

Z kit tutorial

Wiring and operation for Z kit

1.You will have extra motor cable for Connect Z axis, on X axis just use the same with laser, you can fix the cable chain on Z axis when you going to run Z kit.

Video-wiring

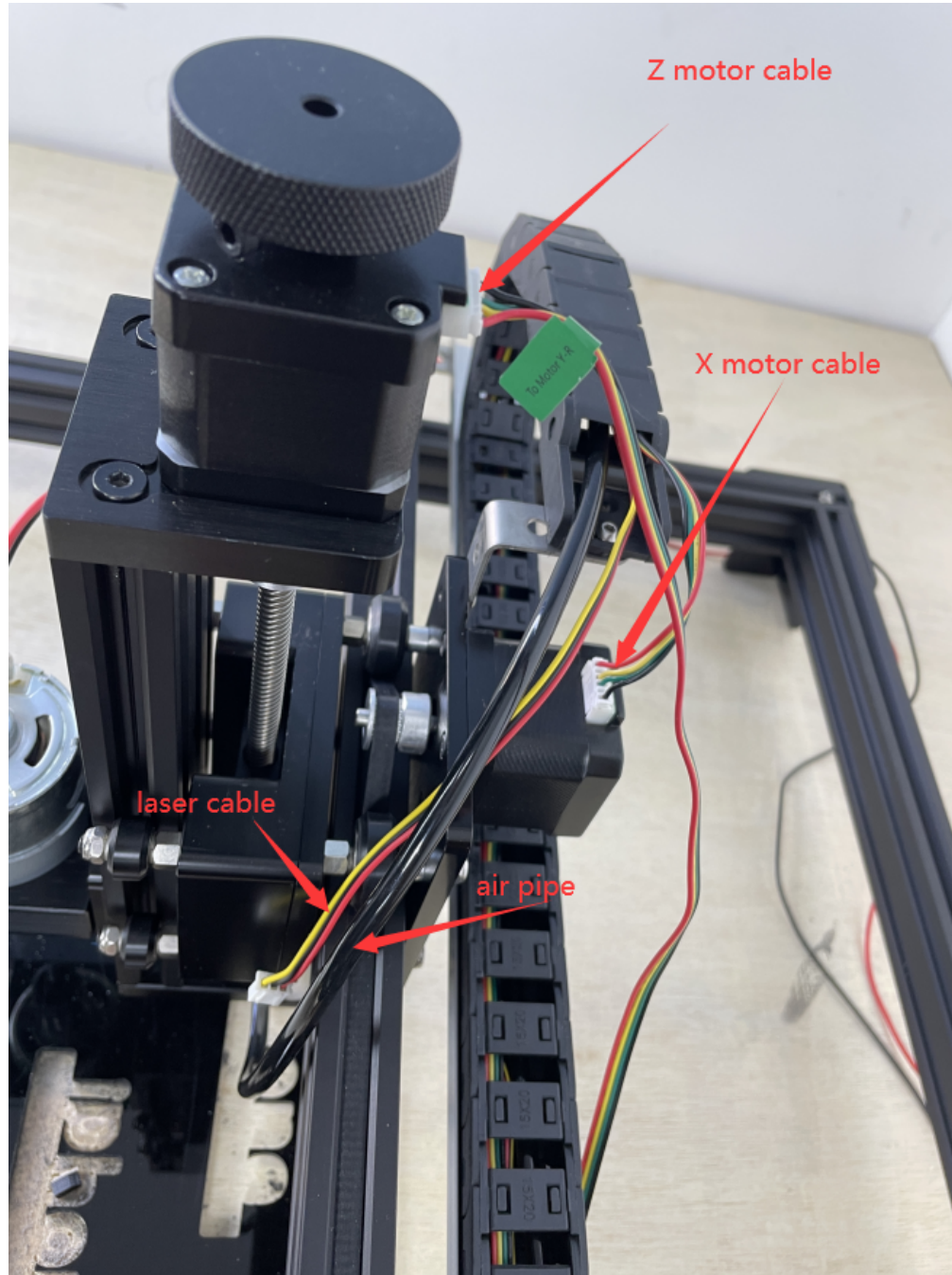
https://drive.google.com/file/d/10jVEpqU32XmWhj1Np2124ctZndL4vBaR/view?usp=share_link

Video-operation

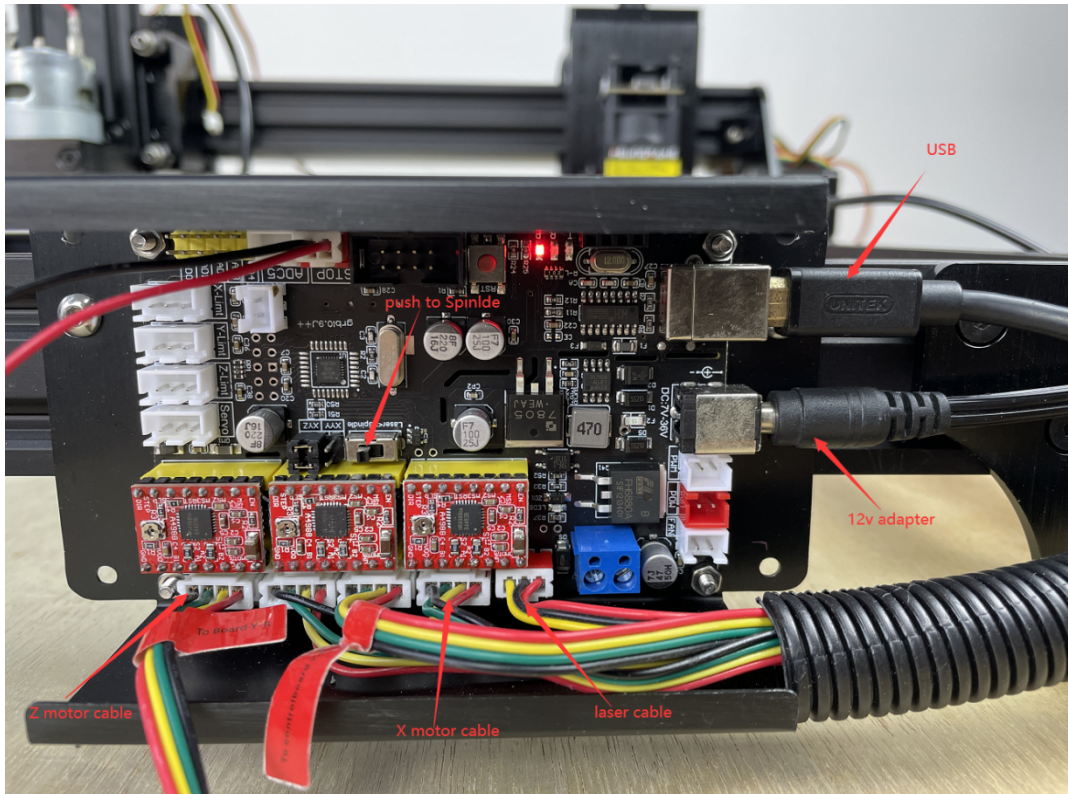
https://drive.google.com/file/d/17j0O_SlCfLNDOJh1VI4xi0yxF6qW3XnB/view?usp=share_link

Z kit assemble video

https://drive.google.com/file/d/1KhBUzkaKKXMLRtibwqIVceitjQ7kc11l/view?usp=share_link



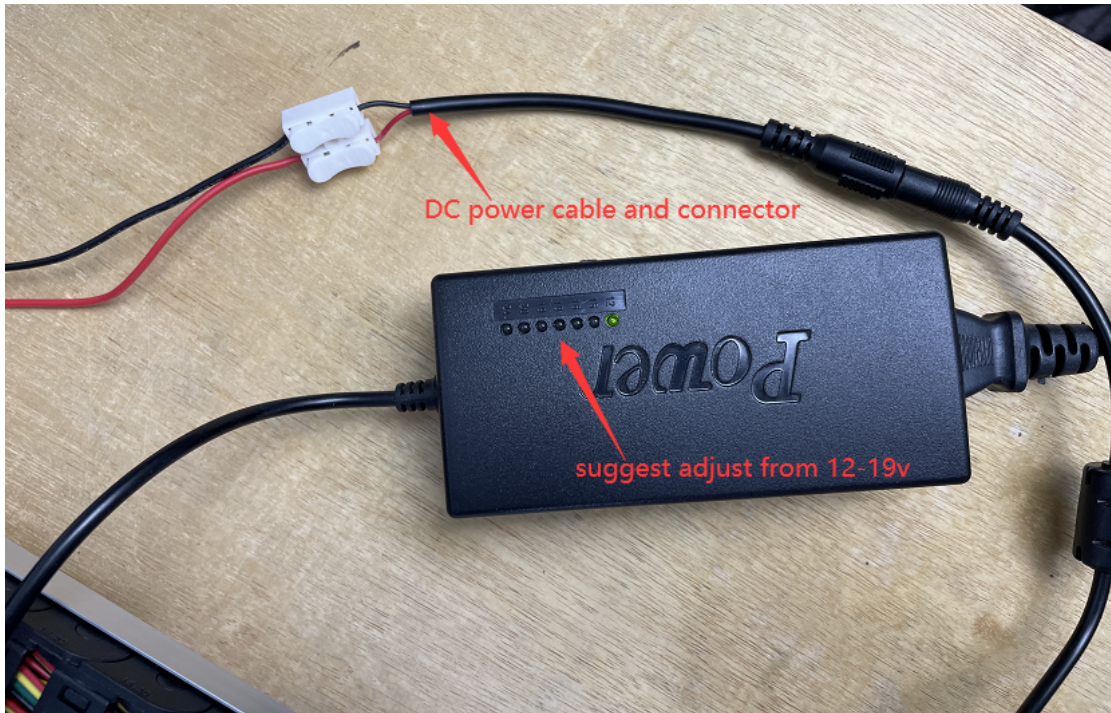
2.On controlboard, be sure Z X motor cable connect to correct port, power adapter use 12v, the Spindle/Laser switch should push to left to “spindle”, but if you run laser should push to “laser”.



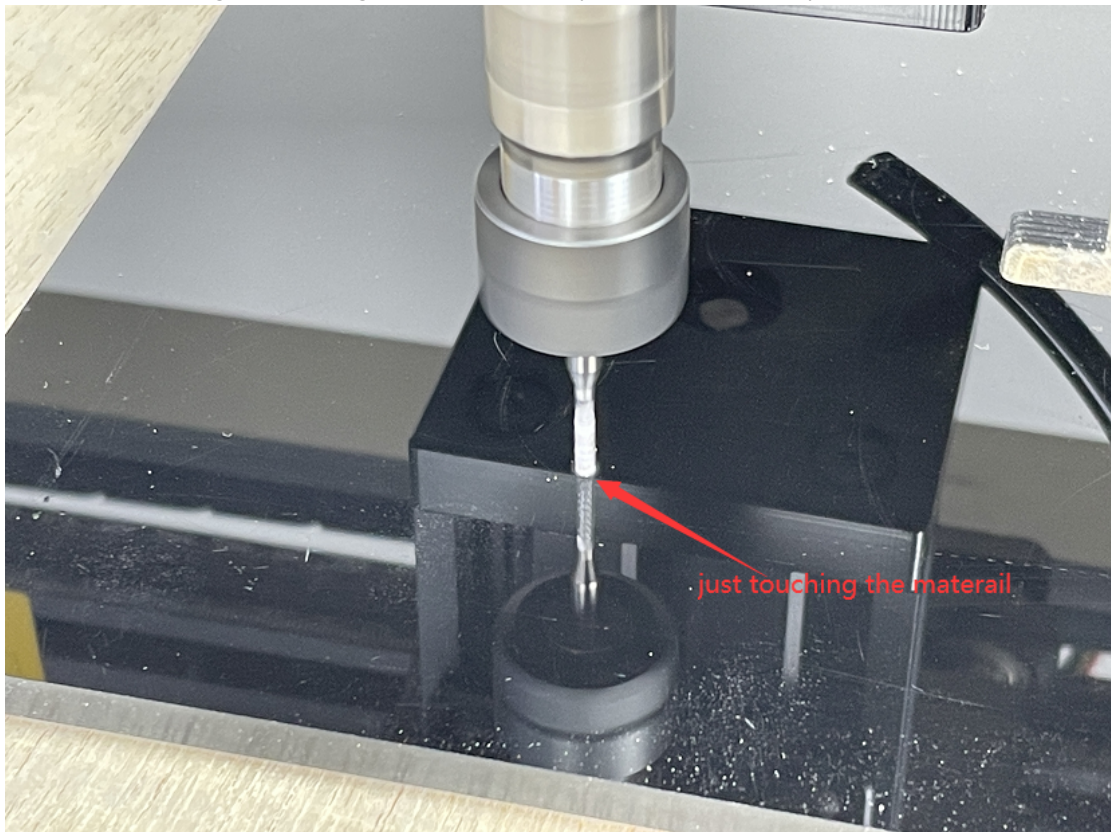
3. On spindle power cable, you have positive and negative cable, be sure they are connecting on correct port, just like the picture below, the plastic look like "凸" it for positive cable, the red power cable. When you connect correct both of power cable the spindle will turning to reversal direction (to left) that is correct, if spindle turning to clockwise direction that mean wrong. change both cable will change turning direction, but this will not damaged the spindle, donot worry.



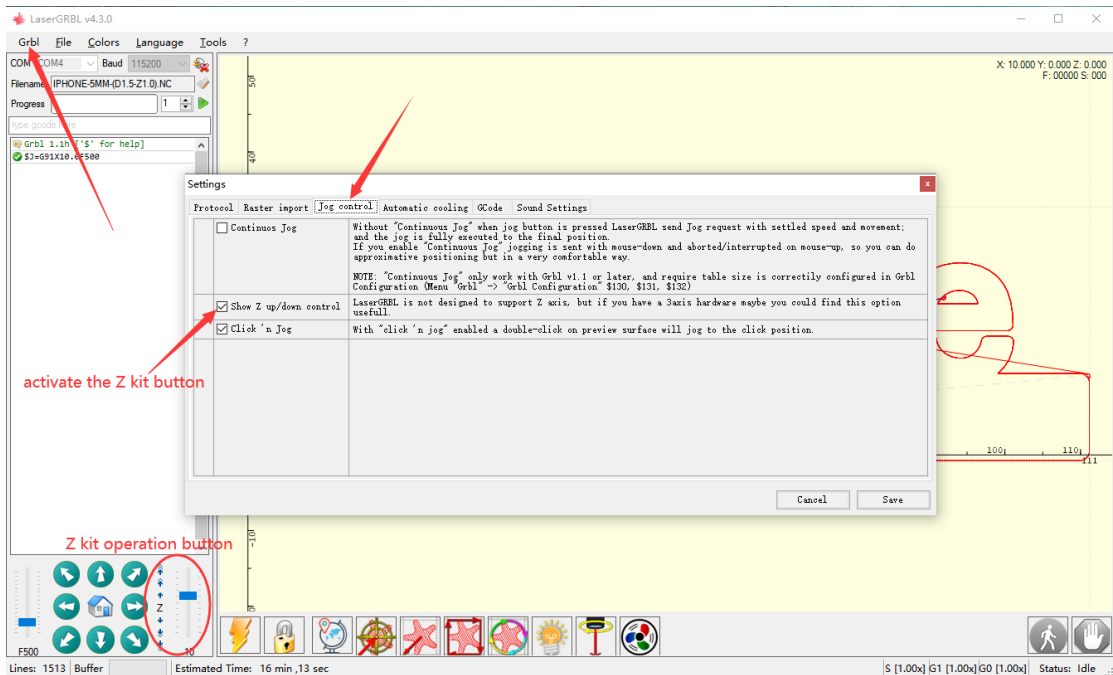
4. Just connect the DC power cable from 24v adapter, we suggest adjust power from 12-19v, donot adjust to 24v for spindle this will easier burnt it.



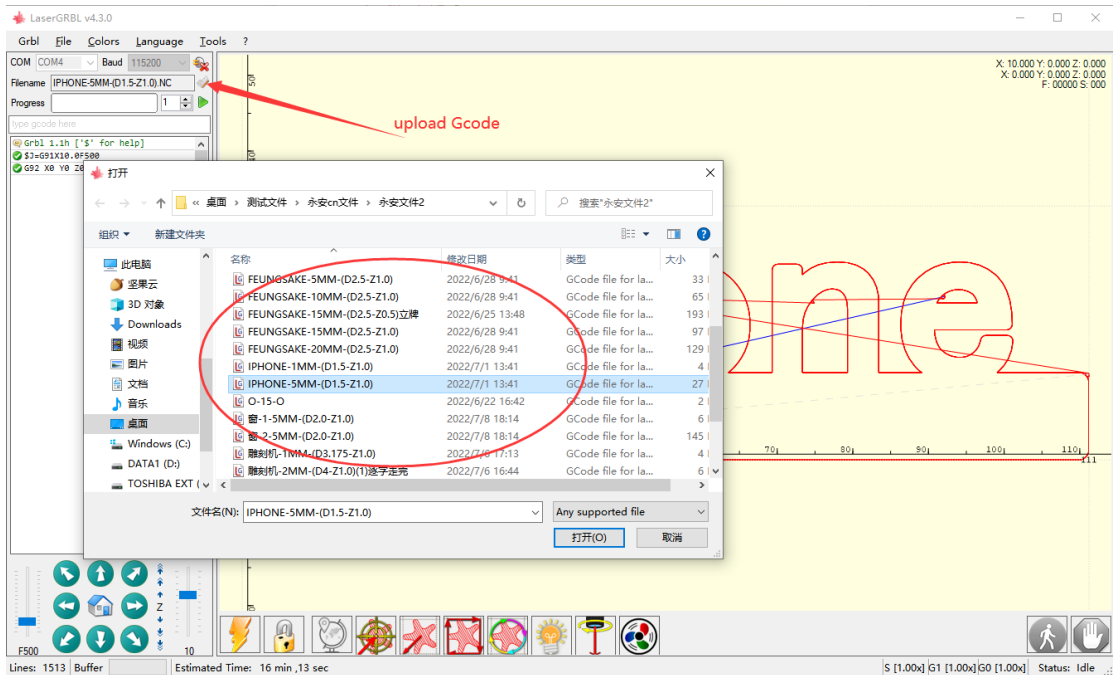
5. Before work, should turn on spindle set suitable power for spindle and manual adjust Z kit down till the milling bit touching the materials, keep this status stand by for work.



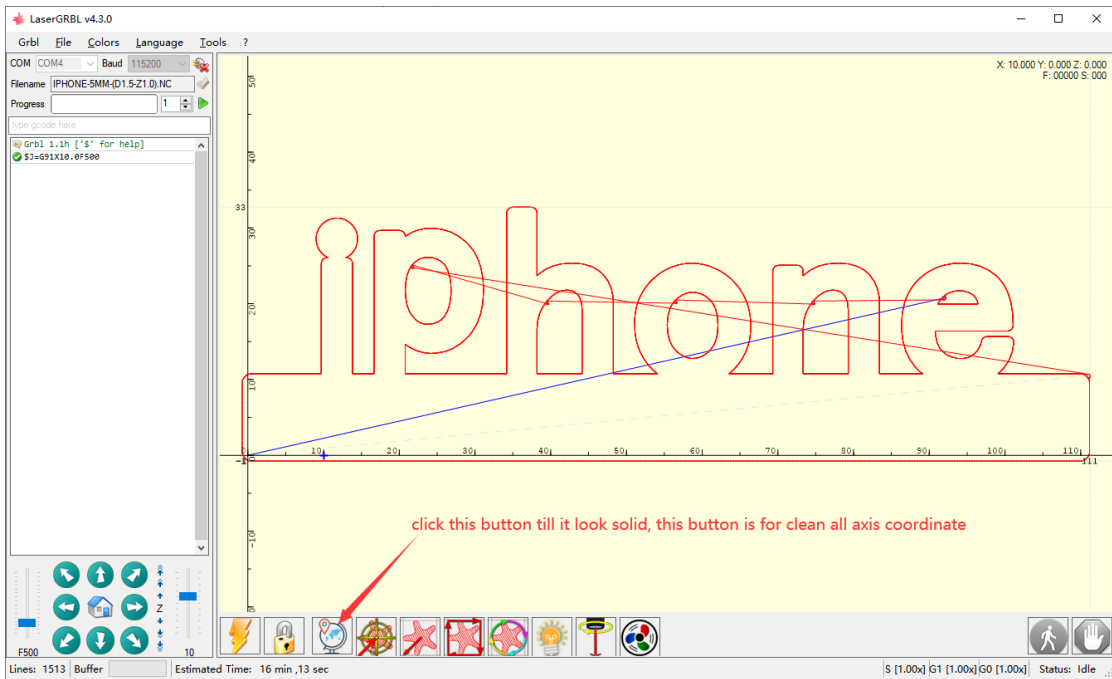
6. On software pls activate Z kit operation button, this button for control Z axis up and down on software, but normally we suggest adjust Z axis by manual with hand wheel.



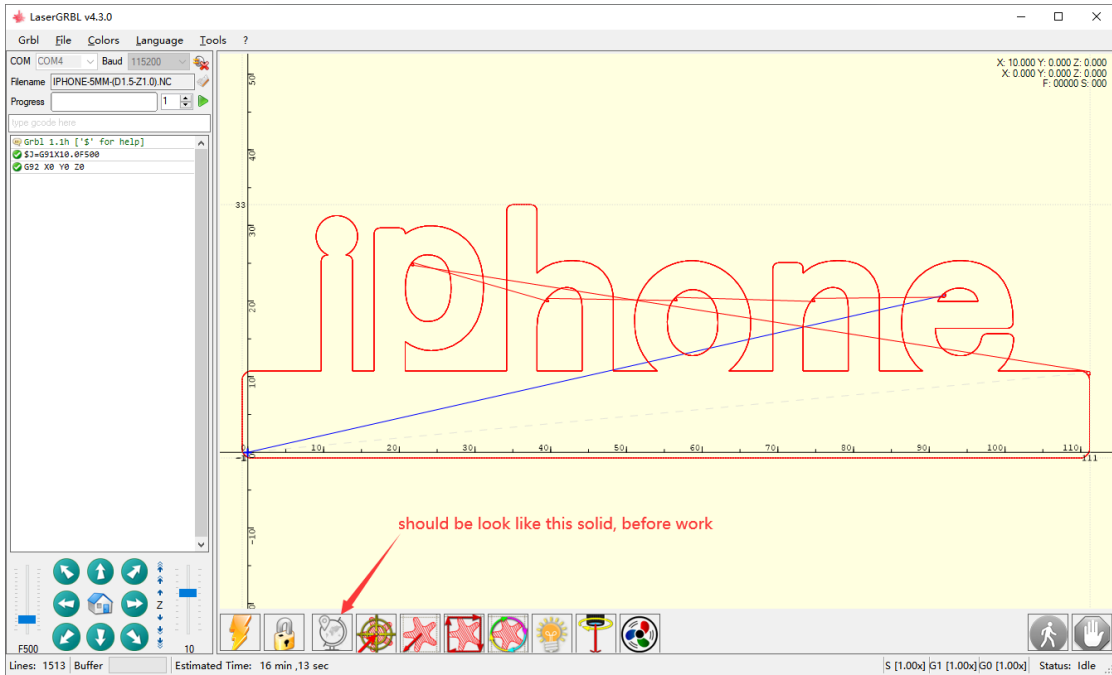
7.Upload Gcode file, NOTE: z kit only work with gcode or nc format file, it canot work for jpg,bmp,svg,pdf,dxf. So you should learn how to create Gcode by self you need create gcode from other program, most customers are use ArtCAM, or some others you can search on internet. We not give any support for how create gcode,but we will provide some testing gcode for you on file you will find them.



8.Click the button"Set zero point(G92)" till it look solid, this is for clean all axis Z X Y coordinate to zero, mean it will work from zero point.if you donot click this button, when you start work, axis will move to other place for start, this canot let it carving on your target position.

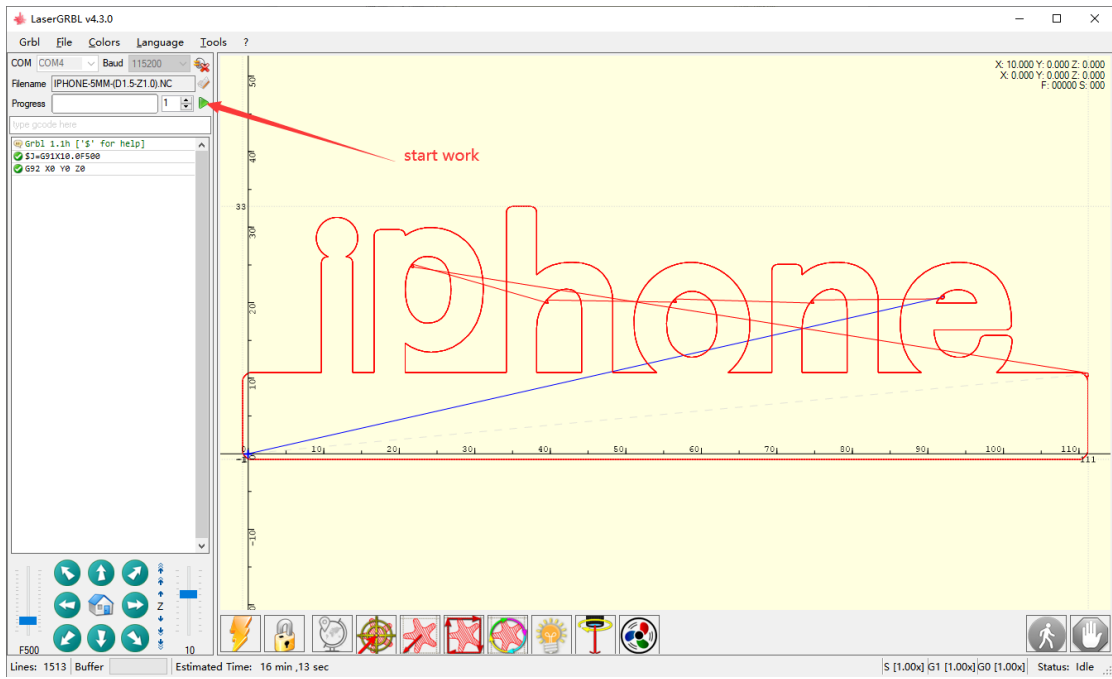


It should be look like below picture, solid.



9.Start work

After all of setting you just click this button start work. When it finish work, you will manual turn off the spindle.



NOTE: when it carving, pls remember clean the cutting waste on time, you can use dust collector remote the waste, or other method, the waste can be stuck the milling bit, pls note this.



When it finish work, spindle will go back to the original position, so you can turn off spindle or adjust spindle speed down, move the z kit away then take out the cutting result.



After cut, the result need to polishing will looking nice.

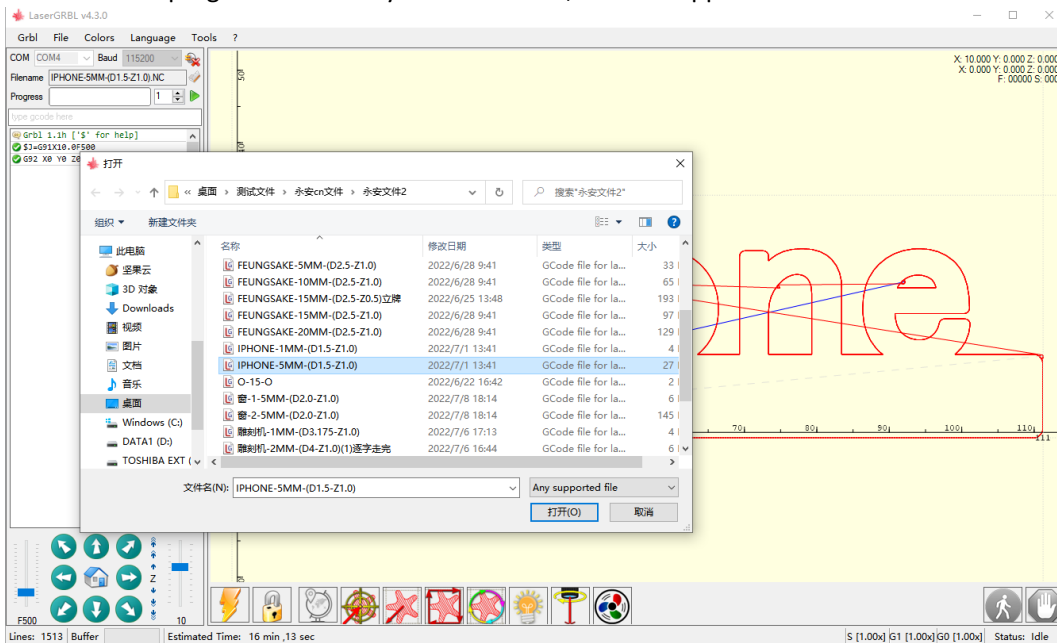


FQA

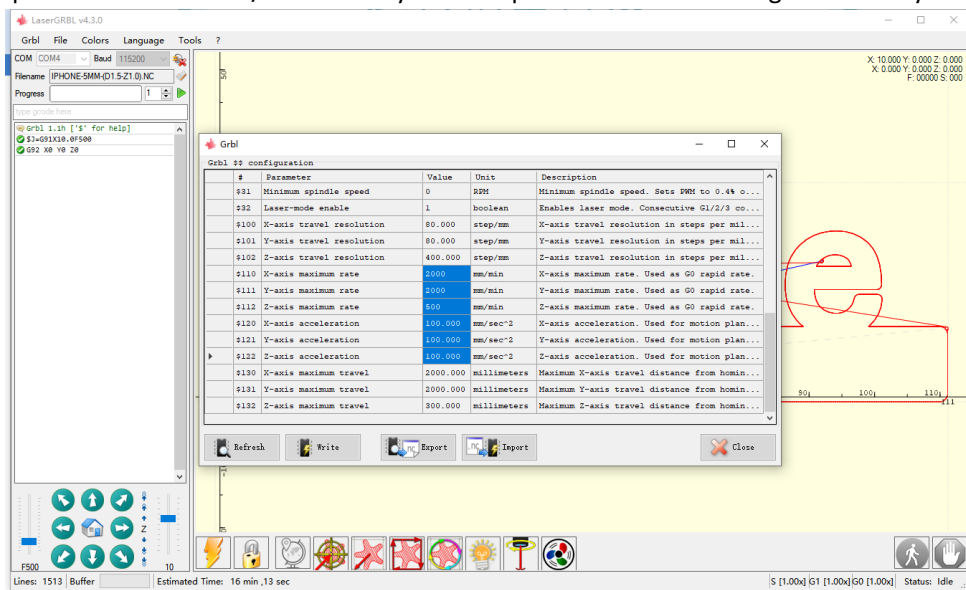
1. Can i use z kit carving on metal?

We not suggest the z kit carve on metal because this z kit spindle power is not big and the frame is not very stronger for hard materials carving, this z kit just for cut soft materials like wood, plastic, pvc, acrylic.

2. What format file work on z kit and what program to make the file?
 It only work for gcode or nc format files. Most customers use ArtCAM program create gcode, but some of other program can make you can check it, we not support this.



3. What working speed suitable work on z kit?
 On grbl setting we suggest Y X axis set less 2000mm/mins, Z axis set less 500mm/mins, accelerate speed set less 100mm/s. but mostly will set speed and feed rate on gcode when you creating file.



4. What spindle speed should i regulate ?
 We suggest work on speed 12v-19v not over 20v, if you cut hard materials you adjust to 19v, if cut soft materials you can set 16v or other. Pls donot set 24v work for spindle, it easy burnt it, but except you have 200w spindle.



5. How deep can the z kit cut?

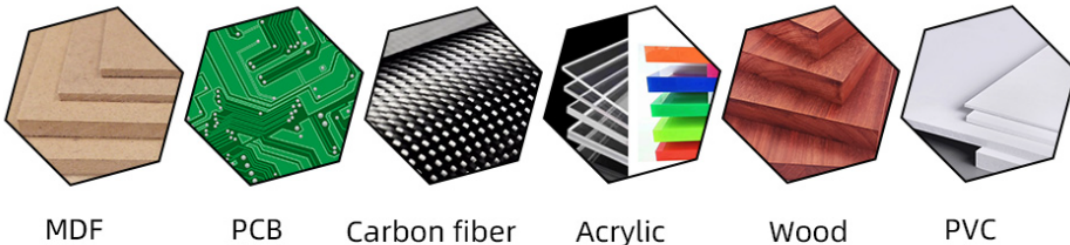
Suggest cut less 10mm thickness, every time cut down less 1.5mm depth, set repeating time for cut thicker materials, if you set over 2mm per time it will be easier break the milling bit.

6. Can i replace other size collect?

Yes, you can replace from 0.5-5mm hole of collect, we not suggest fix over 5mm collect for bigger size milling bit, it will easy stuck when it cutting thickner. But if just cut very thin material which less 2mm it will noproblem.



7. What materails can the z kit work for?



MDF

PCB

Carbon fiber

Acrylic

Wood

PVC