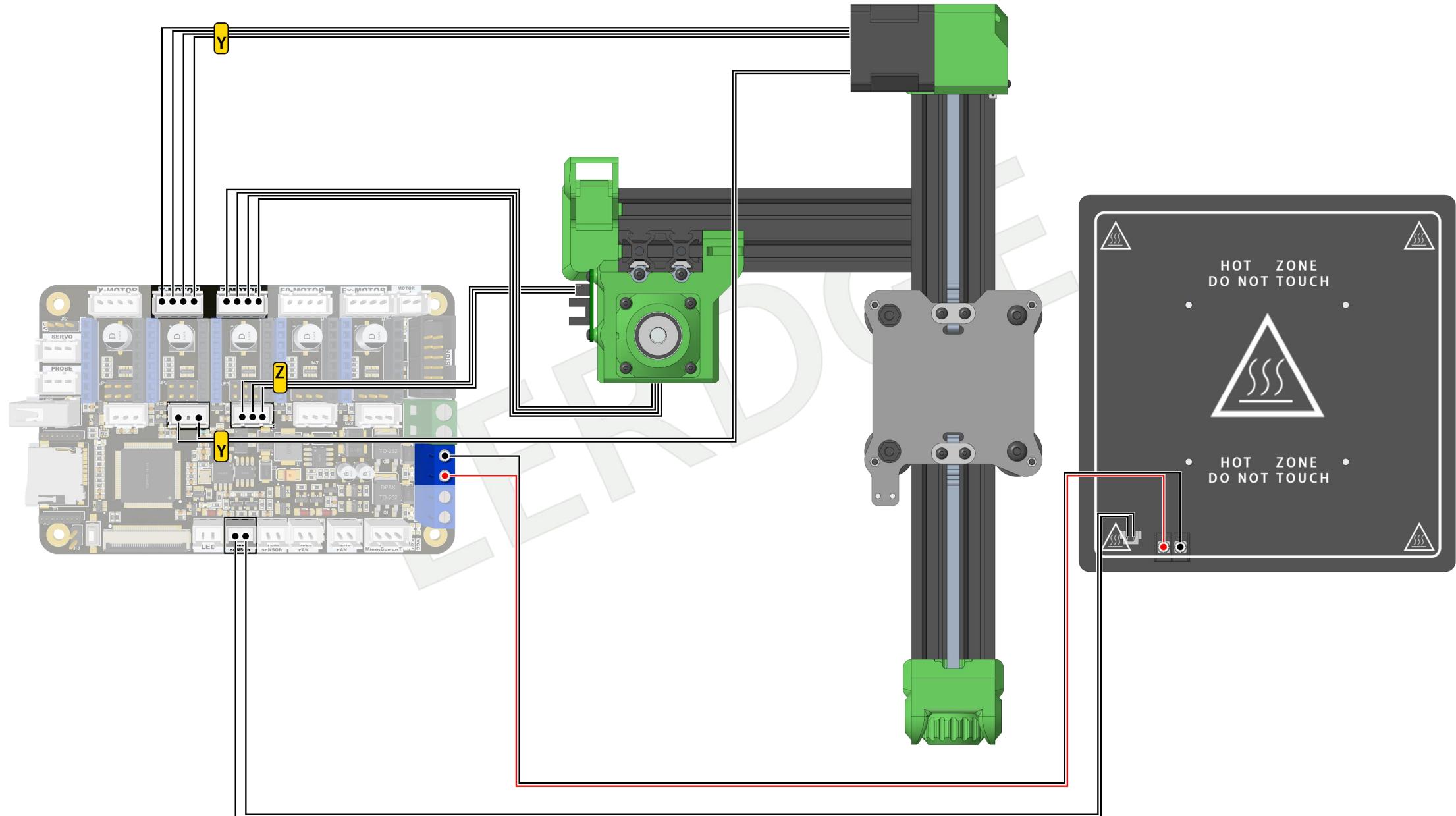
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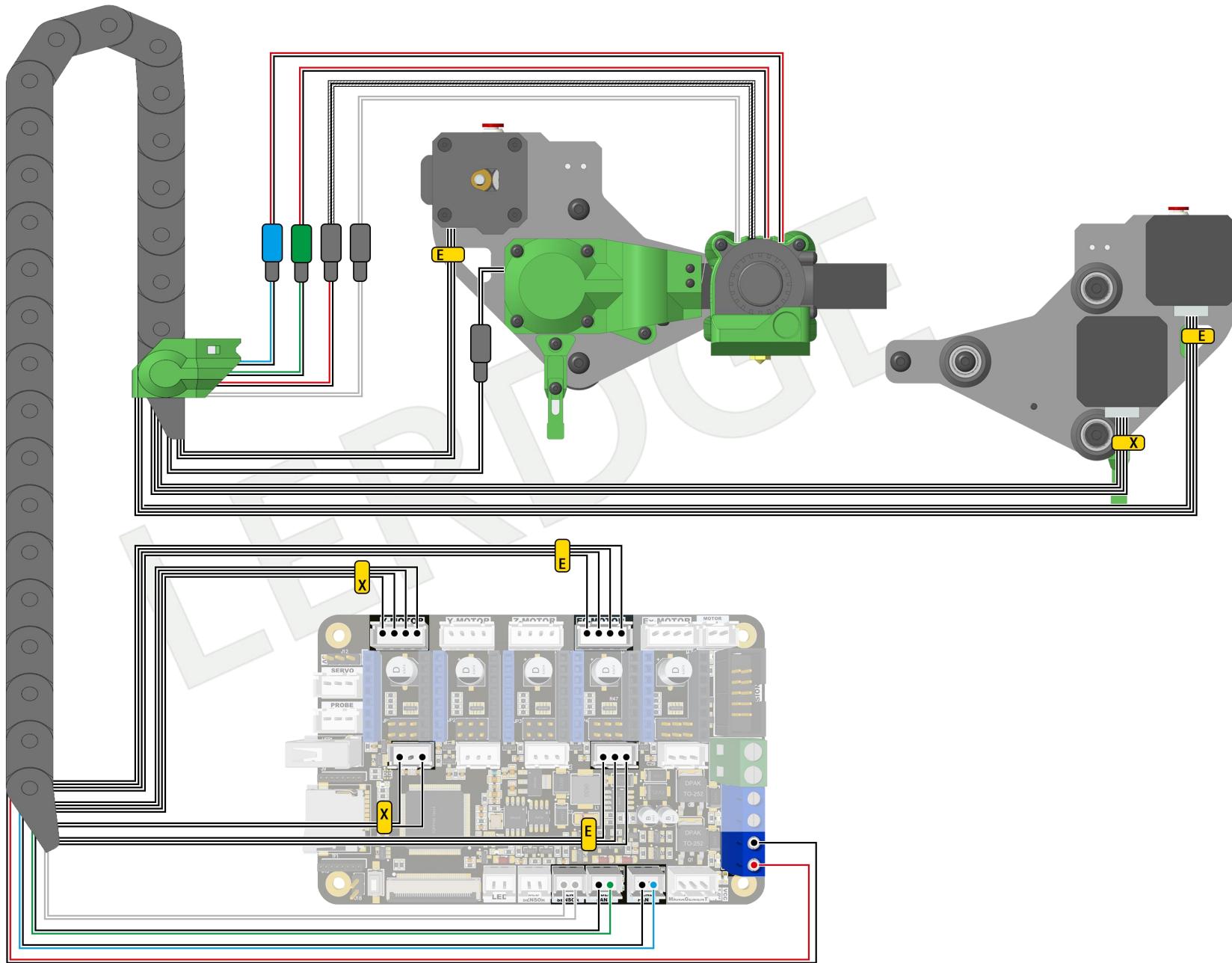
Appendix 1: Power Wiring Diagram



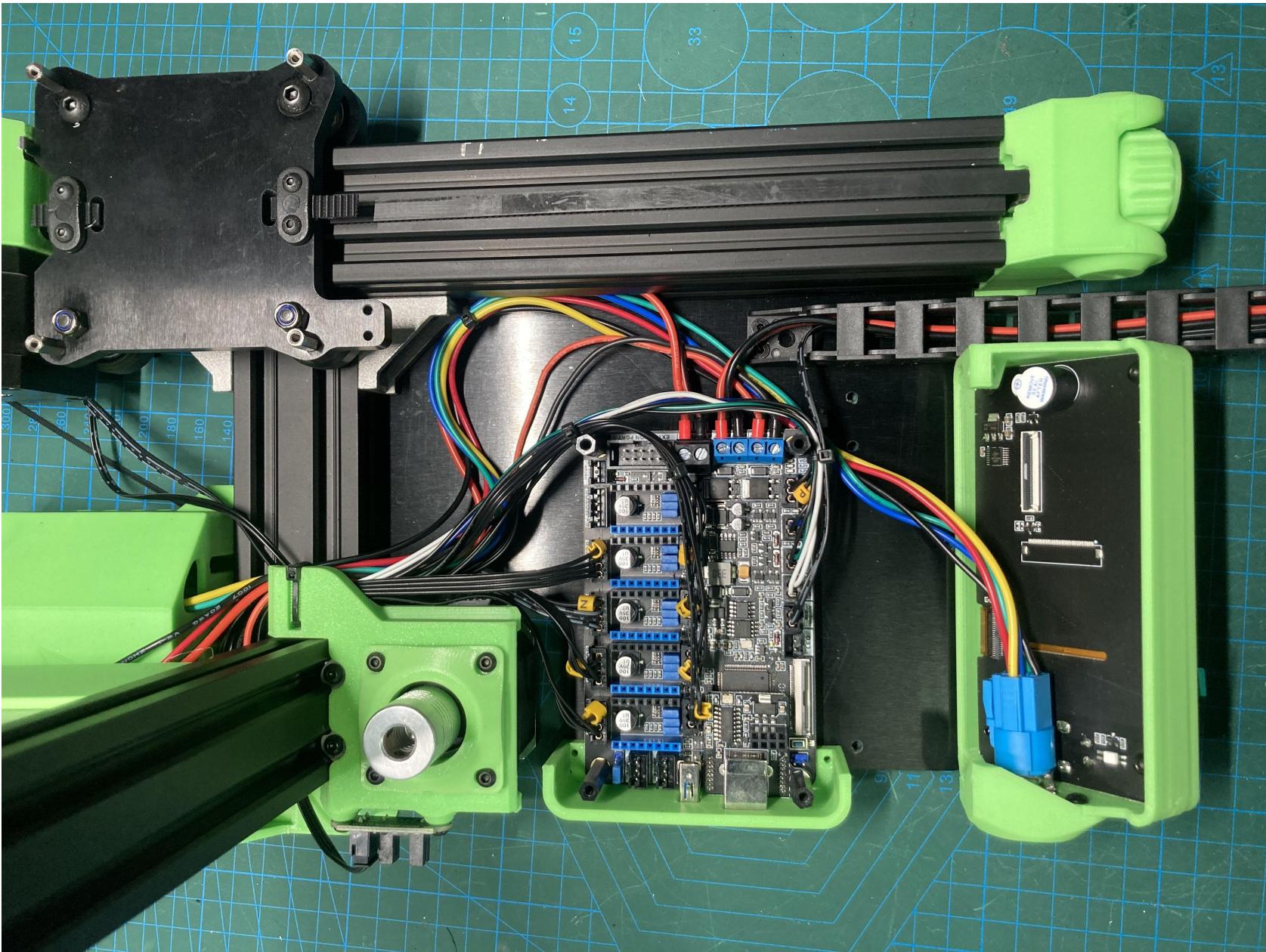
Appendix 2: Base Wiring Diagram



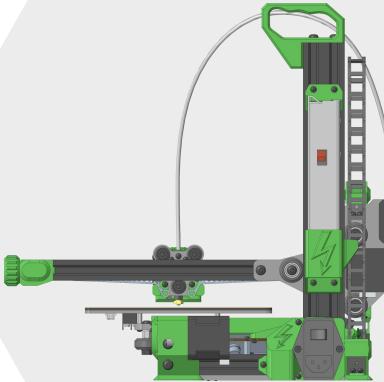
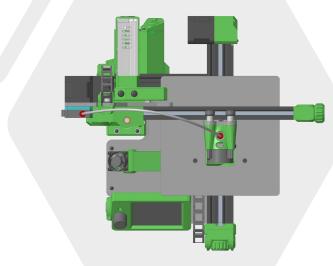
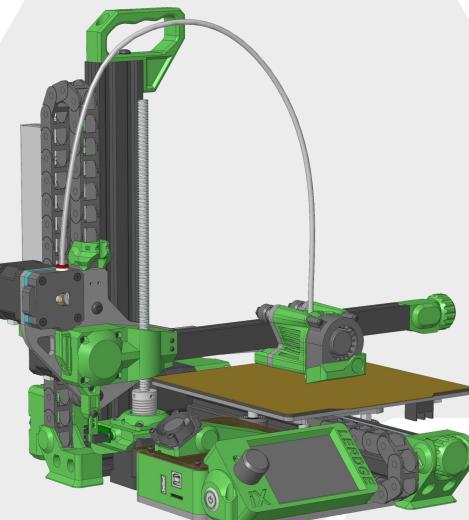
Appendix 3: Cantilever Wiring Diagram



Appendix 4: Cabling Reference



LERDGE®



Congratulations on completing the assembly of the Lerdge-iX!

Before you start using it, you need to calibrate the Lerdge-iX first. The calibration tutorial has not been printed because it is difficult to describe in words. Please visit Lerdge official website and check the calibration tutorial through the following path: Home—3D Printer—Lerdge-iX—Use Tutorial—Lerdge-iX Calibration.

Please complete the calibration first and then start to use according to the product manual. In this way, you will get a beautiful, stable and reliable 3D printer!

Thank you!