



Software Manual

Support : VigoWriter

Powered by VigoTec.

1 . Introduction

VigoWriter is a writing machine control software developed by VigoTec independently. It supports text editing , image import and Gcode file. It supports the outline description writing, fill drawing, Black-White and gray mode drawing. And it supports the adjustable of writing rate, height of pen up and down in the process of writing.

Supported desktop operating system: Support Win7 and above. (MacOS, XP and earlier systems are not supported yet.)

2. Install driver



For the first time, please connect the device to the computer by USB cable, and click CH341SER.exe to install driver. In general, the Win10 system can automatically identify and install the driver and the Win7 and Win8 systems may need to install manually.

3. Running program




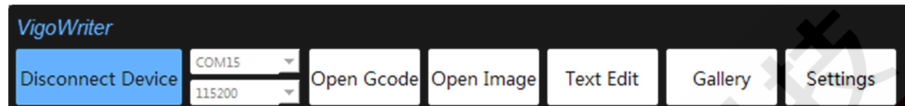
When the driver is installed, click to run VigoWriter.

The program will automatically search for the available equipment and connects automatically after it is started. Please confirm that the device has been properly connected to the computer. If there are multiple devices connected to the computer at the same time, please select the correct COM port

manually. If the connection is disconnected in case, the program will not automatically connect to the device again. If you want to reconnect, please click Connect Device manually.



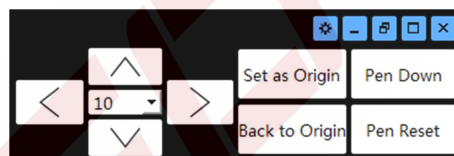
After opening the program, you can select the language interface. Click  on the upper right corner of the program, and open the language selection box. You can choose a Chinese or English interface and set as default.



After connecting the device, you can select the G code, edit text, picture, or select the picture in the gallery.

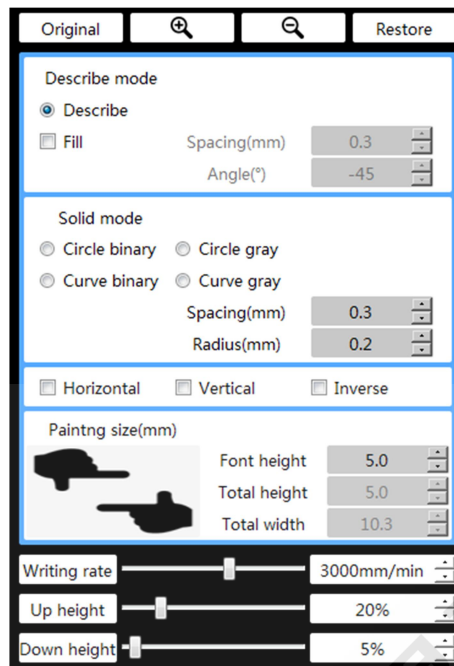
Please note that there will be a more detailed description for some buttons when putting the mouse on these buttons for a moment !

4.Device Control



Device Control Panel: The device control buttons are on the top right corner of the program. After connecting the device, the device can be moved manually along the X axis or Y axis by the direction buttons. It also can be controlled by the direction keys on the keyboard. The motion distance can be changed in the middle box (unit: mm). Users can also control the pen up and down by Pen Down and Pen Reset. Please note that these buttons are not available after the start of writing.

5.Basic Settings



The basic settings are located on the right side of the program.

Original: Display the original image has chosen.

Zoom In Zoom Out Restore: Click these buttons to zoom in, zoom out, and restore the converted image.

Describe Mode: Fill the image is optional in this mode, and users can change the spacing and the angle in fill manually.

Solid Mode: In this mode, users can draw filled painting with circle or curve mode. The corresponding spacing and radius of circle and curve can be adjusted.

Image Transformation: Provide mirror image and color inverse.

Image Size: Setting the painting size. Text height of single line can be changed in text editing mode. Total height of painting can be changed in image mode. Total width is just show.

Other Settings:

Writing Rate: The unit of writing rate is millimeters per minute. For the dense case, Note that the actual speed will be reduced with higher painting point density.

Up height: Set the height of pen up when the device is moving and without writing.

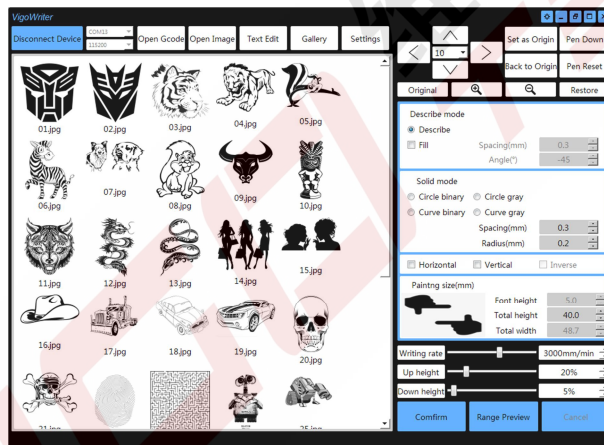
Down height: Set the height of pen down when the device is moving and writing.

6. Text Edit



Text Edit: Click the Text Edit to open the text edit box which is located in the display area of the program. The text can be entered in the text edit box and it provides basic font settings such as **Bold**, **Italic** and **Underline**. The actual height of the word can be modified in **Font Height** box in the **Image Size** panel at the right side. The **Size** above the edit area can only change the font displayed in text edit box.

7. Gallery



Gallery: Click **Gallery** to display the pictures in the folder of Program directory\Gallery\. The picture can be inputted into the program for painting by double click. Users can call their favorite pictures like *.jpg and *.bmp quickly by putting them into the folder of Program directory \Gallery\. And users may click **Gallery** again to update display without close and restart the program when putting new pictures into the gallery.

8. Advanced Settings

Motion Parameters Steps per mm(step/mm) 160 Max rate(mm/min) 4000 Accelerated rate(mm/sec ²) 400		Starting point <input type="radio"/> Upper left <input type="radio"/> Upper right <input checked="" type="radio"/> Center <input type="radio"/> Lower left <input type="radio"/> Lower right	
Movement Direction <input checked="" type="checkbox"/> Motor R <input checked="" type="checkbox"/> Motor L		<input type="checkbox"/> Parameters adjustable after beginning <input type="checkbox"/> Z Scan	
<input checked="" type="checkbox"/> Set origin coordinates after moving		Gray level correction 0%	
Reset	Unlock	Binary Threshold 50%	
OK			

The advanced settings are located in the display area of the program , and click the upper button **Settings** to open it.

Motion parameters: Users can set the maximum rate and accelerated rate of the device. In general, please use the default value.

Movement Direction: This will set the coordinate directions of X and Y axis. **Motor R** and **Motor L** are both checked by default and the painting will right at the users. If none of these is checked, the painting will rotate 180 degrees. If the painting is required to rotate positive or negative 90 degrees, one of **Motor R** and **Motor L** need to be checked and one not, meanwhile please exchange the two motor wines on the main control board. In general, please use the default setting.

Starting position: This will set the position of the device' s original coordinates relative to the actual painting. The default is in the middle of the painting.

Parameters adjustable after beginning: When checked, users can adjust the writing rate and height of pen up and down in writing, and **Writing rate**, **Up height** and **Down height** are available at the lower right corner of the program in writing.

Z scan: Fold line scanning is available when in solid mode, default scanning is line by line.

Set origin coordinates after moving: The program automatically sets the original position when the device stopped in a new position by manual control if checked; otherwise the original position is still the location before moving.

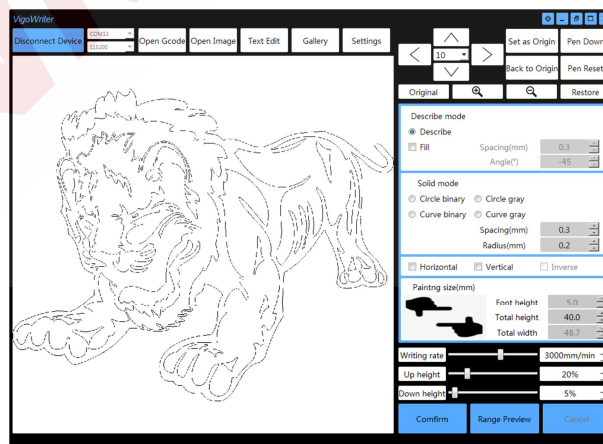
Gray level correction: When coding the gray image, the colures close to white is removed according to the percentage, and the sharpness of the actual painting can be increased.

Reset and Unlock: In some cases, wrong code may cause the device to work abnormally. At this time, the device is in the state of protection. Please restart all the hardware and software devices, and click the **Unlock** and **Reset** to restore the device.

OK: If **OK** is clicked, the last interface will be returned.

9. Writing control

The writing control buttons are located at the lower right corner of the program.

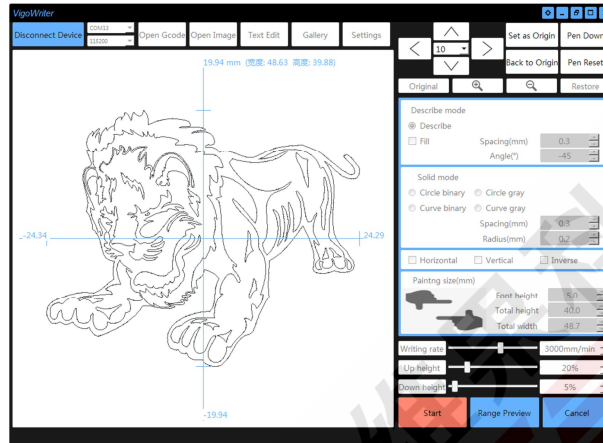


Range Preview: Users can preview the range of the painting selected by click **Range Preview**. When in preview, the button **Range Preview** is changed to **Stop Preview** and users should click this button to stop preview. Please note that there may be a small time' s delay for completely stop after

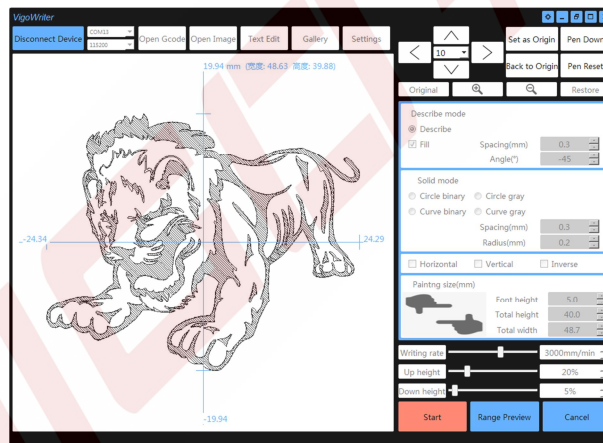
click the button, and users should wait for the device stops completely before other operations.

Confirm: When Confirm is clicked, the main part of the program will display the actual painting, and the button Confirm is changed to Start while the Preview and Cancel are available. If Parameters adjustable after beginning is not clicked, there will be the Device Control buttons, Start, Pause, Stop and Disconnect Device available yet. Users may preview the range of the painting by click Range Preview, start writing by click Start or return the image selecting state by click Cancel.

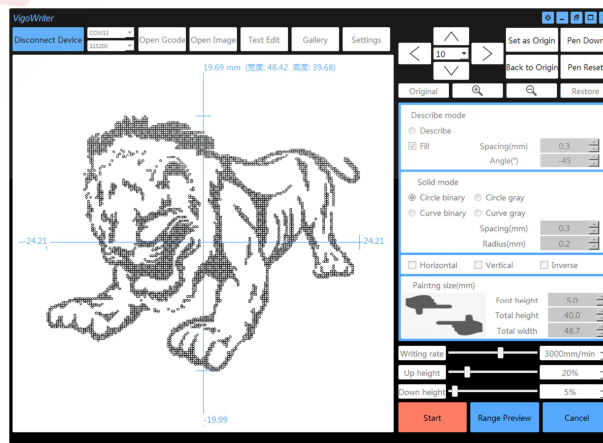
The followings are examples of various writing modes.



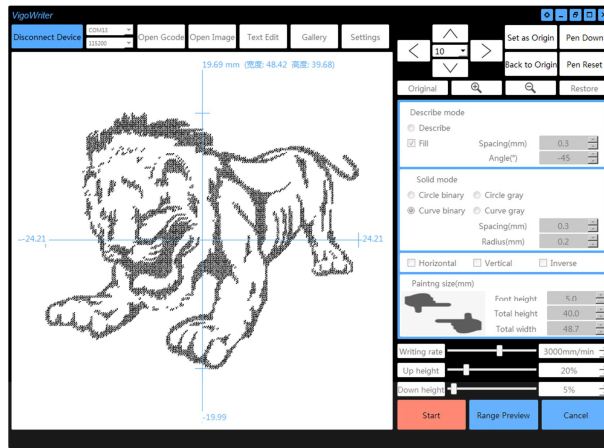
Describe mode



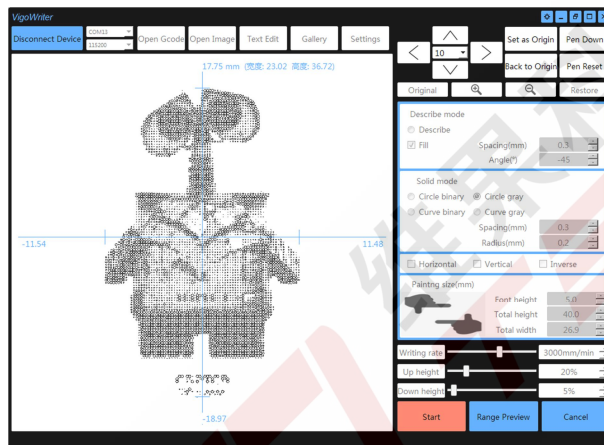
Describe and Fill mode



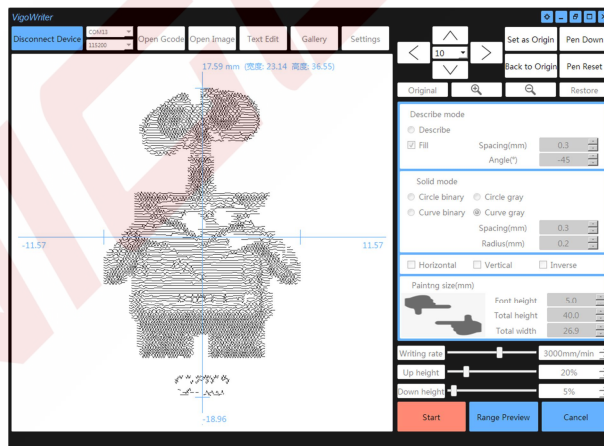
Circle and Black-White mode



Curve and Black-White mode

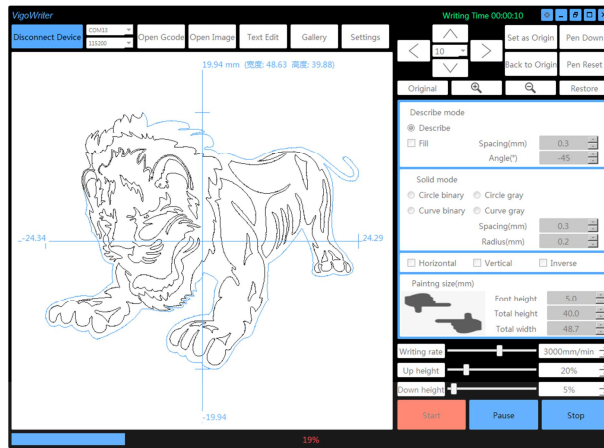


Circle and Gray mode



Curve and Gray mode

The following is the interface after **Start** is clicked.

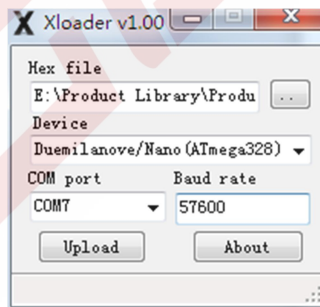


Start: The writing will start by clicking Start. The status bar will show the overall writing progress, and the writing time will be showed on the title bar. When it started, Start is not available while Pause, Stop and Disconnect Device are available. The painting show as blue with the completed parts, and the rest parts with are not finished show as gray. If Parameters adjustable after beginning is clicked, the Writing rate, Up height and Down height will be available when writing.

10. Firmware

Normally, the control board has a good firmware already. Users can use it normally according to the instructions above after connecting to the device.

In some cases, if users need to upload firmware, please use the software XLoader to upload the firmware to the control board. Users may turn off VigoWriter, select firmware file *.hex, select chip ATmega328, select COM port, select Baudrate (usually 115200), and click upload. The RX, TX lights on control board will continue to flicker until XLoader shows the upload is successful.



11. Update

Our software will be updated continuously.

Please visit our website: www.vigotec.cn for more new products and software.

Warning: If use the Laser Kit!

Strictly forbidden for laser irradiation of the eyes!

Strictly forbidden for watching laser without wearing protective glasses!

Strictly prohibit the use of children!

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