

BlueCarve Easel Set Up

Easel by Inventables is an excellent free online software that includes Computer Aided Design (CAD), Computer Aided Machining (CAM) and Sender.

Register for your free account here at [Inventables - Easel](#)

At the moment, only Easel is supported with your BlueCarve. There are other programs that you might want to consider include

1. Inkscape for CAD, Easel for CAM and Easel for Sender
2. Fusion 360 for CAD / CAM and Easel or CNCjs for Sender
3. Aspire by Vectric for CAD / CAM and CNCjs for Sender Inkscape & Fusion360 when subscribed as a hobbyist are free as well as Senders CNCjs and UGS.

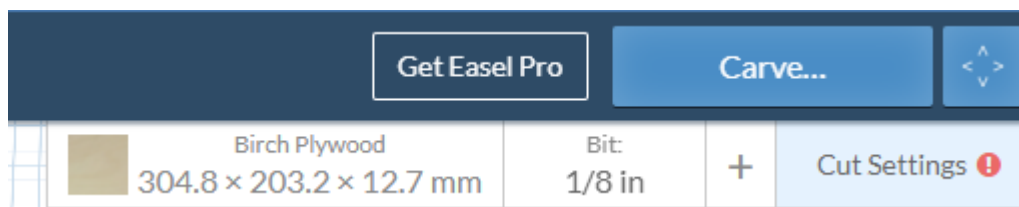
Don't forget to join the awesome BlueCarve Owners Group on Facebook >>[here](#)<<

Installation of Driver

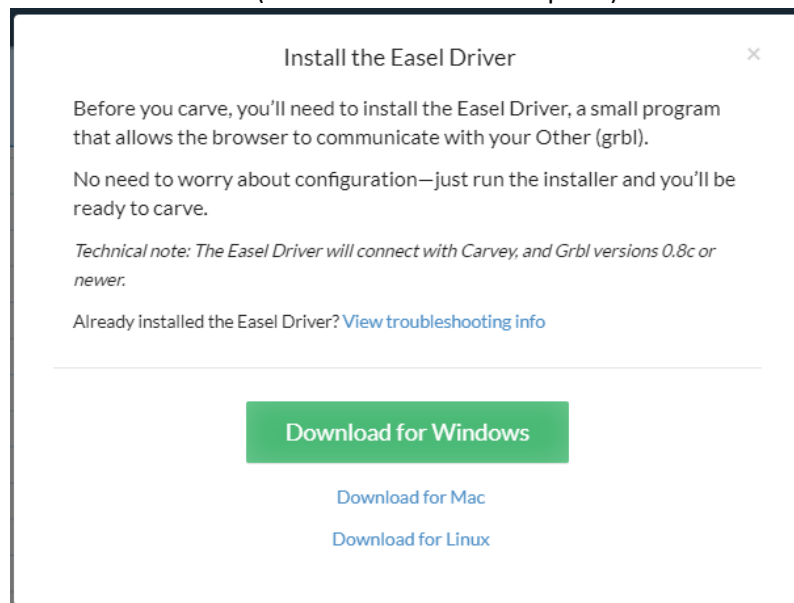
There is no need to install Easel as it is an online software for both Mac OS and Windows. Although like a printer driver, you will need to install Easel's driver to use your BlueCarve. You will also require an internet connection to use Easel. Don't worry, if you internet drops mid carve, it will not stop your progress.

It is advisable to use the web browser Google Chrome with Easel. There are known issues with other browsers.

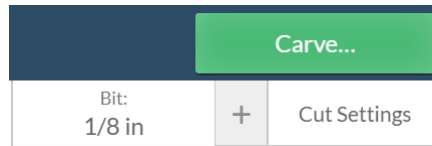
1. Register and **sign up** for your free account at <https://easel.inventables.com/>
2. **Log-in** with your user details
3. At the moment the **Carve...** button is blue. This means your BlueCarve CNC is not connected to Easel. Click on the **Carve...** button



4. Click on the latest Easel Driver and Install (Mac users use MacOS option)



5. After installation, return to the main screen. You should see the blue **Carve...** button turn Green



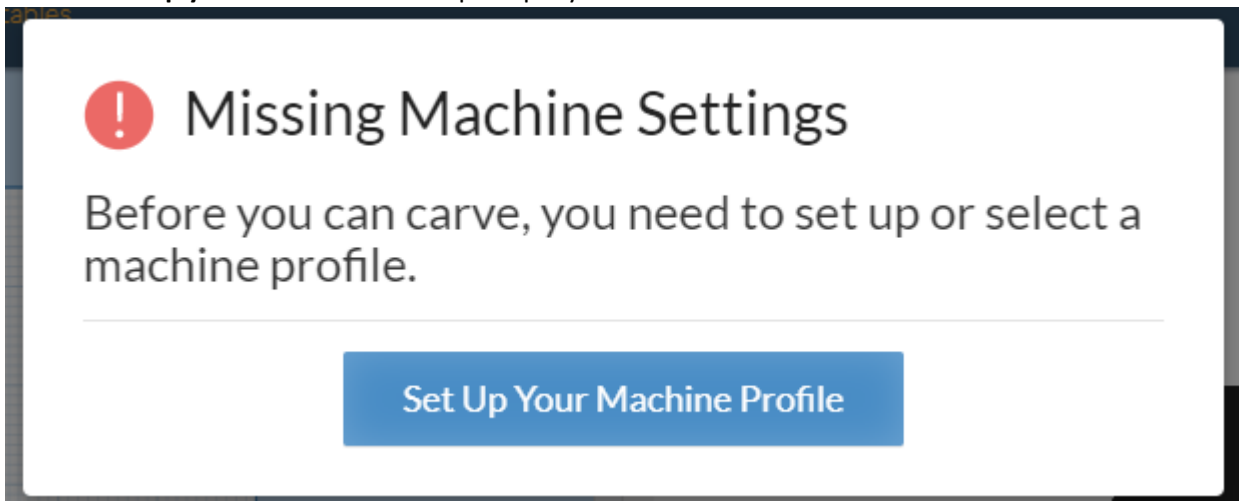
If you do not see a green **Carve...** button

- you may be using an older windows (Windows 10 works best). If so, please [download](#) and fully install the following link. Just install the software, there is no need to use the software itself.
- If you have a Turbo and button fails to turn green, your Emergency Stop might be engaged. Turn the red knob clock wise to disengage
- Sometimes using the blue USB 3.0 port on your laptop/computer can cause issues. Try using another port.
- Use another laptop/computer to confirm that it is not a computer related issue.
- If the green **Carve...** button still fails to appear, please get in contact with Adam.

Set up of Machine

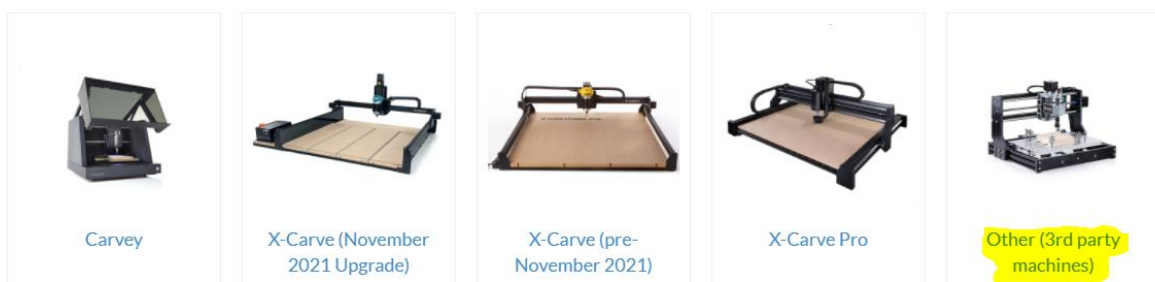
If you click on the **Carve...** button, you will be asked to **Set up your Machine**. You will need to perform the following.

1. Click on **Set up your Machine** when it prompts you



2. Click on **Other (3rd party machines)**

Choose your machine type:



3. Machine type, **Other (grbl)**

Enter your machine details

Select the settings that match your machine.

Machine type	Other (grbl)
Make	Other
Work Area X (mm)	740
Work Area Y (mm)	740
Dust shoe	<input type="checkbox"/>

You must use the correct settings for your machine to run correctly.

Confirm settings

(You can always change them later.)

4. Machine Type, **Other (grbl)**

Make, **Other**

Work Area X (mm) ([choose this size of your machine](#))

Bluey 1x1 **750**

Bluey 1x1.5 **750**

Turbo 1x1 **800**

Turbo 1x1.5 Portrait **800**

Turbo 1x1.5 Landscape **1300**

Turbo 1.5x1.5 Portrait **1300**

Work Area Y (mm) ([choose this size of your machine](#))

Bluey 1x1 **750**

Bluey 1x1.5 **1250**

Turbo 1x1 **800**

Turbo 1x1.5 Portrait **1300**

Turbo 1x1.5 Landscape **800**

Turbo 1.5x1.5 Portrait **1300**

Dust Shoe, **Leave Unchecked**

5. Click **Confirm Settings**

6. When the **Connecting to X-Carve...** box appears. If this screen does not disappear in 10seconds, physically disconnect and reconnect the USB cable into the controller box

7. In **Test your wiring**, it is always good to move the axis to see if they are all running correctly.

If your CNC does not move at all and motors are not engaging, there is a chance during transit the red controller shield has detached from the blue Arduino controller. Not to worry, disconnect power, open the controller box, align the red and blue boards and press the red board down.

If your axis moves in the wrong direction, switch the bottom terminated wires of the effected axis. The bottom wiring sequence will always be:

BROWN / WHITE

BLUE / BLACK

Test the directional buttons again

8. Click **Continue**
9. On the **Spindle settings** page, leave the selection as *Manual*
10. Click **Save spindle preference**

Spindle settings

Should Easel control your spindle automatically or would you prefer to turn it on and off manually?

Spindle control preference

Manual

Save spindle preference

11. On the **Limit switch setup**, click on **Yes, enable homing**

Limit switch setup

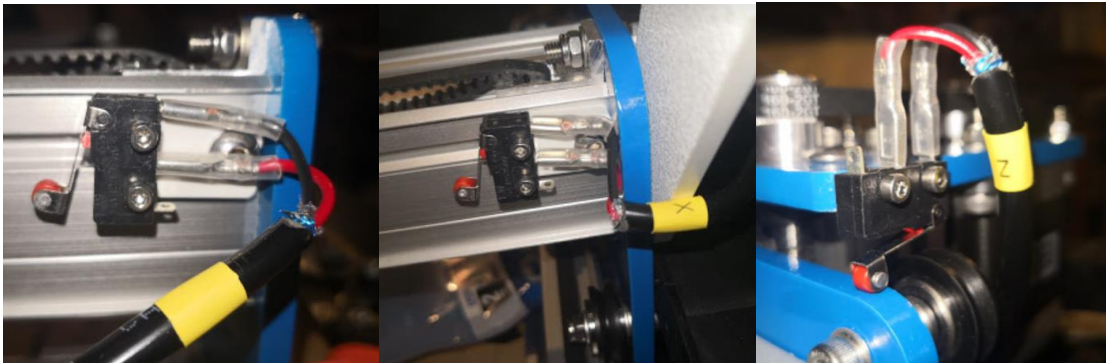
Does your machine have limit switches?

Yes, enable homing

No, disable homing

12. Proceed to test the limit switches. If a limit switch does not activate, it could be that the switch has been wired incorrectly ([Bluey](#)) or plug has been disconnected ([Turbo](#)).

[For a Bluey](#), the correct wiring is **Red** in the middle, **Black** nearest the start of the arm (or furthest from the red roller)



13. Once successful, you will be directed to set up your Z-Probe. If you are not setting up a Z probe, click

No

and proceed to **step 20**

Do you have a Z-Probe?



Yes No

Setting up your Z-Probe

Setting up your Z-Probe

Plug the leads into the carriage



Attach the clip to the collet

Clip is attached

Touch the touch plate to the collet



Not available

Advanced Settings

Continue

(To continue, make contact with the probe)

Clip is attached

14. **Confirm** Z probe is connected to the controller box by clicking

15. Test by touching the base plate with the red clip. The circle should show the following

Touch the touch plate to the collet



Contact

Sometimes you will need to rest the clip on the plate for longer than 1 second

Test probe sequence

16. **Click**

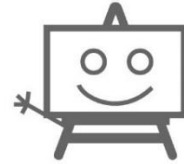
17. The Z axis will move down until the red clip is touching with the base and retract 6.35mm. If the Z axis retracts before touching the base, you may have a machine grounding issue. Speak to Adam about ways to ground your machine.

18. **Click** Continue

You will arrive at this screen

That's it! You're ready to carve!

Hooray! You finished setting up your machine!



Run the test carve

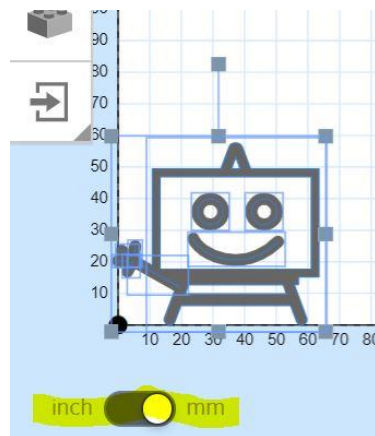
Finish

Run the test carve

Finish

19. **Click** either

20. While you are on this screen, bottom left hand side of the workspace, choose which units you will want to operate with. I suggest **mm**!



21. You can now start carving 😊

Some tips when using Easel

1. Ease into it! Start by carving your name into a bit of scrap.
2. Visit the Adam's and hints on each bit
3. Yes... the standard/recommended feed settings in Easel are slow. Once you get a hang of it, increase the feed rate and/or increase the depth per cut. You will be able to eventually increase these settings by 3x comfortably.
4. Keep that trimmer/spindle low! Keep the Makita between 2-3 and spindle between 12k and 14k. Going any faster will create heat which will blunt your bits faster.