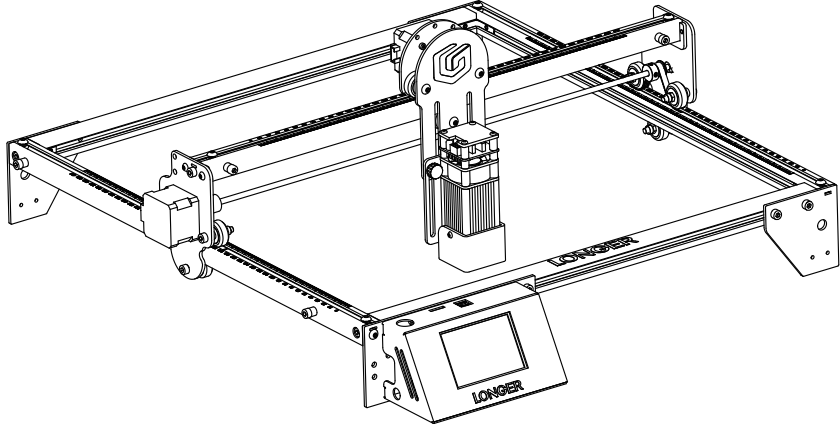




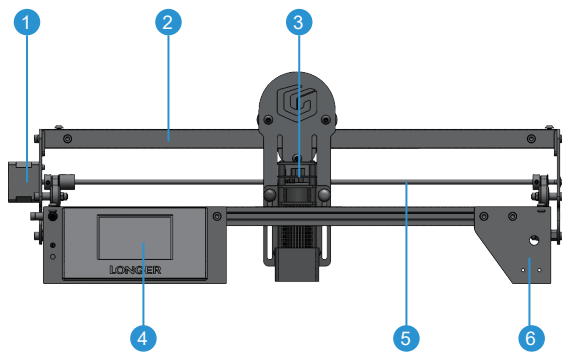
Installation guide for LONGER RAY5 engraver extension frame

Thank you for choosing our products.
Please read this manual carefully before use.

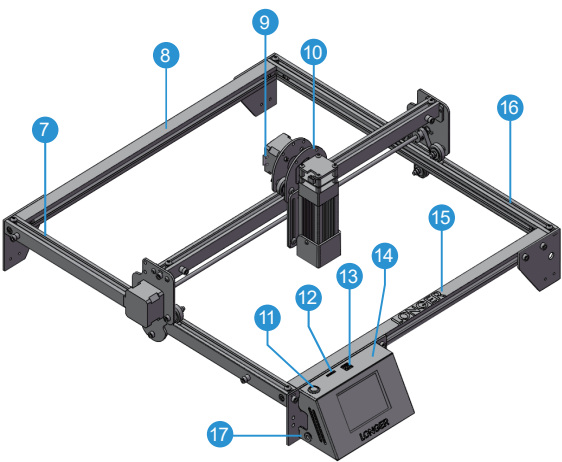
Please join our Facebook Group:
LONGER Laser Engraver Official Group
Email: support@longer.net

If you have any question, please feel free to contact us as above.
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LASER ENGRAVER INTRODUCTION



- 1 Y-Axis Motor
- 2 X-Axis Beam
- 3 Laser Module
- 4 Touch Screen
- 5 Synchronous Shaft
- 6 Support Feet

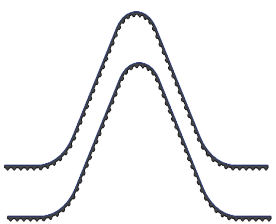


- 7 Left Frame
- 8 Rear Frame
- 9 X-Axis Motor
- 10 Laser Bracket
- 11 Power Switch
- 12 TF Card Slot
- 13 USB Port
- 14 Control Box
- 15 Front Frame
- 16 Right Frame
- 17 Power Port

PACKING LIST



Y-Axis Frame



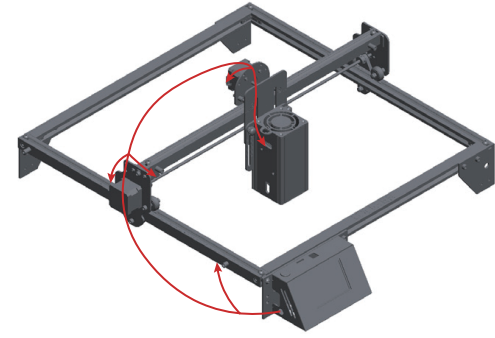
Timing Belt



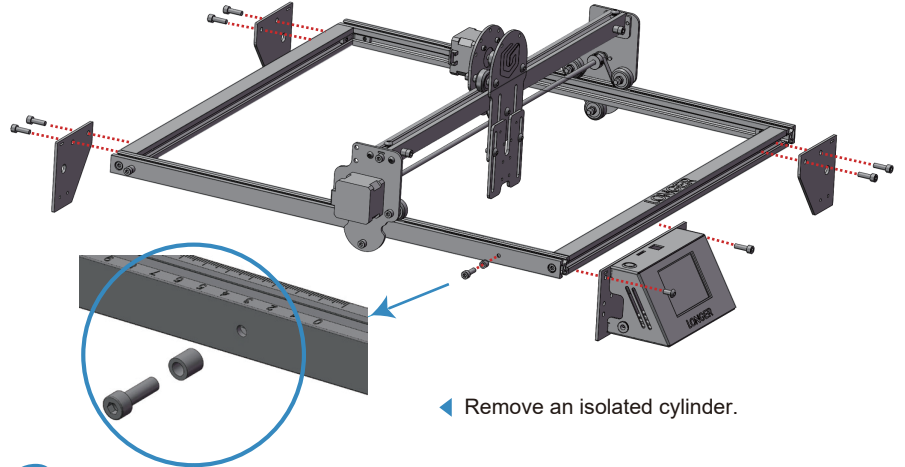
cable

REMOVE STEPS

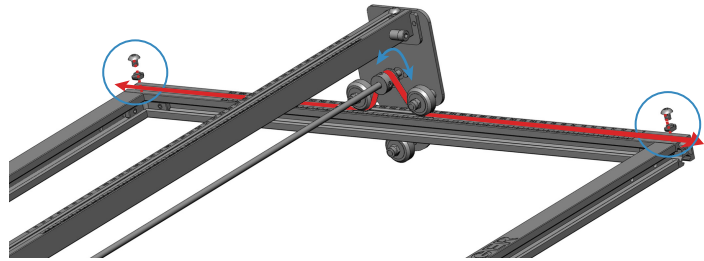
- 1 Remove the cable to the motor, limit switch and the laser head as shown in the figure.



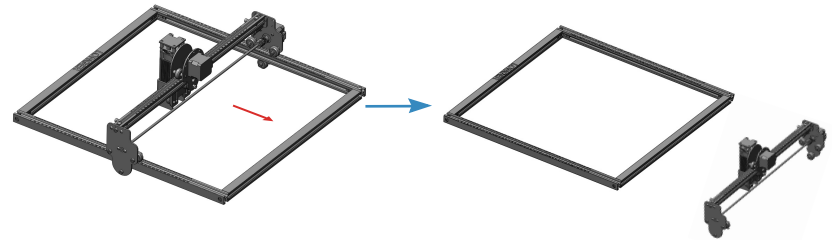
- 2 Remove the screws of each part of the machine as shown in the figure. If there is a limit switch, you need to remove the Y-axis limit switch.



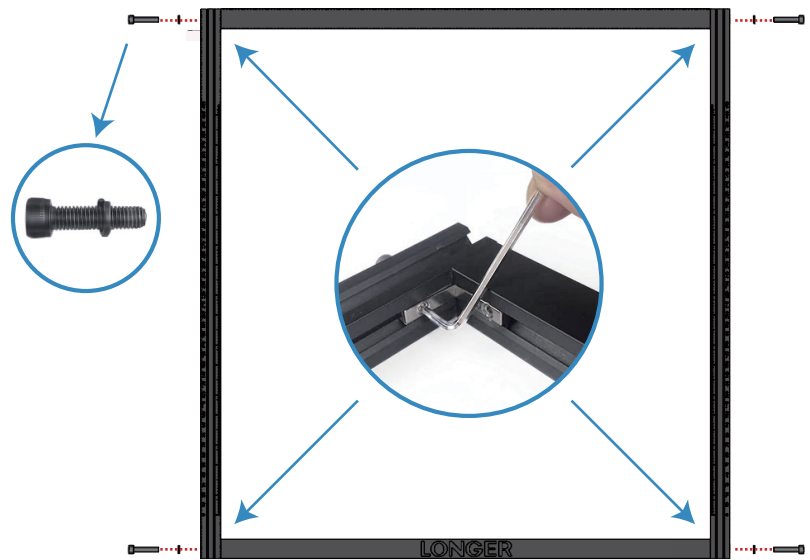
- 3 Remove the 4 M5*6 screws and T-shape screws, then take off the belt.



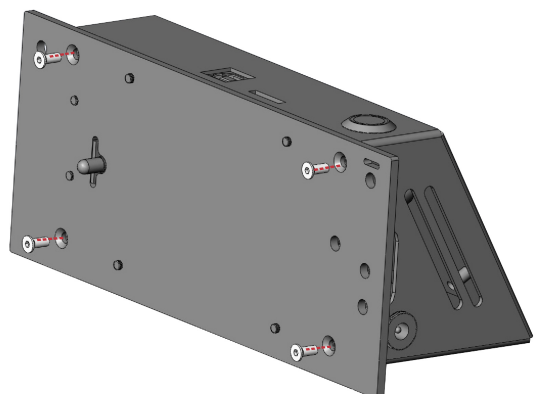
- 4 Remove the X-Axis Frame along the direction of the arrow.



- 5 Remove the four M5*25 screws and M5 washers. Loosen the M5 screws on the corner grooves.

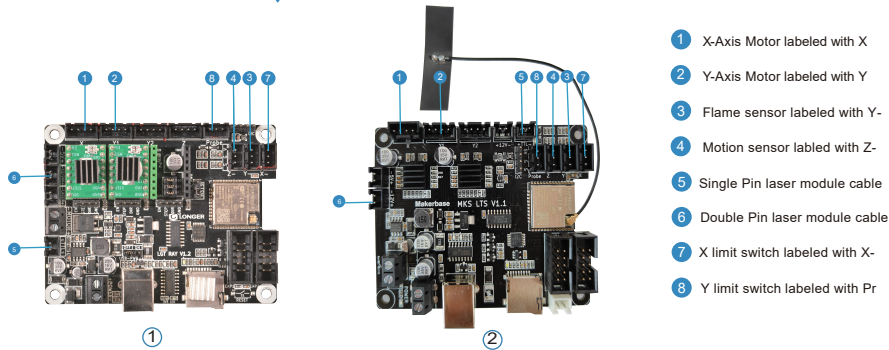


- 6 Unplug the TF card and USB cable, remove the M3*6 screws and cables of X motor labeled with X, Y motor labeled with Y, laser module labeled with TTL or 24V, 12V, X limit switch labeled with X-, Y limit switch labeled with Pr.

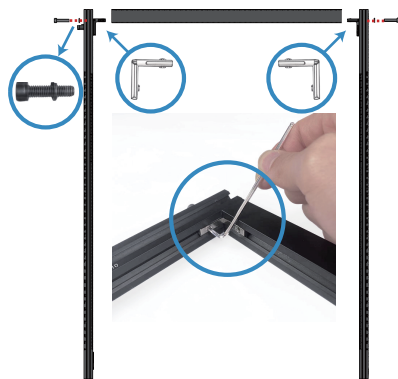


INSTALLATION STEPS

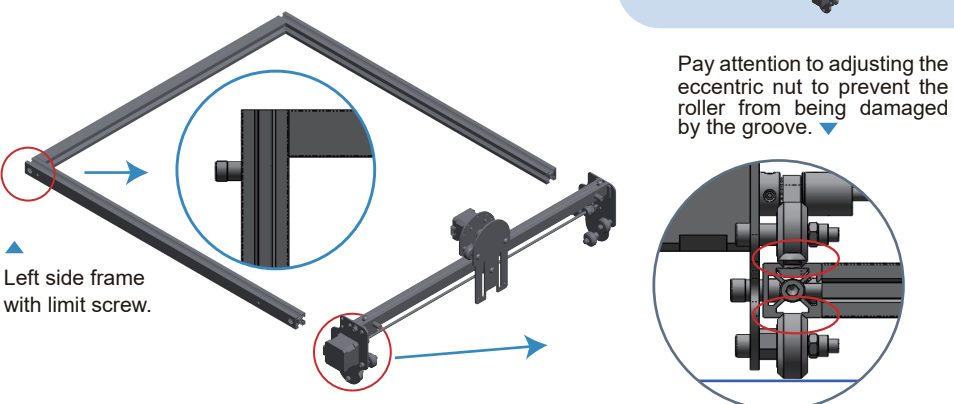
- 1 Connect the cables of the motor, limit switch, laser head. (please connect to the corresponding terminals on the main board according to the marks on the cables), tighten four M3*6 screws to install the control box.



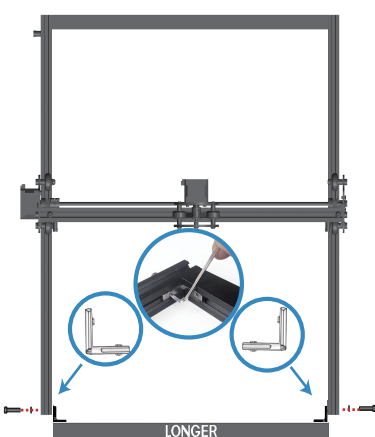
- 2 Place the profiles on a flat table in order, and place two corner grooves into the profiles referring to diagram. Tighten the M5*25 screw with M5 washer into frames. Tighten the M5 screws in the corner grooves.



- 3 Preparation: X-Axis Frame, and the frame to complete the assembly. Install the X-Axis Frame in the V-groove of the left and right Frames according to the picture below.

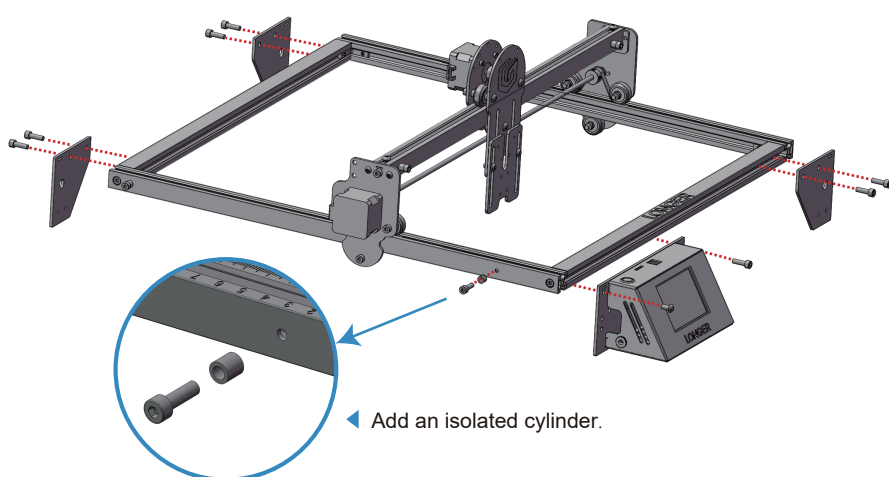


- 4 Place two corner grooves into the front frame first and pay attention to the orientation. Tighten the M5*25 screw with M5 washer into frames. Tighten the M5 screws in the corner grooves.

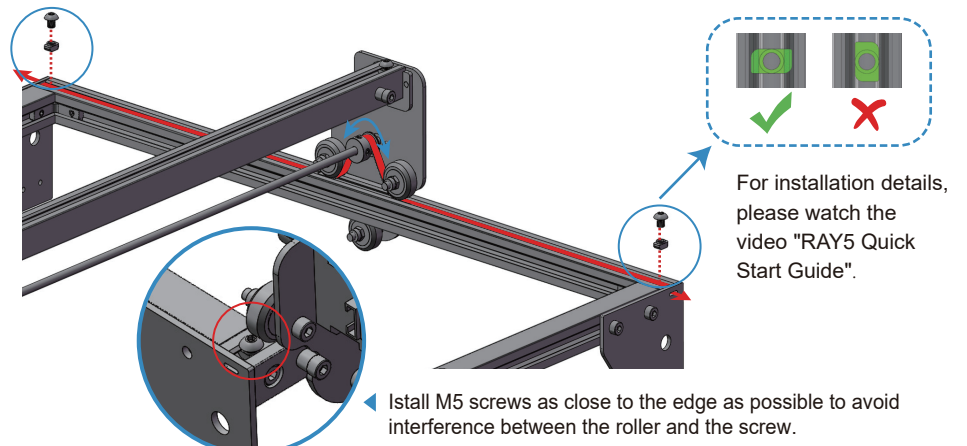


- 5 Preparation: Support feet x3, engraving machine control box, M5*16 hexagon socket cup head screw x8, M5*8 hexagon socket round head screw x1, nylon isolation column (7*5*6) x1.

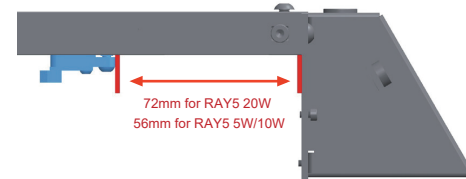
According to the figure, install the supporting foot, the control box of the engraving machine, and the left profile limit screw in the corresponding position.



- 6 Preparation: Limit switch x2 (Limit switches need to be purchased for RAY5 5W/10W separately). Timing belt x2, M5 T-shaped nut x4, M5*6 round head screw x4.
1) Place a timing belt along the red arrow with the tooth face down.
2) Put the T-shaped nut on one end of the belt, use an L-shaped screwdriver to rotate the T-shaped nut, then screw in the M5*6 screw to fix one end of belt.
3) Tighten the belt by hand, then fix another end of belt in the manner of previous step.
4) Fix another belt on left frame in the same way.

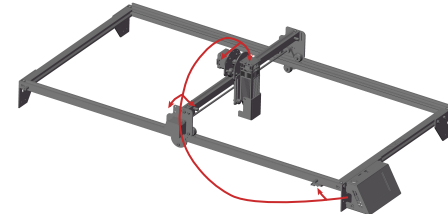


- 5) Turn the RAY5 engraver over, attach the Y limit switch to the edge of the label, and fasten it with a hex key allen wrench, then limit switch is about 72mm from the right sheet metal for RAY5 20W, and the distance is 56mm for RAY5 5W or 10W.



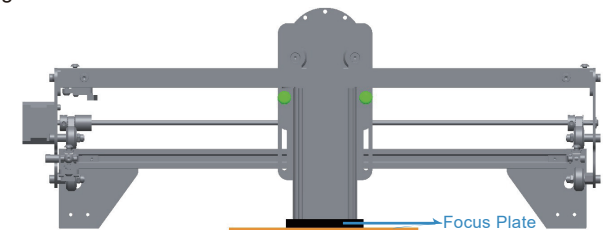
Note: Please install the limit switch according to the distance, otherwise it will affect the engraving size or cause the laser head module to collide with the profile when homing.

- 7 Connect the cable to the motor, limit switch and the laser head as shown in the figure.



Note: Fix the cable to the sheet metal with cable ties where there is tape, and then move the laser head to the upper right corner to confirm that the cable has sufficient length.

- 8 Focus on RAY5 20W as an example: Place the engraver or cutting material under the engraving head, and put the focus plate on the material, then loosen the thumb screw to let the laser module touching the focus plate, tighten the thumb screw to lock the laser module.



- 9 Please reference more details on digital manual about the operation of Laser Engraver and installation of LaserGRBL or LightBurn. Change software parameters

- 1) LightBurn

Open the software, select the serial port and connect the machine, click >> Edit >> Machine Settings >> Double-click Outputs setup, You'll be prompted with a safety warning, so select "Yes." >> Drop down and select Y Max travel (mm) (\$131), change the value to 850mm >> Write >> OK.

Change Working Size, click >> Edit >> Device Settings >> Change the Height value to 850mm >> OK.

- 2) LaserGRBL

Open the software, select the serial port and connect the machine, click >> Grbl >> Grbl Configuration >> Drop down and select Y-axis maximum travel, change the value to 850mm.

