LONGER RAY5 Rotary Roller

Quick Start Guide V1.0

1. Security Statement

Please read our manual carefully before operating our Ray5 Rotary Roller，which shows all the situations，including warnings of the unsafe behavior which may cause some property losing even harmful for your personal safety.

LONGER RAY5 Rotary Roller used with RAY5 laser engraver is Level 4 laser product. The power of laser head is high, it may cause injury of the eye and skin burning.

① Please wear on the laser protect safety glasses when you are operating the laser engraver and RAY5 Rotary Roller.

②. When teenagers operate laser equipment, they must be supervised by a parent or other adult.

③ DO NOT touch the laser module when it is activated.

④ When a laser engraver cut or engrave the material, the high-intensity laser produces extremely high temperature. Some materials will burn during cutting or engraving and produce some gas or fumes.

⑤ When the laser engraver is working, there are some fumes, vapors or particles that may be toxic (plastic or some flammable materials), and which may be harmful to your health, please use fume extraction equipment to filter the smoke or dust out of the room.

⑥ Longer does not assume any responsibility for any loss caused by the wrong use of our products.

2. Configure the Software

After installing laserGRBL, connect the laser engraver and computer via USB cable. Then select correct port, select the baud rate of 115200. Then click connect button.
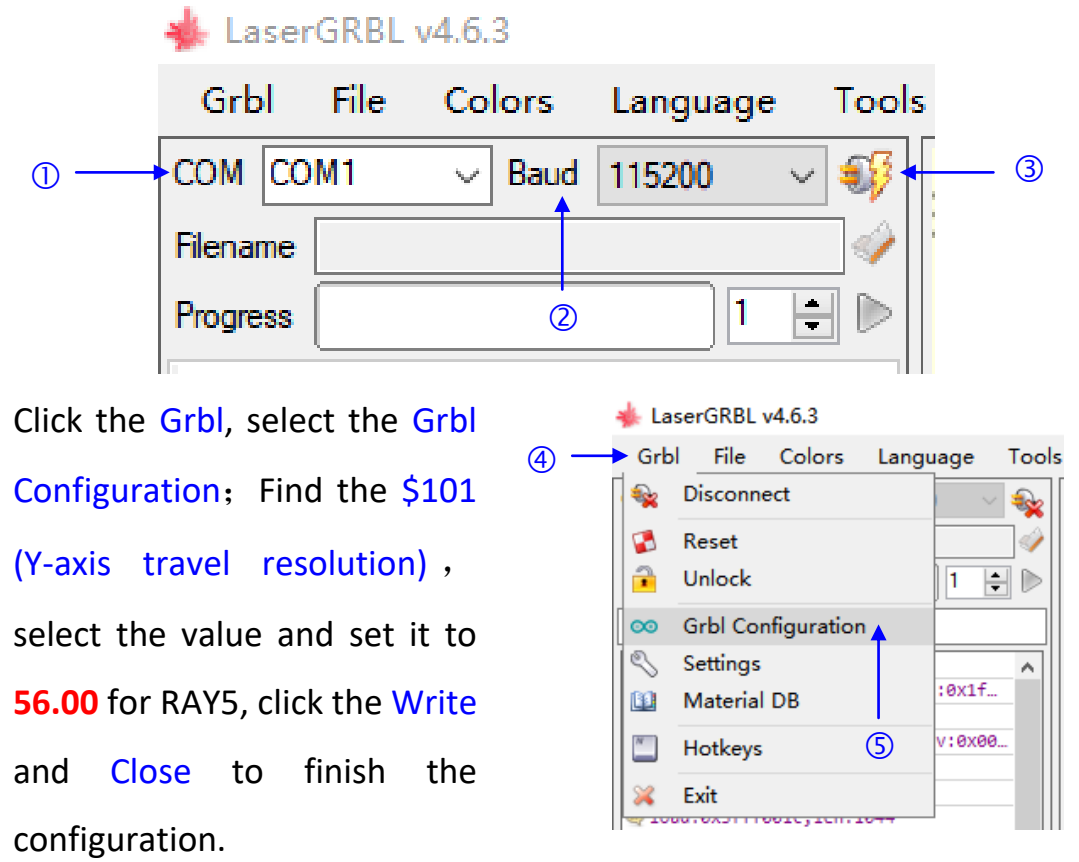
Click the Grbl, select the Grbl Configuration；Find the $101 (Y-axis travel resolution)，select the value and set it to 56.00 for RAY5, click the Write and Close to finish the configuration.
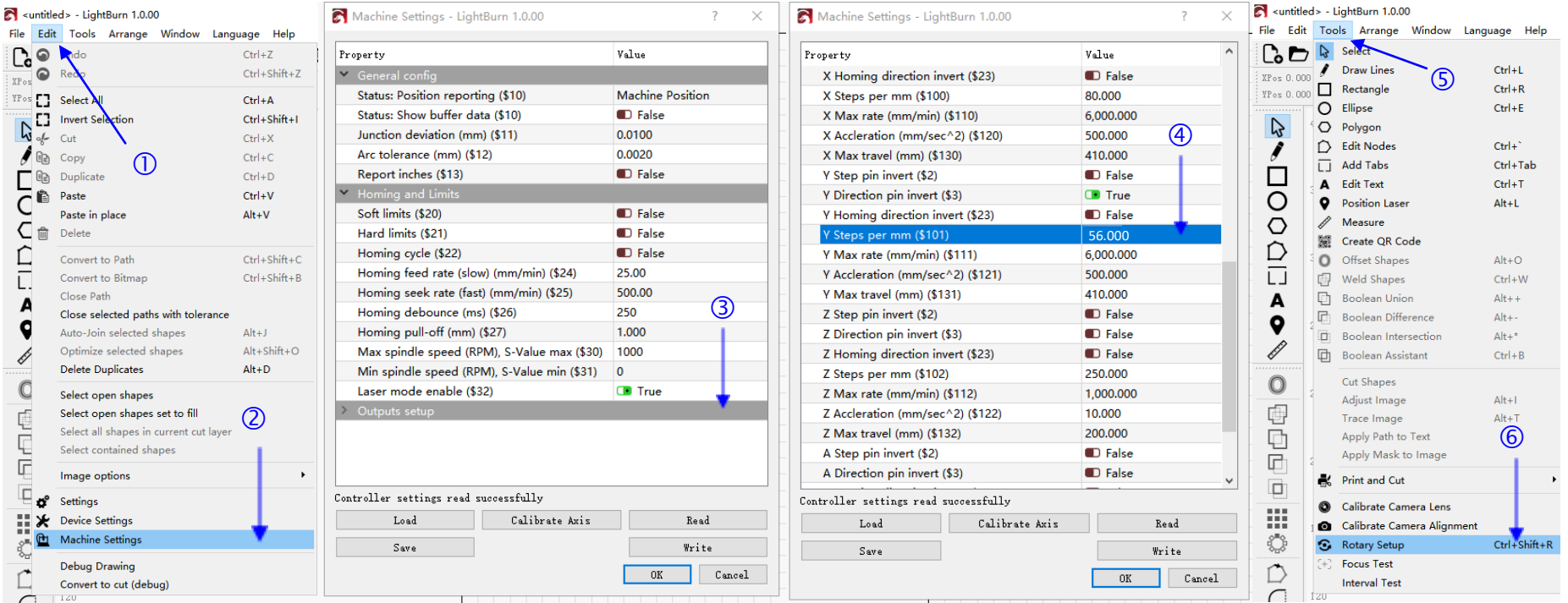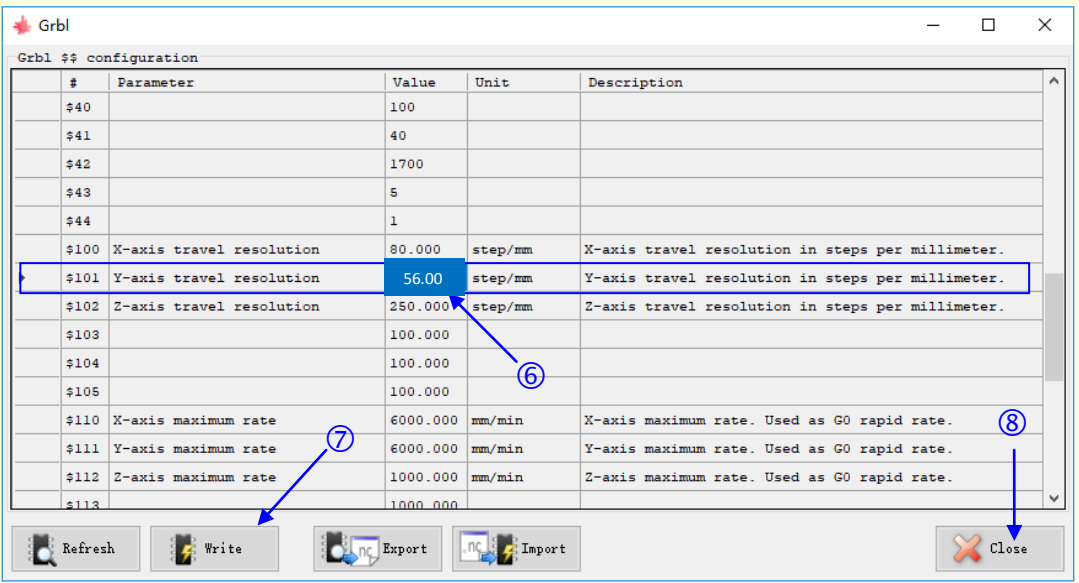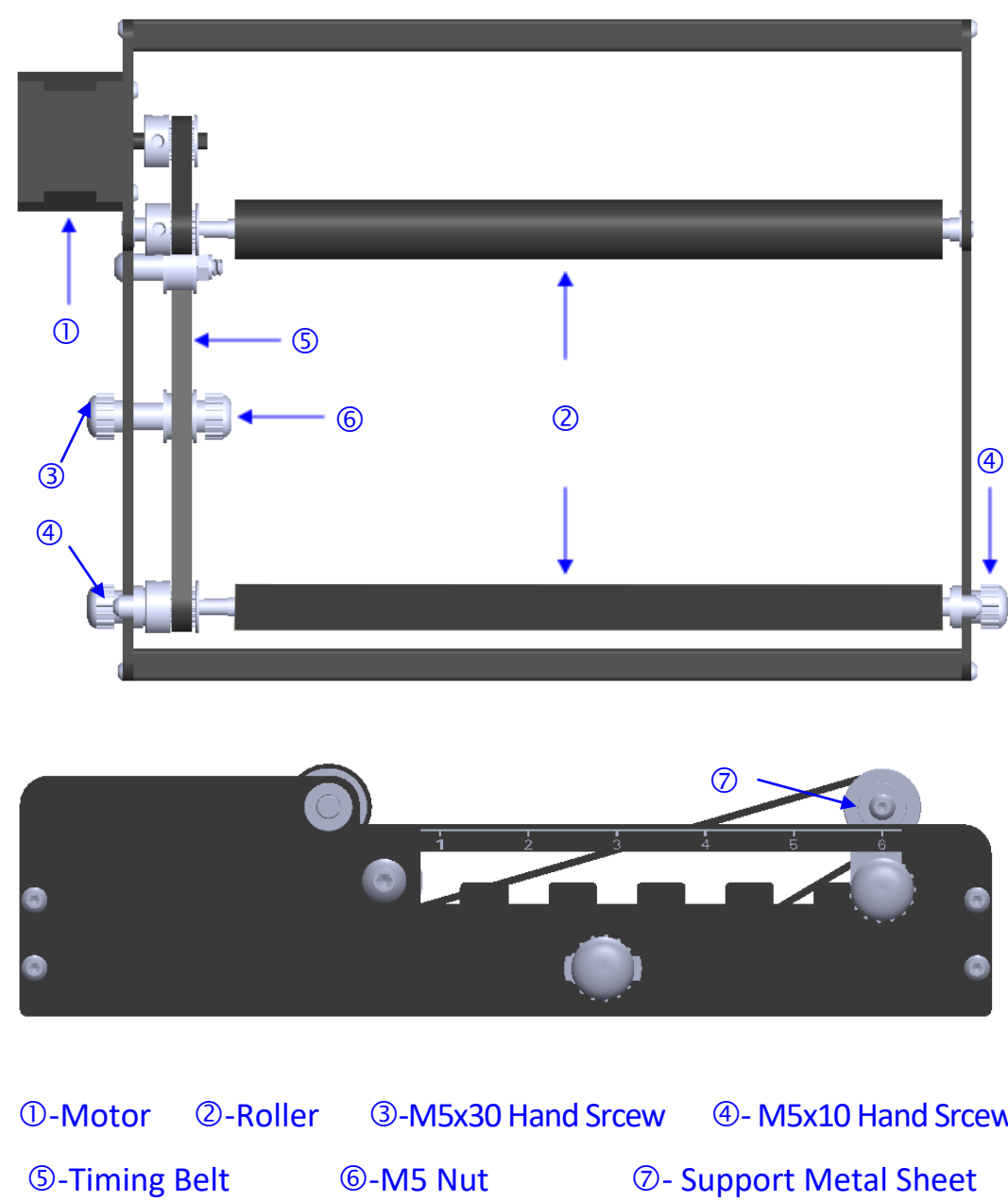

Click Edit, select Machine Settings, Click Outputs setup to expand hidden parameters, find the Y steps per mm ($101) set it to 56.00 for RAY5, click OK to finish the configuration.

Click Tools, select Rotary Setup, choose Roller and Enable Rotary, set the roller diameter to 18mm, and 56.52mm per rotation for Y axis. Measure and set the object diameter, click OK to finish the configuration.

3. Use of RAY5 Rotary Roller

1) Introduction to the Structure of the Roller

①-Motor   ②-Roller   ③-M5x30 Hand Srcew   ④- M5x10 Hand Srcew

⑤-Timing Belt   ⑥-M5 Nut   ⑦- Support Metal Sheet

2) Adjust the Spacing of the Roller

Gap number	1	2	3	4	5	6
Diameter	6-38	38-70	70--102	102-134	134-166	166-200

In order to adjust different gaps, first measure the outer diameter of different engraved objects, calculate the diameter, then hold the M5 nut and loosen the M5*30 screw to loosen the timing belt, then loosen the M5*10 screws on both sides, and lift the support piece up, put it into the groove at the same position on both sides according to the engraving diameter, tighten the M5*10 screw to fix the support piece, slide the M5*30 screw along the groove to adjust the timing belt tightly, then hold the M5 nut and lock the M5*30 screw at the same time to fasten the timing belt.
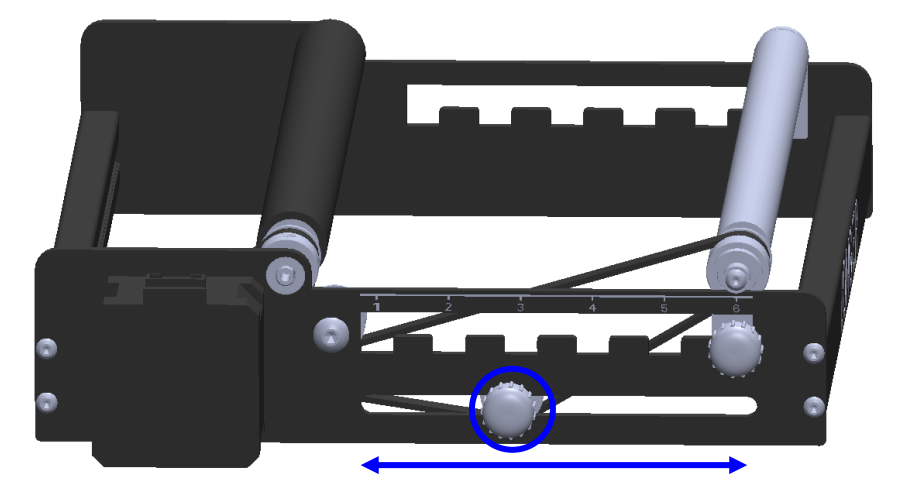

3) Connect the Motor Cable

There are 2 types of Y-axis motor extension cables with different line sequences in the package. One of the cables has both white plugs which is used for RAY5, the other cable has black terminals which is for motor with different line sequence.

Turn off power of the laser engraver, unplug the cable of the Y-axis motor, connect it with the suitable motor extension cable, and connect the other end to the roller motor.

After connecting the cable, adjust the roller to the proper distance, place the engraving maerial, and use the focusing column to adjust the laser head.

Motor Wire Sequence for White Terminal Cables
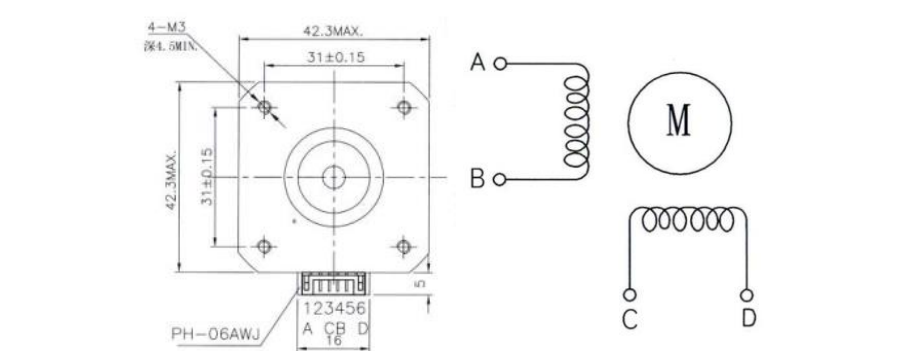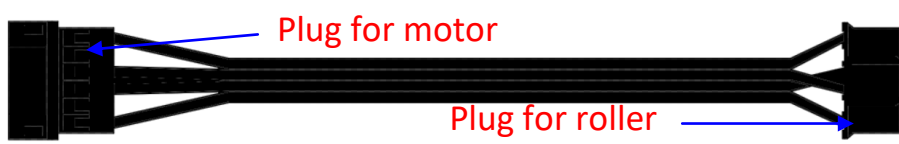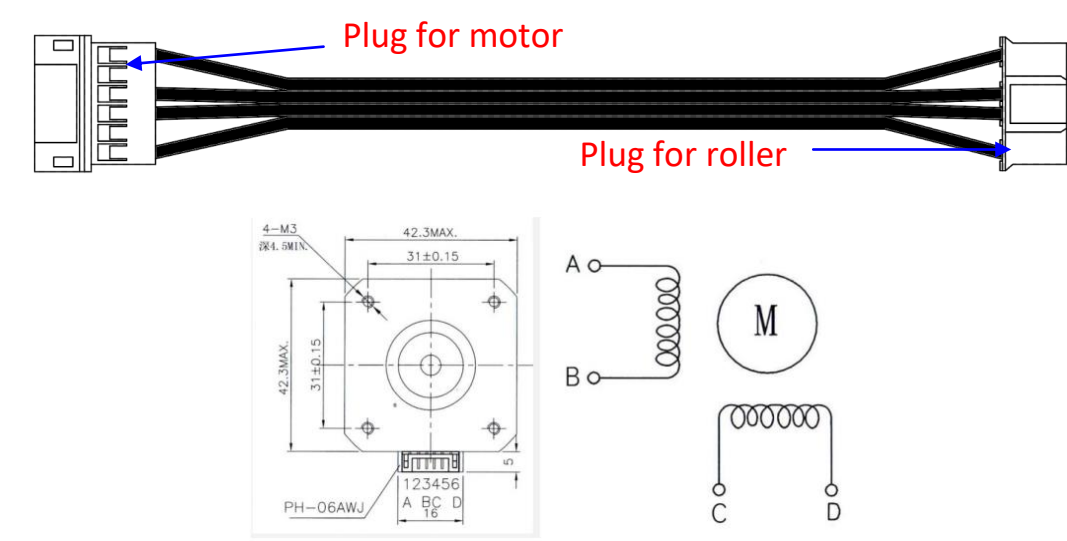
Motor Wire Sequence for Black Terminal Cables
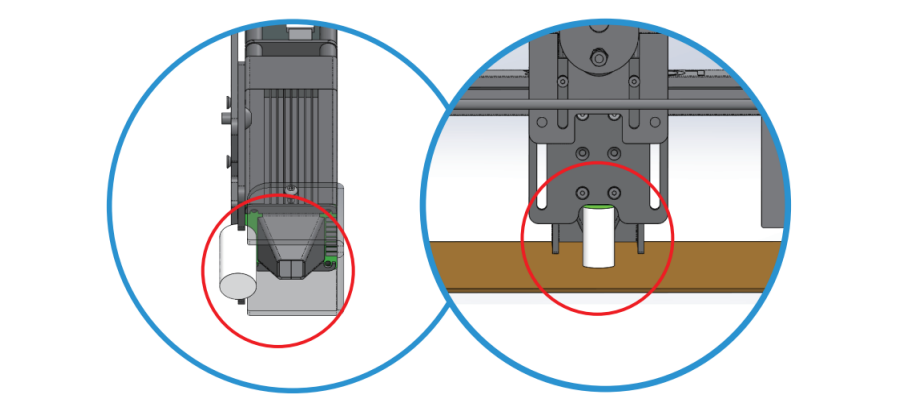
Please download the detailed user manual from www.longerd.com to learn more about the usage tutorial. If there is any problem during use, please feel free to contact our after-sales service by support@longer3d.com.