

Mimaki UJF6042 MkII e UV Flatbed Printer

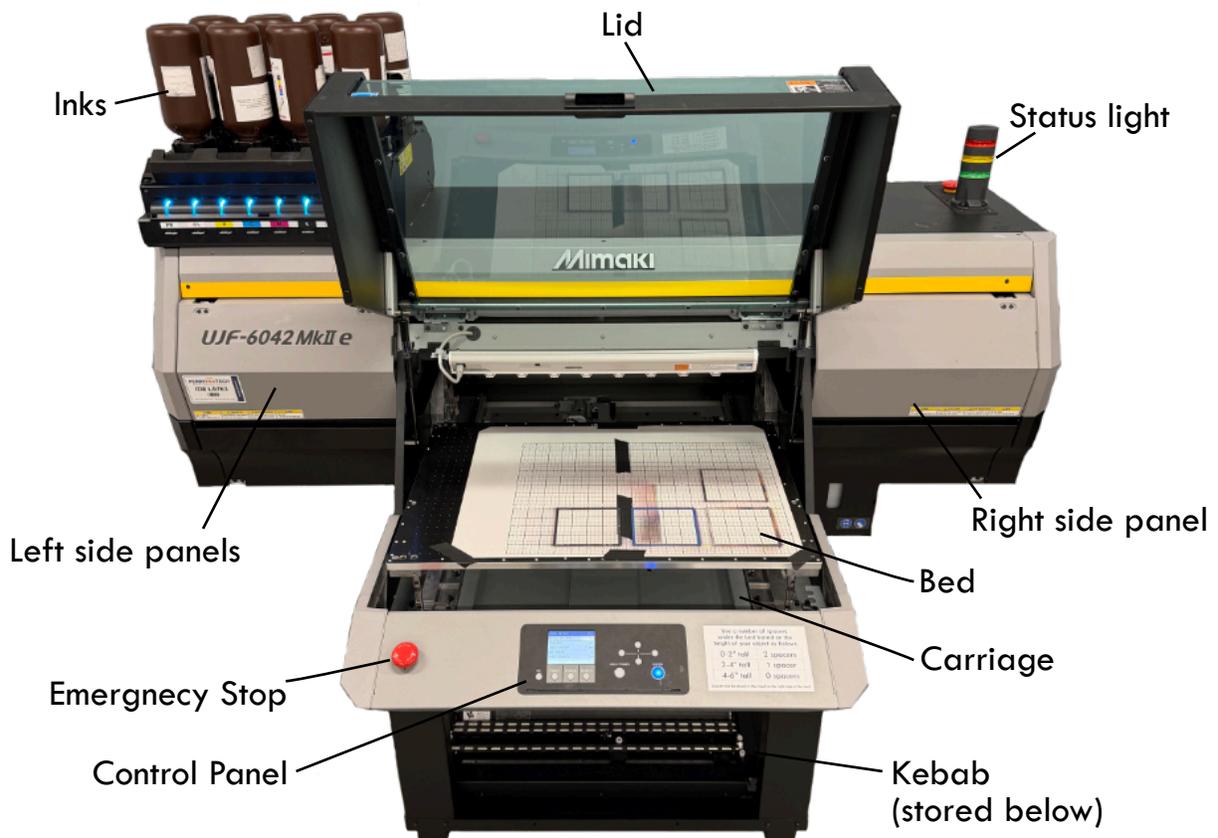


Introduction: The Mimaki UV flatbed printer is able to print directly onto rigid surfaces that are either flat or cylindrical. The printer has a variety of special inks, such as a primer, to help your project print correctly onto whatever the object may be you wish to print onto.

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General information

Parts of the machine



Turning on/off the machine

Press and hold the End/Power button until the screen turns on.

When attempting to turn off the machine, press and hold the End/Power button until it asks “Turn off Power? [ENT]” in which case you can press the Enter button to confirm.

Design Considerations

If you would like your design to be printed completely across the object so there's no border, it is best to have your design sized slightly larger than the object itself. This way if the design or the object are not placed exactly spot on, there is enough image to bleed over the edges.

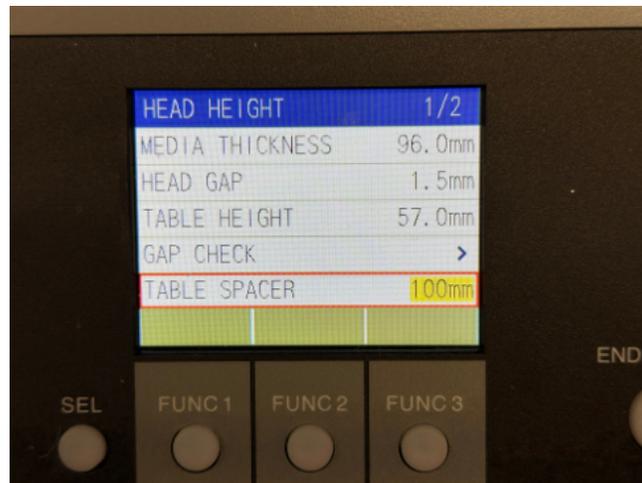
Adjusting the bed height

To set the bed height for your object correctly, use the calipers to find the thickness of your object.

1. Navigate to Menu > Head Height.



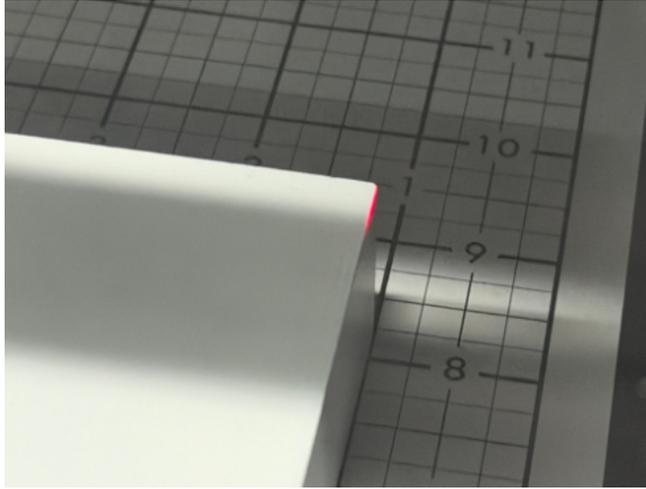
2. Ensure the Table Spacer is set correctly based on the bed spacers in use. If using 2 spacers, set for 100mm. If using 1 spacer, set for 50mm. If using no spacers, set for 0mm. Press Enter, then up and down to find the correct setting, then press Enter to confirm.



3. On Media Thickness, press Enter to change the height. Set this for the thickness you measured your object as with the calipers minus 0.3mm. Our measurement was 30.4mm so the media thickness will be set to 30.1mm on the machine. Press Enter to confirm and the bed should adjust to match this new setting.



4. Press End/Power twice to return to the main screen.
5. Place your object on the bed where you intend to print.
6. Close the lid and press FUNC3 for the Remote setting. The bed will move back into position. As it does so, it should scan trigger a red laser point on the right side of the bed. As it does so, the laser will help the printer perform a fine tune adjustment to it's final positioning.



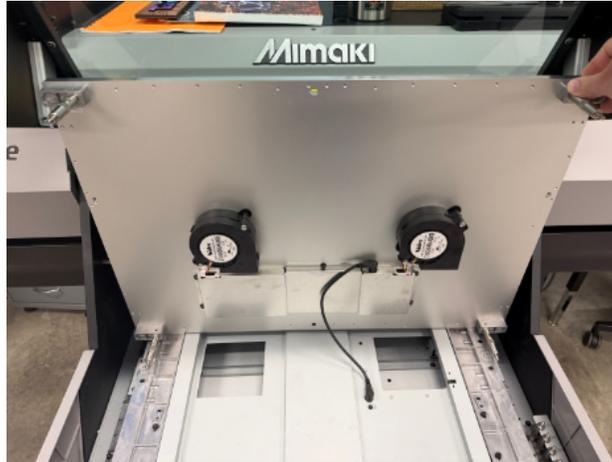
7. Once the bed has stopped moving, it is ready to print.

Adjusting the bed spacers

The bed of the printer can support an object up to 6" tall, but must be adjusted for every two inches of height. The bed has four sets of spacers on the underside that screw on and off. Based on the height of your object, check the following table to determine how many spacers are needed for your project.

Height (in)	Height (mm)	Spacer count
0-2"	0-53mm	2 spacers
2-4"	50-103mm	1 spacer
4-6"	100-153mm	0 spacers

1. To change the number of spacers, lift the bed up and out of the carriage. Tilt it up and sit the back side down behind the hose for the vacuum table.



2. Here you can screw the spacers on or off as needed. There is space on the inside of the printer to the right of the carriage to store the spacers when not in use.



3. Additionally, if it is easier to do so, you can unplug the vacuum table hose and remove the bed from the printer entirely.



4. When the spacers have been adjusted, align the posts on the spacers with the holes in the carriage and insert it in.



RasterLink

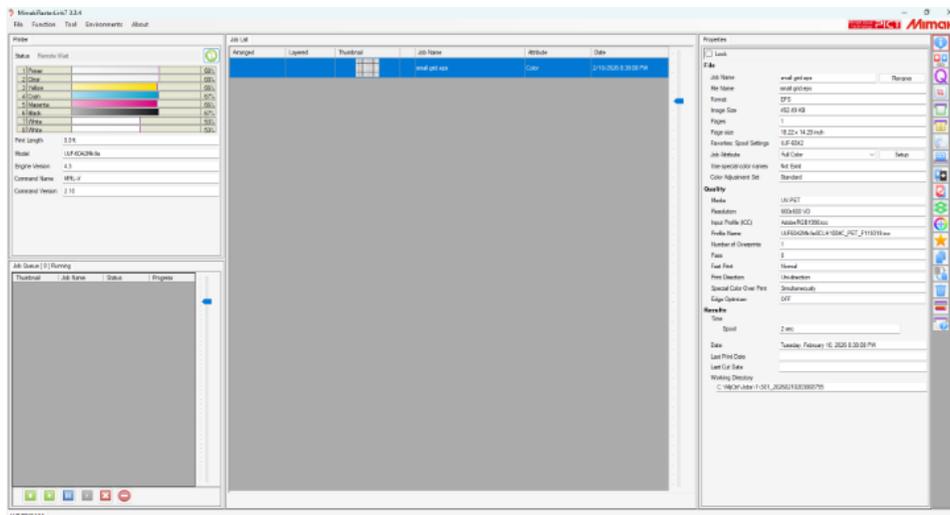
The software to operate the UV flatbed printer is called Mimaki RasterLink. It is located on the desktop of the computer. The sidebar of the software has a variety of tool options. These are listed below. Those that are in bold have a section of this document associated with it. The others are not often used. See a staff member if you have questions about any of these.



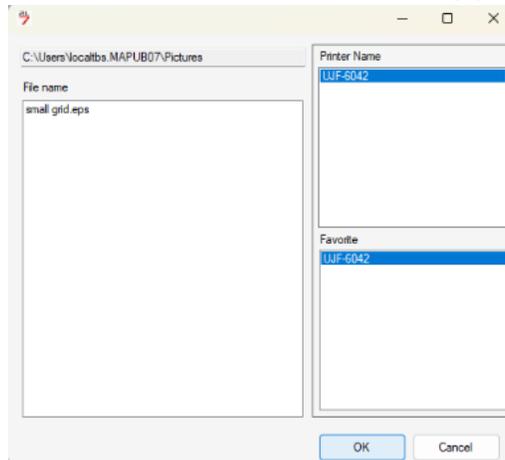
Opening a design

A note about opening designs. While we use RasterLink for both the wide format printer and the UV flatbed printer, it is recommended to have different files for each. Yes, the UV flatbed's RasterLink will open a file with a cut line that was made for the wide format printer, however it will often have issues with certain functions. It is best to use a file that does not have a cut line already associated for use with the other printer.

1. Open Mimaki RasterLink7 on the desktop by double clicking the icon.
2. Once the software loads you will see the following screen.



- To load your image go to File > Open. Here you'll find a file browser. You can navigate to your design. Open it, then click OK on the next box that appears.



- Your file will take a moment to load and then appear at the bottom of the Job List in the center of the screen.

Job List						
Arranged	Layered	Thumbnail	Job Name	Attribute	Date	
			small grid.eps	Color	2/10/2026 8:38:08 PM	

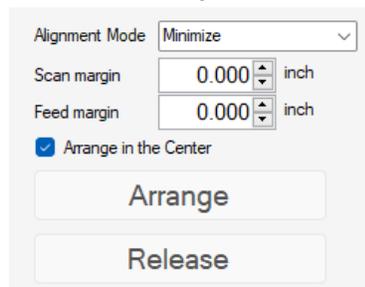
Arrange

If you want to print multiple designs together in one print job, you need to arrange these together as one job in the Job List. To do this, follow these steps.

- Select all of the jobs you wish to print together by holding shift and clicking on each one you want to include.

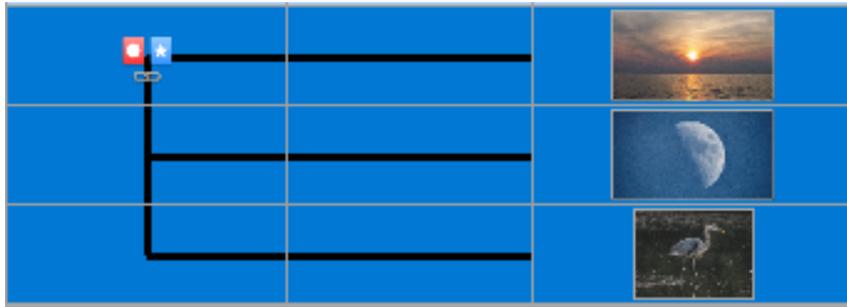


- Select Arrange on the side bar. You will be presented with these options.



- Click Arrange.

4. On the Job List your jobs will now be linked together with a set of lines.



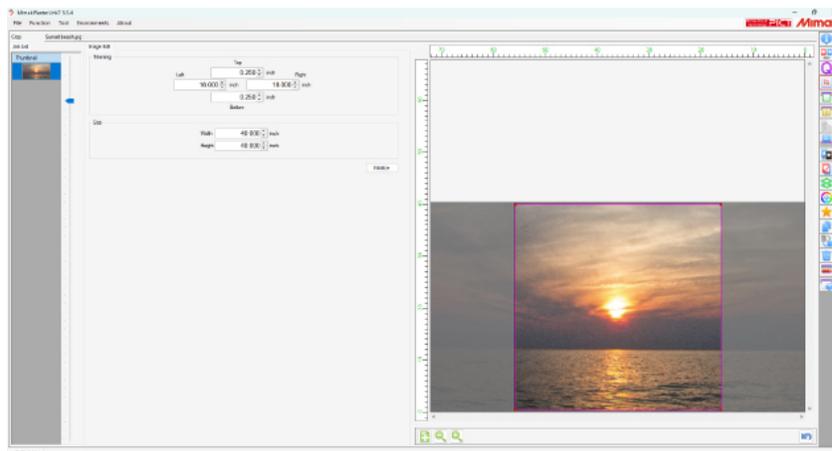
5. When you navigate to the Jig Print tab later, you will see all your arranged parts as they appear on the page.



6. To undo an arrangement, go back to the Arrange screen and click Release. You can release all the jobs by selecting them all, or you can select an individual item and release just one item at a time.

Crop

If your design has extra space around it you don't need or want, you have the option to crop your image from the original size. If you click option 4 on the sidebar for Crop, you are presented with this screen.



Here you can move the top, bottom, left, and right of your image in to make the overall design smaller. In the above example, we're cutting out the left and right sides to make the image a square. Note, the cropping is done in relation to the original size. If you could like to crop it based on the desired finished size, you will need to make those changes in another program before bringing it into RasterLink.

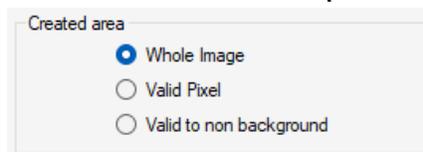
Special Plates/Composition

There are three types of special plates available to use with different projects. They may or may not be needed depending on what you're printing onto. They're described below with their use cases.

- **Primer** - Used to help the ink adhere to the object being printed on. Useful in particular with smooth and glossy surfaces.
- **White** - Used to put an opaque layer under the color image to help it stand out from the material being printed onto. Not necessary if the object is already white to begin with.
- **Clear** - Adds a clear coat to help protect the artwork from damage and chipping.

To add a layer, follow these steps below for each special plate being added.

1. Select just the Color job of your design for this process from the job list.
2. Click the "Special Plates" option on the sidebar, option 9 on the sidebar. 
3. Here you'll select from the drop down which layer you want to use. Select the appropriate one for your design. (Note, if you want to use more than one, you'll repeat this process for each one.)
4. When it comes to the "Created area" you'll select either Whole image or Valid pixel. Whole image will look at the outer bounds of your image and fill it completely. Useful if you have a photograph or square design. Valid pixel will look at your design and apply your special color to anywhere that has a color value other than pure white.



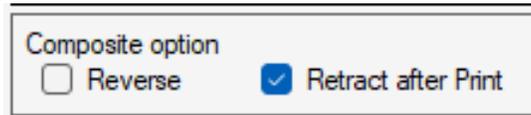
5. Once you've selected your settings, click Create. You'll then have another layer in the job list with a preview of your, primer, white, or clear layers.

	flamingo party print.eps	Color
	flamingo party print.eps	WhitePlate Type
	flamingo party print.eps	PrimerPlate Type
	flamingo party print.eps	ClearPlate Type(Matte)

6. To assemble them together, you'll select all of the needed color/primer/white/clear layers and choose Composition (option 10) on the sidebar. Here you'll be shown a screen on the right side with a list of all the parts. You can drag these to rearrange their order to print in the order you want with the bottom layer happening first, and the top printing last. Typically you'll put primer at the bottom of the list, followed by white, the color, and then clear at the top.

Thumbnail	Attribute	Mirror	Output Order
	ClearPlate Type(Ma...	OFF	[3]
	Color	OFF	[2]
	WhitePlate Type	OFF	[2]
	PrimerPlate Type	OFF	[1]

7. Note, the output order numbers here. You'll likely appear with all of them saying [1] to start. These can be adjusted. You are able to print a white and color layer together, but the primer and clear layers must be separated. To do this, select the primer layer, and click "Retract after Print." This will force the printer to put the white and color as their own process. Lastly, click the color layer and repeat this selection forcing the clear to its own process.



8. Once these are arranged properly, click Composite. Note if you want to adjust this arrangement in the future, select Release and then make any adjustments.



9. Your layers should now appear in the job list as fully linked together in the order you chose.

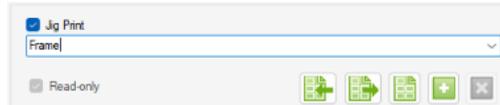


10. From here you can open your file and print them as one design.

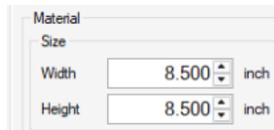
Using a Jig Print for a single item

Note: To do a jig, you must have already complete any cropping, arrangement, special plates, and variable edit for your design. Once those are completed, follow these steps.

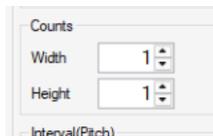
1. Select the design to print in the job list and click the Jig Print button on the right sidebar.
2. In this next screen, check the box for Jig Print, give the jig a name within the drop down, and click the + button to create the jig.



3. In the Jig Definition tab, set the size of your object in the Material field.



4. Set the Counts to 1 and 1 on both sides.



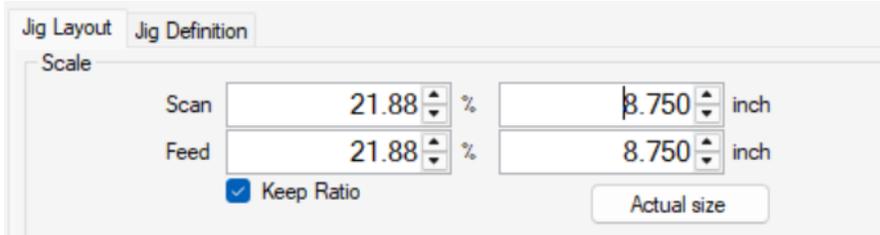
5. For the First Position, set this to any number that's a multiple of .25". For this example we are using 1" and 1". This is used for aligning the design to your placement of your object on the printed grid.



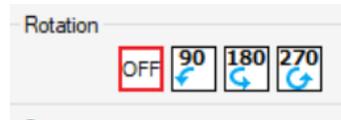
6. Under Layout, click the box within the grid that matches where you would like your design printed on your object. Most commonly this will likely be the center, but you can place it at the bottom middle, or top left, or any of the options as you may need.



- Return to the Jig Layout tab. Here you'll set the size of your design in the Scale field. If printing fully across the object like in this example, it should be sized slightly larger than the object it's being printed on to ensure it reaches fully to all sides of the object.



- You may need to rotate it if necessary to fit the orientation of your object.

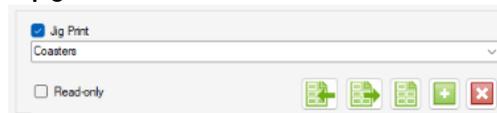


- From here go to the Execution section on the guide.

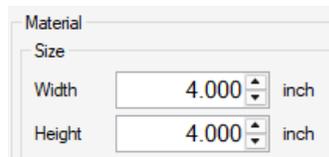
Using a Jig Print for multiple items

You can use the jig to print duplicates of a single design across multiple identical objects. You can also print an arranged job of multiple designs as one jig, though they should all be a uniform size to help with alignment. For this example we'll use the same design multiple times, but then an extra section will be added to the end for how to handle Arranged designs.

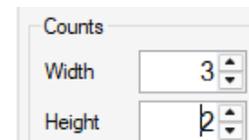
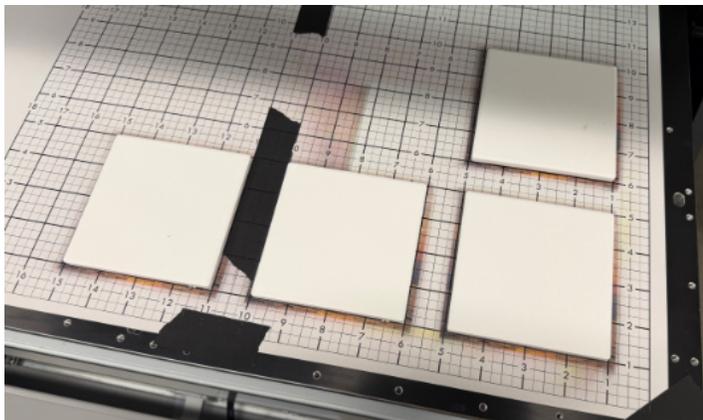
- Select the design to print in the job list and click the Jig Print button on the right sidebar.
- In this next screen, check the box for Jig Print, give the jig a name within the drop down, and click the + button to add the jig.



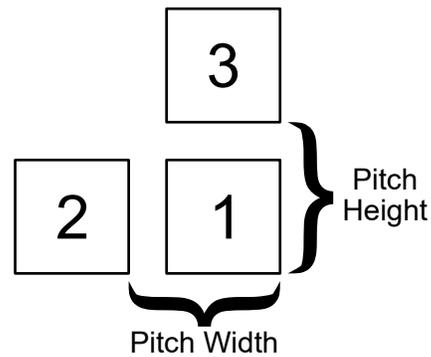
- In the Jig Definition tab, set the size of your object in the Material field.



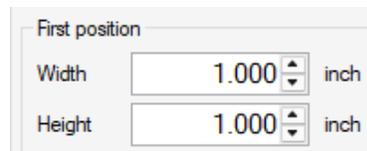
- Set the counts to include enough rows and columns for the number of objects you're printing on. In this example, we have four coasters to print on. They are arranged with 3 on the bottom row and 1 on the second row. Thus we need to set width to 3 and the height to 2 to ensure we create enough spaces to cover all the coasters.



- In the field for Interval(Pitch), this is the amount of space you want to place from the bottom right of the first object to the bottom right of the next object. Typically for easy math we go one inch larger than the object, though you can put any amount in there. It is recommended to do a multiple of .25" to easily align to the grid.



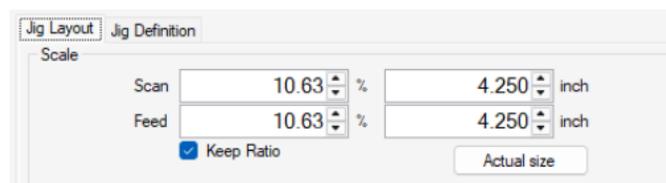
- For the First Position, set this to any number that's a multiple of .25". For this example we are using 1" and 1".



- Under Layout, click the box within the grid that matches where you would like your design printed on the object. Most commonly this will likely be the center, but you can place it at the bottom middle, or top left, or any of the options as you may need.



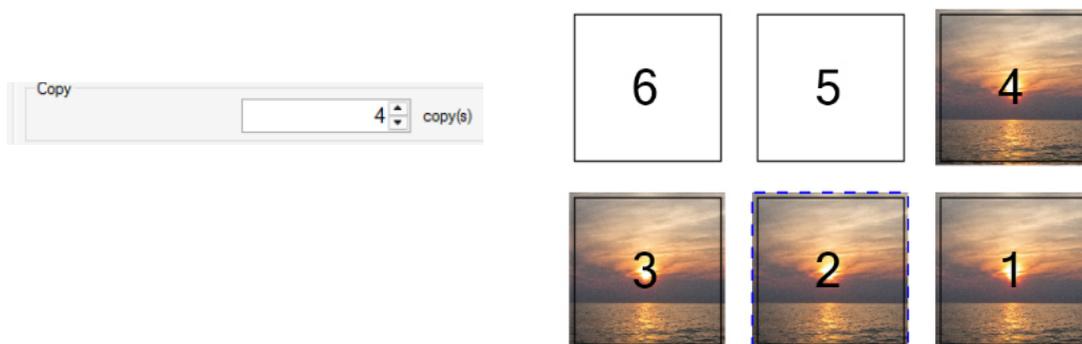
- Return to the Jig Layout tab. Here you'll set the size of your design in the Scale field. If printing fully across the object like in this example, it should be sized slightly larger than the object it's being printed on to ensure it reaches fully to all sides of the object.



- You may need to rotate it if necessary to fit on your object.



10. Lastly in the Copy field, add as many copies as you have objects to print on. You may have left over spaces in the jig that don't have copies, and that's fine. But you do need enough spaces for all the copies you intend to print onto.



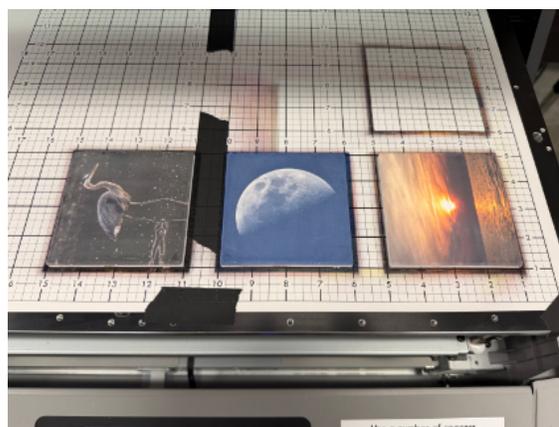
11. From here go to the Execution tab on the guide.

Printing multiple arranged designs

1. If this was multiple designs arranged together, you will find each of the designs on the left sidebar.



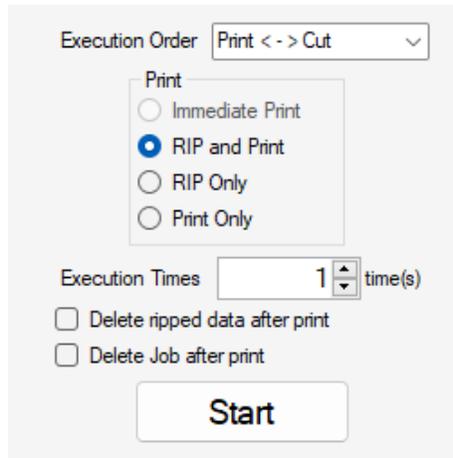
2. Each design needs to be set to the proper scale. To do so, select each design, set the scale in Jig Layout, then select the next picture.
a. Note that sometimes the preview may show images as distorted or cropped oddly. In our experience, it will still print correctly.



3. Otherwise each of these will be printed once, one per space available from the Counts setting. If you would like multiples of certain designs, those can be individually adjusted using the Copy setting.

Execute

The final section you'll use every time is Execute. This is the eighth option on the sidebar and is a little button that says GO on it. After you have completed all the layout options for your project, you'll click this and be greeted with this screen.

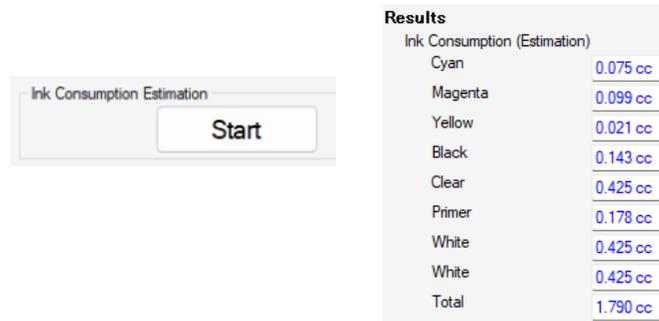


The screenshot shows the 'Execute' dialog box. At the top, there is a dropdown menu for 'Execution Order' set to 'Print < - > Cut'. Below this is a 'Print' section with four radio button options: 'Immediate Print', 'RIP and Print' (which is selected), 'RIP Only', and 'Print Only'. Underneath is an 'Execution Times' field with the value '1' and the unit 'time(s)'. There are two checkboxes: 'Delete ripped data after print' and 'Delete Job after print', both of which are currently unchecked. At the bottom of the dialog is a large 'Start' button.

The main aspect is to leave it set as RIP and Print, then click the bottom Start button to begin the project.

Ink estimation

The upper Start button on the execute tab is used for estimating the amount of ink to be used with a print. If you click this button, then on the properties option (option 1) of the right sidebar, there will be a section showing how much of each ink will be used, including the total amount. This total amount of ink is important to know as we use that to assess the cost of the project.



The screenshot shows two parts of the software interface. On the left is a dialog box titled 'Ink Consumption Estimation' with a 'Start' button. On the right is a 'Results' section showing 'Ink Consumption (Estimation)' for various colors and a total.

Results	
Ink Consumption (Estimation)	
Cyan	0.075 cc
Magenta	0.099 cc
Yellow	0.021 cc
Black	0.143 cc
Clear	0.425 cc
Primer	0.178 cc
White	0.425 cc
White	0.425 cc
Total	1.790 cc

This is mostly useful to see prior to starting how much a project will cost. After it prints, this information will be displayed in Properties automatically as a part of the printing process.

Variable Edit

If your design is a series of the same design with only slight variation such as one bit of custom text on a nametag, you can use the Variable Edit feature to create one design and apply the text to it, giving you a total quantity of designs that each have their own unique element. It can also be used to create a numbered series.

Note, this only works if your design is in an EPS format.

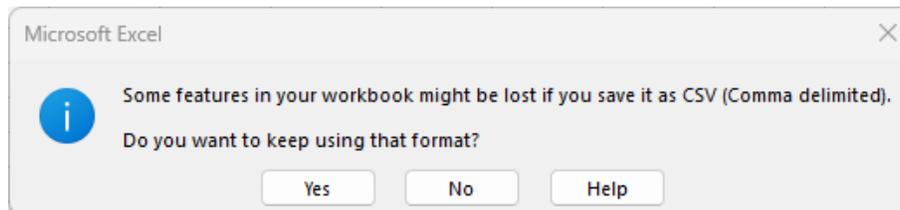
1. In Excel, or another spreadsheet program, create a list where the column has a header, then each unique item is listed in that column. Here we're making nametags so we'll provide a list of names under the header "Name."

	A
1	Name
2	Steve
3	Mike
4	Alice
5	Frank
6	Mitchell
7	Beth
8	Amy

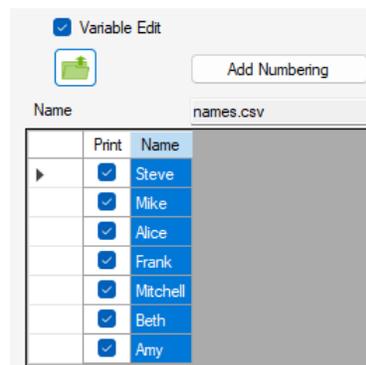
- a. Note you can have any number of fields in this spreadsheet. Each field just needs to be its own column with a unique header.
2. Save this file as a CSV. This will not work if saved in a different format.

File name:	names
Save as type:	CSV (Comma delimited)

3. Excel will give you a warning, click Yes on the warning.



4. In Rasterlink, open your design file. Then choose the seventh icon on the sidebar for Variable Edit.
5. Here you'll check the box for Variable Edit on the top left and then click the folder to open your CSV file.



6. If you need numbers on each of your items, press the button for Add Numbering and an additional column of numbers will be applied.

Number2
1
2
3
4
5
6
7

7. The right side shows your design. You can click and drag to create a box. This box will contain the text for whichever column was selected on the left. In this instance the names were selected so the box will contain the names.



8. In the center you can modify how your text looks. You can adjust the size and location of the box you've created, the text's position inside the text box, and the font and size of the text. As a note, the size you need the text to be is typically larger than you think it is. It may take a few times to find the right size text.

Layout

Size

Width 6.477 inch

Height 2.183 inch

Position

Scan 0.950 inch

Feed 1.006 inch

Font

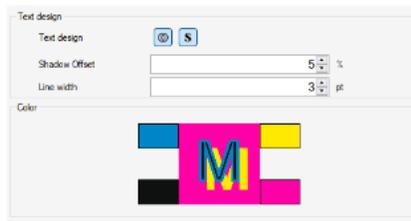
Font Agency FB

Auto adjust None

Label size 100 pt

- a. Note the text is locked to the size of the text and not the text box. You may need to click through some of the options on the left to ensure that none of your text is getting cut off if it's larger than the others. For instance, if you size the text to fit the name Sam, it may not fully fit the name Samantha.

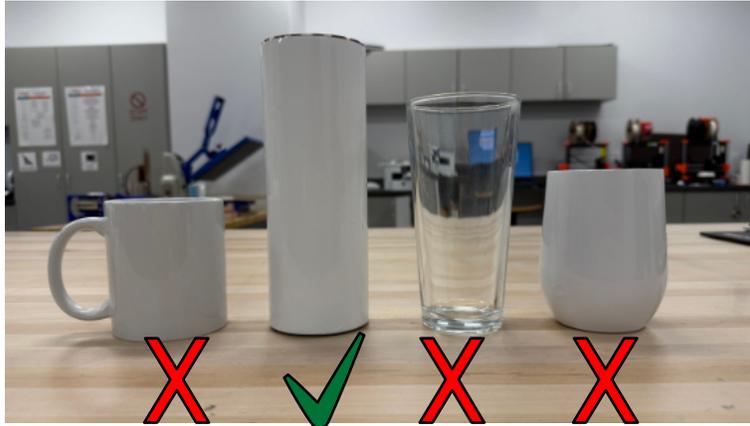
9. The last section lets you define how your text looks with colors. There are four options, two of which are turned off by default. The two by default are font color, and background color. You can click two buttons in the Text Design section to add an outline and a shadow. If you do, there are two options to adjust the width of the outline and how offset the shadow is. For example, here is what it could look like if you enabled them all.



10. Once your design is set up the way you want, navigate to the Jig Print screen. Your design will appear in the quantity you have based on the entries in the CSV, but they will not show the parts added through Variable Edit. They will print all of the Variable Edit features as laid out though.

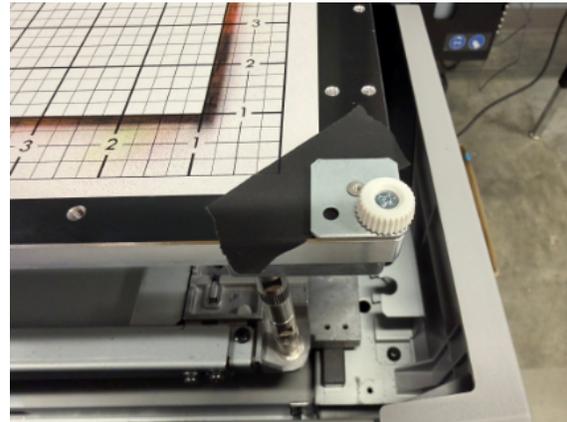
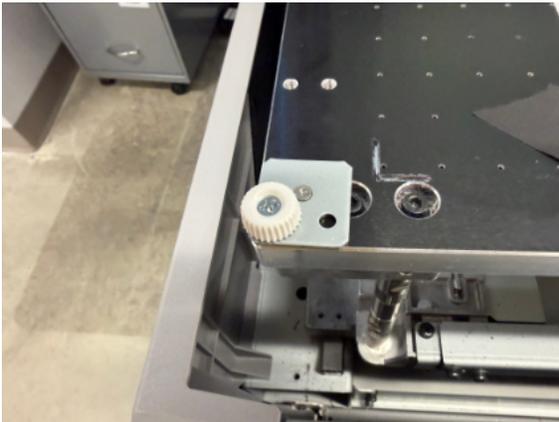
Kebab print

A kebab print is one performed on a cylindrical object. Note, the object must be straight sided and cannot have a handle. Tapered objects do not work with the printer as they do not consistently sit at the proper height for printing.

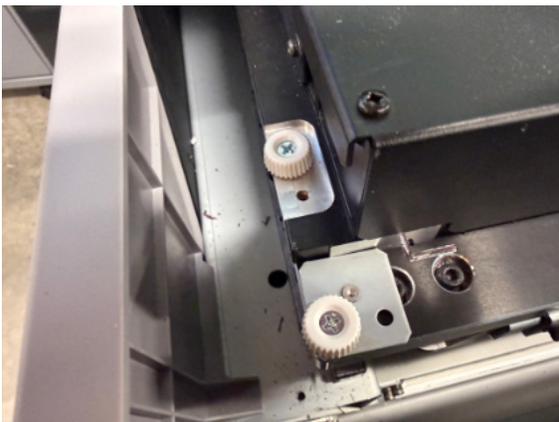


To perform a kebab print, you must first install the kebab into the machine.

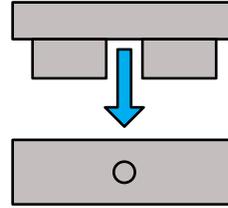
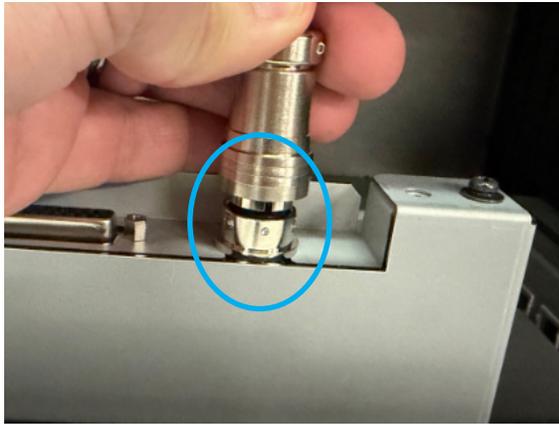
1. Open the lid and remove the bed.
2. Unscrew all four posts off the bed and set them aside in the storage area.
3. Reinsert the bed back into the carriage.
4. Find the kebab accessories bag and install the two plates in the front corners of the bed using one screw each.



5. Next set the Kebab in place, up against these plates.
6. Two holes should be visible through the sides of the kebab. Insert a screw into each of these.



7. Lastly connect the cable to the back of the bed. There is a gap in the cable that should be inserted in the front side of the port on the machine.



8. On the machine navigate to Menu > Machine Setup > Set Option Jig. Press Enter.
9. On the next screen, press Enter until the screen displays “Jig= Kebab Mk2 L.” It will then adjust itself to enter the Kebab Jig mode. Press End/Power a few times to return to the main screen.
10. Using the calipers, measure the diameter of your object. Here ours is 74.5mm wide.
11. Set the object onto the rollers up against the right side of the bed. The left side has a holder that you can slide into the opening to help it keep from falling off the rails, though this is optional to use.

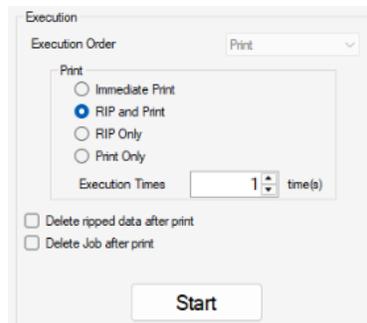


12. On the machine, navigate to Menu > Work Set. Press Enter.
13. After the machine sets, it will ask for the diameter. Enter that here, subtracting 0.3mm from the diameter you measured. Press Enter to set this diameter, then enter again to confirm.
14. Press End/Power until you return to the main screen. Press FUNC3 to enter Remote setting.
15. The object should catch on the red laser and adjust the bed to match the proper printing height.
16. In RasterLink, select your design in the job list and click the Kebab Jig Print (option 17) on the right sidebar.
17. Here check the box for Kebab Edit to enable the settings.
18. Adjust the size of your design if needed with the Scale option.

19. You will likely want to rotate your design as the object will be sideways in the machine. Use the rotate options either 90 or 270 depending on the direction your object is placed in the machine.



20. Under Position, you can move the design left or right. Note this measurement is taken from the bottom right corner of your design.
21. On the execution option on the right sidebar, ensure the option is set for RIP and Print, then press the bottom start button.



22. Once the project is completed, to remove the Kebab, unplug the cable, then return to Menu > Machine Setup > Set Option Jig. Press Enter and it will remove the Kebab from the system.

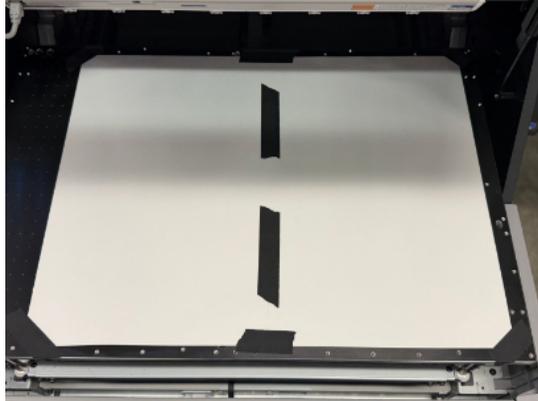
For Internal Staff

This section will cover maintenance for the printer which mostly consists of cleaning the printing areas.

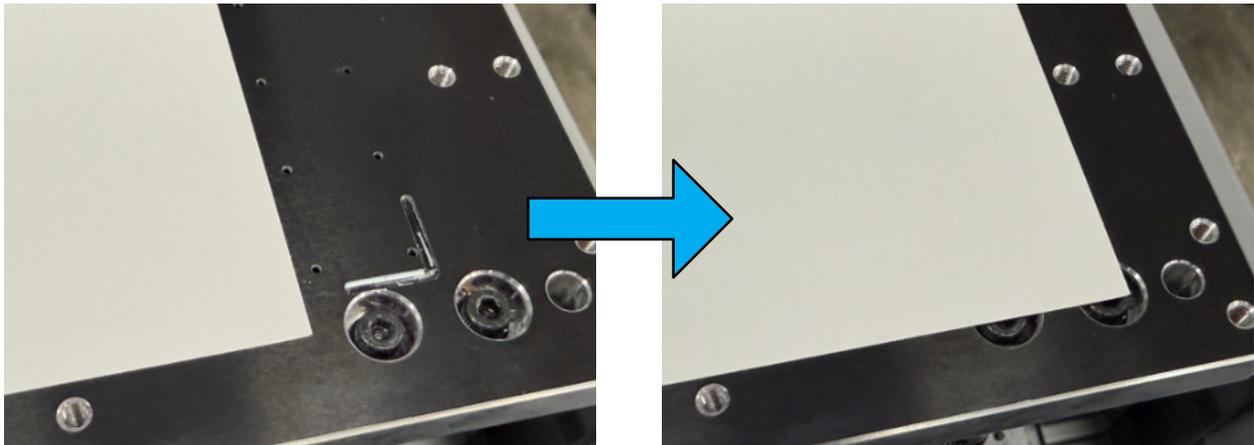
Setting up a grid

For ease of alignment with the software, we print a grid pattern onto paper. This is done whenever the current paper has to be removed such as for cleaning or has too much overspray from past projects to no longer be useful.

1. For this, grab two sheets of the light gray paper, and tape them together.



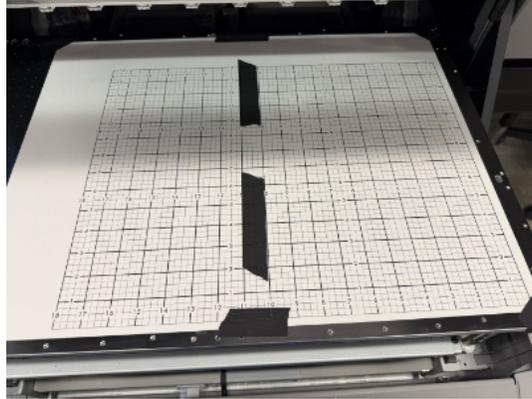
2. Place the paper such that it covers both of the engraved L shapes on the right side of the bed and then tape it down.



3. Do ensure that the paper sits flat to the bed and avoid as many spots where the paper may bend or raise up as this can affect the head height when printing.



4. In RasterLink, open the grid file to print. In the Pictures folder of the computer is a file labeled small.grid.eps. Once this opens, you can print it directly to the paper on the bed.



Changing ink

When the machine senses there is not enough ink left, it will prevent you from printing until the cartridge is replaced. Alternatively if the ink has expired and is a couple months past its expiration date, it will need to be replaced as well.

1. Put on a pair of nitrile gloves before performing this step as the ink can be hazardous to skin. They are kept on top of the printer itself.
2. Unlock the bottle by pressing the lever to the unlock position and lift outwards. Be sure to tilt the bottle slightly to the side and let any ink drip into the machine.



3. Wipe off the cap with a tissue or paper towel to clean up the majority of any liquid ink still on the surface.



4. Peel off the chip from the bottle and carefully set aside for later.



5. Cut the seal and take the lid off of the bottle.



6. Remove the cap off of the old ink bottle and transfer that to the new ink bottle.
7. Lightly twist it on without tightening it.



8. Using the cap tightener, align the pins with the slots in the tightener.



9. Twist the tightener until the red arrow reaches the green striped area. Do not overtighten past this point.



10. Swirl the bottle lightly (not shake) before aligning the pins on the cap with the slots in the reservoir and insert fully.



11. Lock the cap in place by closing lever to the lock position.



12. Wipe up any spills right away and clean any surfaces that had ink on it with isopropyl alcohol. This can be found in a spray bottle near the 3D printers.



13. Unwrap the chip that was set aside earlier.

14. Remove the old chip from the associated slot in front of the ink bottles. The light should be flashing red. You can throw this older chip away.



15. Insert the new chip into the slot fully. The light should turn blue if installed properly.



Cleaning

The maintenance guide provide more detail for this process. It is located on top of the printer. A PDF is available on the L Drive in the manuals folder.

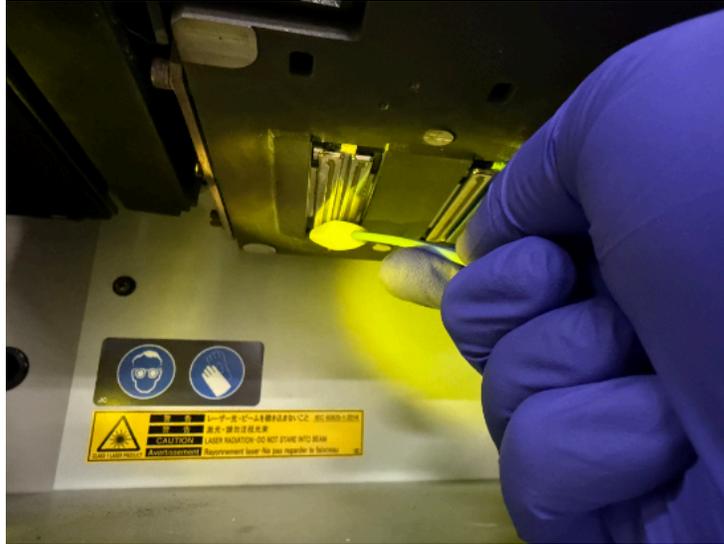
1. While in the Local setting, navigate to Menu > Maintenance > Station > Carriage Out. The print head will now navigate to the left hand side of the printer.
2. Once the head finishes moving, open the two left side panels to gain access to the print head.



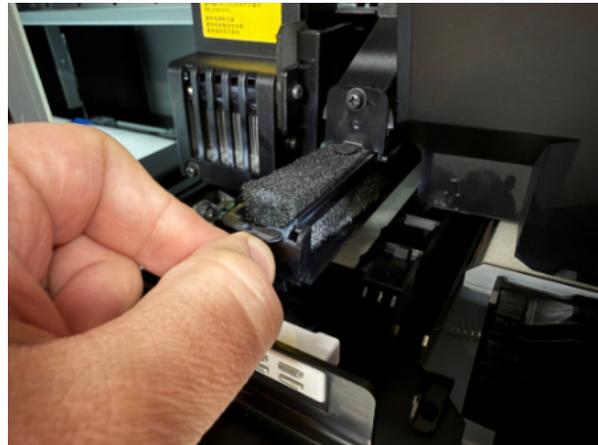
3. There are two bottles of cleaning solution, solvents 13 and 15. 13 is used specifically on the primer head, while 15 is used on the other three heads.
4. Take the bottle of cleaning solution and a microfiber cleaning pad.



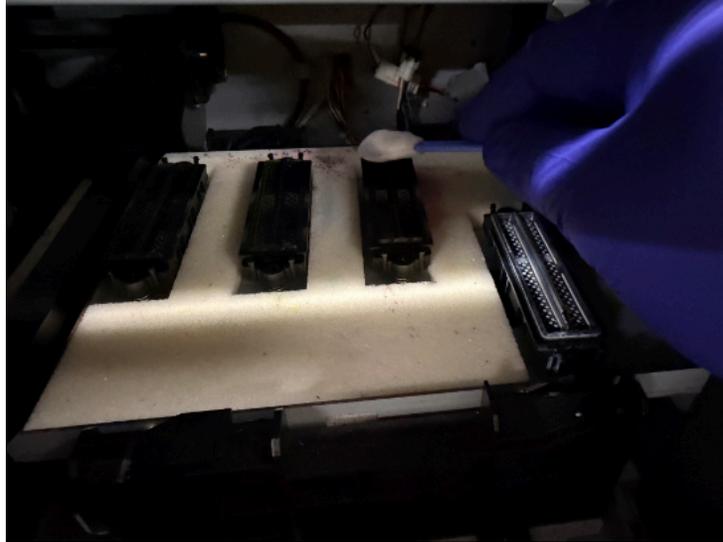
5. Dip the microfiber cleaning pad into the cleaning solution. Lightly brush the bottom of the print head to remove any old or excess ink. A few drops might appear after cleaning. This is normal and there's no need to ensure every drop is removed.



- a. Important, use a flashlight intended to block UV light. A flashlight is on the printer with an orange lens cap that is safe to use.
 - b. Note, you should not mix the ink between the two heads. Use either side of one pad, or a separate pads when cleaning each print head.
6. Additionally, clean the area around the print heads as these often get dirty with overspray. Clean off as much of the ink as possible.
 7. Then check the two filters. These pull out and should appear not significantly dirty. If they are, they can be replaced with extras found in the Mimaki maintenance cabinet.



8. Open the right side panel. Using a microfiber pad, wipe around the edge of the cleaning caps. This often gets dried ink around the edge so be sure to get any dried ink off in this process. This may require multiple pads to clean all four caps properly.



9. Lastly using a clean microfiber pad, add solvent to the pad and hold it over the two wiper nozzles and allow the solvent to be pulled out into the nozzles.



10. Close all the panels and doors, then press Enter on the printer to retract the head.

Cleaning off the bed

If the bed gets directly printed on, or an overspray hits the bed instead of the paper, when cleaning for the day remove the paper. Use a razor blade to clean any ink overspray off of the bed itself whenever removing the paper.



If the ink is particularly stubborn and won't remove with the razor, use a cotton swab and the number 7 solvent in the cleaning drawer. Apply the solvent to the ink spots and scrub it off. Once done, wipe the bed down with a paper towel, and allow to dry before placing paper back on the bed.



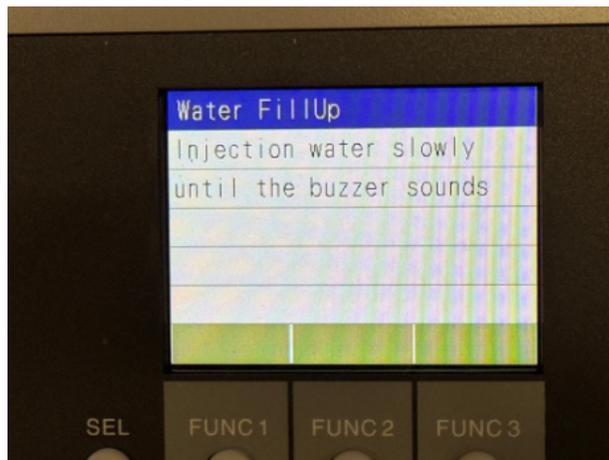
Performing a water fill up

Occasionally, an error message will display on the screen stating “Water Heater Lack.” When that happens, follow these steps to add more water to the printer.

1. Navigate to Menu > Maintenance > Water FillUp. Press Enter



2. The screen will state to add water slowly until the machine beeps.



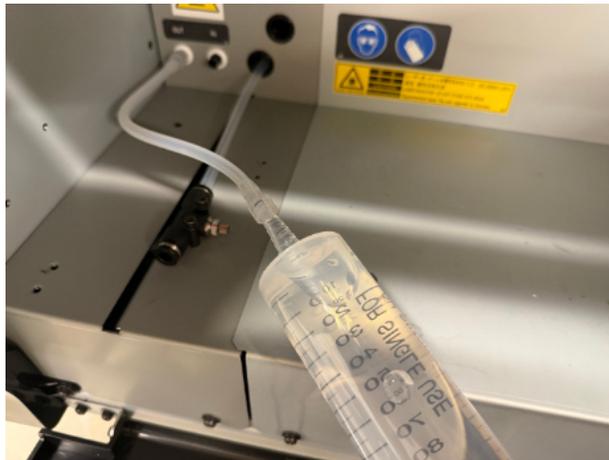
3. To add water, open the left side doors. Find the In hose and unscrew it to release the hose.



- Using distilled water only (which can be found in the Mimaki maintenance cabinet), fill the large syringe with water. If you cannot reach the syringe into the bottle, there is a metal tray you can pour the water into first.



- Attach the end of the syringe to the end of the hose. Depress the plunger to add water to the machine.



- Once the machine beeps, detach the syringe and hand tightening the end of the hose to the opening.
- Close both doors on the side panel.



- On the control panel, press Enter several times until it returns you to the menu.

9. Return any unused water back to the bottle.



