

## Common materials and recommended engraving and cutting parameters (for LaserGRBL)

**Table 4.1** Common material engraving parameter table recommendation

	Material	Quality	Laser Options S-MAX	Engraving Speed
Engraving	Basswood	6-8	280	1000
	Hardwood	6-8	280	1000
	Bamboo	6-8	280	1000
	Acrylic	6-8	280	1000
	Kraft paper	6-8	180	1000
	Mirrors	6-8	280	1000
	Stainless steel /aluminum alloy	6-8	1000	1000

**Table 4.2**

Recommended common material cutting parameters

	Material	Cutting Times	Engraving Speed	Laser Options S-MAX
Cutting	1.8mm Basswood	3	1000	400
	6mm Hardwood	15	1000	400
	1.8mm Bamboo	3	1000	400
	2.8mm Acrylic	12	1000	400
	Kraft paper	1	1000	800

## 5. Common Problems Possible Causes Treatment

Common problem	Possible cause	Solution
<p style="text-align: center;">The engraving machine cannot be connected to the software (here refers to the LaserGRBL software)</p>	<p style="color: red;">Driver Missing, Cannot connect</p>	<p>In the LaserGRBL software, click "Tools"&gt;"install CH340 Driver" to install the driver, and restart the computer after installation to connect</p>
	<p>Multiple LaserGRBL software open repeatedly</p>	<p>Close LaserGRBL software that is open repeatedly</p>
	<p>Incorrect port number</p>	<p>Select the correct port number</p>
	<p>Incorrect baud rate selection</p>	<p>Baud rate to be selected: 115200</p>
	<p>the data line is unconnected</p>	<p>Check whether the data line is connected correctly.</p>
	<p>USB port problem of the computer</p>	<p>Try a different USB port</p>
<p>The engraving line is</p>	<p>The belt is not tight</p>	<p>Re-tension the belt</p>

Common problem	Possible cause	Solution
not straight	Belt screws are not locked at both ends	Tighten the set screws on both ends of the belt
	Rollers are not locked, brackets are wobbling	Adjust the eccentric nut under the bracket, lock the eccentric nut so that the bracket does not wobble.
	The laser stand extends too much that causes the laser to shake.	Raise the laser to let it as close to the top as possible to reduce laser wobble