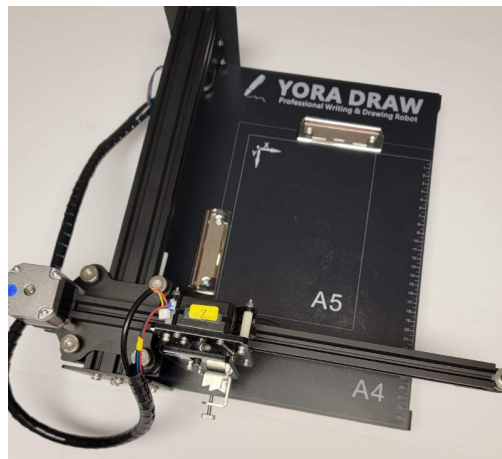




YORA DRAW WRITING & DRAWING ROBOT

USER MANUAL

Version 1.0 • Apr, 2021



Purpose

This Manual is intended for assembly of the Yora Draw Writing & Drawing Robot. This manual is designed to cover the basic functionality of the machine and software, and may not address every aspect or option present.

Before beginning assembly, we recommend conducting an inventory using the Packing List to ensure all components are present. NOTE - there may be extra hardware included; this is normal, in case items get dropped or lost.

Please read these instructions carefully before assembling your machine to prevent possible damage to your machine.

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Part 1: Packing List

Part 2: Mechanical Installation




Part 3: Software Installation

Part 4: Software Usage




Part 5: Laser Installation/Operation (optional)

Part 6: Frequently Asked Questions




Part 1 Packing List_{1/5}

Name	Quantity	Picture
Machine Base	1	
Machine Arm	1	
Power Supply	1	




Part 1 Packing List_{2/5}

Name	Quantity	Picture
Arm Mounting Nuts	4	
Allen Wrenches	4	
Wrench	1	


Part 1 Packing List_{3/5}

Name	Quantity	Picture
Screwdriver	1	
USB Cable	1	
USB Drive	1	

Part 1 Packing List_{4/5}

Name	Quantity	Picture
Cable Ties	2	
Binder Clips	4	
Magnets	4	

Part 1 Packing List_{5/5}

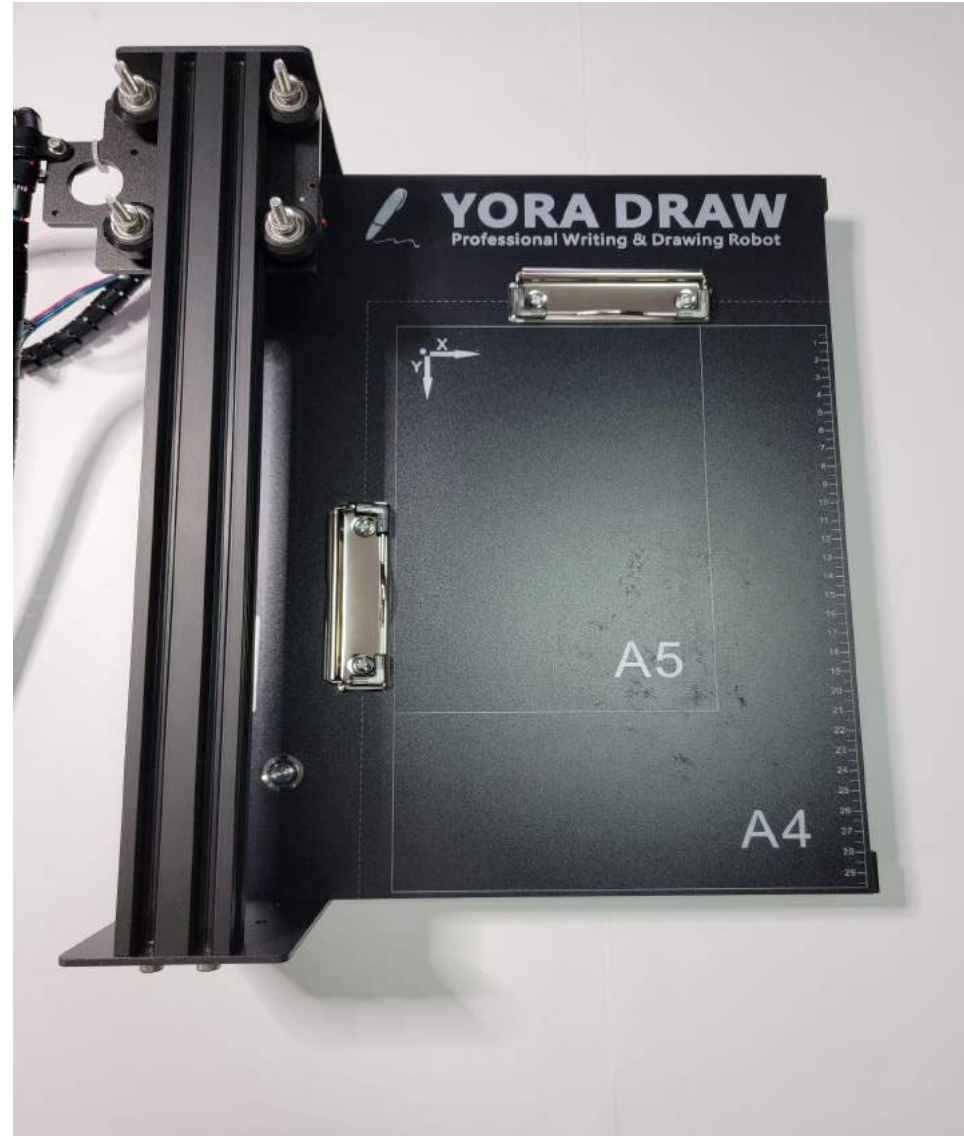
Name	Quantity	Picture
Laser Mount Kit (Optional)	1	

Part 2 Mechanical Installation

Step 1

→ Machine Assembly

Place the Machine Base on a flat surface to support the machine and allow room to work.

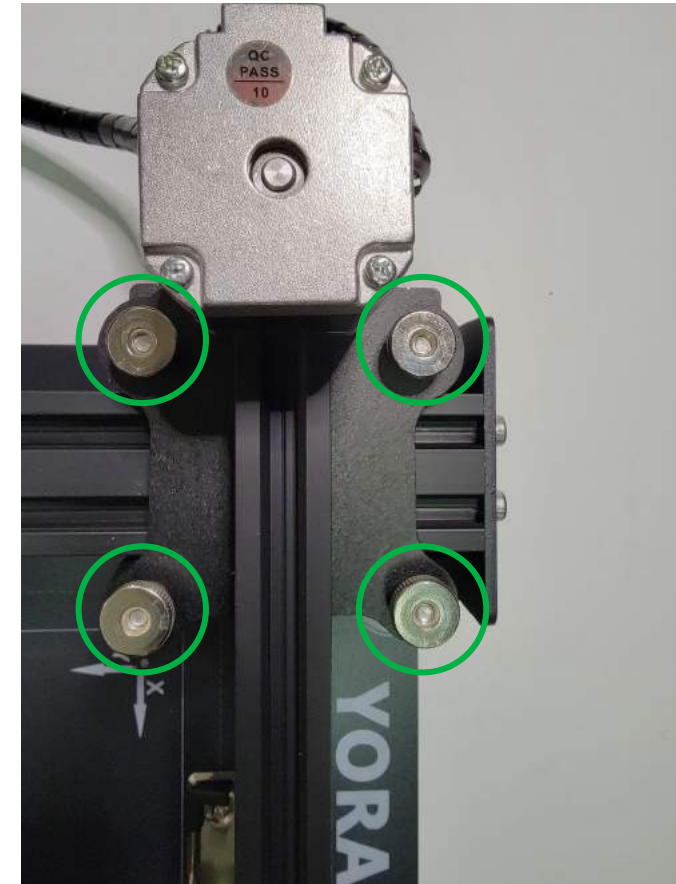
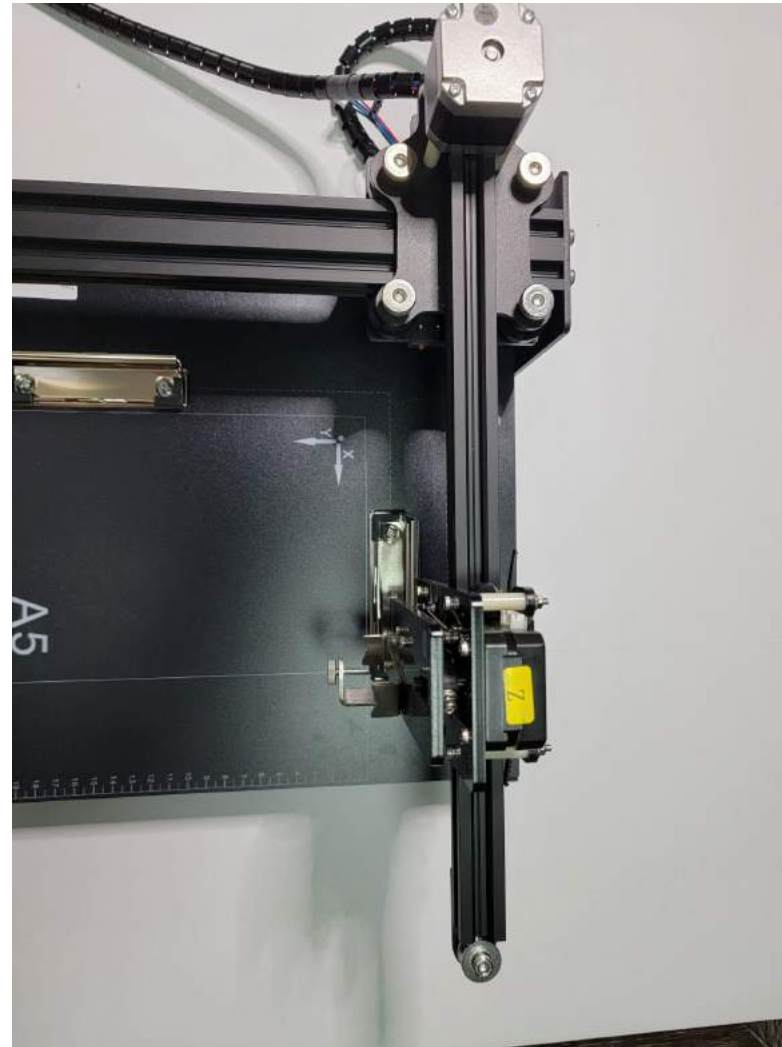


Part 2 Mechanical Installation

Step 1 (continued)
→ Machine Assembly

Place the Machine Arm over the studs on the carriage as shown.

While supporting the arm, secure with the 4 nuts provided.



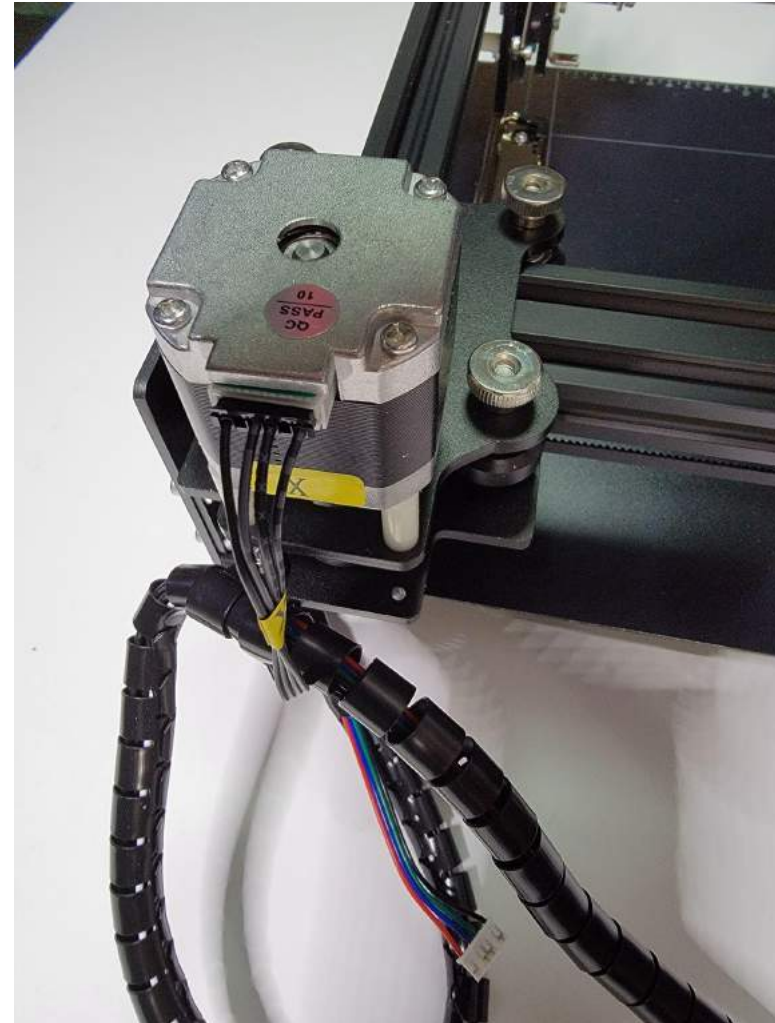
Part 2 Mechanical Installation

Step 2

→ Wire connections

Connect the wire harnesses to the motors as shown.

X axis - located at the end of the Machine Arm



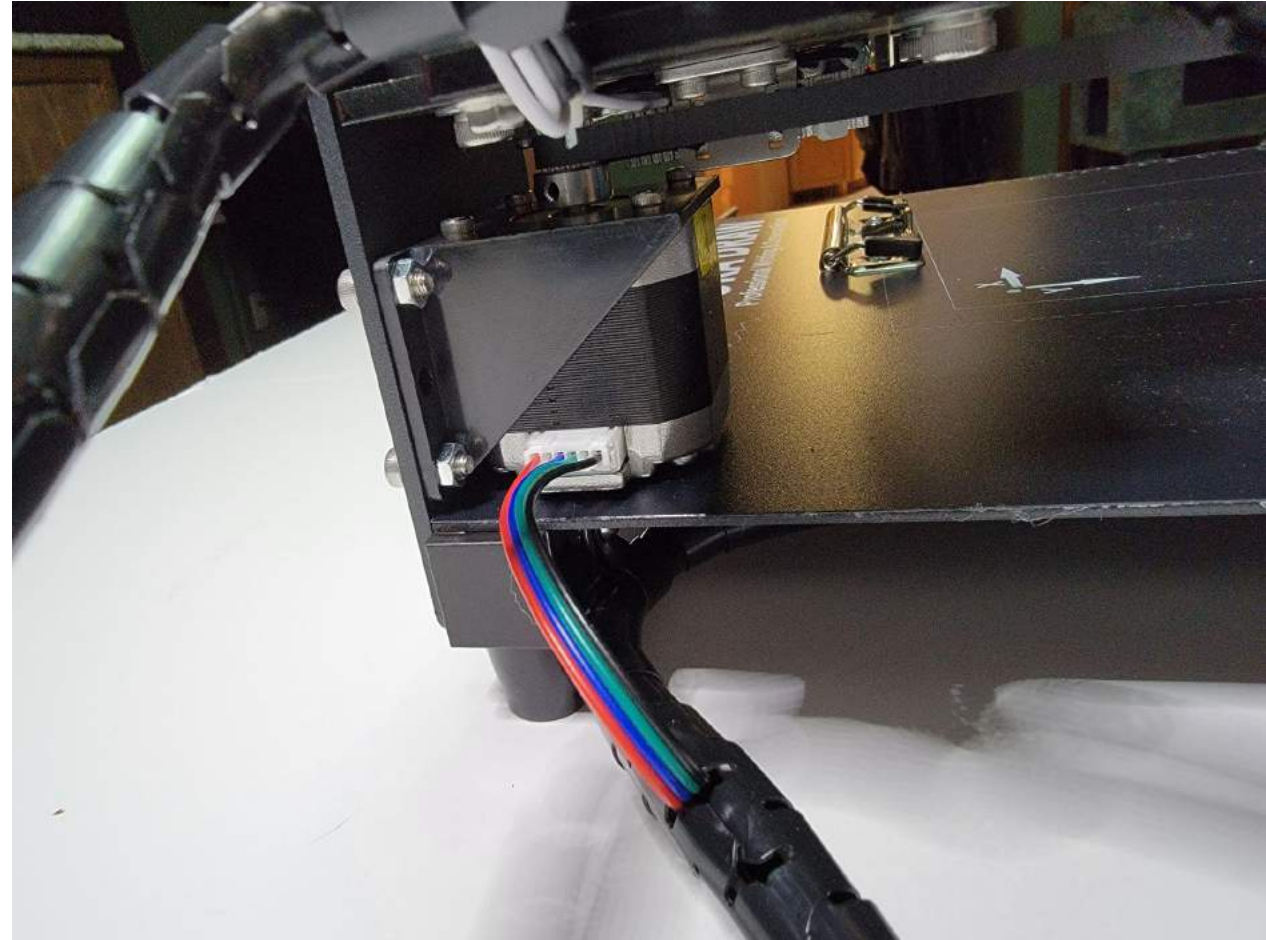
Part 2 Mechanical Installation

Step 2 (continued)

→ Wire connections

Connect the wire harnesses to the motors as shown.

Y axis - located on the Machine Base, under the carriage.



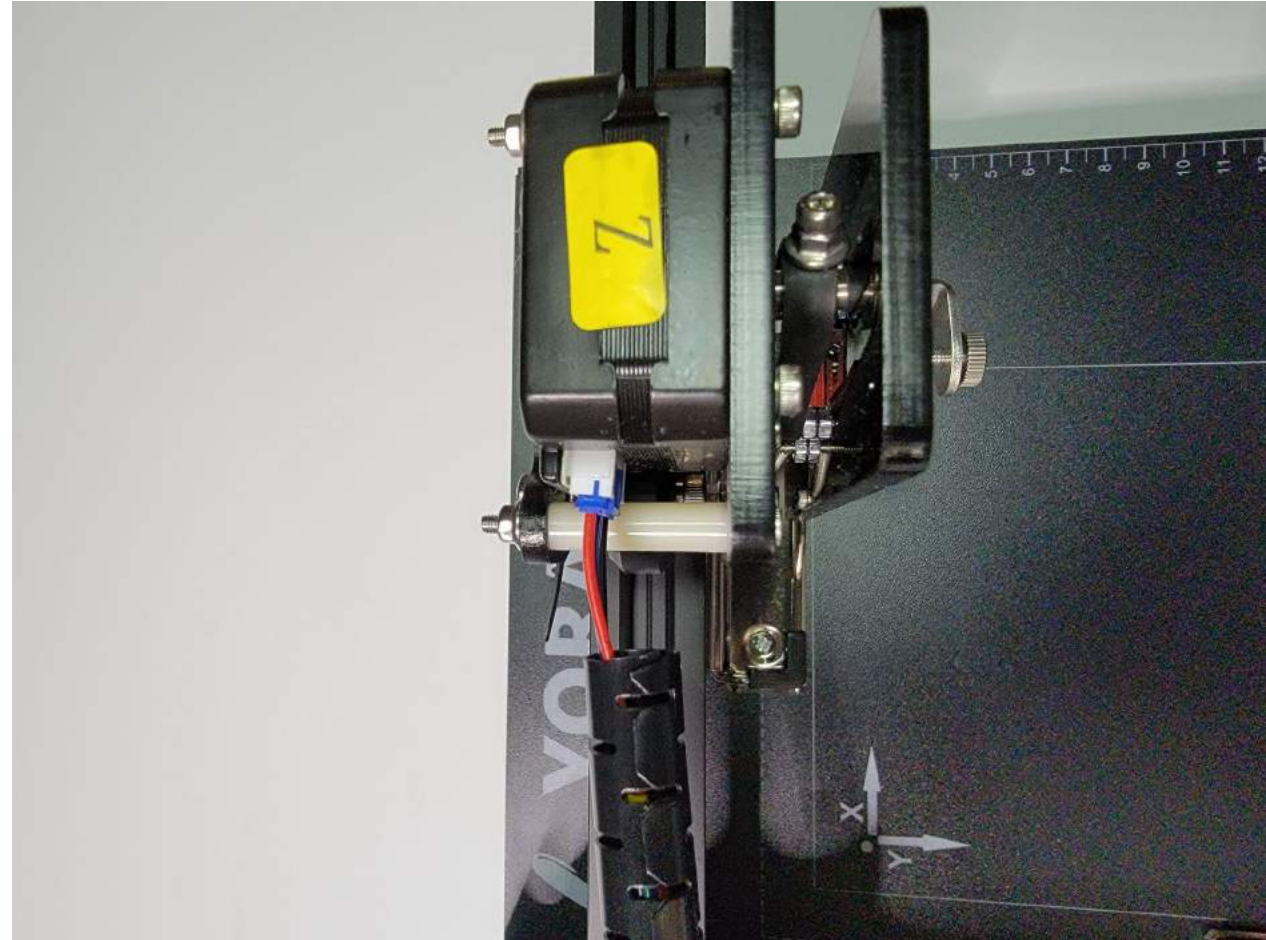
Part 2 Mechanical Installation

Step 2 (continued...)

→ Wire connections

Connect the wire harnesses to the motors as shown.

Z axis - located on the Machine Arm, moves the pen holder up/down.



Part 2 Mechanical Installation

Step 3

→ Connect Power Supply

Connect the power supply to the controller, and plug into an outlet.

Press the power button on the top of the machine to turn on.



Part 2 Mechanical Installation

Step 4

→ Install writing tool

Insert the writing instrument of your choice
- pen/pencil/marker.

Install with the tip
approximately 2-3 mm
above the work surface

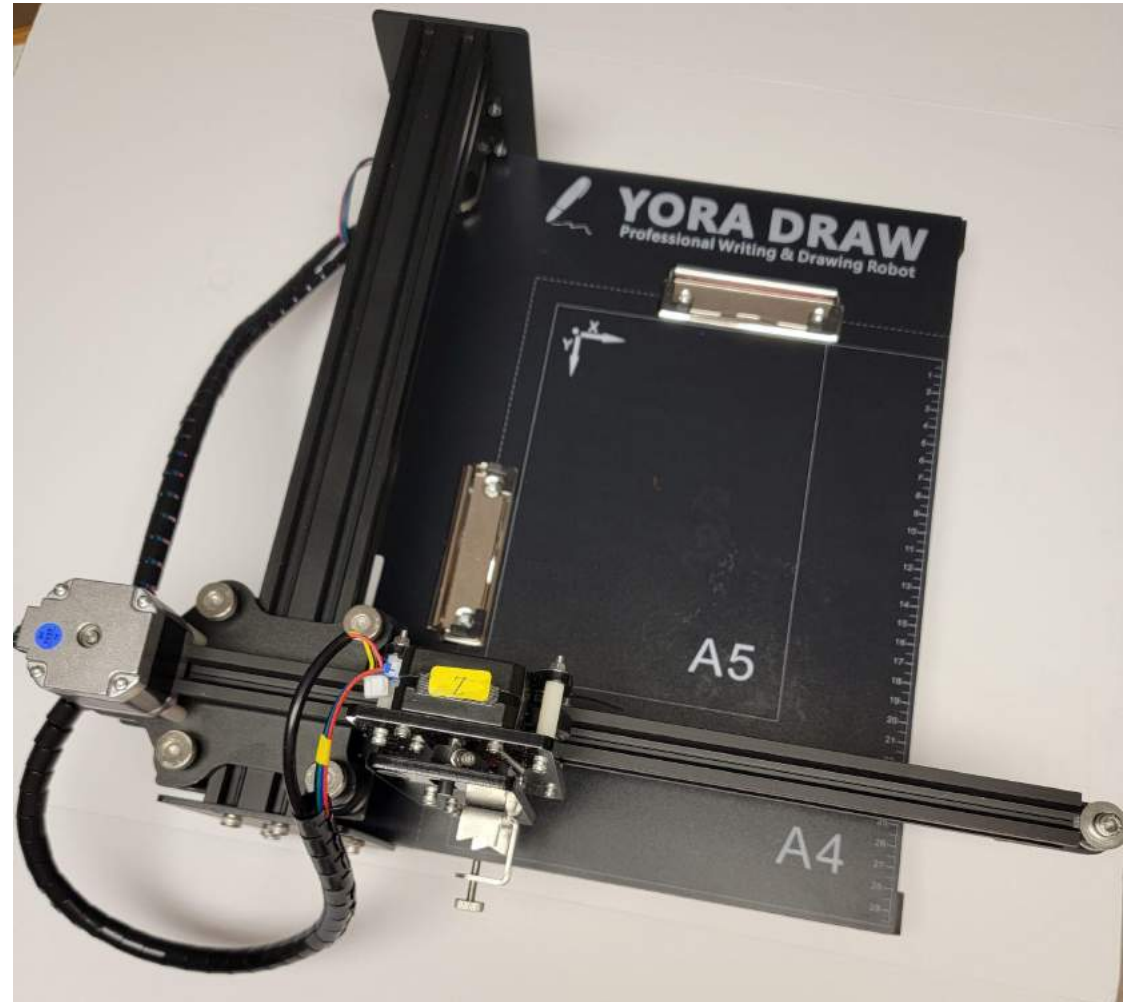


Part 2 Mechanical Installation

Step 5

→ Assembly Complete!

Your Yora Draw is now ready to operate; the next step is to install the software.



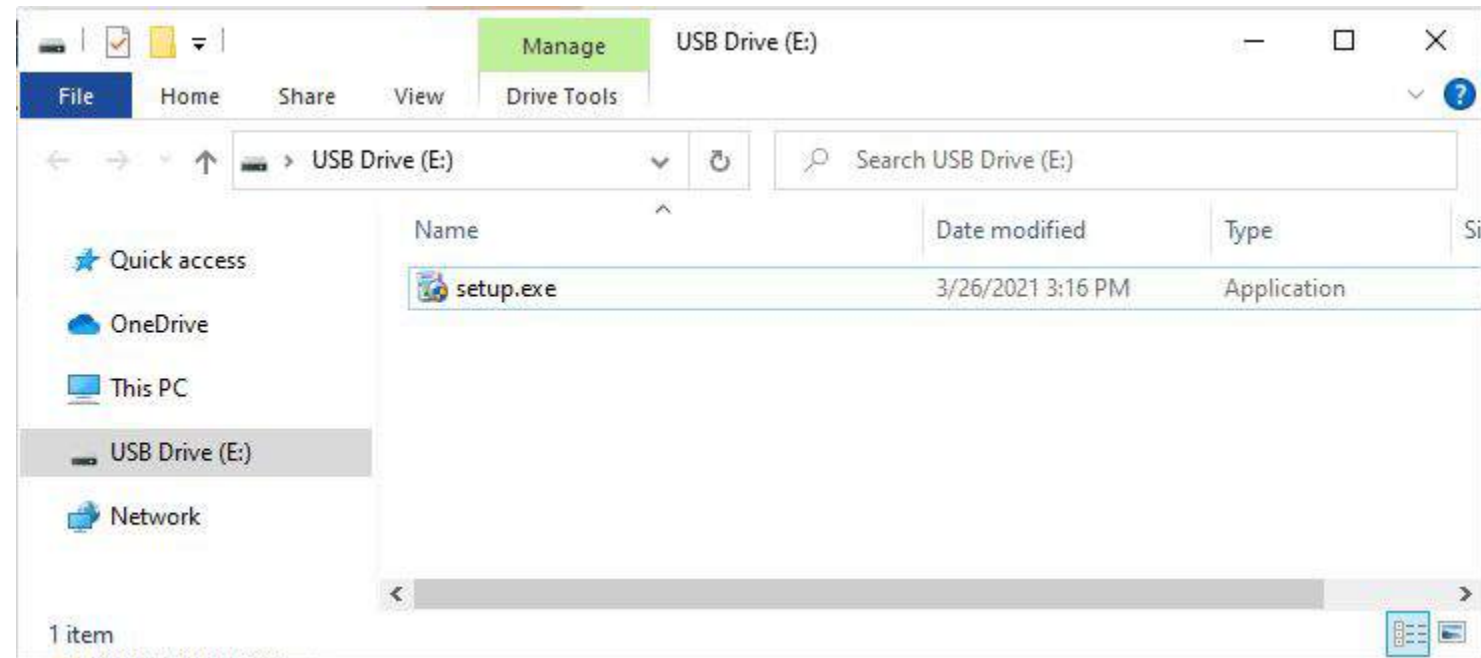
Part 3 Software Installation

Step 1

→ Insert USB Drive

Insert the USB drive into your computer, and double-click on the “setup.exe” file to start the installation process.

Note: Your computer may designate a different drive letter; example shown.



Part 3 Software Installation

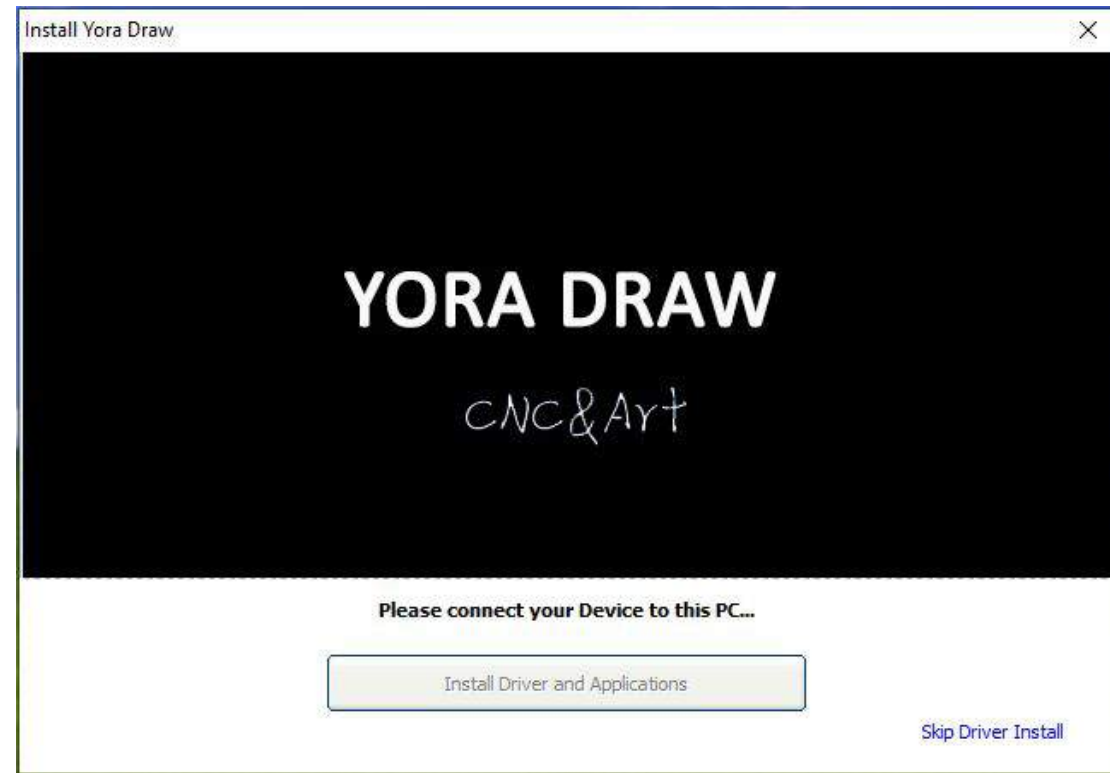
Step 2

→ Connect Yora Draw to the PC

When prompted, connect the Yora Draw to your computer using the supplied USB cable.

Then, click the “Install Driver and Applications” button.

Note: If your computer already has the CH340 driver installed (used with 3018 and 6550), select the “Skip Driver Install” option.



Part 3 Software Installation

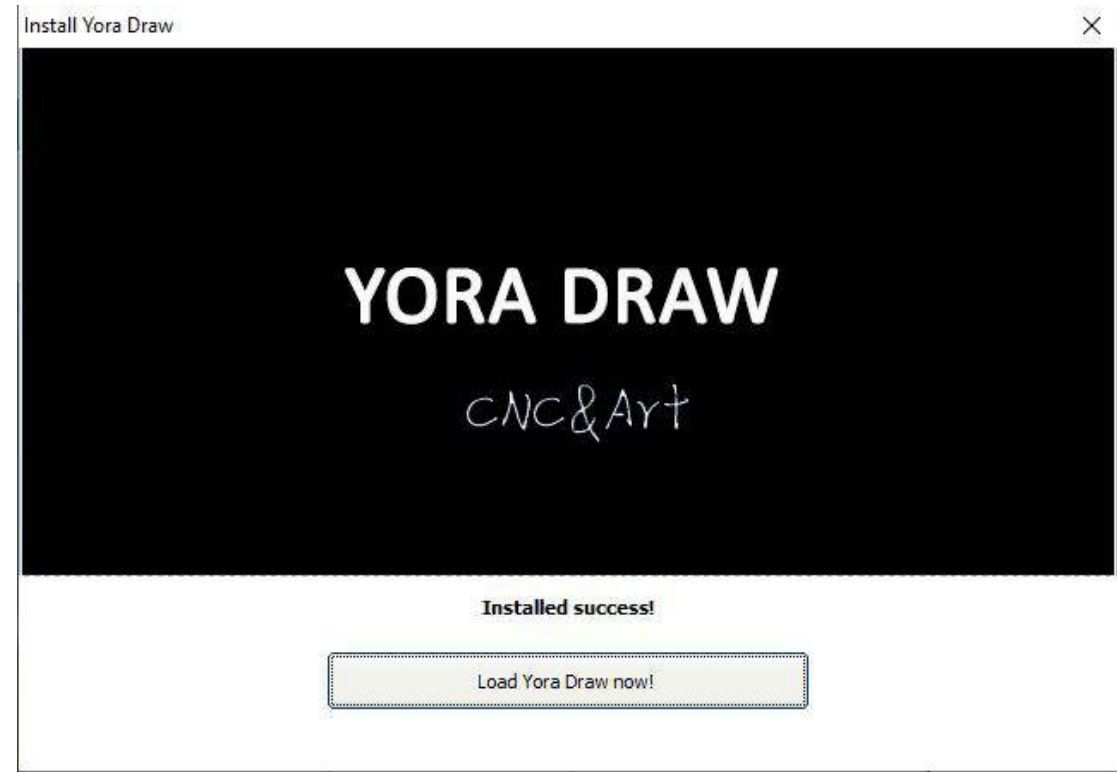
Step 3

→ Installation Complete

Once installation has finished, you will see the message “Installed success!”.

Click on the “Load Yora Draw now!” button to open the program.

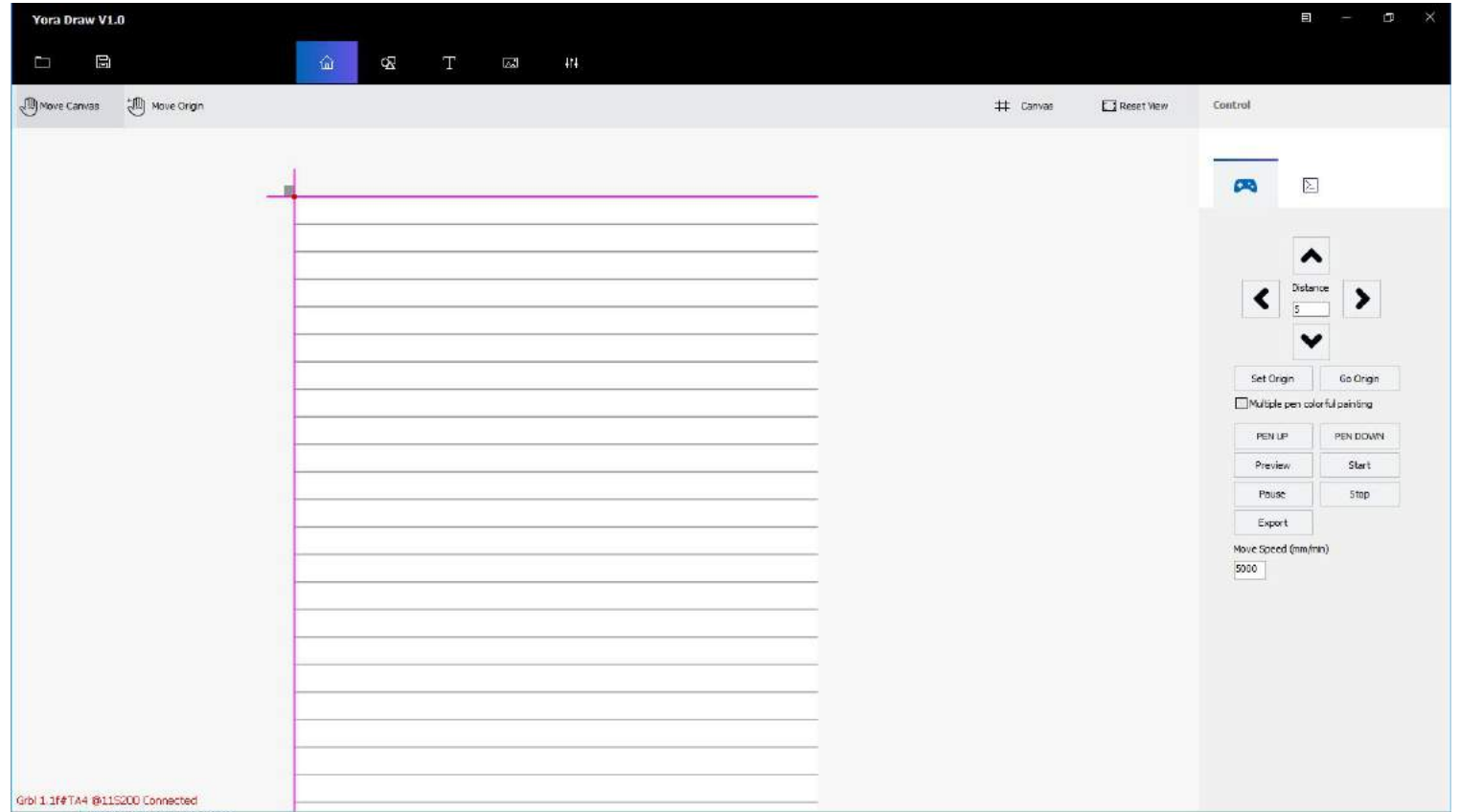
A desktop shortcut will be installed by default for your convenience.



Part 4 Software Usage^{1/13}

This is the main screen for Yora Draw.

The “Canvas” is the main work area of the software, additional controls are available on the right side of the screen.

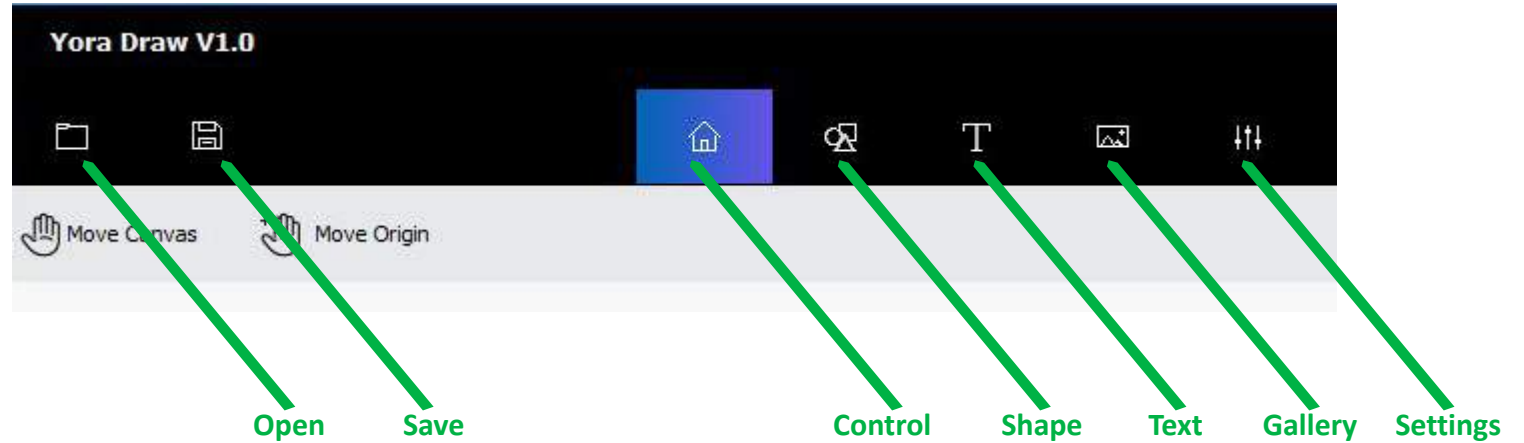


Part 4 Software Usage^{2/13}

This is the main toolbar for Yora Draw.

The key functions are:

- Open: open your own image file
- Save: save your project
- Control: the main “Home” screen to start your project
- Shape: add basic shapes to your project
- Text: add text using multiple font options
- Gallery: use pre-installed images
- Settings: change settings on your machine

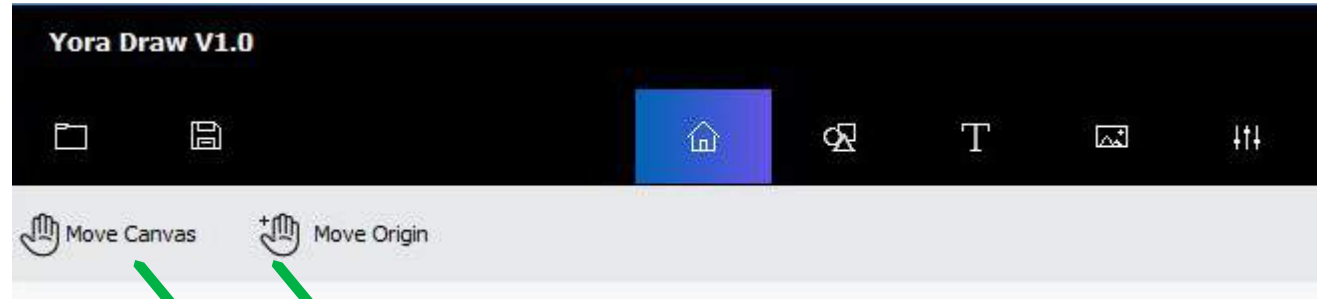


Part 4 Software Usage^{3/13}

This is the main toolbar for Yora Draw.

The Move functions are a “toggle” - click once to activate, click again to deactivate

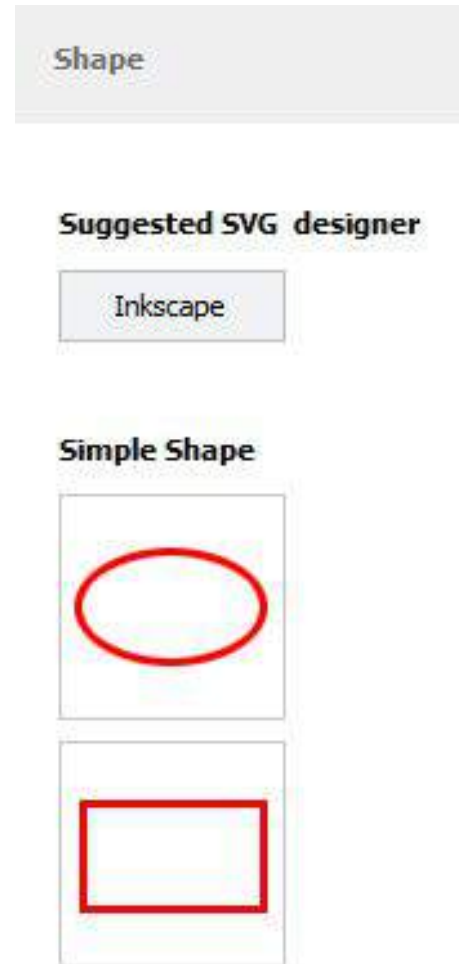
- Move Canvas: allows the entire workspace to be moved to allow viewing of the entire workspace
- Move Origin: allows the starting position to be moved within the workspace. Default origin is the top left corner of the workspace



Part 4 Software Usage^{4/13}

This is the Shape screen for Yora Draw.

The software provides some simple shapes, and a link to Inkscape - a free software program that can be used for image design.

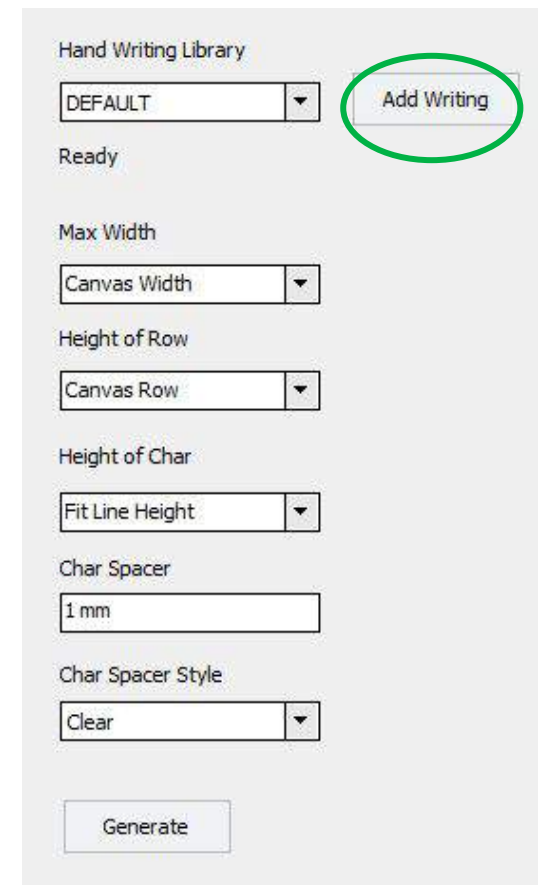
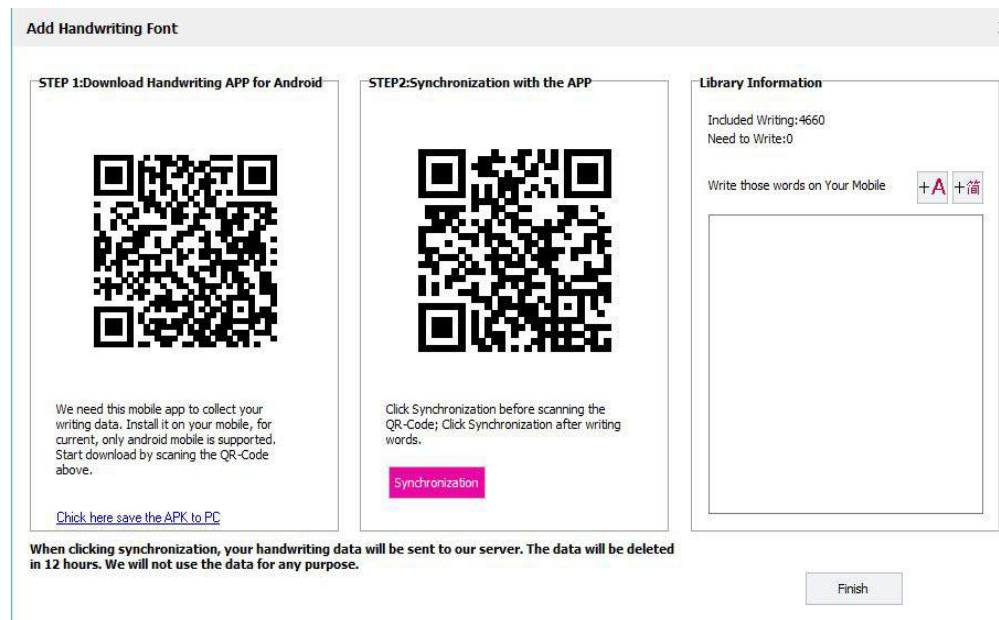


Part 4 Software Usage^{5/13}

This is the Text screen for Yora Draw.

The “New Writing” option will provide a “handwriting” font. You can also add your own handwriting, using a smartphone app.

Clicking the “Add Writing” button will prompt to install the smartphone app.



Part 4 Software Usage^{6/13}

This is the Text screen for Yora Draw.

The “New Text” option will utilize common computer fonts.

Text

New Writing

手写字体 / Handwritten font

New Text

电脑字体 / COMPUTER FONT

电脑字体 / COMPUTER FONT

Font Name
Segoe Script ▼

Max Width
Canvas Width ▼

Height of Row
Canvas Row ▼

Height of Char
Fit Line Height ▼

Char Spacer Style
No Change ▼

Char Spacer
0 mm

Style
Outline ▼

Fill Line Height
0.15 ▼

Generate



Part 4 Software Usage^{7/13}

This is the Gallery screen for Yora Draw.

These are simple images included with the software for testing and printing as desired.

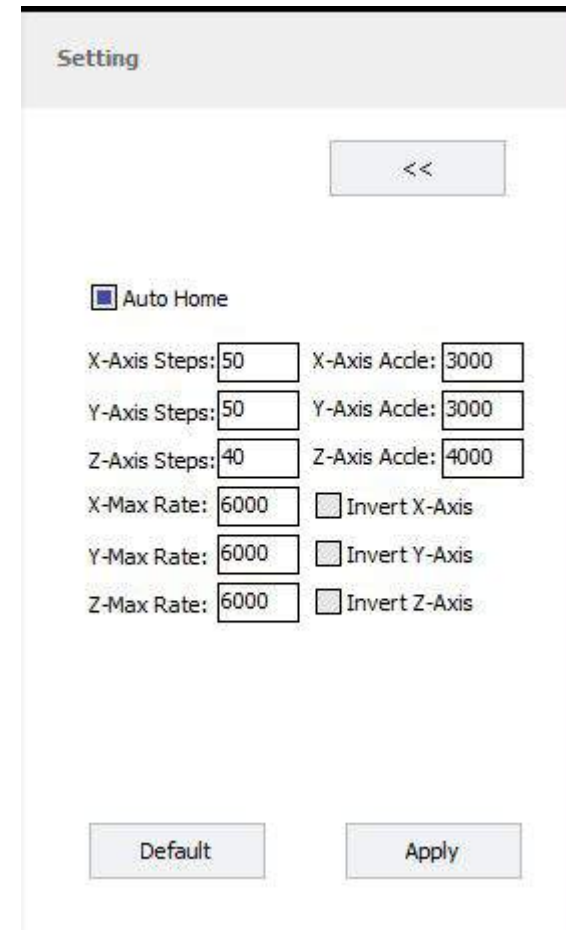


Part 4 Software Usage_{8/13}

This is the Settings screen for Yora Draw.

In most cases, you will not need to change these settings from the default values.

If your machine is not moving properly, please contact Support for guidance.



The screenshot shows the 'Setting' screen of the Yora Draw software. At the top, there is a title bar labeled 'Setting'. Below it, a '<<' button is visible. The main content area contains a checkbox labeled 'Auto Home' which is checked. Below this, there are three rows of settings for the X, Y, and Z axes. Each row has two input fields: 'Steps' and 'Accel'. For the X-axis, Steps is 50 and Accel is 3000. For the Y-axis, Steps is 50 and Accel is 3000. For the Z-axis, Steps is 40 and Accel is 4000. Below these, there are three rows of settings for the maximum rate and an 'Invert' checkbox for each axis. For the X-axis, Max Rate is 6000 and Invert X-Axis is unchecked. For the Y-axis, Max Rate is 6000 and Invert Y-Axis is unchecked. For the Z-axis, Max Rate is 6000 and Invert Z-Axis is unchecked. At the bottom, there are two buttons: 'Default' and 'Apply'.

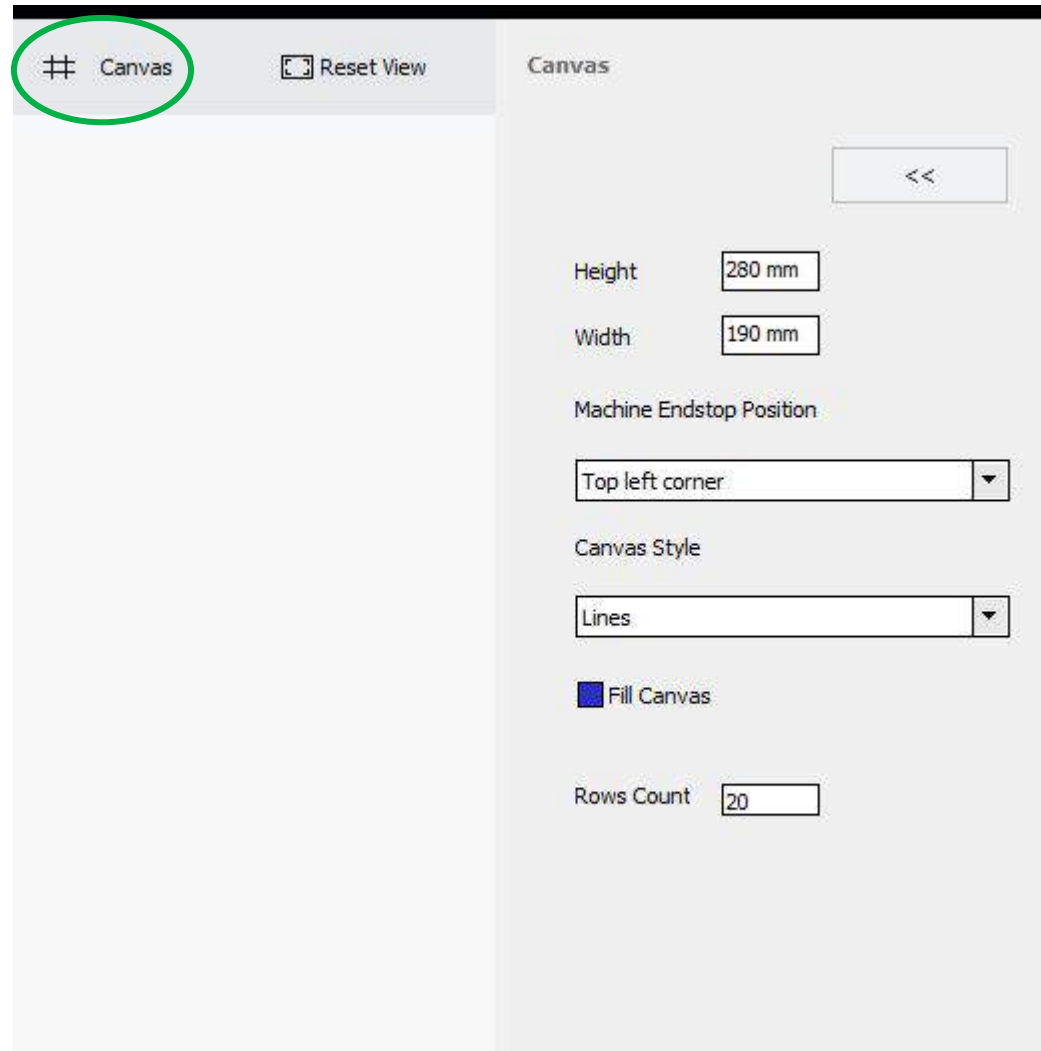
Axis	Steps	Accel	Max Rate	Invert
X-Axis	50	3000	6000	<input type="checkbox"/>
Y-Axis	50	3000	6000	<input type="checkbox"/>
Z-Axis	40	4000	6000	<input type="checkbox"/>



Part 4 Software Usage^{9/13}

This is the Canvas screen for Yora Draw.

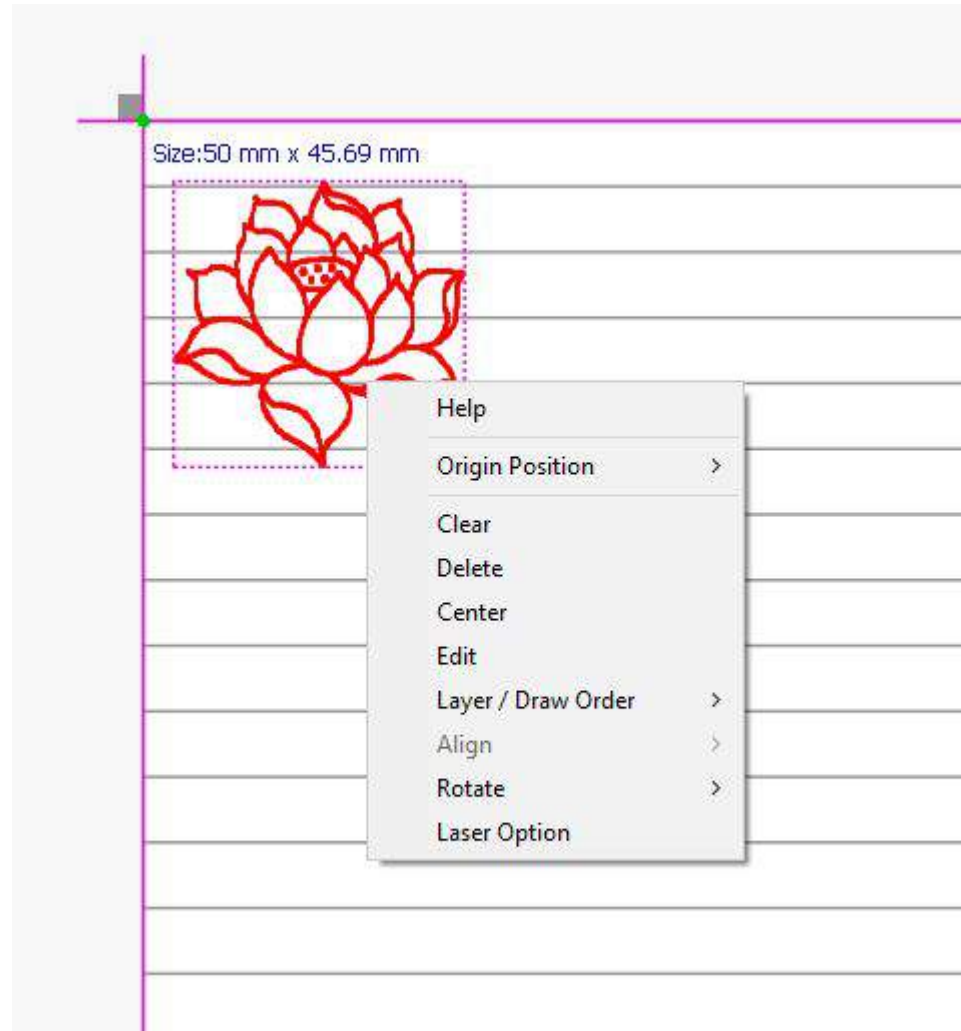
The size of the workspace can be modified here, as well as the Canvas Style - Lines is the default setting, you may also select grid, blank, image.



Part 4 Software Usage^{10/13}

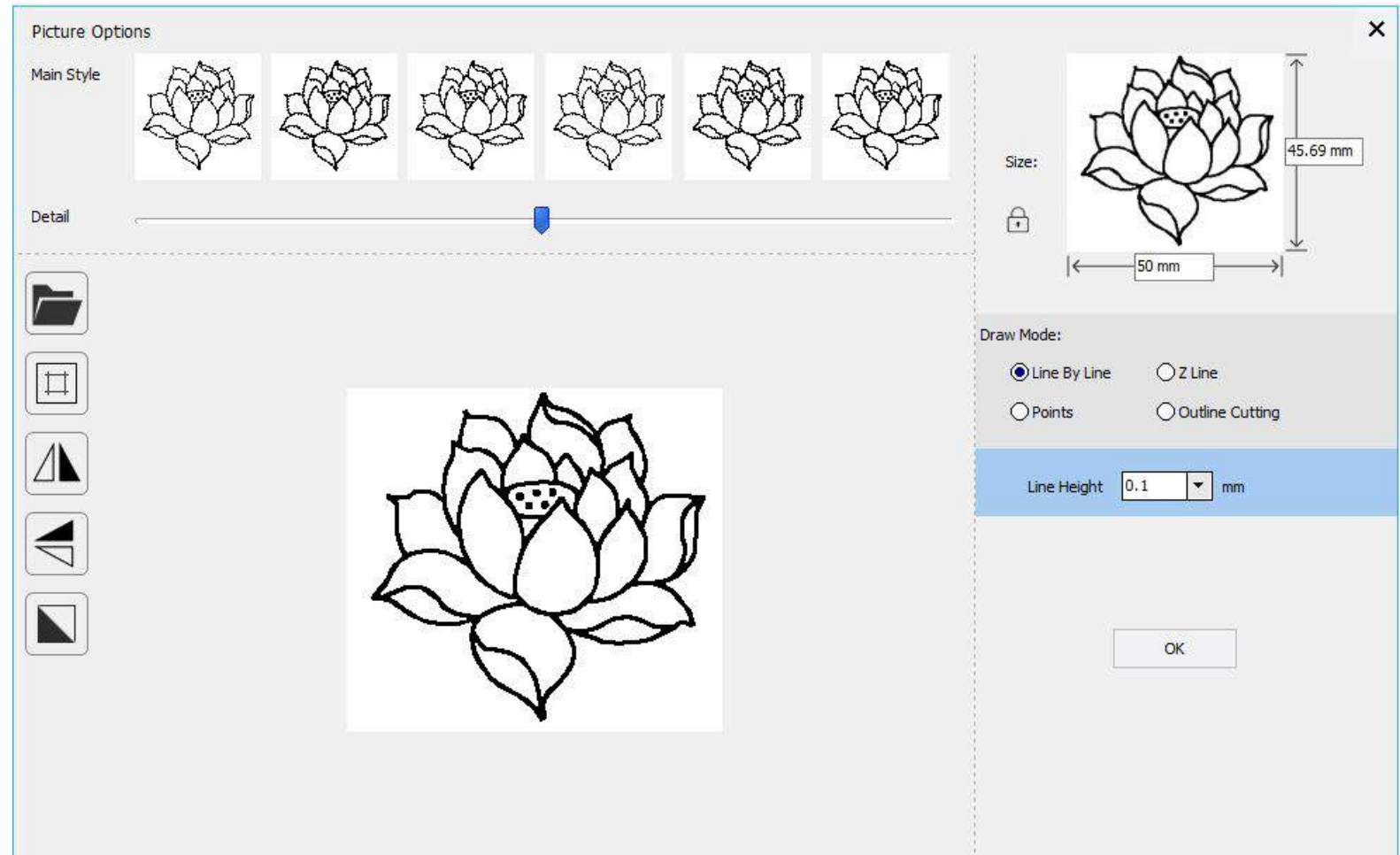
Once an image has been loaded, click on the image to select it.

Right click on the image to bring up additional tools or to edit the image.



Part 4 Software Usage^{11/13}

Image editing
allows for resizing
and style changes,
as well as different
drawing modes



Part 4 Software Usage^{12/13}

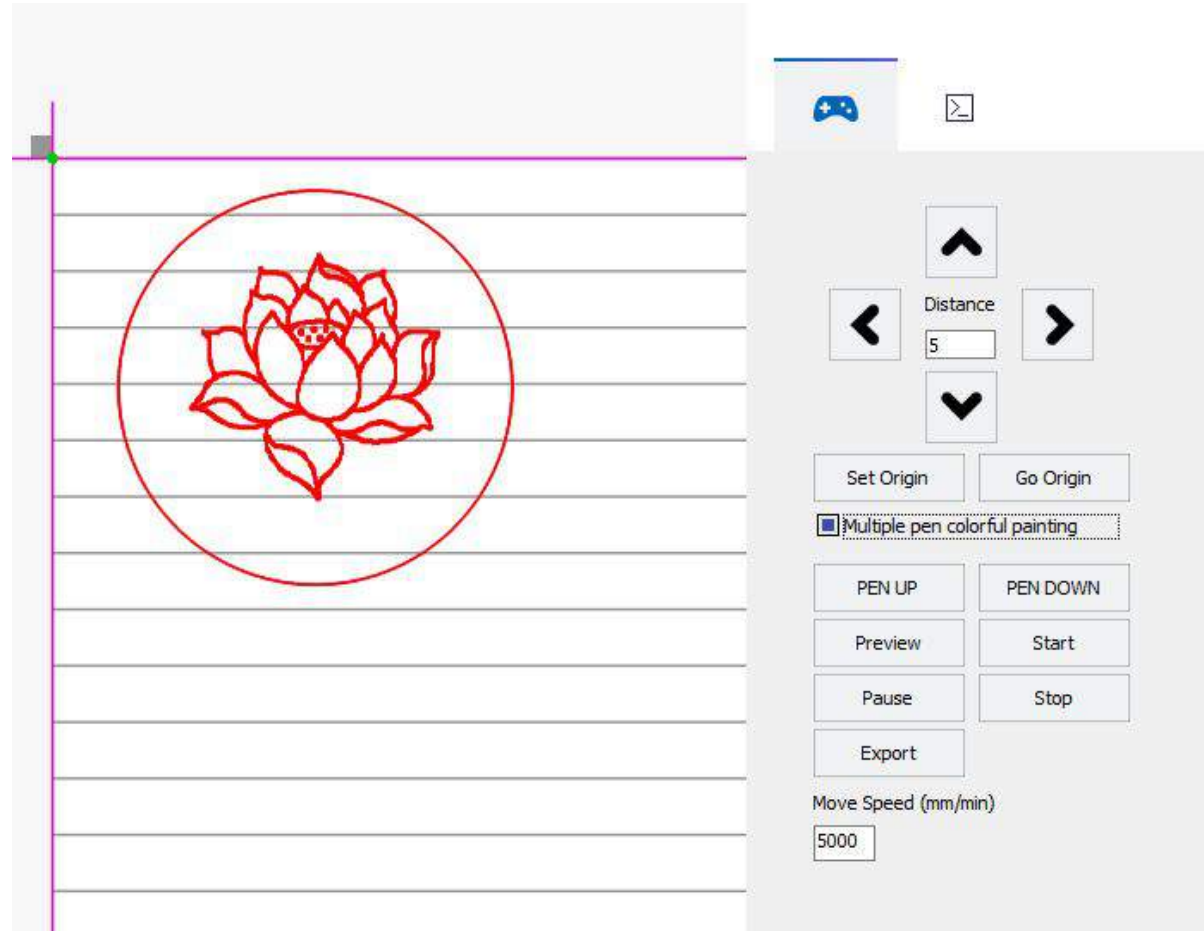
Once the drawing is ready, click on the Control option to start the project.

The movement buttons will allow for positioning.

The “Multiple pen...” option will allow for color changes for different layers.

The “Preview” will show the area in which the drawing will be placed

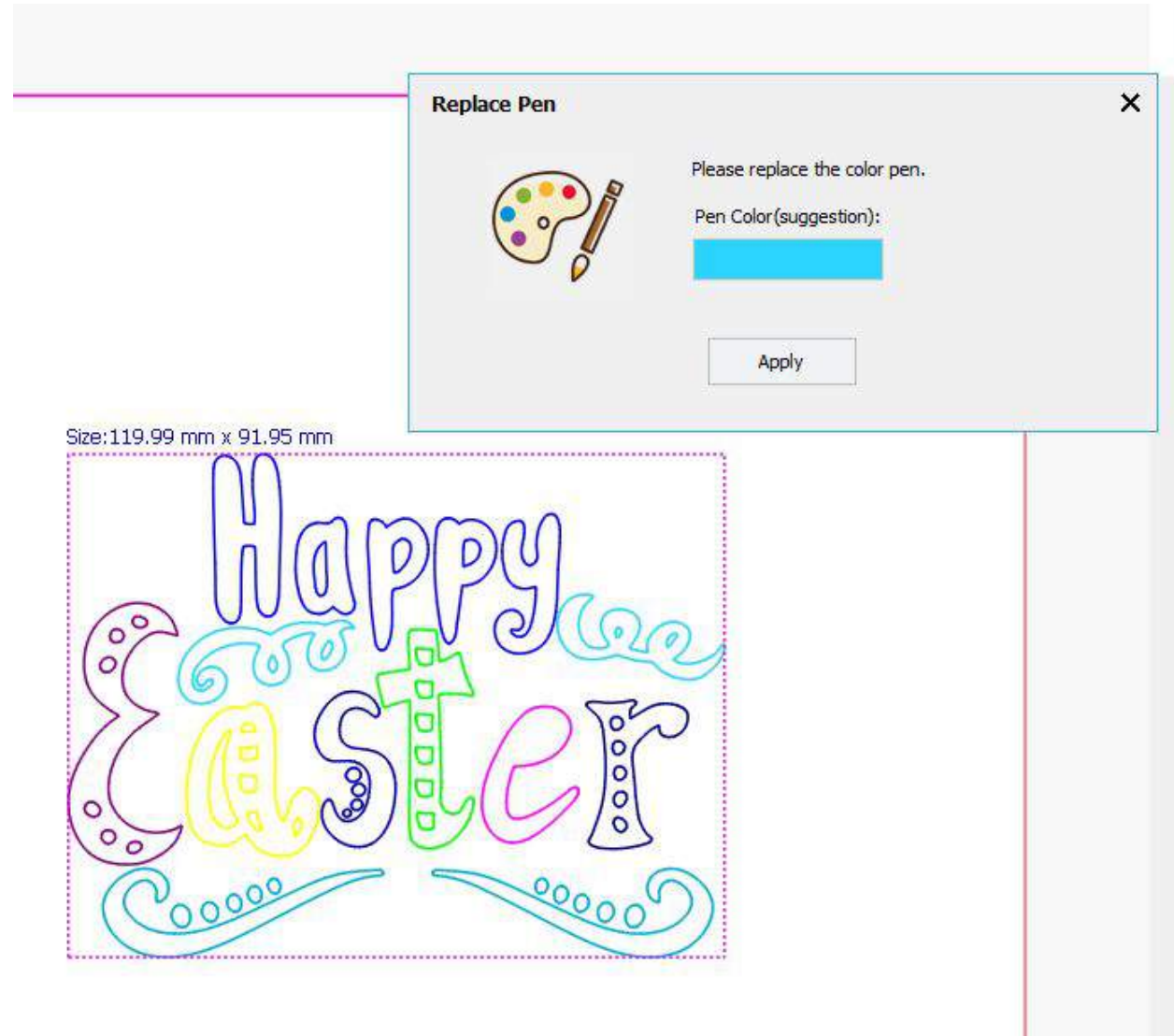
Click “Start” to begin your drawing.



Part 4 Software Usage^{13/13}

In the example shown, the different colors in the source image were defined in Inkscape; each is a different layer.

As shown, the software will prompt to change the pen for each layer as it progresses through the project.



Part 5 Laser Installation/Operation_{1/8}

The YoraDraw may be equipped with a laser module, allowing for laser engraving on a small scale.

Due to the construction of the machine, the Yora Draw is NOT compatible with our fixed focus laser modules (15W and 40W); only the adjustable focus modules (3.5W and 5.5W) can be used.

The following section will cover installation and operation of the laser module.



Part 5 Laser Installation/Operation_{2/8}

The laser mounting kit consists of the following components:

- Acrylic mounting plate
- 4x M3x18 screws
- 4x M3x10 spacers
- 2x M3x10 screws



Part 5 Laser Installation/Operation_{3/8}

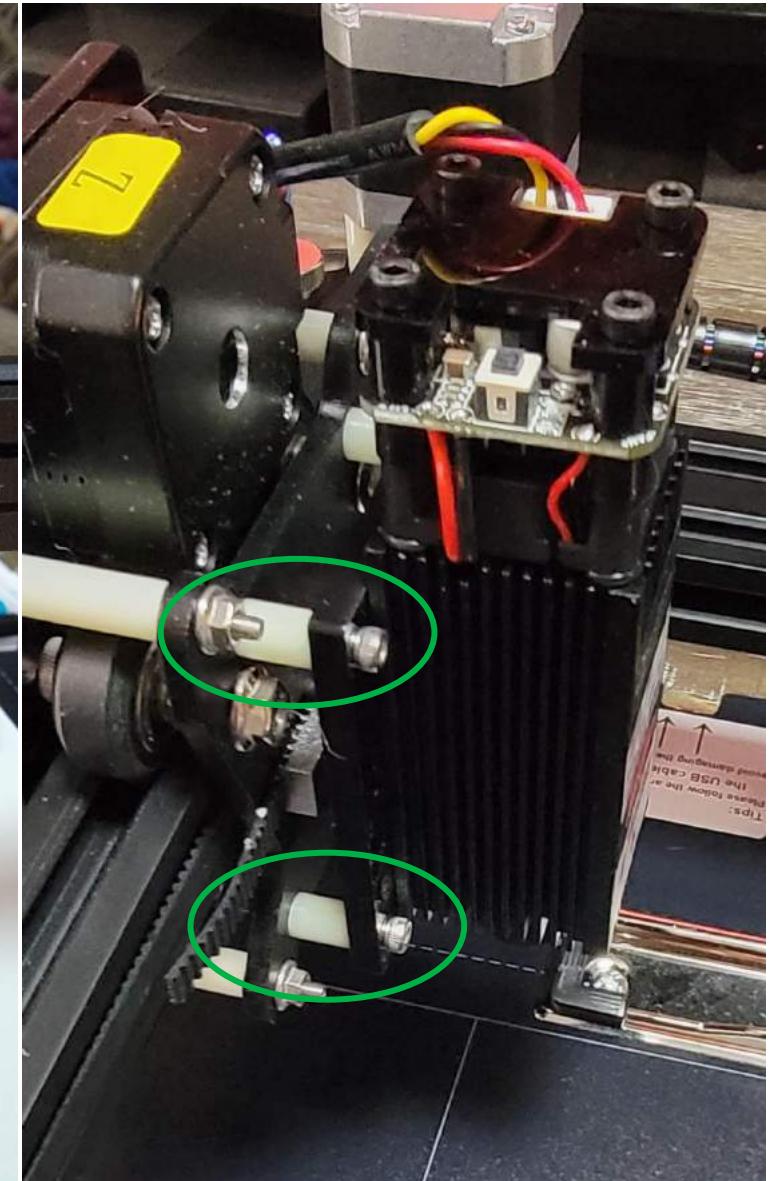
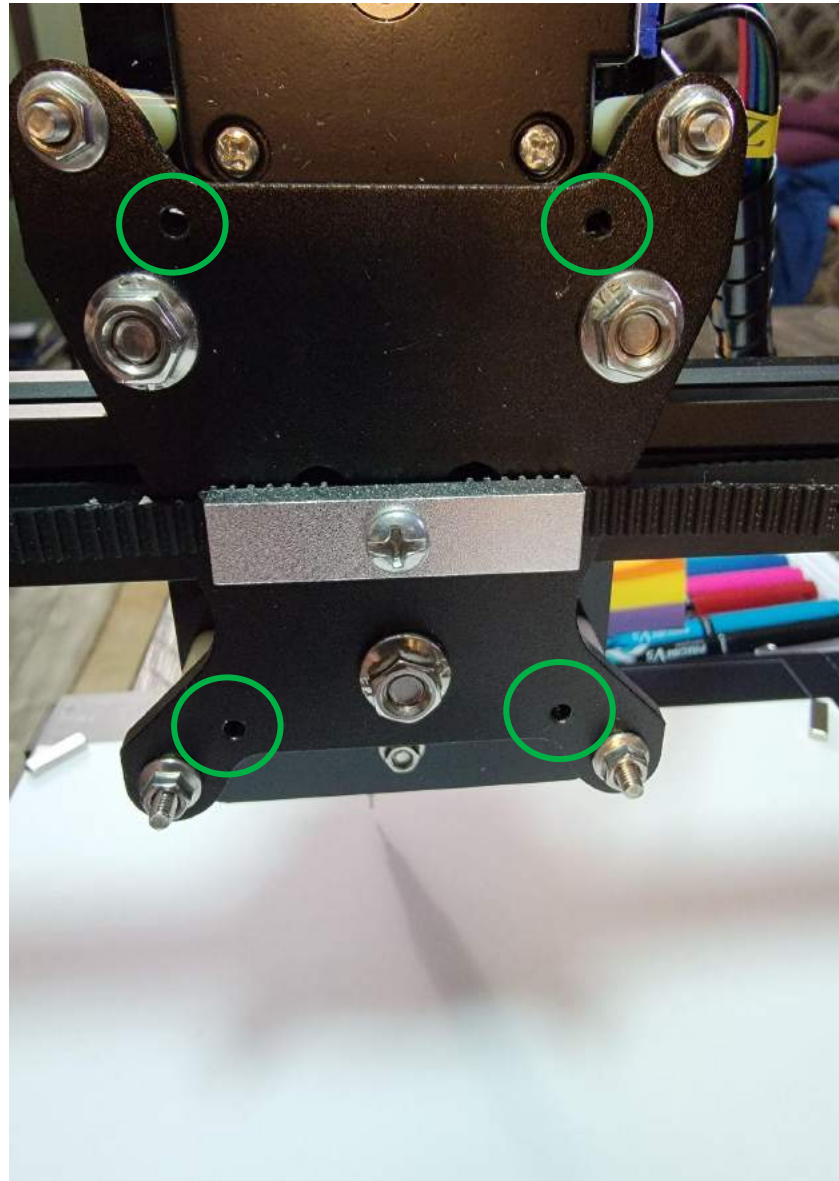
The laser module has mounting holes on the back face.

Using the 2x M3x10 screws, attach the acrylic plate to the laser module



Part 5 Laser Installation/Operation_{4/8}

Using the M3x18 screws and M3x10 spacers, mount the laser module and acrylic plate to the back side of the pen holder mechanism.

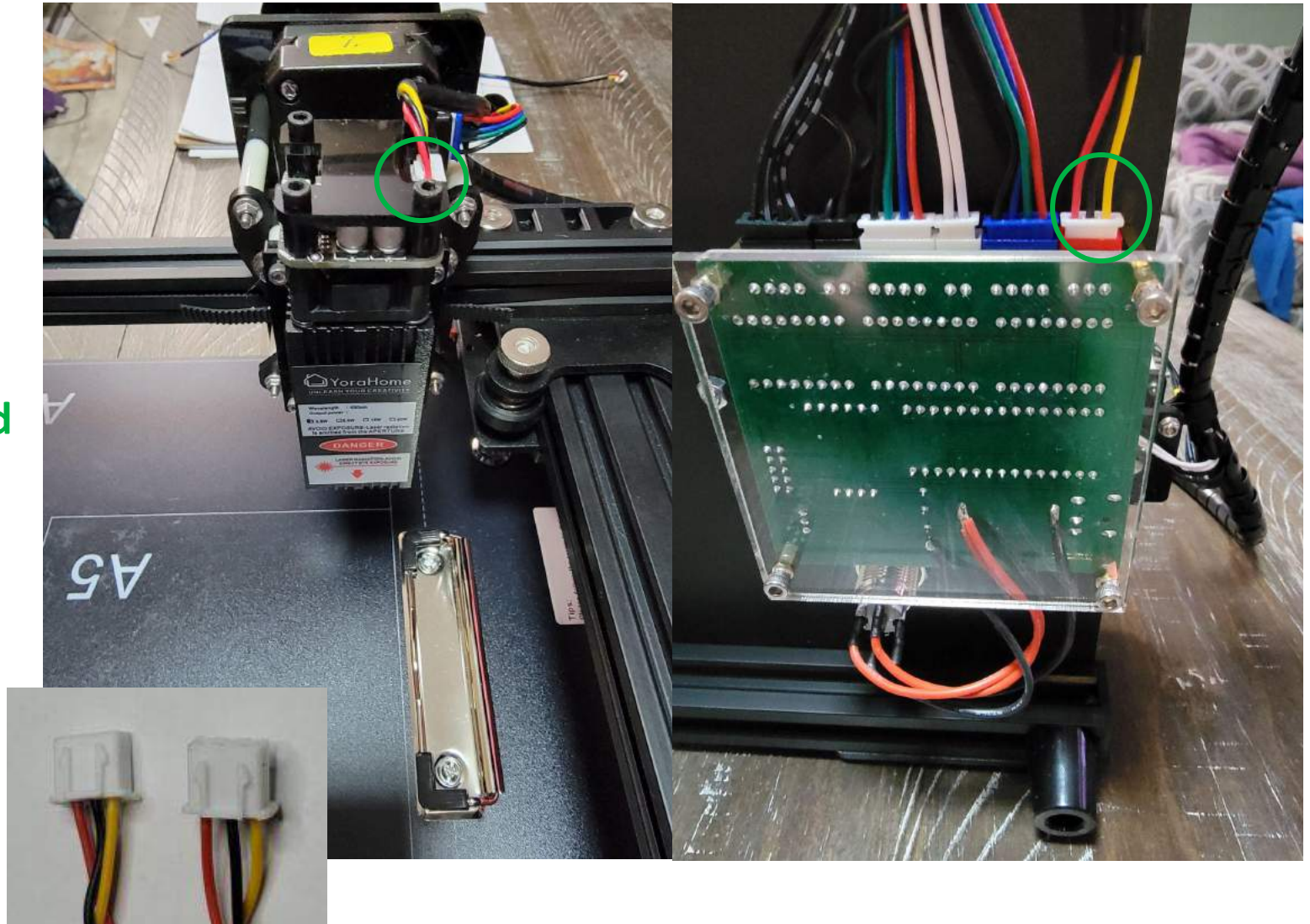


Part 5 Laser Installation/Operation_{5/8}

Connect the laser cable between the laser module and the red port on the control board (located underneath the machine).

Make sure that the cable used is wired as shown in the photo.

Route the cable with the existing cabling to prevent any interference.



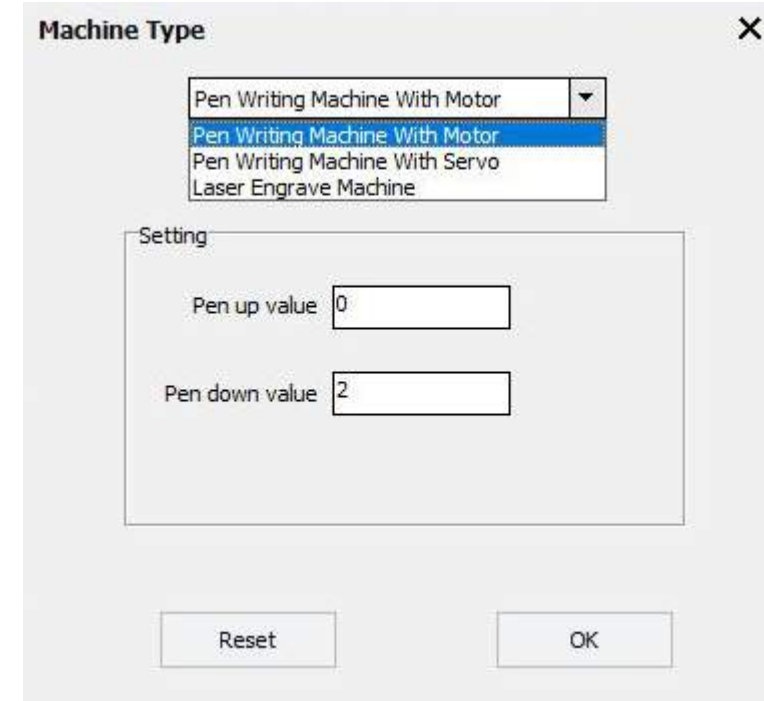
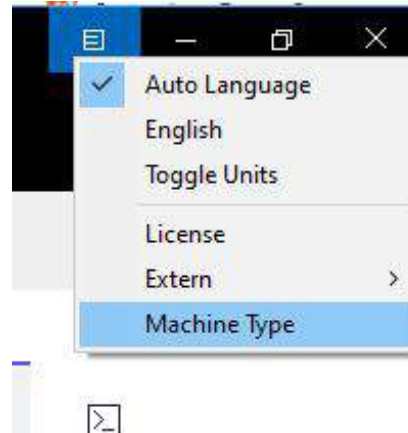
Part 5 Laser Installation/Operation_{6/8}

In the upper right corner of the Yora Draw program, click on the Menu icon and select the “Machine Type” option.

In the “Machine Type” menu, select the “Laser Engrave Machine” option; then click “OK”.

To return to drawing functions, simple select the “Pen Writing Machine With Motor” option.

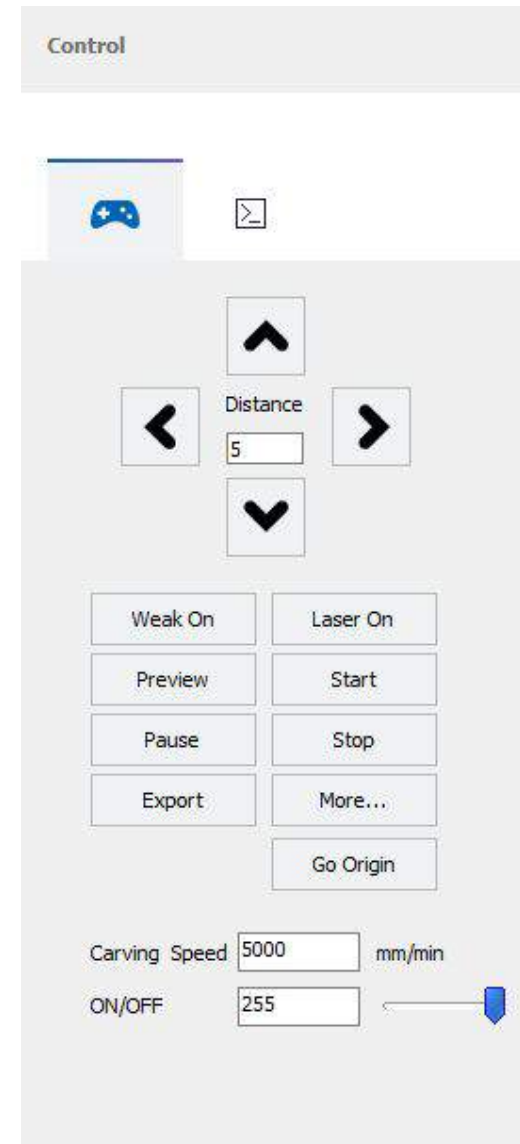
Close Yora Draw, and re-open the software to initialize the machine.



Part 5 Laser Installation/Operation_{7/8}

Note that the Control screen now has different options.

- Weak On: use this to turn the laser on at low power for focusing
- Laser On: turns the laser on at full power
- Carving Speed: adjust this speed to get the laser engraving results you need.
- ON/OFF: adjusts the maximum power output to the laser. 0=0% power; 255= 100% power.



Part 5 Laser Installation/Operation_{8/8}

Laser operation is similar to the drawing operation; rather than using the pen to mark your project, the laser will burn the design into the material chosen.

If using the laser, ensure all safety precautions are followed (safety glasses worn while in operation, ensure others do not look at the laser while operating).

It is recommended that ventilation be provided, as the laser engraving process will generate smoke/fumes.



Part 6 FAQ

Q. Can I use LaserGRBL or LightBurn to control the optional laser?

A. Yes, these software packages will control the laser option. Please note that the default origin point is in the lower left corner in these programs, so you may need to adjust accordingly.

Q. What kind of writing utensils can I use with the YoraDraw?

A. This is limited by only your imagination. The Yora Draw has been tested with:

- Ballpoint pens
- Gel pens
- Permanent markers
- Colored pencils

Q. What if we have missing or broken parts or any other questions?

A. Please notify: support@yorahome.com



SUPPORT@YORAHOME.COM

WWW.YORAHOME.COM