TRONXY 3D PRINTER X3A

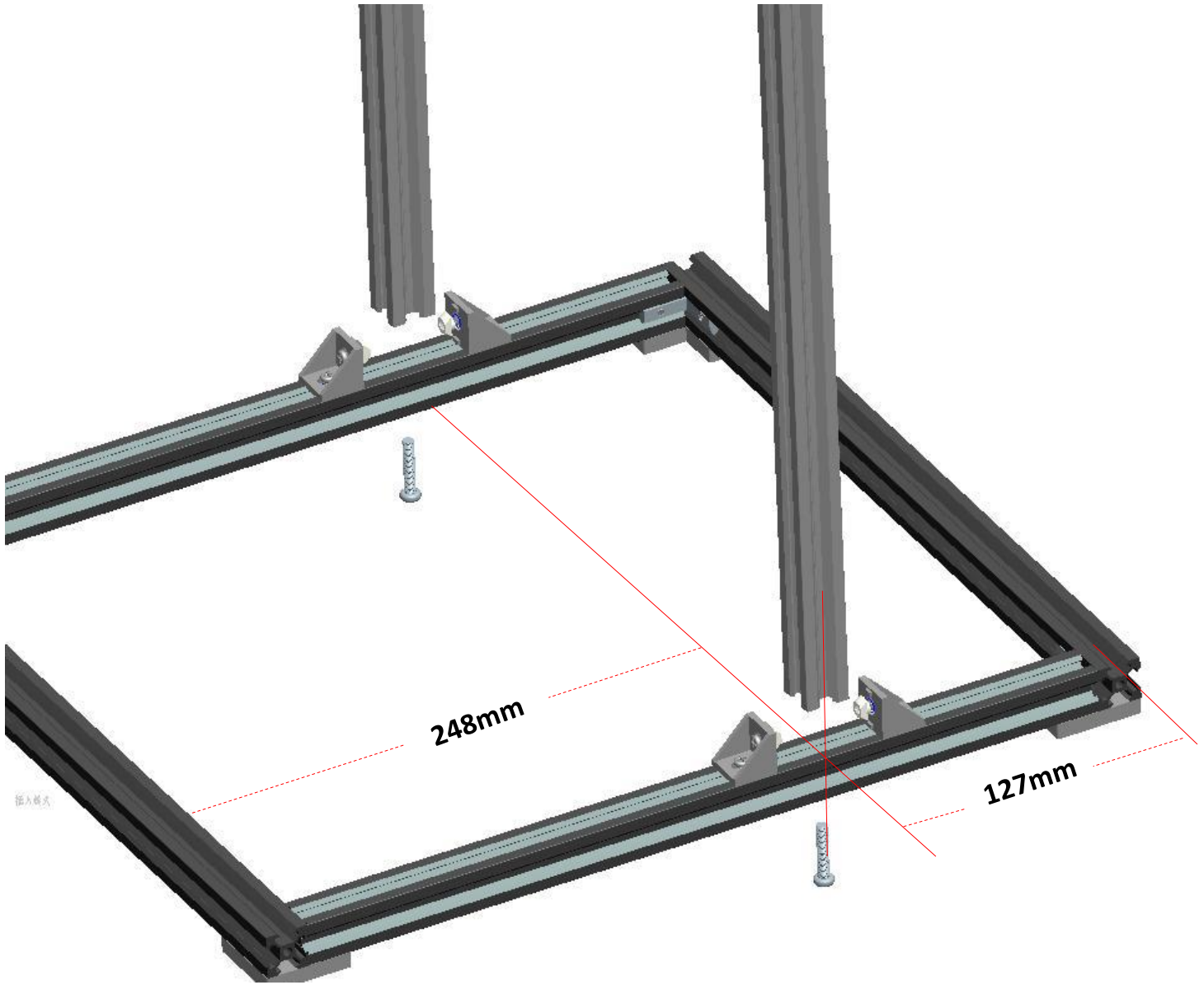
ASSEMBLY GUIDE V.02

Step 1 Assemble Base Frame

Parts:

2020 Aluminium profile 375mm – 4pcs
Acrylic corner cushion – 4pcs
L-Shape connector (with grub screw) – 4pcs
M4-10mm screw – 12pcs
M4 T-Nut – 12pcs

- Connect each aluminium profiles using 4pcs L-Shape connector, then tighten the grub screws.
- Mount the 4pcs acrylic corner cushion, secure them with M4-10mm screw and T-Nut.



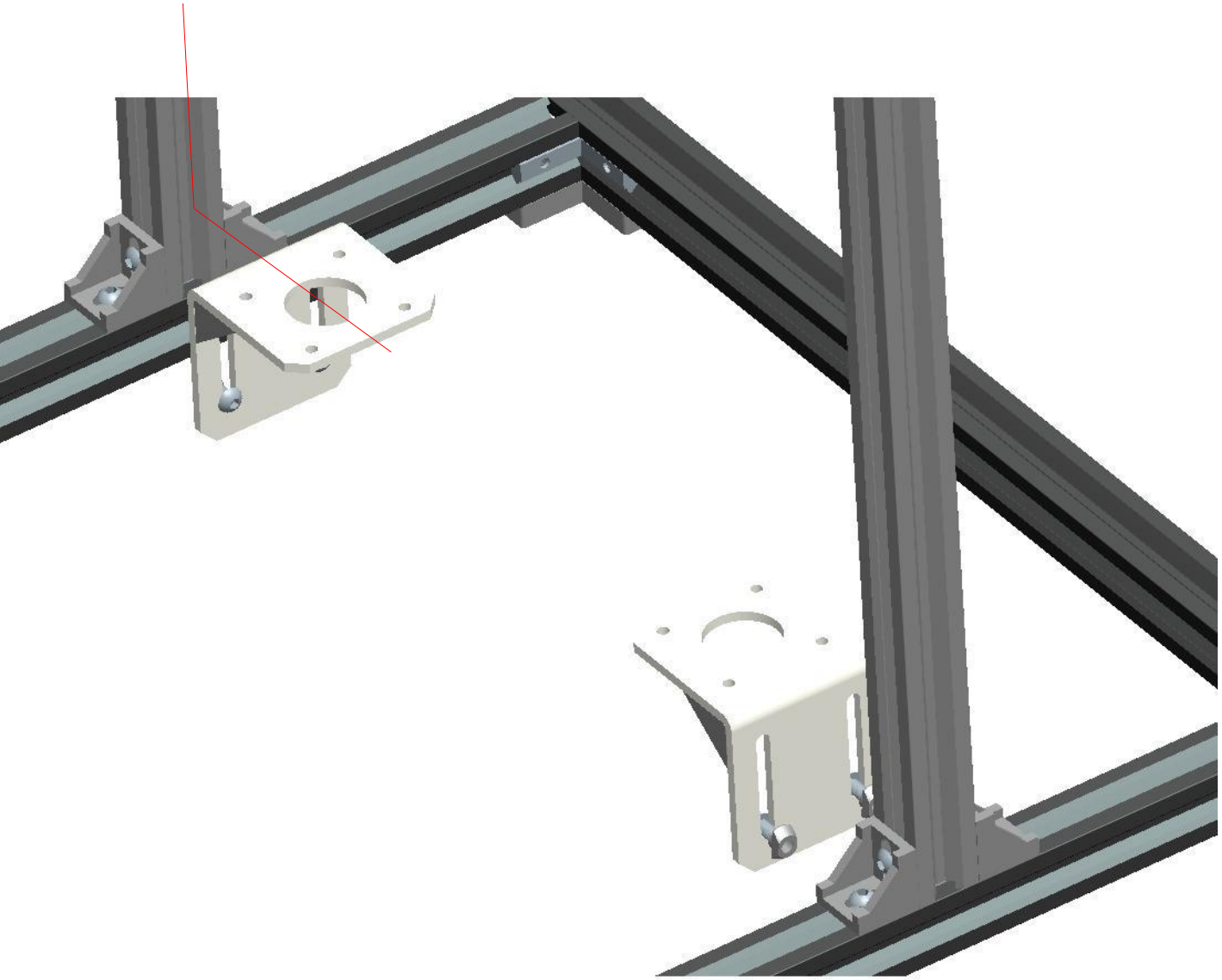
Step 2 Placing Z-axis Slide Rail

Parts:

2020 Aluminium profile 440mm – 2pcs
Corner bracket – 4pcs
M5-25mm screws -2pcs
M4-8mm screws – 8pcs
M4 T-Nut – 8pcs

- Place 2pcs 440mm aluminium profiles on the base , secure them with M5-25mm screws.
- Fix the Z-axis slide rails using 4pcs corner bracket, secure them with M4-8mm and T-Nuts

⚠ Ensure the correct distance.
(Front – 248mm , Back – 127mm)

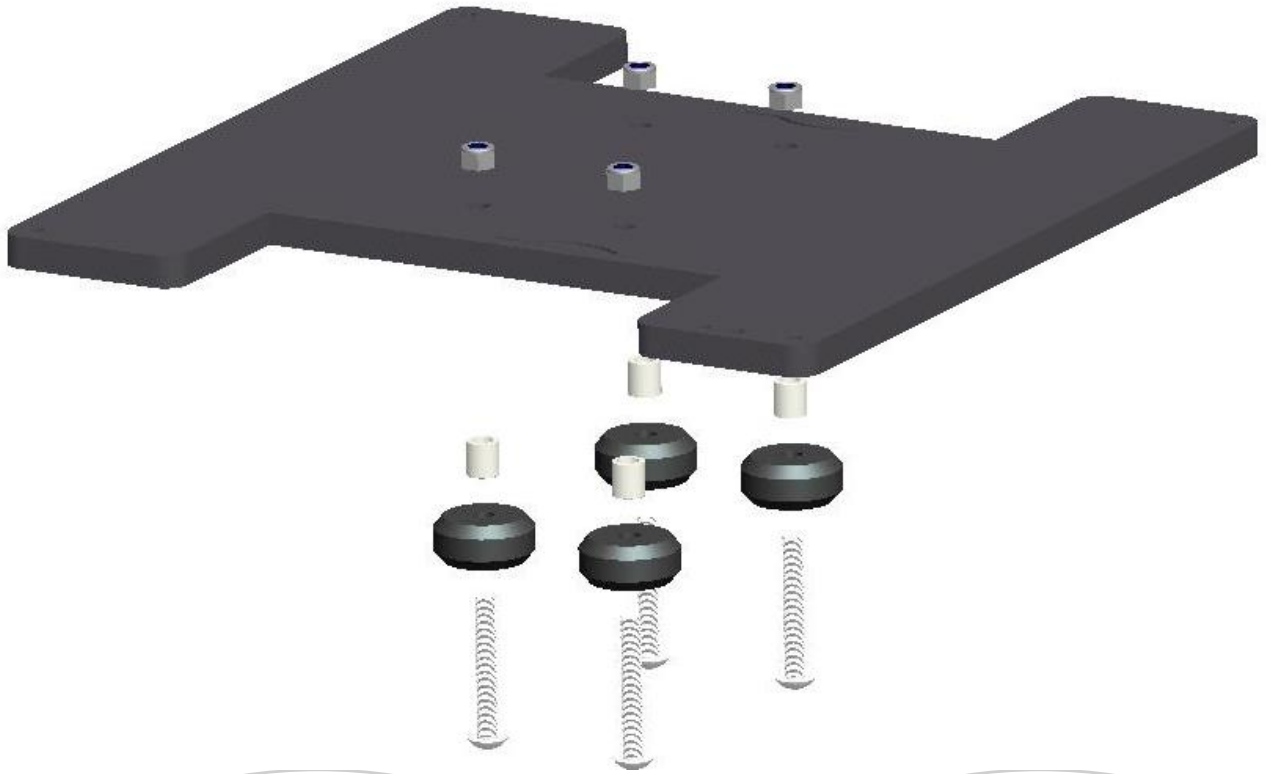


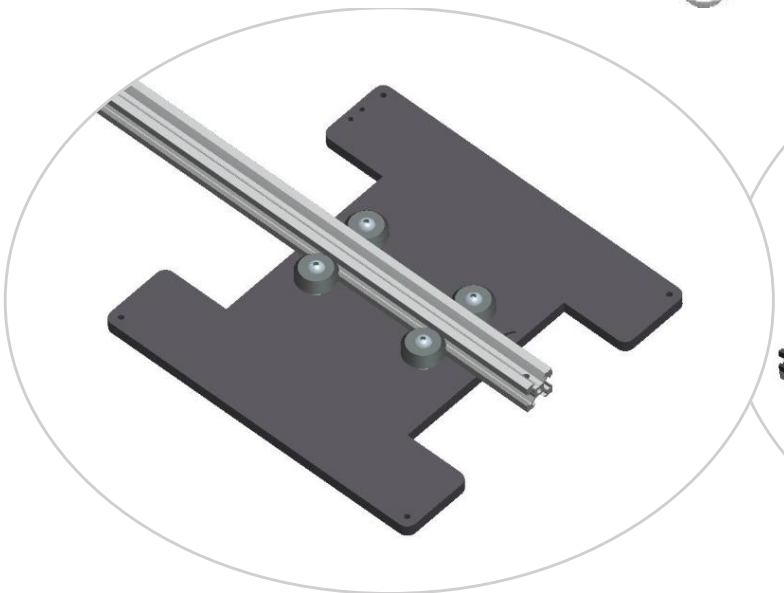
Step 3 Assemble Z Motor Bracket

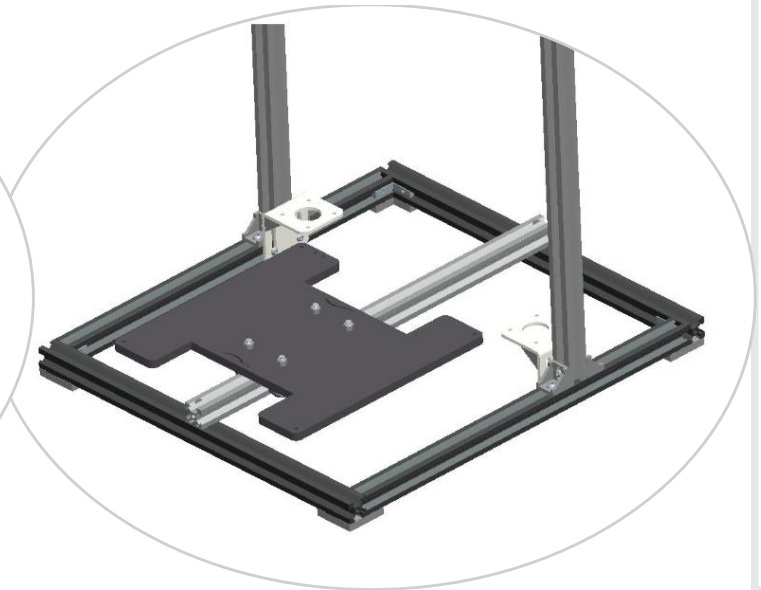
Parts:

42 Motor bracket – 2pcs
M4-8mm – 4pcs
M4 T-Nut – 4pcs

- Attach the motor bracket to the bottom of Z slide rail , **both centre lines must be vertical**. Then secure them with M4-8mm screw and T-nuts.





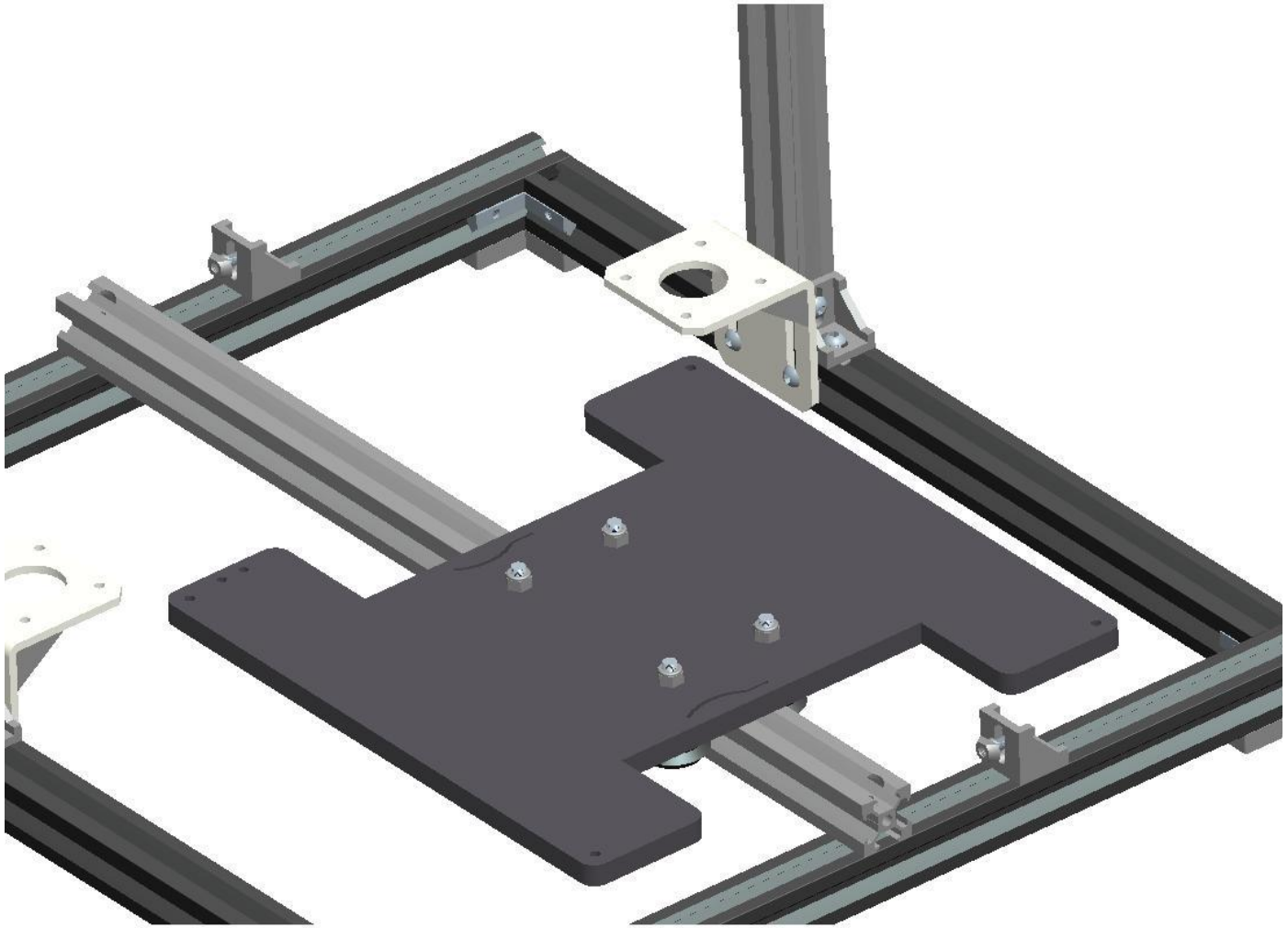


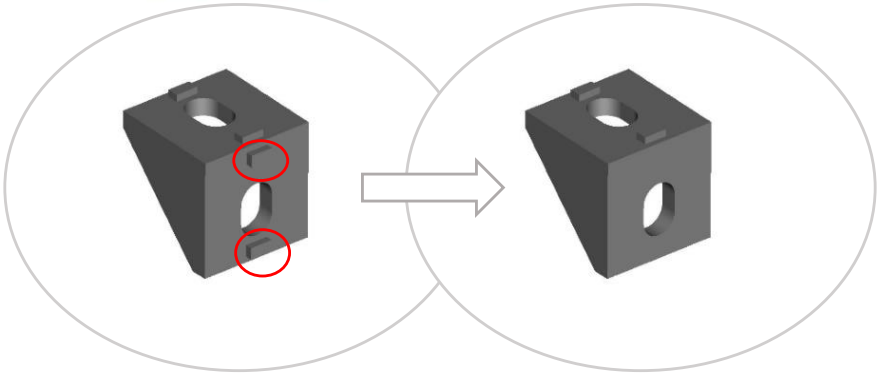
Step 4 Assemble Bed Frame

Parts:

2020 Aluminium profile 415mm – 1pcs
Bed frame – 1pcs
Wheel – 4pcs
Plastic pillar – 4pcs
M5-35mm- 4pcs
Locknut – 4pcs

- Secure the wheels in place using M5-35mm screws and locknut ,using plastic pillar between wheel and bed frame.
- Insert the aluminium profile between the wheels and add this assembly to the base frame made previously.





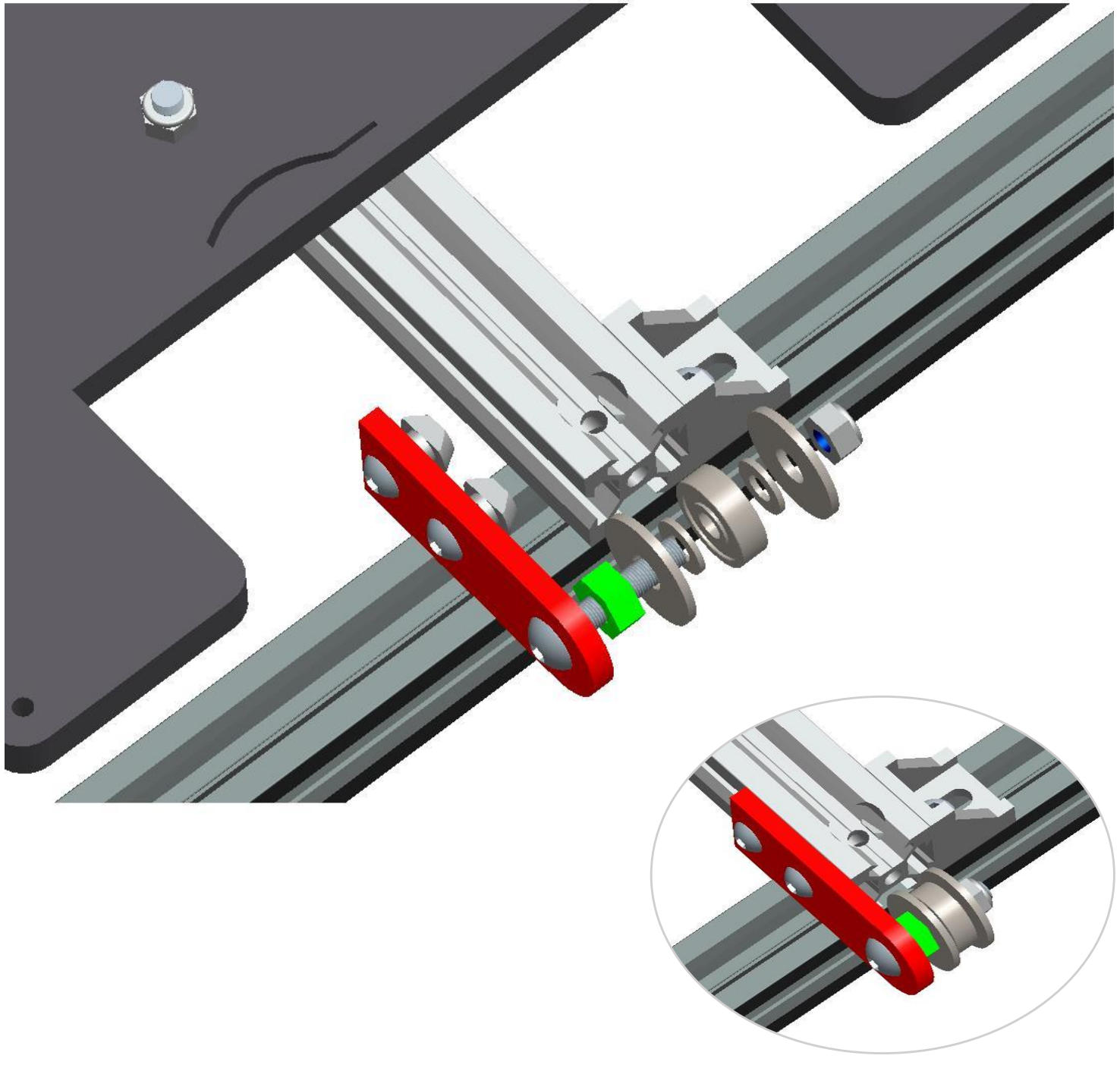
Step 5 Placing Y-axis Slide Rail

Parts:

Corner bracket – 2pcs
M4-8mm screw – 4pcs
M4 T-Nut – 4pcs

- Place each end of the Y axis slide rail to the middle of the base aluminium profiles. Connect them with corner bracket , next secure it using M4-8mm screw and T-nut .

⚠ The 2pcs corner bracket had been smoothed flat. different than others.



Step 6 Assemble Y-axis Belt Pulley

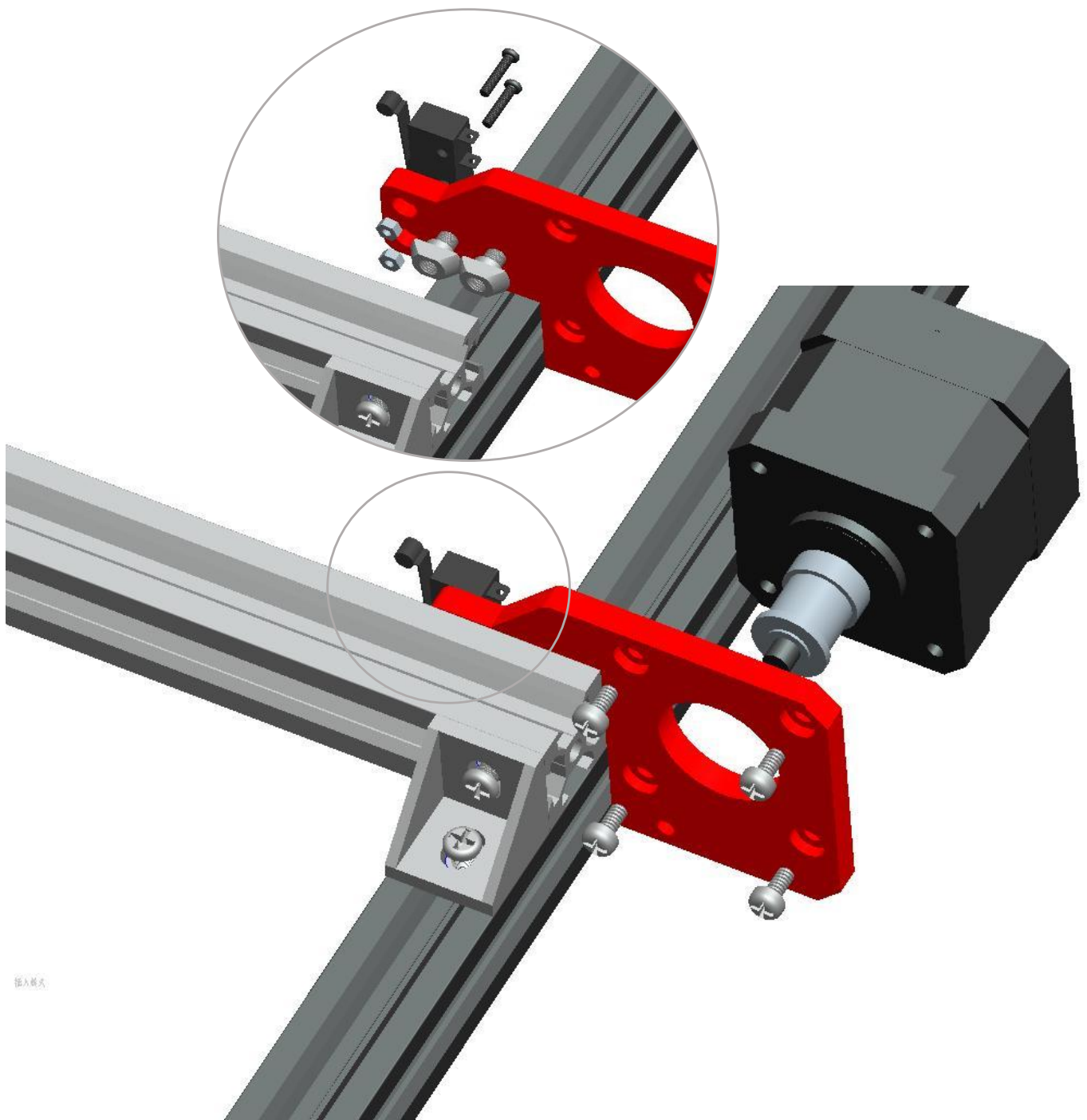
Parts:

Belt pulley – 1pcs
Y Pulley mount (acrylic) – 1pcs
M5-25mm screw – 1pcs
M5 Nut – 1pcs
M5 Locknut – 1pcs
M6 washer – 2pcs
M5 washer – 2pcs
M4-8mm screw – 2pcs
M4 T-Nut - 2pcs

- Take 1pcs M5-25mm screw and insert the Pulley mount, secure it with M5 nut , then insert the washers and belt pulley , secure them using M5 locknut.

- Secure the Y belt pulley assembly to the front of the Y slide rail using 2pcs M4-8mm screws and nuts.

⚠ Tighten screws gently to avoid damaging the acrylic.



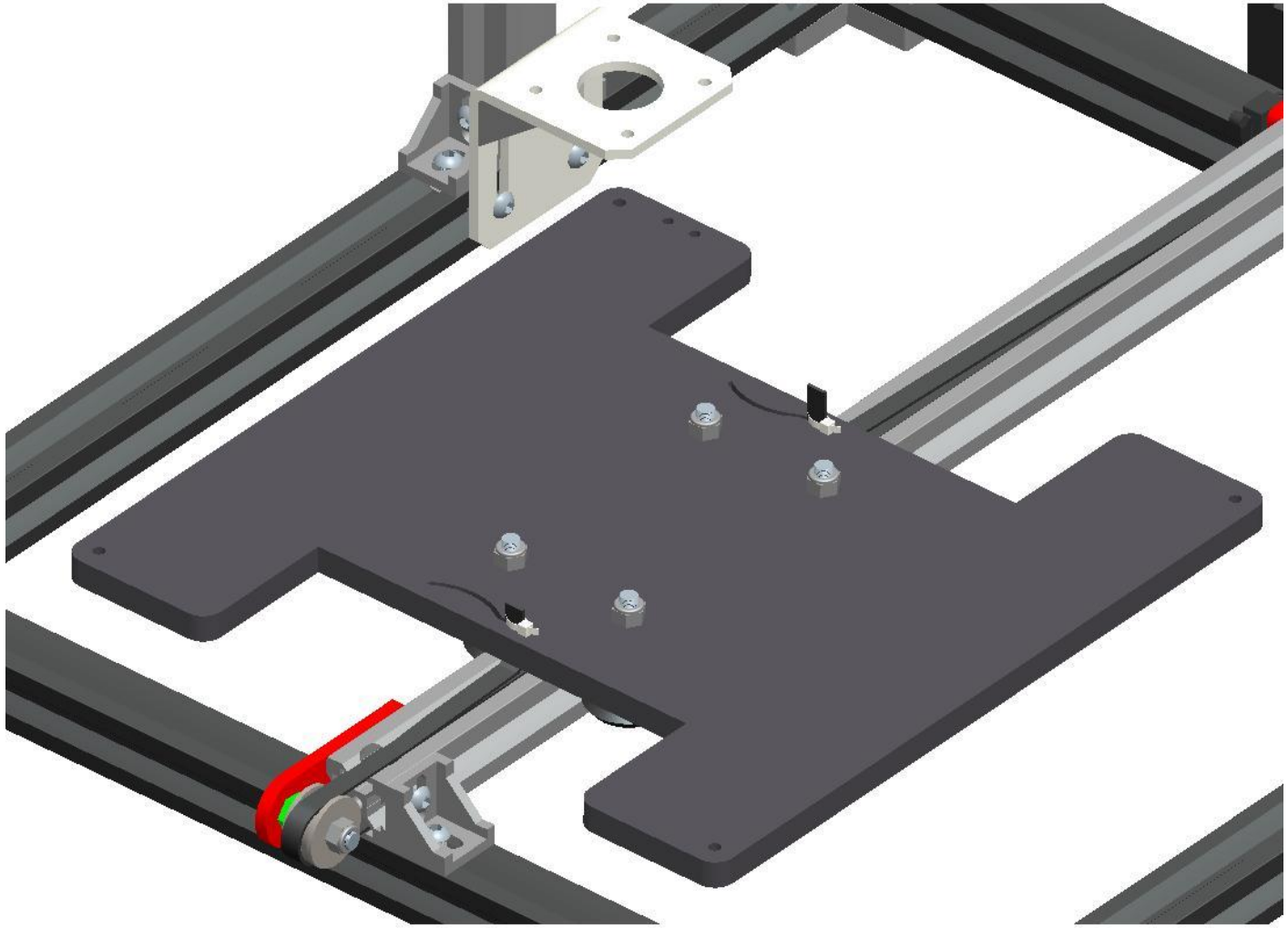
Step 7 Assemble Y axis Motor

Parts:

Limit switch – 1pcs
42 stepper motor – 1pcs
GT2-16 Pulley (with grub screw in it)– 1pcs
Y motor mount (Acrylic) – 1pcs
M3-6mm screw – 4pcs
M4-8mm screw – 2pcs
M4 T-Nut - 2pcs
M2-10mm screw – 2pcs
M2 Nut – 2pcs

- Secure the limit switch to motor mount using 2pcs M2-10mm screws and nuts. Then secure the motor mount to the back of the Y slide rail using 2pcs M4-8mm screws and T-nuts.

- Insert the GT2-16 pulley to the motor shaft, tighten the grub screw in the pulley. Next Secure the stepper motor to the motor mount using 4pcs M3-6mm screws.



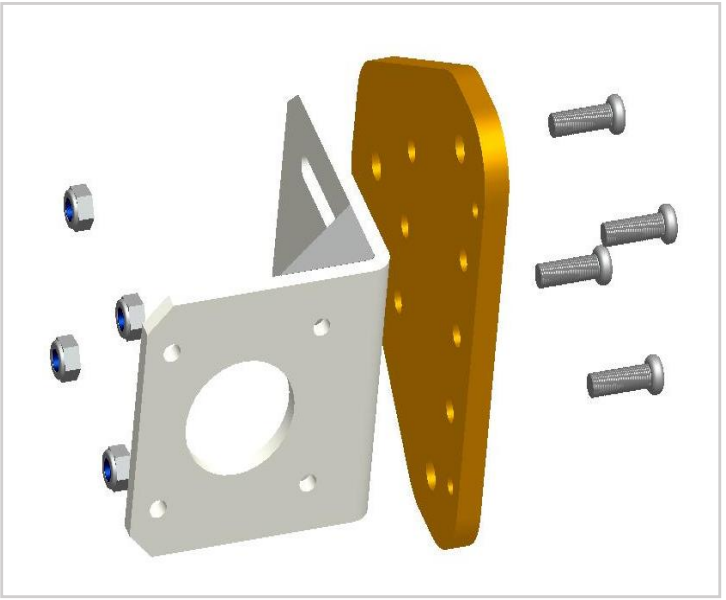
Step 8 Instal Y axis Timing Belt

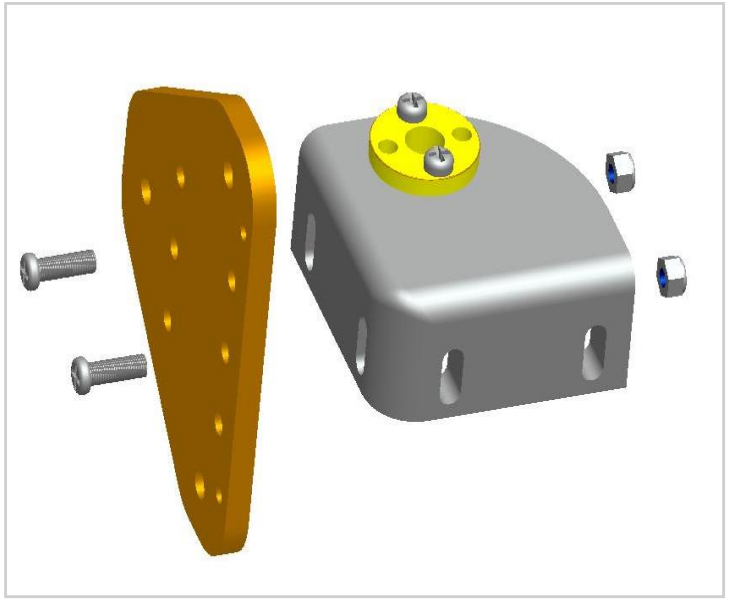
Parts:

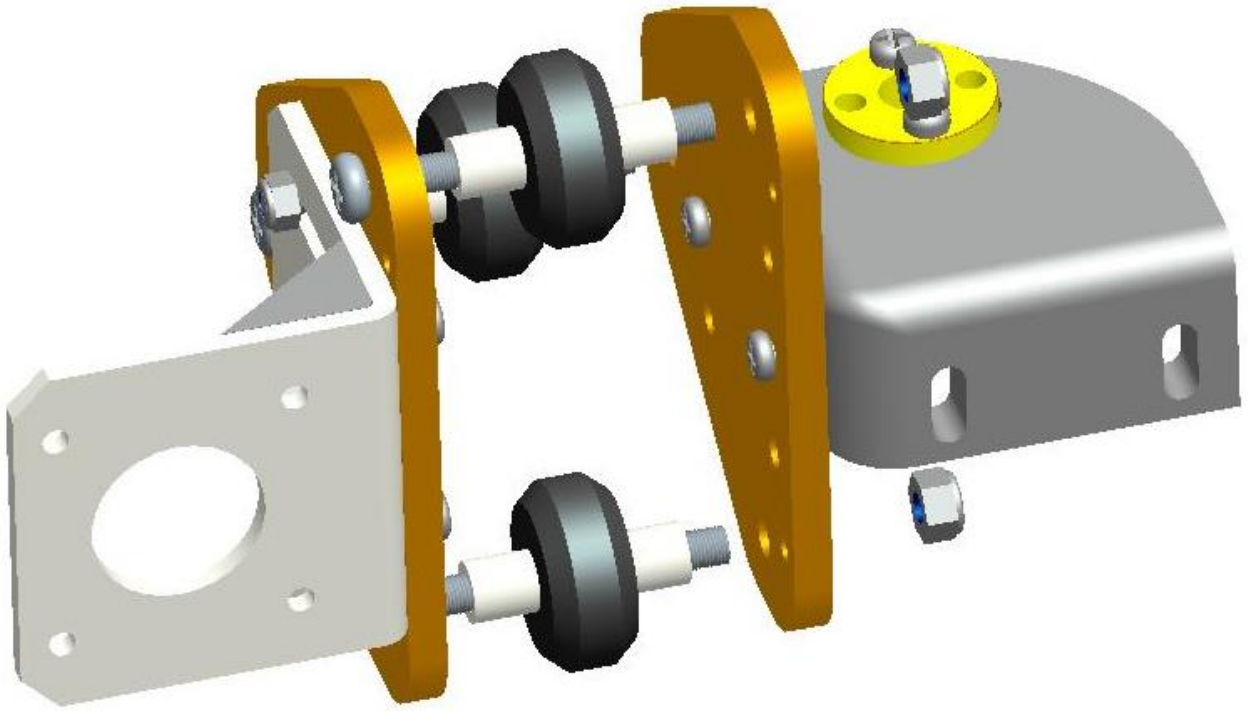
GT2 Timing belt – 1pcs

Zip-ties – 2pcs

- Tighten one end of the timing belt to the bed frame using a zip-ties .
- Run the other end of timing belt along the aluminium profile, through the Y-GT2-16 Pulley and Belt pulley . Then tighten it to the bed frame using zip-ties as shown in the picture .







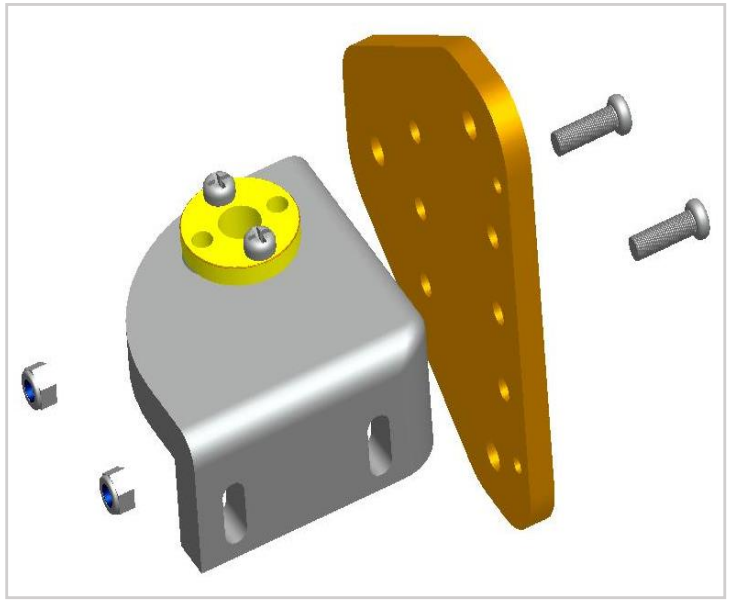
Step 9 Assemble Z Carriage_Left

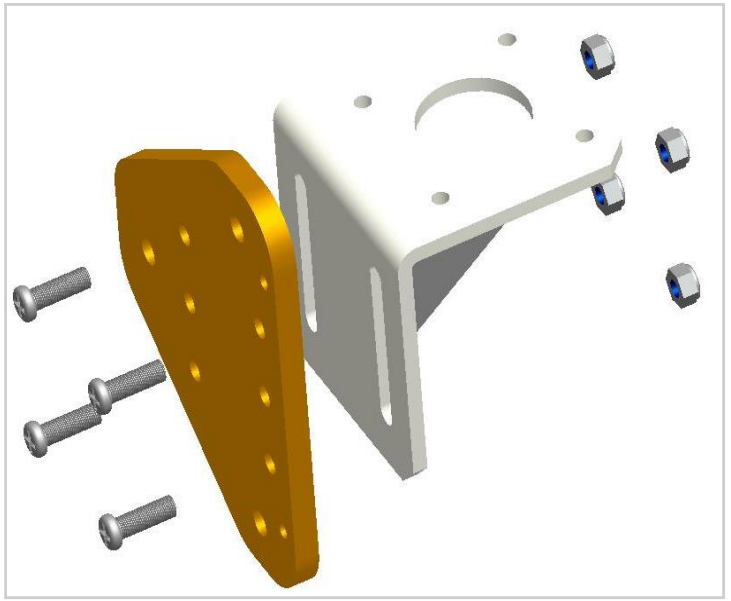
Parts:

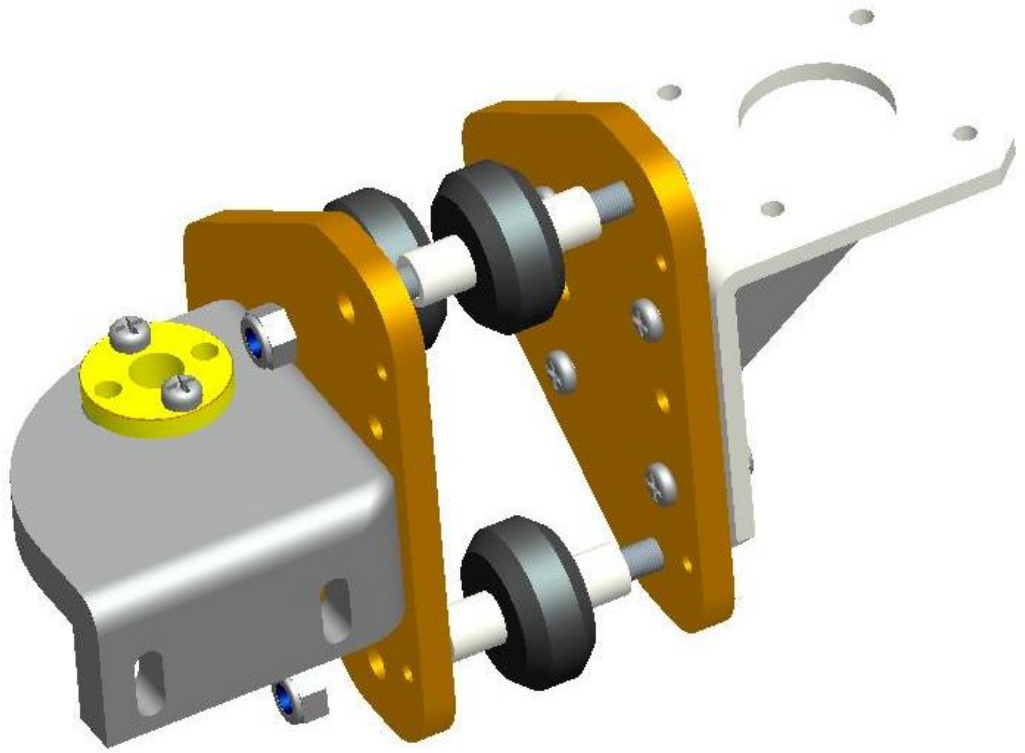
42 Motor bracket – 1pcs
Sliding plate (acrylic) – 2pcs
Brass nut – 1pcs
Brass nut holder_L – 1pcs
Plastic pillar – 6pcs
Wheel – 3pcs
M5-45mm screw – 3pcs
M4-12mm screw – 6pcs
M3-16mm screw – 2pcs
M5 Nut – 3pcs
M4 Nut – 6pcs
M3 Nut – 2pcs

- Assemble the motor bracket and one sliding plate using 4pcs M4-12mm screws and nuts.
- Put the brass nut into the holder_L using 2pcs M3-16mm screws and nuts, then secure the holder with one sliding plate using 2pcs M4-12mm screws and nuts.
- Insert 3pcs M5-45mm screws to the sliding plate, Put the wheels into M5-45mm screws, using plastic pillars between wheel and acrylic, secure them using M5 nuts.

⚠ Please pay attention to the installing direction.







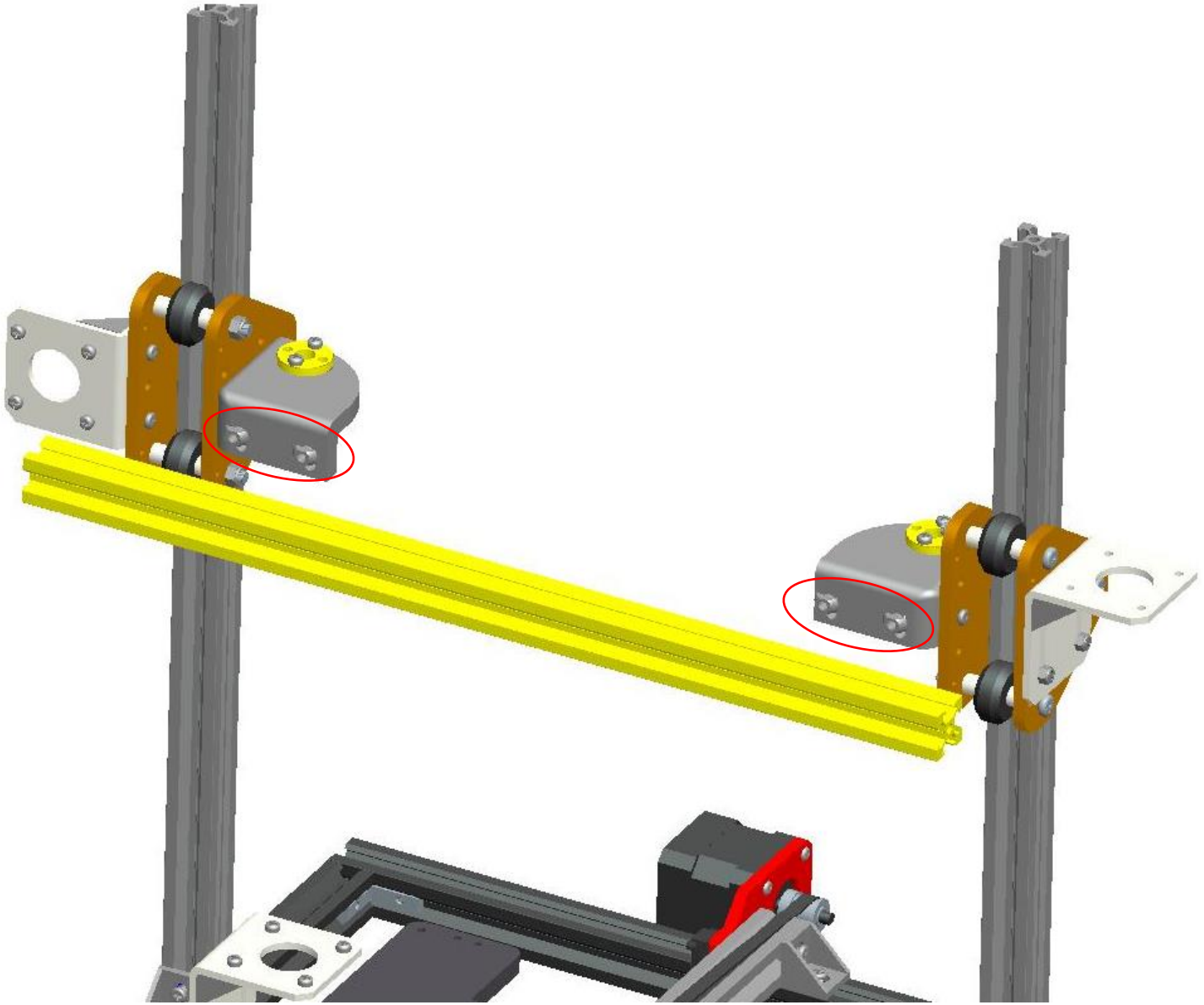
Step 10 Assemble Z Carriage_Right

Parts:

42 Motor bracket – 1pcs
Sliding plate(acrylic) – 2pcs
Brass nut – 1pcs
Brass nut holder_R – 1pcs
Plastic pillar – 6pcs
Wheel – 3pcs
M5-45mm screw – 3pcs
M4-12mm screw – 6pcs
M3-16mm screw – 2pcs
M5 Nut – 3pcs
M4 Nut – 6pcs
M3 Nut – 2pcs

- Put the brass nut into the holder_R using 2pcs M3-16mm screws and nuts, then secure the holder with one sliding plate using 2pcs M4-12mm screws and nuts.
- Assemble the motor bracket and one sliding plate using 4pcs M4-12mm screws and nuts.
- Insert 3pcs M5-45mm screws to the sliding plate, Put the wheels into M5-45mm screws, using plastic pillars between wheel and acrylic, secure them using M5 nuts.

⚠ Please pay attention to the installing direction.

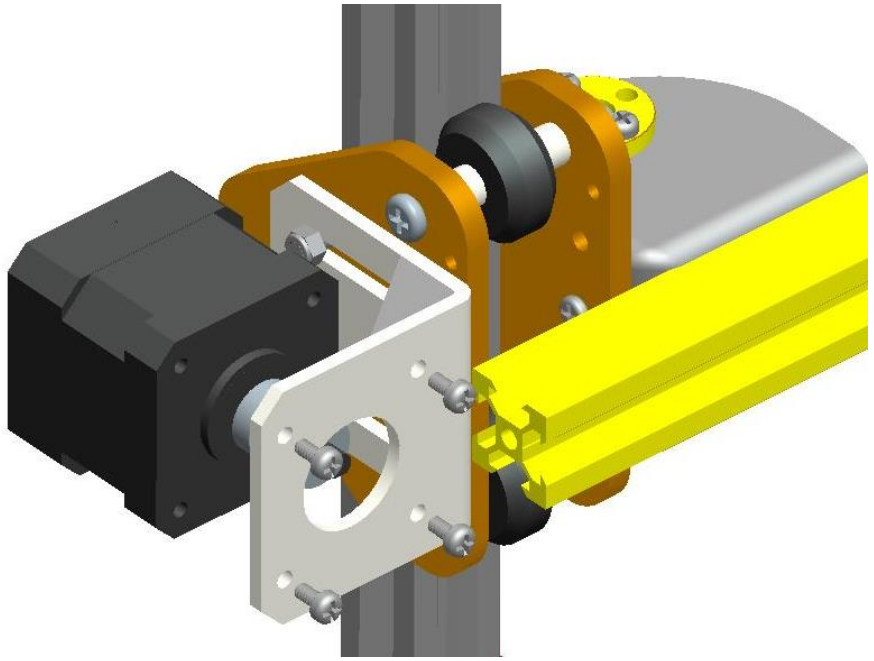


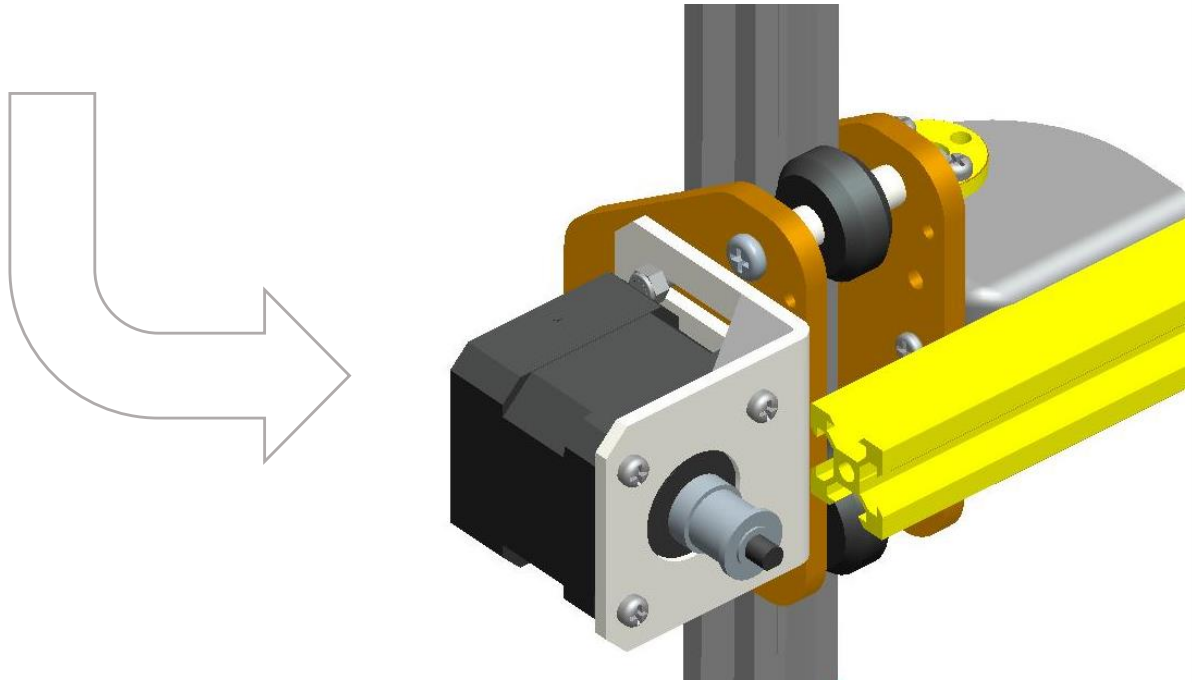
Step 11 Assemble the X axis

Parts:

2020 Aluminium profile 400mm – 1pcs
M4-12mm screws – 4pcs
M4 T-Nut – 4pcs

- Insert the two carriages into the Z slide rails.
- Take one 400mm Aluminium profile and attach to the brass nut holders using M4-12mm screws and T-nuts . Tighten screws gently to avoid damaging the parts.



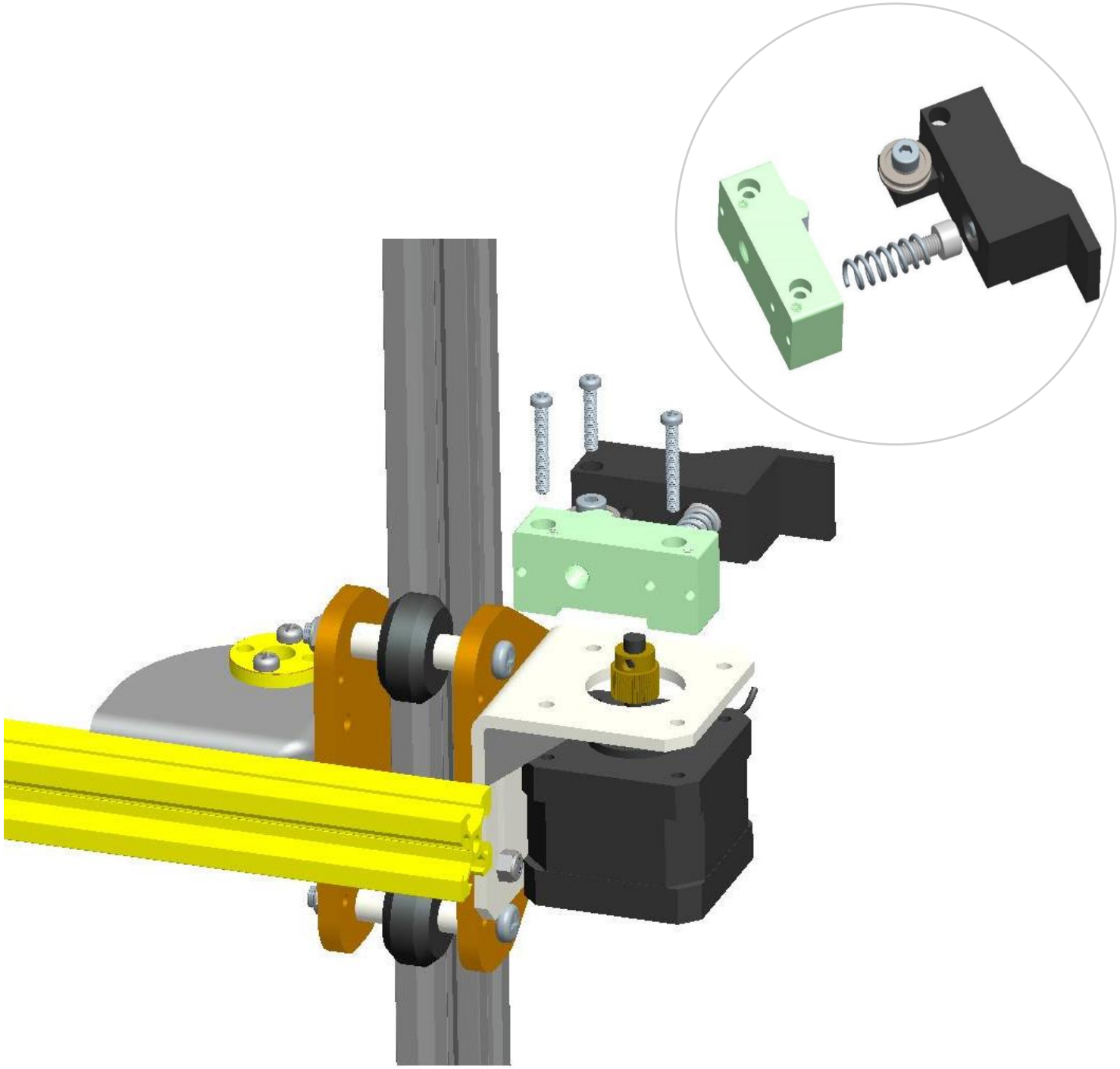


Step 12 Place the X-motor

Parts:

42 Stepper motor – 1pcs
GT2-16 Pulley (with grub screw in it)– 1pcs
M3-6mm screw – 4pcs

- Tighten the X-motor to the motor bracket of the left carriage , Using M3-6mm screws.
- Place GT2-16 Pulley on the motor shaft , tighten up the pulley.

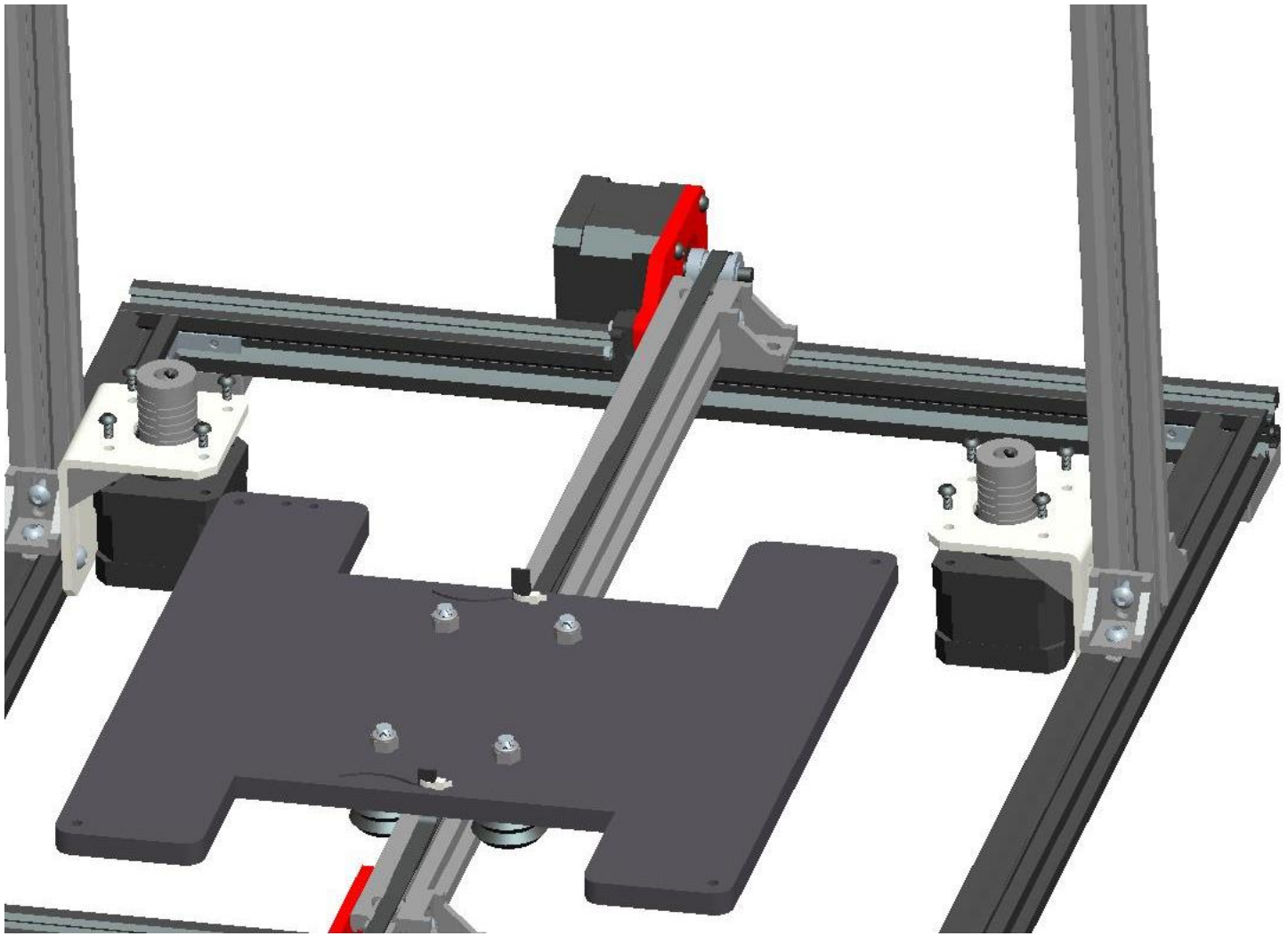


Step 13 Install Filament Feeder

Parts:

42 Stepper motor – 1pcs
Feeding gear (with grub screw in it)– 1pcs
Extrution clip - 1pcs
Extrution seat – 1pcs
M3-22mm – 2pcs
M3-16mm – 1pcs
M5-10mm Hex screw – 1pcs
Spring – 1pcs

- Insert the feeding gear to the motor shaft and them tighten up .
- Place the Extrution seat and motor to the bracket as shown in the picture, secure them using 2pcs M3-22mm screws.
- Put one M5-10mm hex screw and spring between extrution clip and extrution seat , next secure the extrution clip with motor using M3-16mm screw.

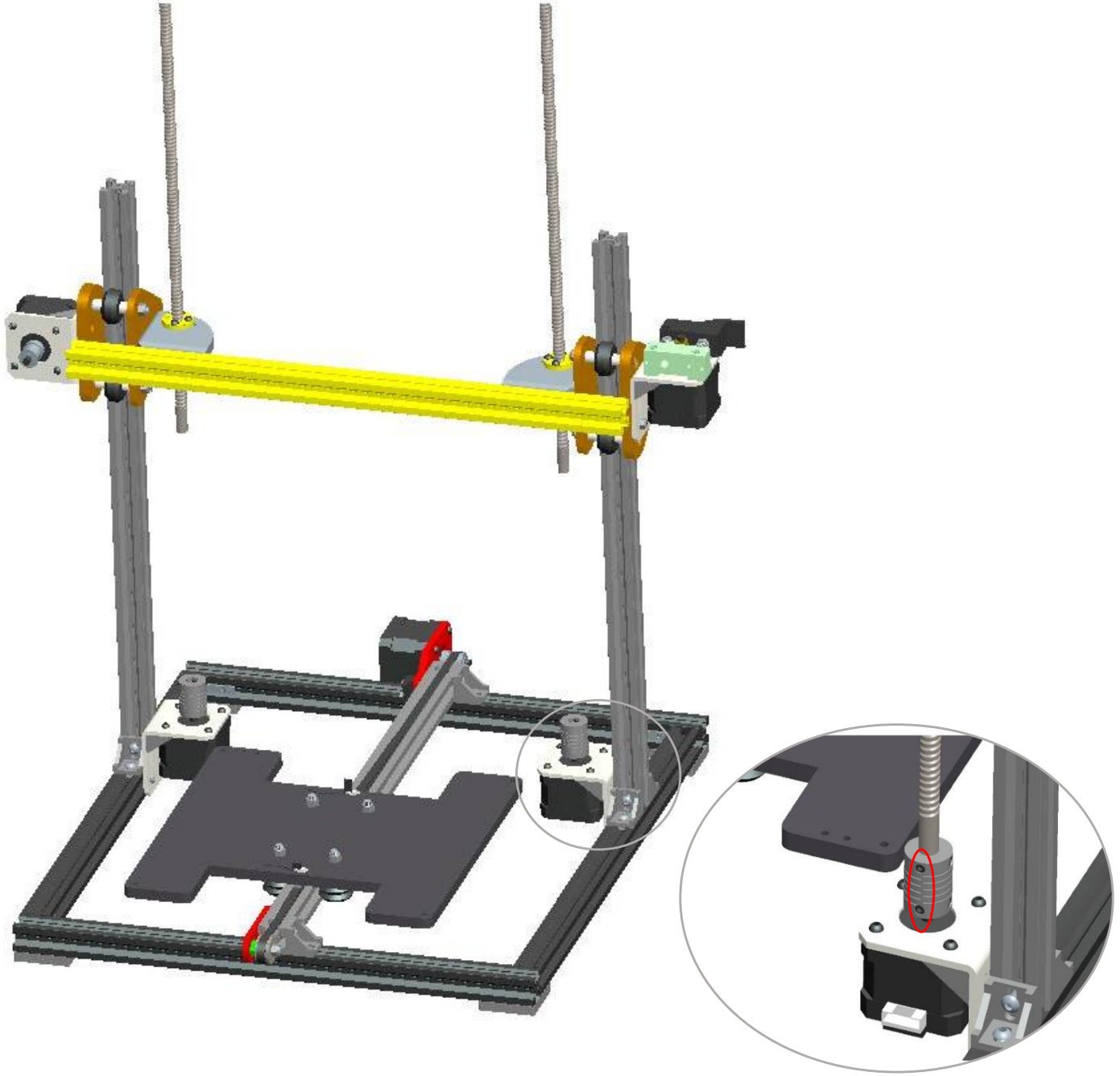


Step 14 Place the Z-Motors

Parts:

42 Stepper motor – 2pcs
Coupling (with grub screw in it) – 2pcs
M3-6mm screws – 8pcs

- Place the Z motors to the Z motor brackets , secure them using M3-6mm screws .
- Insert the couplings to the motor shaft. tighten the grub screws in coupling.

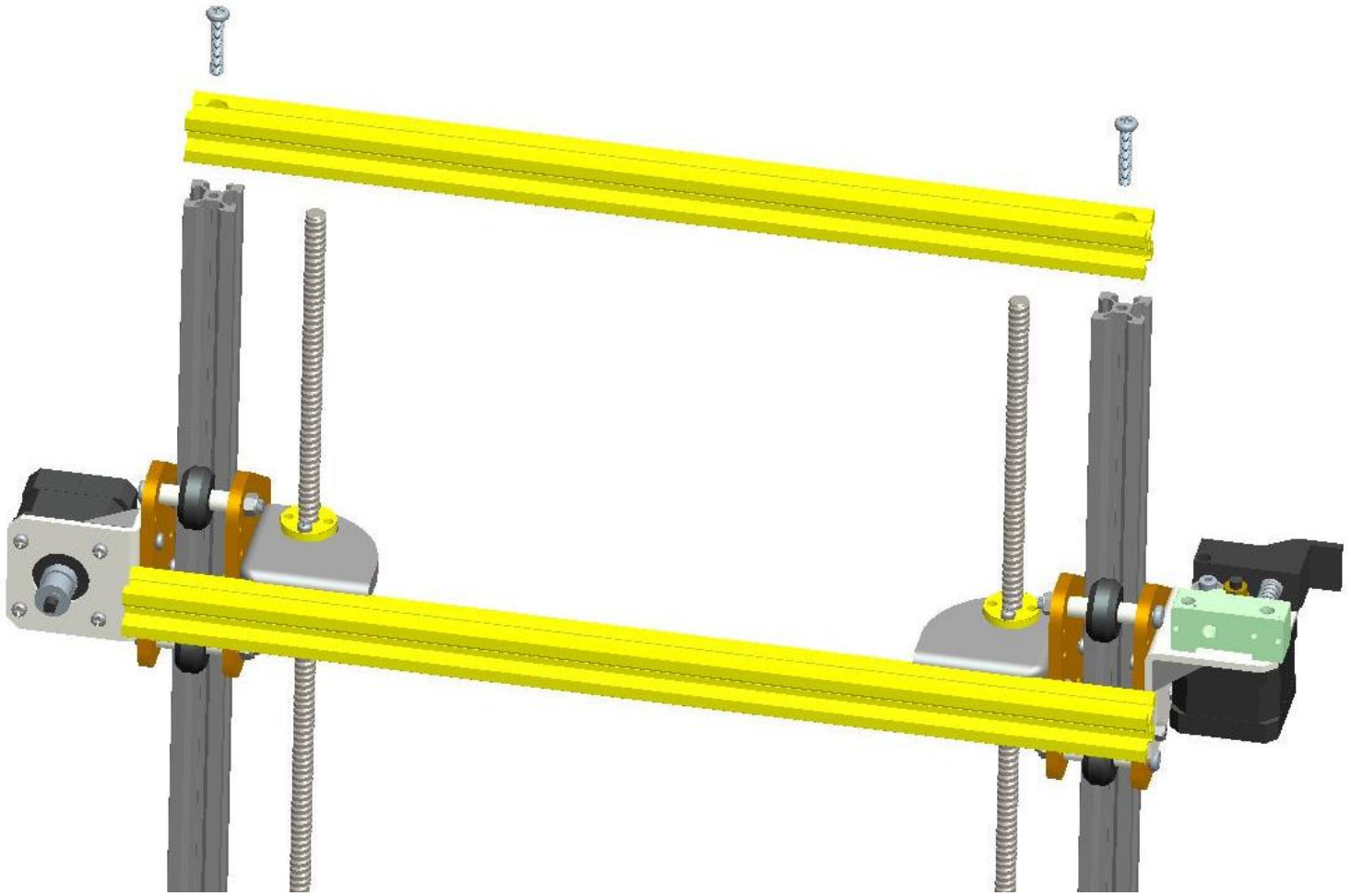


Step 15 Fix threaded rod

Parts:

M8 Threaded rod 380mm – 2pcs

- Take 2pcs M8 threaded rod through the brass nuts ,then insert to the coupling and tighten up.



Step 16 Cover the Top

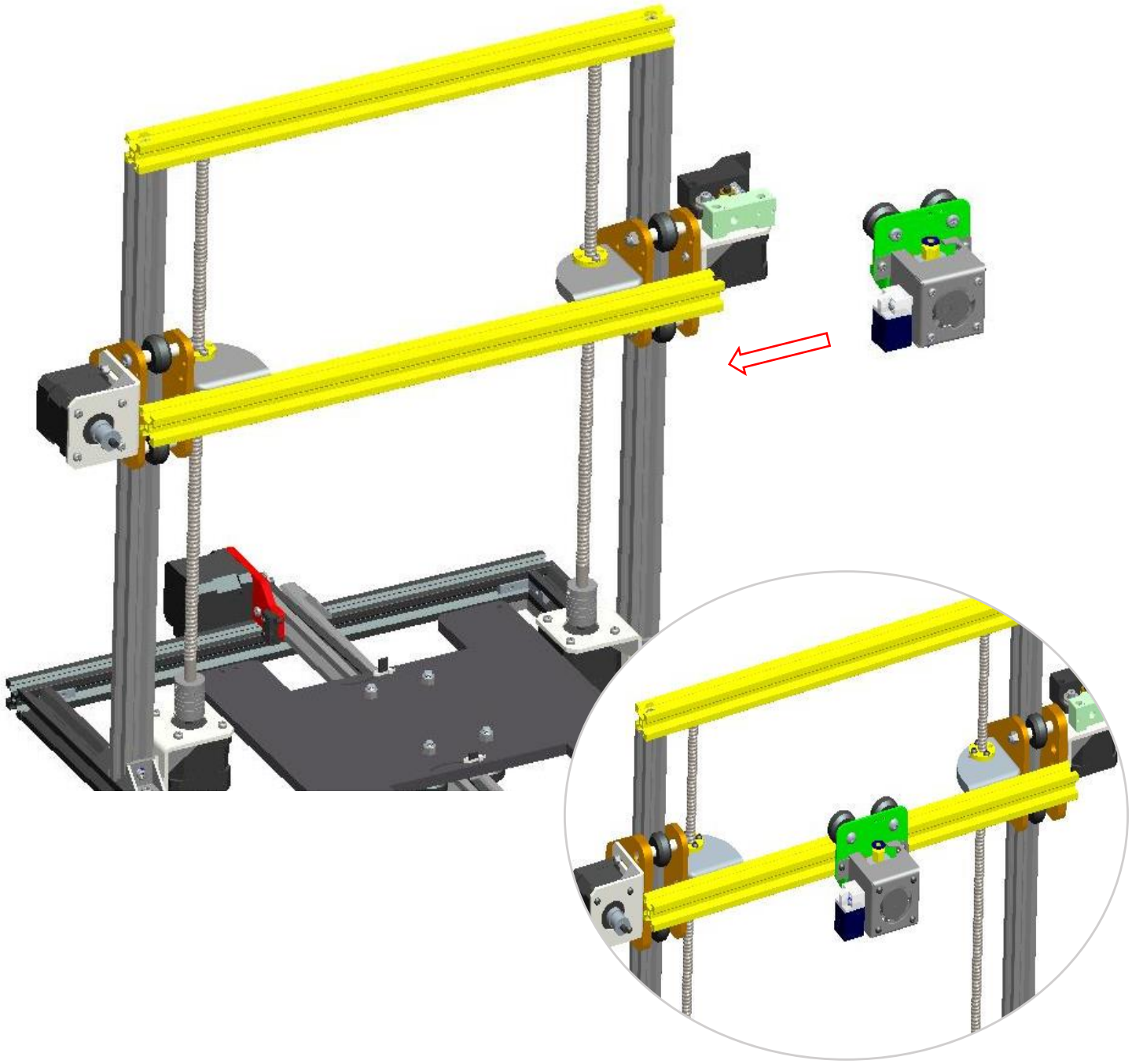
Parts:

2020 Aluminium profile 440mm – 1pcs

M5-25mm – 2pcs

- Secure 440mm aluminium profile on the top using M5-25mm screws .

⚠ There a screw hole on the top of the Z slide rail which had been tapped.

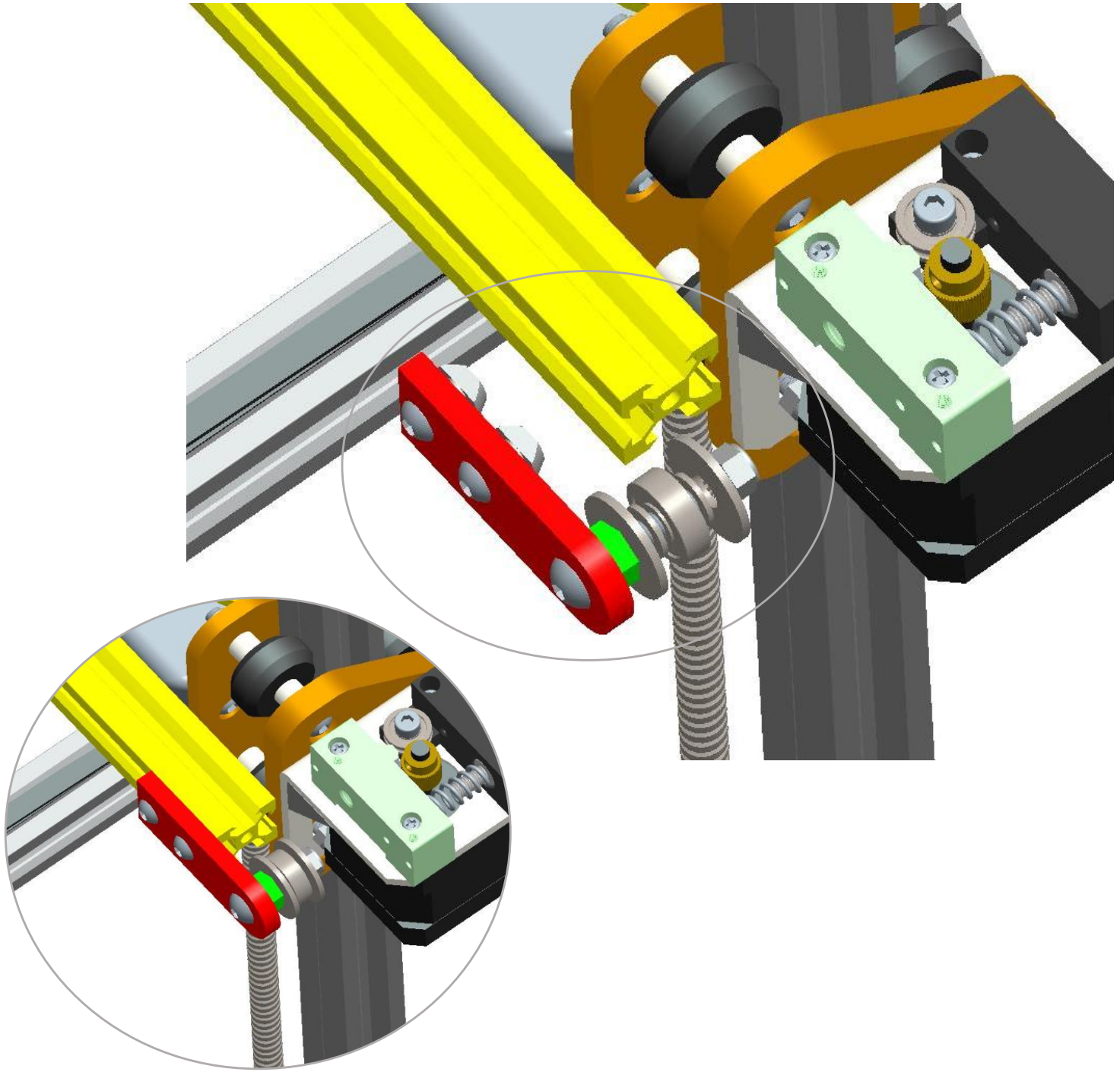


Step 17 Insert Extruder Assembly

Parts:

Extruder assembly (with position sensor) – 1pcs

- Carefully insert the extruder assembly to the X slide rail.



Step 18 Assemble X axis Belt Pulley

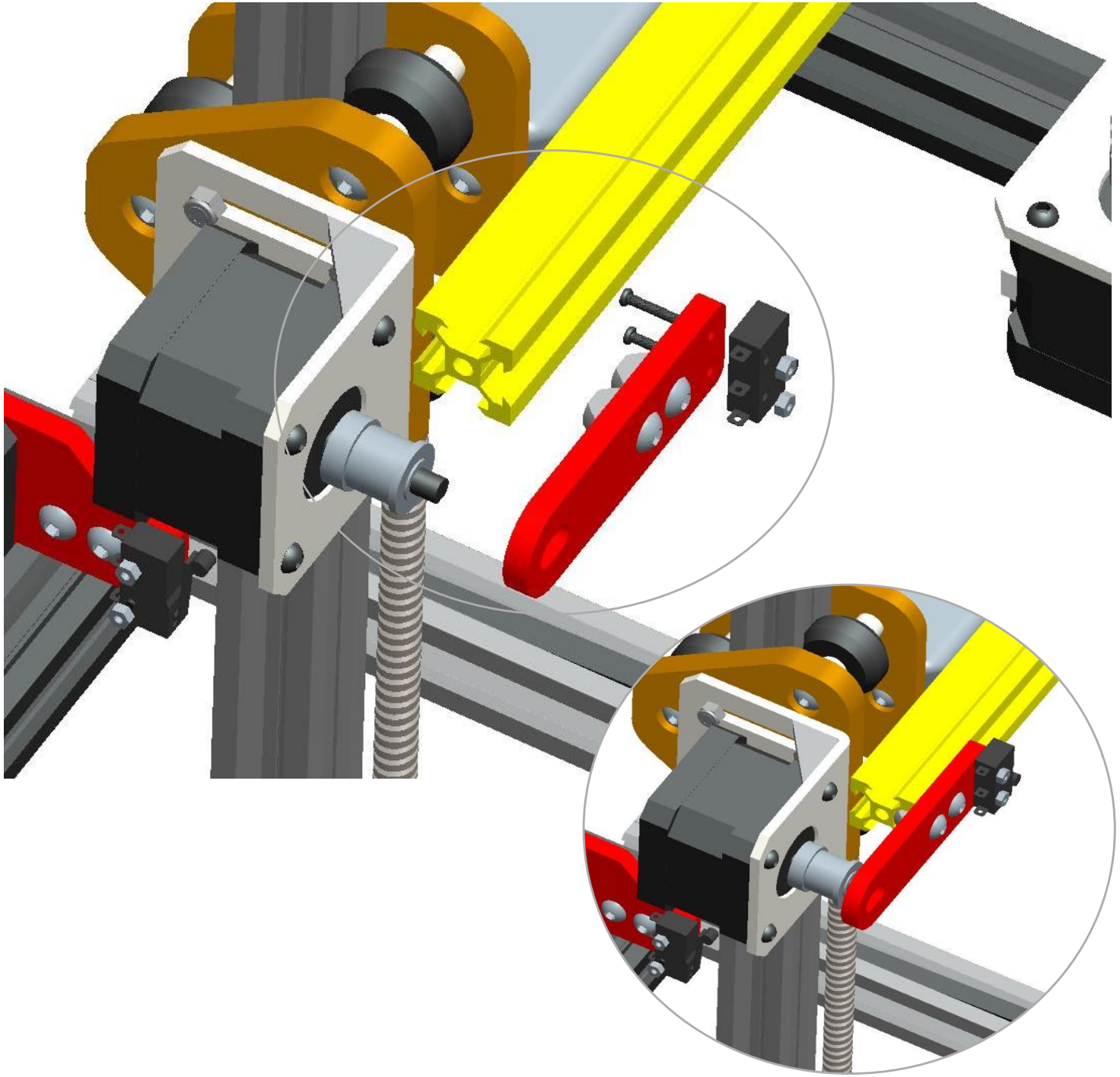
Parts:

Belt pulley – 1pcs
X Pulley mount (acrylic) – 1pcs
M5-25mm screw – 1pcs
M5 Nut – 1pcs
M5 Locknut – 1pcs
M6 washer – 2pcs
M5 washer – 2pcs
M4-8mm screw – 2pcs
M4 T-Nut - 2pcs

- Take 1pcs M5-25mm screw and insert the Pulley mount, secure it with M5 nut , then insert the washers and belt pulley , secure them using M5 locknut. (same as step 6)

- Secure the X belt pulley assembly on the right of the X slide rail using 2pcs M4-8mm screws and nuts.

⚠ Tighten screws gently to avoid damaging the acrylic.



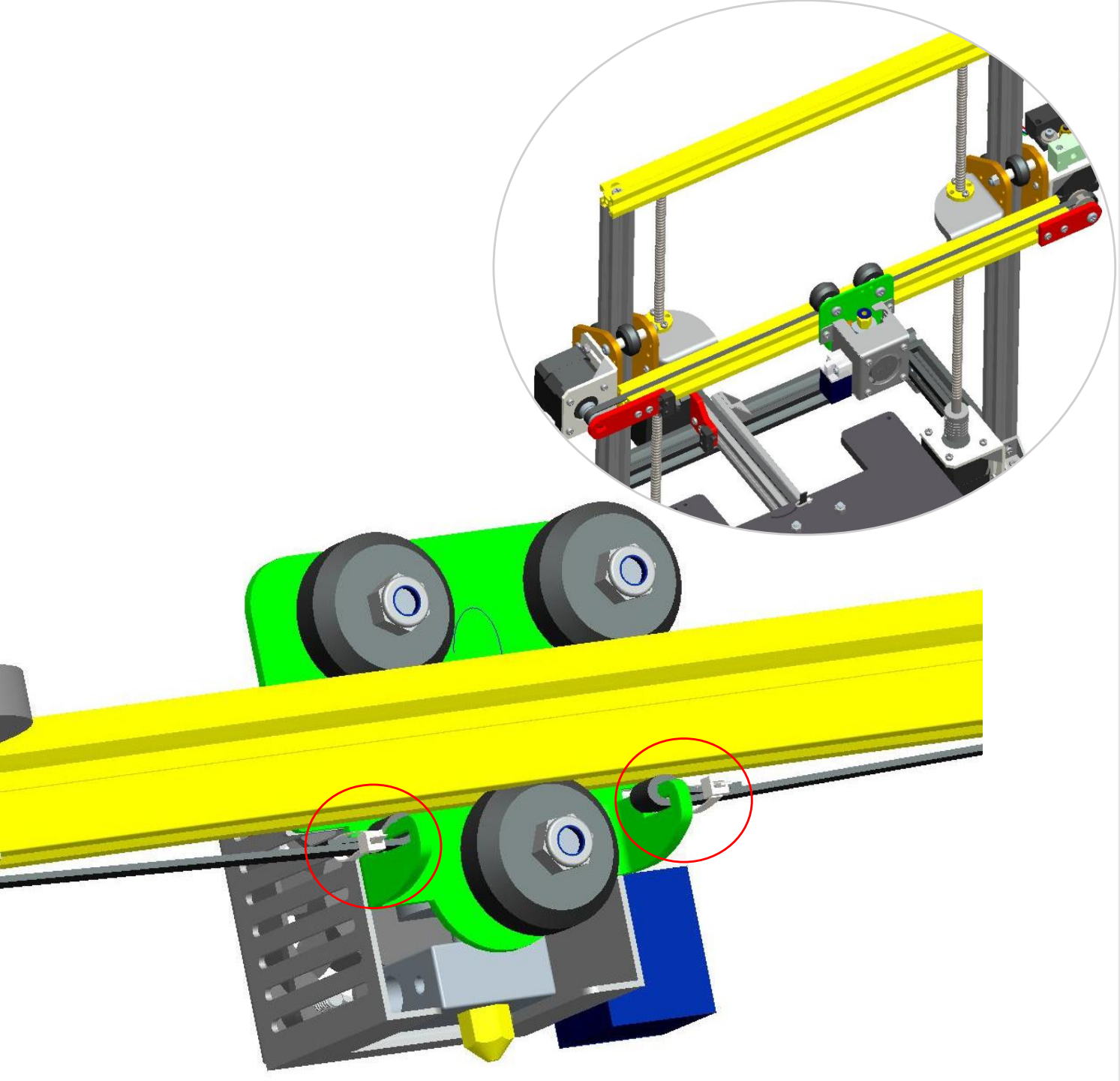
Step 19 Install X endstop

Parts:

Limit switch – 1pcs
X endstop mount (acrylic) – 1pcs
M4-8mm screw – 2pcs
M4 T-Nut – 2pcs
M2-10mm screw – 2pcs
M2 Nut – 2pcs

- Secure the limit switch to X endstop mount using 2pcs M2-10mm screws and nuts.
- Place the X endstop mount to the left end of the X slide rail using 2pcs M4-8mm screw and T-nuts.

Step 20 Install X axis Timing Belt

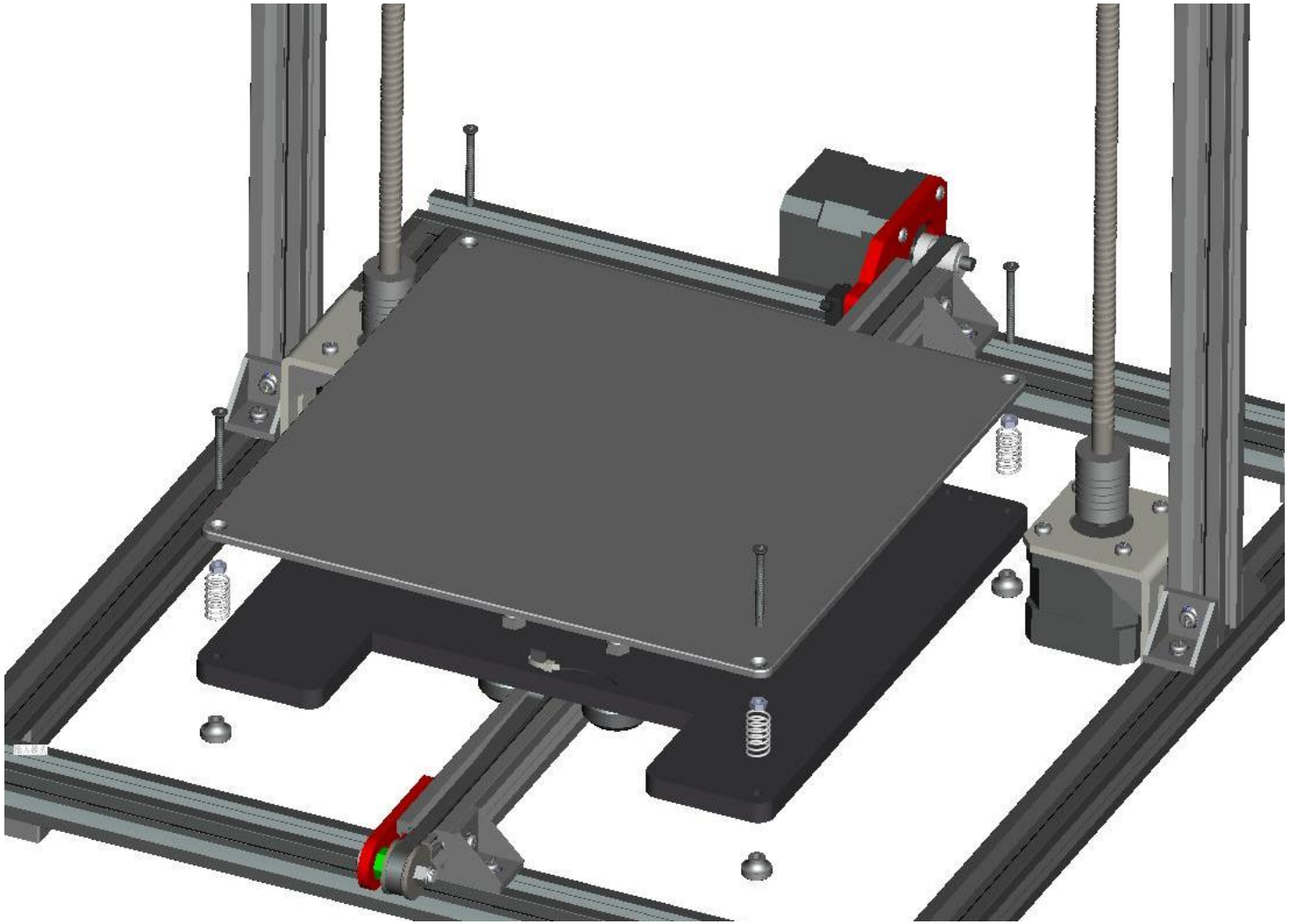


Parts:

GT2 Timing belt – 1pcs

Zip-ties – 2pcs

- Tighten one end of the timing belt to the belt hole using a zip-ties which back of the extruder
- Run the other end of timing belt along the aluminium profile, through the X-GT2-16 Pulley and Belt pulley . Then tighten it to another belt hole using a zip-ties, as shown in the picture .

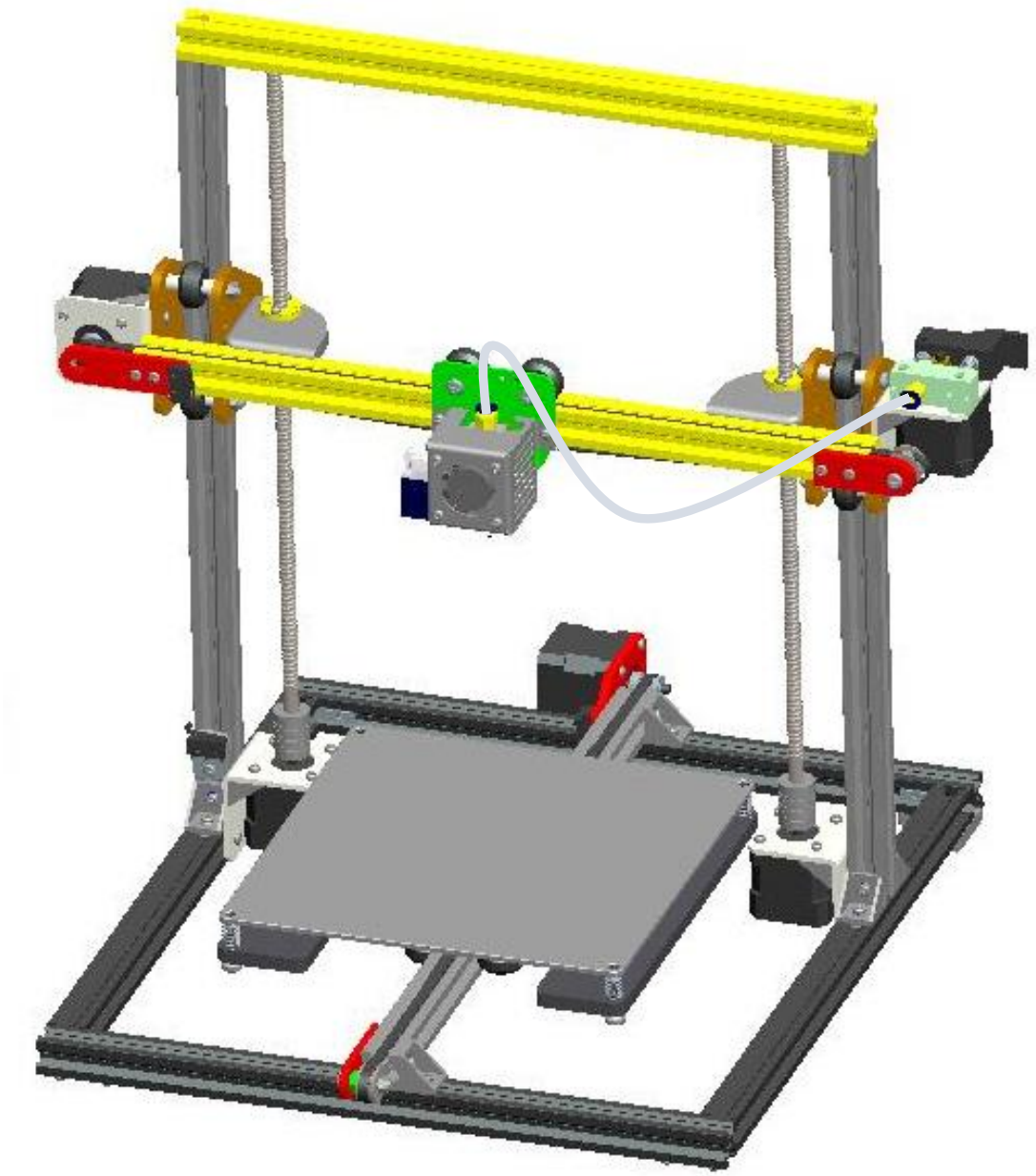


Step 21 Assemble Heat Bed Frame

Parts:

MK3 Heatbed – 1pcs
M3-30mm screw – 4pcs
Thumb nut – 4pcs
Spring – 4pcs

- Place the MK3 heatbed on the bed frame use 4pcs springs between them and then through 4pcs M3-30mm screws, then top 4pcs thumb nuts under the bed frame.



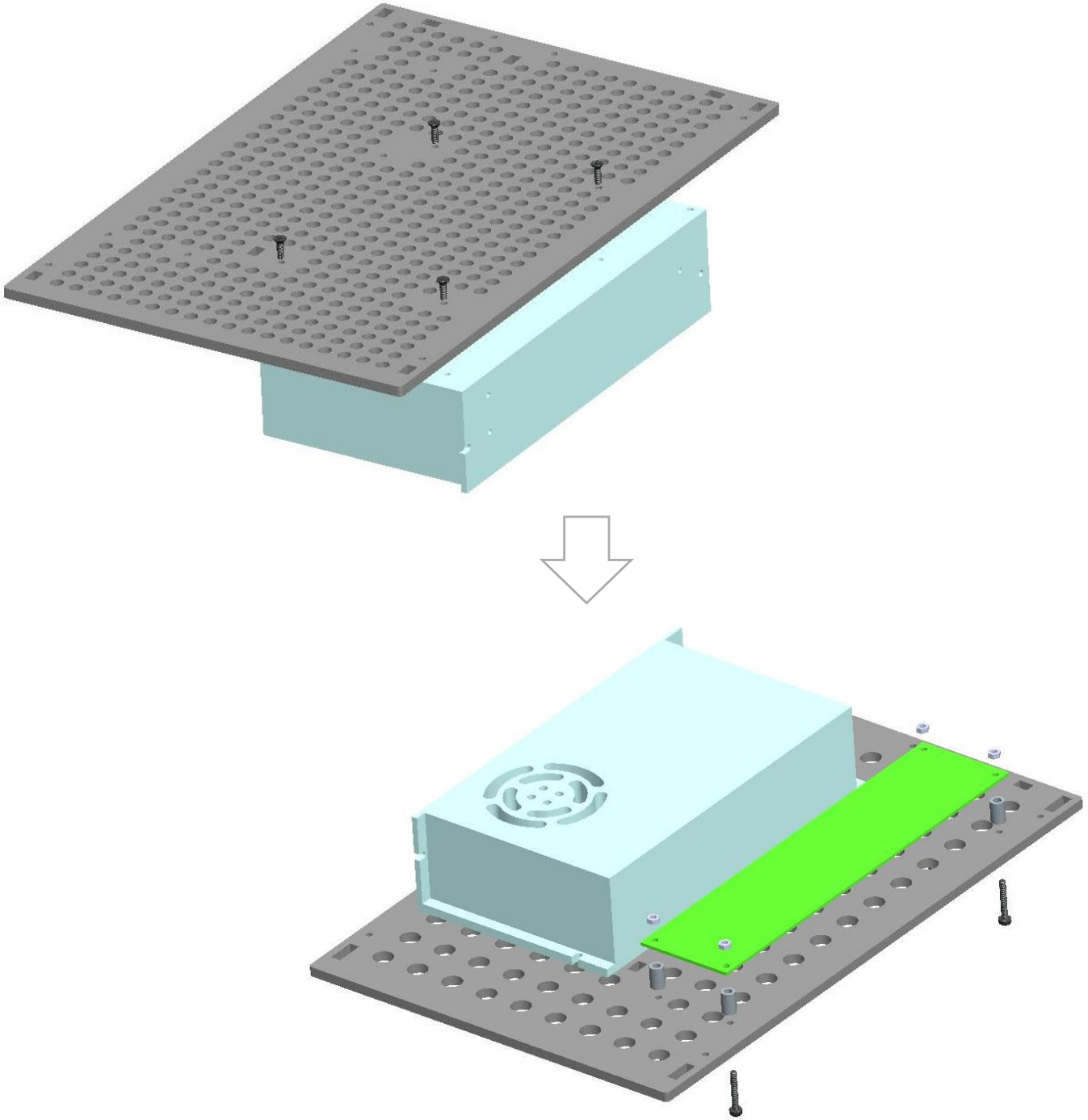
Step 22 Assemble Heat Bed Frame

Parts:

Teflon hose – 1pcs

Connector – 1pcs

- Instal a connector to the filament feeder , and then insert a teflon hose between feeder and extruder .

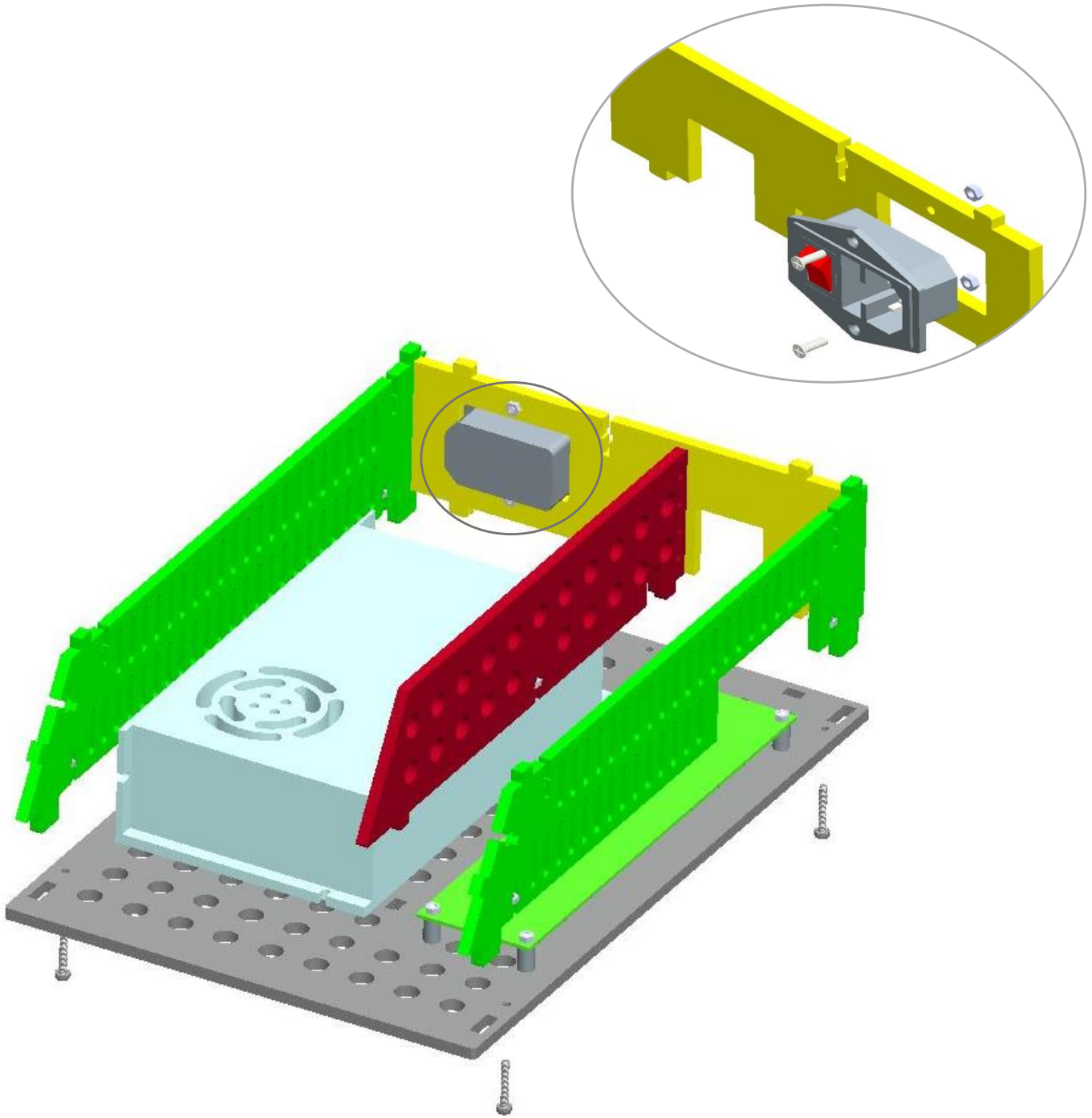


Step 23-1 Assemble Electronic Box

Parts:

Electronic box bottom plate (acrylic) – 1pcs
Power supply – 1pcs
Mainboard – 1pcs
M3-10mm screws – 4pcs
M3-20mm screws – 4pcs
M3 nuts – 4pcs
Plastic pillar – 4pcs

- Place the power supply on the bottom plate using M3-10mm screws.
- Place the mainboard on the bottom plate using M3-20mm and nuts , insert the plactic pillar between them.

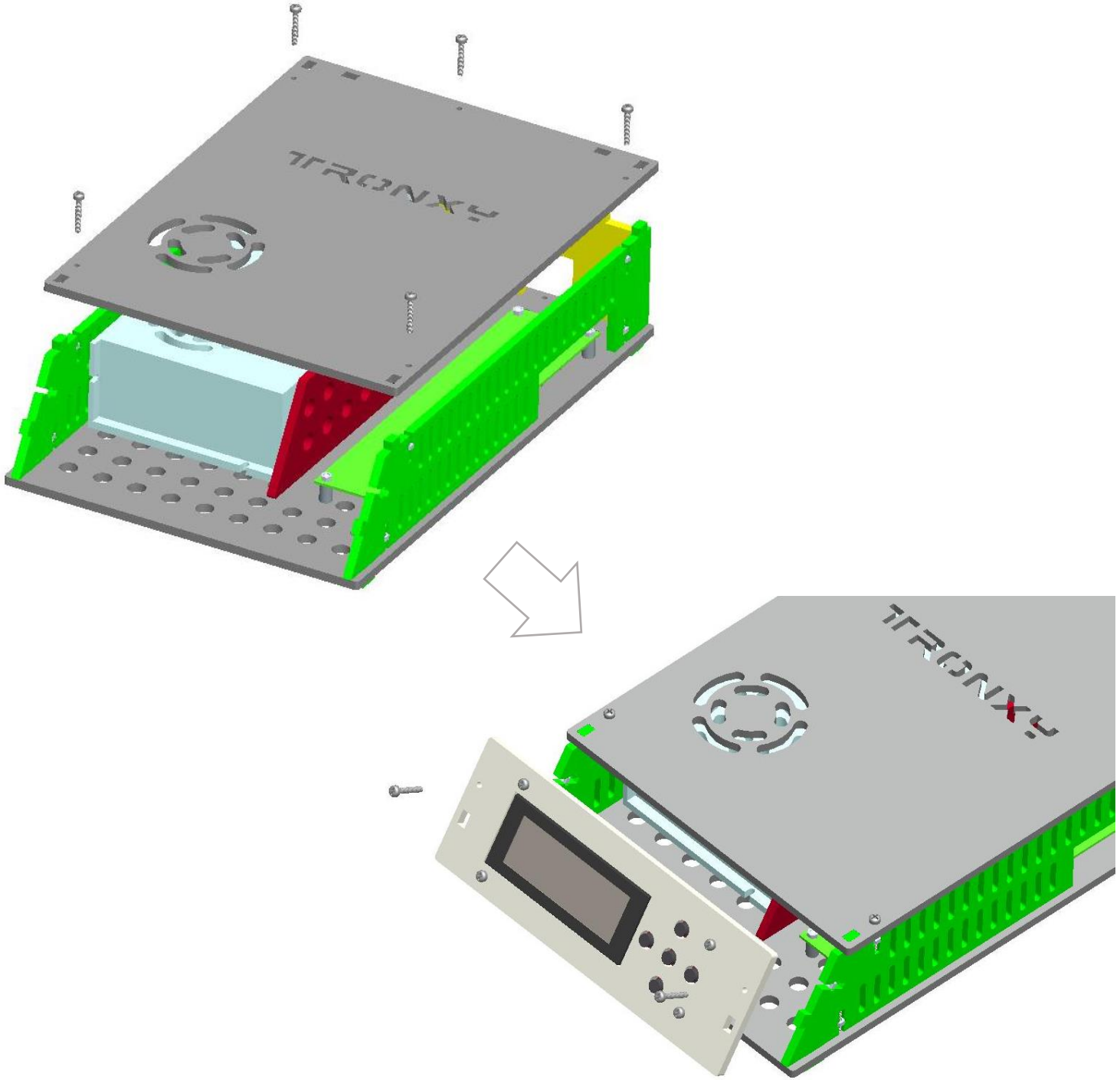


Step 23-2 Assemble Electronic Box

Parts:

Electronic box side plate (left) – 1pcs
Side plate (right) – 1pcs
Middle plate – 1pcs
Back plate – 1pcs
AC power switch
M3-10mm screw – 2pcs
M3-20mm screws – 6pcs
M3 nuts – 8pcs

- Insert the AC power switch to the back plate , secure them using 2pcs M3-10mm screws and nuts
- Assemble the plates to the bottom plate as picture , secure them using M3-20mm screws and nuts.

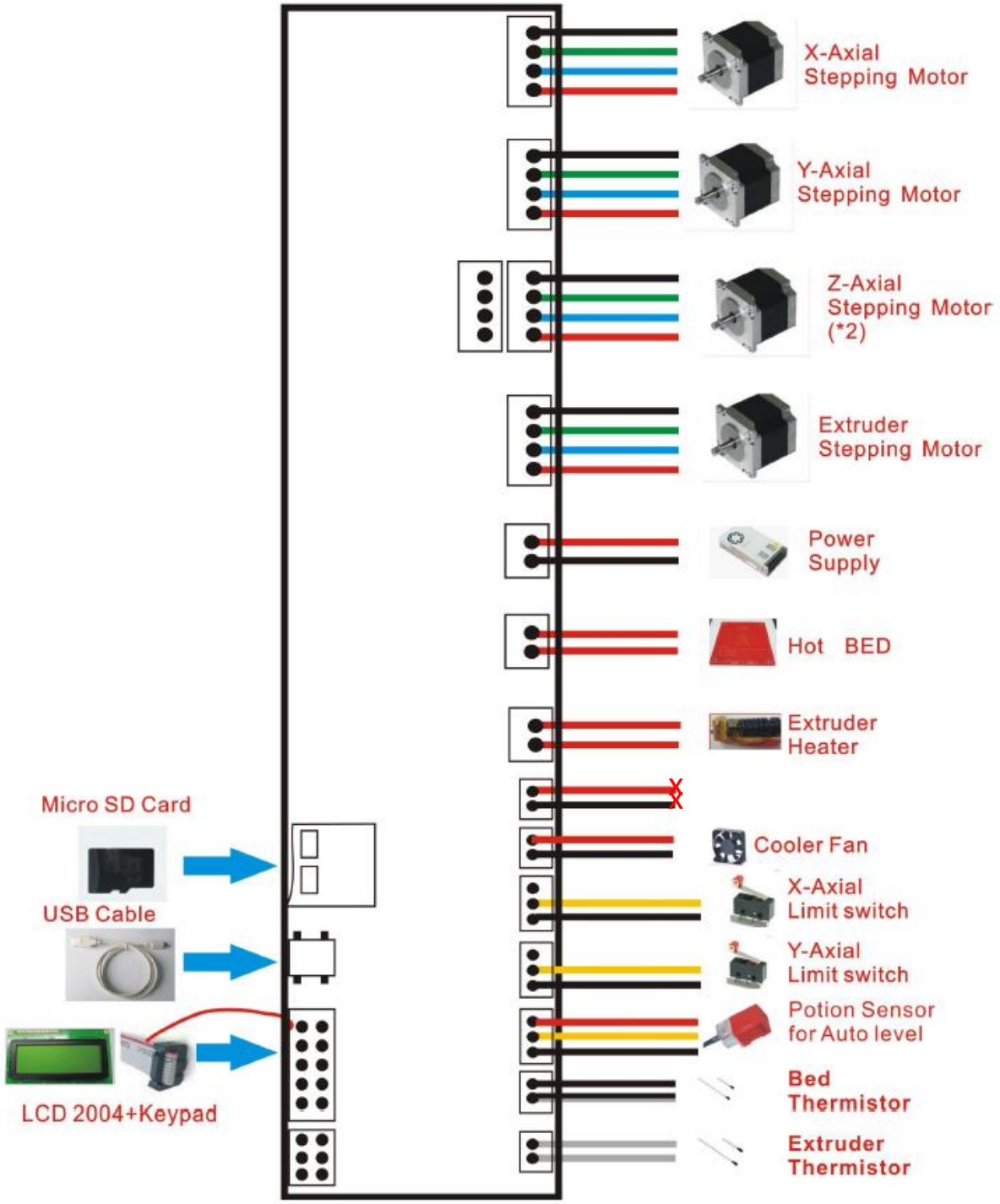


Step 23-3 Assemble Electronic Box

Parts:

Electronic box top plate (left) – 1pcs
LCD display assembly – 1pcs
M3-20mm screws – 7pcs
M3 nuts – 7pcs

- Cover the top plate using M3-20mm screws and M3 nuts.
- Place the LCD display assembly to the box , using 2pcs M3-20mm screws and nuts.



Step 24 Control Board Wiring Diagram

Parts:

Mainboard – 1pcs

- The method of connecting wire is as picture

⚠ There is only 1pcs cooler fan , please connect to 'CFAN' on board

⚠ For auto level 3D printer, there only 2pcs limit switches , one for X-axis and one for Y-axis, the Position sensor is for Z stop and auto leveling .

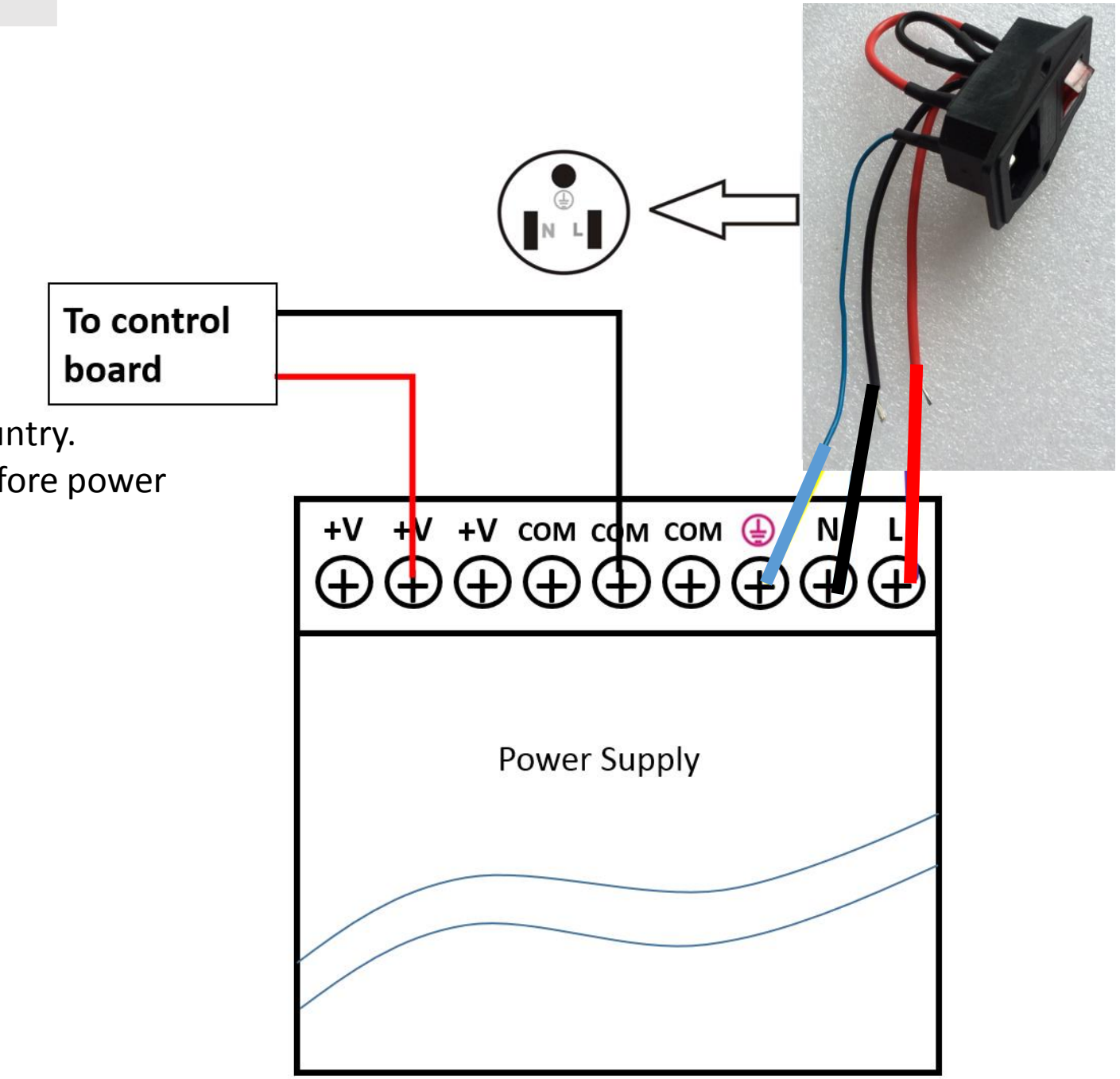
Step 25 AC Power Connector Wiring Diagram

Parts:

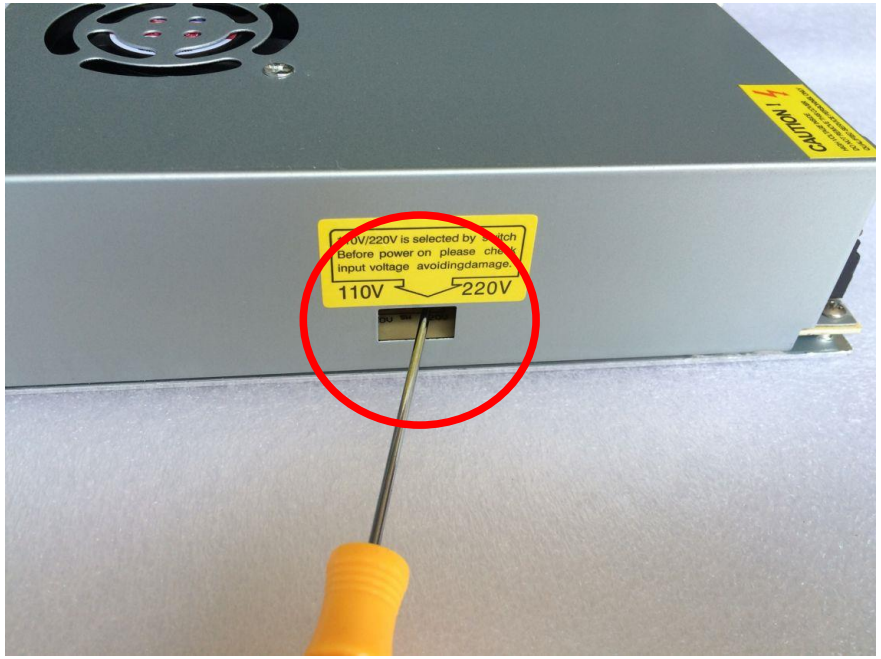
Power supply – 1pcs

Power switch – 1pcs

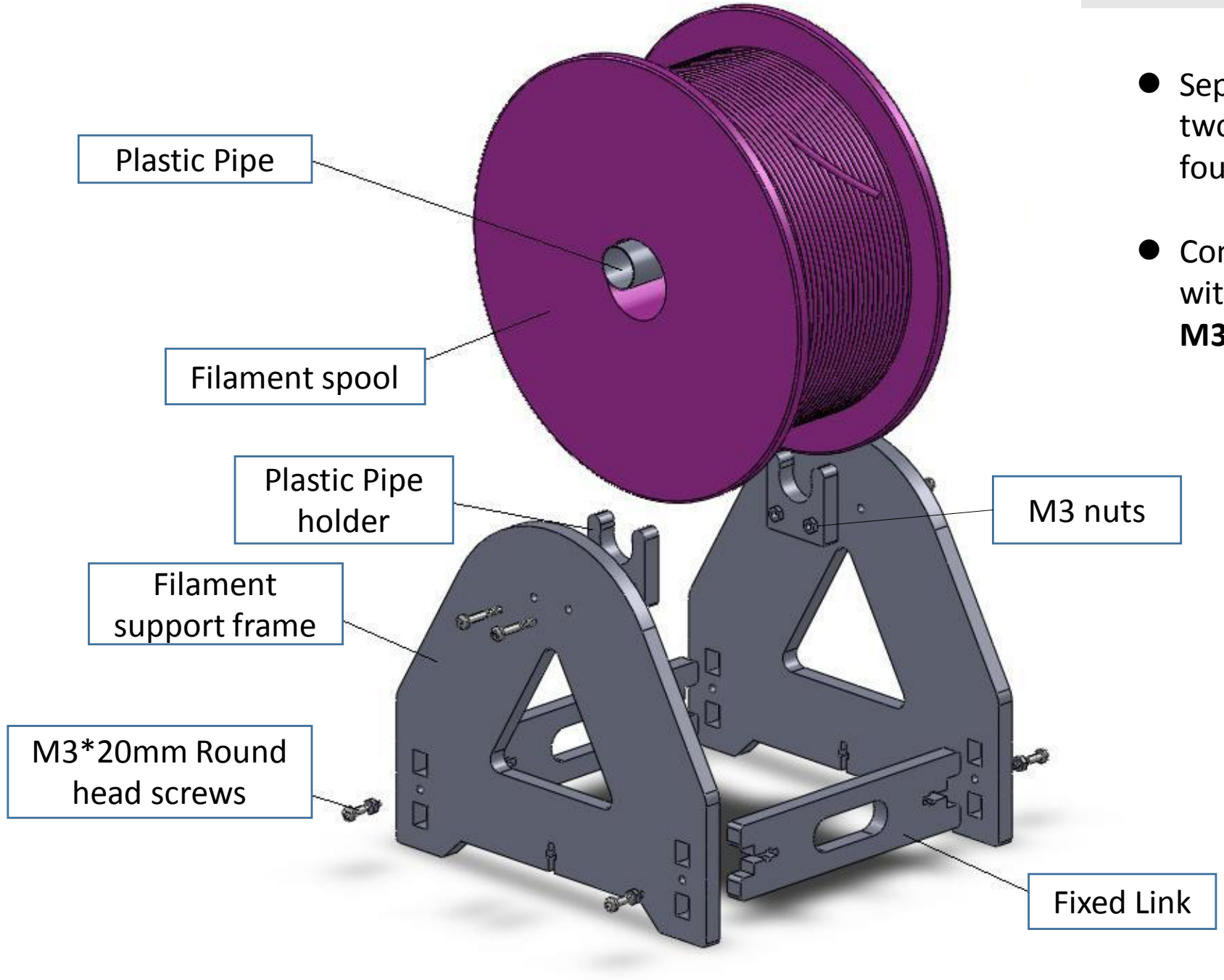
- Connect Power cable as the picture (Right)



Note: There are different voltages in different country. Please select the appropriate voltage by switch before power on. As the picture below.



Step 26 Assemble Filament Holder



- Separately put two **Plastic Pipe holder** on two **Filament support frame**, locking with four **M3*20mm Round head screws & nuts.**
- Connect the two **Filament support frames** with two **Fixed links** , locking with four **M3*20mm Round head screws & nuts**