

Hoppi World manual

What is Hoppi World?

Hoppi World is an initiative of [Film in Hospital](#) and [POST NEON](#).

Film in Hospital is a pan-European project aimed at children with limited mobility so that they too can watch the best youth films. On a user-friendly online platform, you have year-round access to the best alternative youth films.

POST NEON is a creative agency from Amsterdam that works with 3D and creative technology. Since 2021, with the help of the Stimuleringsfonds and our partners, we have been sharing our knowledge and story with young people aged 8 to 23.

The goal of Hoppi World is to introduce children and young people in hospitals and rehabilitation centers to the possibilities of 3D as a creative medium and career path. Children can create and edit up to 3 creatures, they can also look at creatures designed by other children around Europe.

How to create your own creature

The creation of a creature on Hoppiworld is a three-part process:

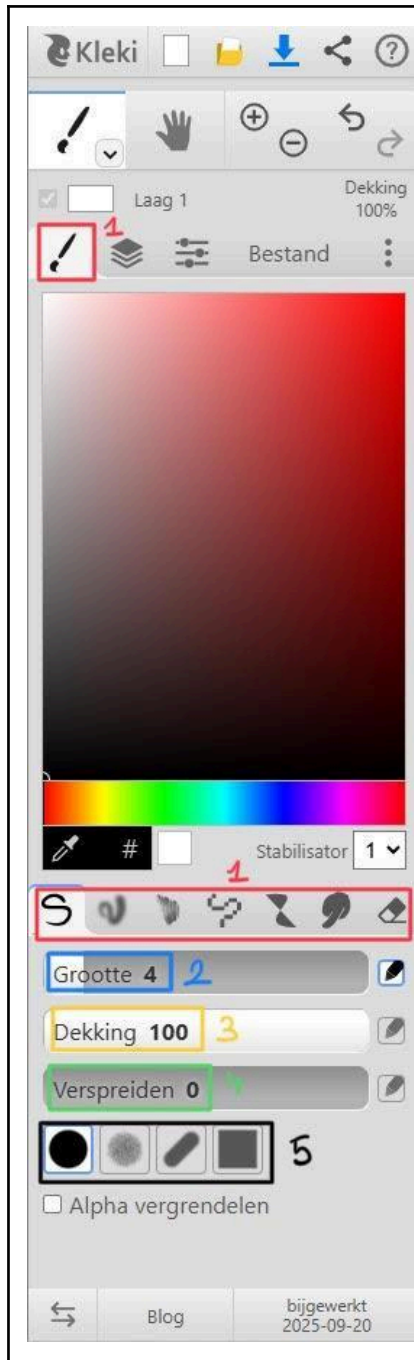
1. draw a creature
2. animate the creature, make it move
3. add the creature to Hoppiworld and add details

Step 1: draw your creature

The first step in the creation process is to draw and design your creature. To do this, we advise using the open source free drawing program [kleki.com](#). However, some children might already be familiar with using other drawing software (for example on their tablets). In this manual the use of [kleki.com](#) will be explained but other software can also be used.

When you open [kleki.com](#), a blank canvas will appear on which you can start drawing. In the images and text below, the most important tools of the drawing application are explained.

Drawing functions:



Number 1

The drawing pencil: this symbol indicates the drawing pen used to draw on the canvas. The color gradient underneath can be used to choose the drawing color.

Underneath the color gradient, different types of lines to draw with are found of which the first one is the most basic one.

- basic
- blend
- sketchy
- pixel
- chemistry
- speck / blot: gives the effect of a smeared out line, cannot be used on its own, needs to be used over an existing line to "smear" or "spread" that line
- eraser

Number 2

Here you can decide the size of the drawing lines.

Number 3

This indicates the coverage of the lines, how opaque or see-through they are.


Number 4

This indicates how "spread out" the lines are, when this number is 0, you will see one fluent line. When this number is higher, there will be a "dotted" effect instead of 1 fluent line.

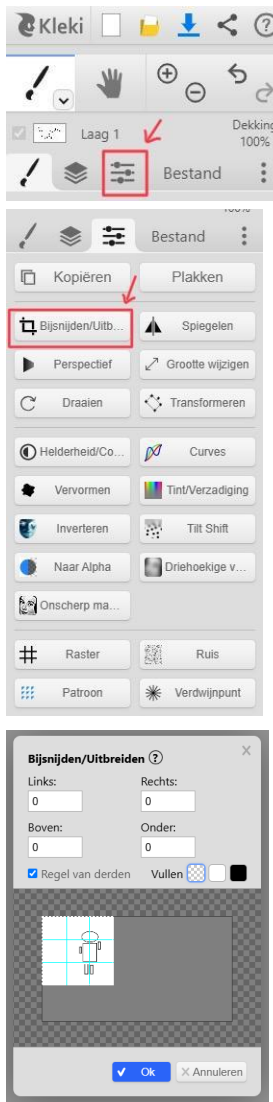
Number 5

These are the different properties of the drawing line: round, chalk, calligraphy, and square. Each type of line (see number 1) has its own properties. The ones on the screen correspond to the basic drawing pen.

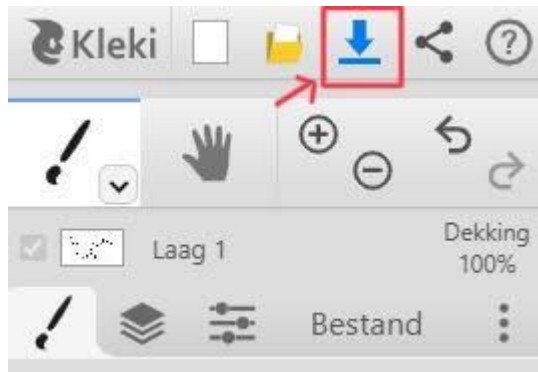
Note: it might take some practice to get used to working with all the different types of lines, be sure to experiment and try things out first.

	<p>Use the little arrow right next to the drawing pencil to use other tools:</p> <p>The bucket can be used to fill in large parts of the drawing. Use the color gradient to choose the fill in color.</p> <p>The shapes can be used to easily draw shapes, a handy tool when designing a creature.</p>
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Good to know

	<p>Most of the time this step will not be necessary.</p> <p>Children sometimes only use a small part of the canvas space which may cause issues in a later step. In this case you can use the crop function to reduce the background space and cut out the figure they drew.</p> <p>You can also use this function to make the background bigger when necessary.</p>
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Once the drawing is finished, you can save and download the drawing. Depending on the device and browser used, the saved document can be found in either the browser download folder or the device download folder.



Step 2: animate the creature


For the second step, go to Monster Mash (monstermash.zone) and upload the drawing from the previous step. To do this, click the little arrow next to the folder symbol and select "Import template image...". You can now select your drawing from your download folder (or from a different folder if you saved the drawing in a specific folder).



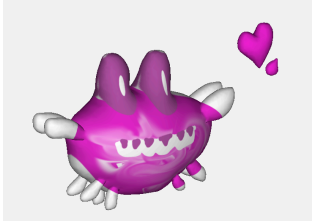


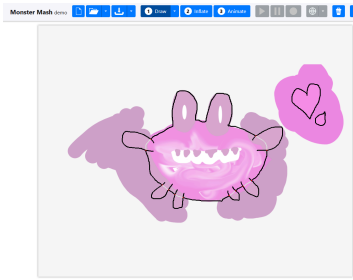


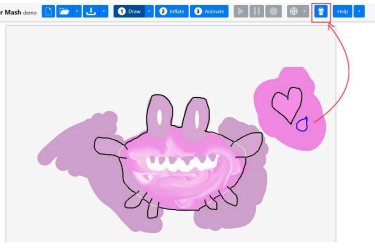
The main objective of this part of the creation is to outline your creature, using the first drawing you made as a template. During this process you will be able to switch back and forth between the functions "draw", "inflate", and "animate" to optimize your creation.



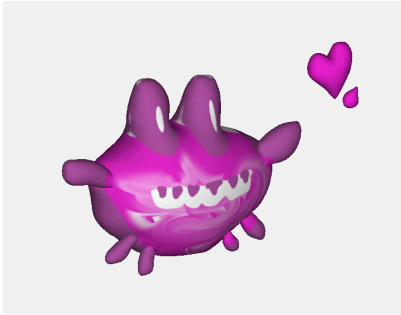
The drawing function

	<p>Once your drawing from kleki.com (or from another drawing tool) is uploaded, you can now use the "draw" function on Monster Mash to outline your creature</p> <p>Important: the outline should be 1 closed off "island", using one cohesive line, otherwise it will result in multiple disconnected floating parts.</p>
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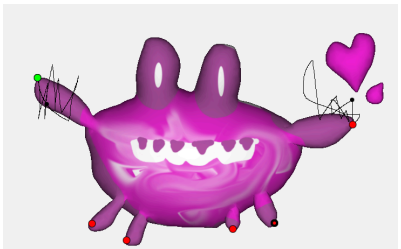
 <p>“draw” function:</p>  <p>“inflate” function:</p> 	<p>Once you have created an “island”, you can go back in and draw arms/legs/tentacles by starting inside of the outline/island, moving the line out of the island, and going back into the island to end. This time you can leave the beginning of the line separate from the ending of the line. This way it will attach to the other outline instead of creating its own new island)</p> <p>Fun extra feature: if you double click the lines they will turn red on the drawing feature, which indicates that these elements will be “doubled”.</p> <p>When you switch to the “inflate” function, you can see how these elements have doubled</p> <p>You can reverse this action in the “draw” function by double clicking the lines again, they will now switch back from red lines to black lines;</p>
	<p>You can add multiple “islands” in one drawing as long as every separate outline forms its own “island” / cohesive and closed off line</p>
<p>kleki.com:</p>  <p>Monster Mash:</p> 	<p>In this example, a lot of white background is incorporated in the outline. If you want to change this, you can go back to your drawing on kleki.com (or the other drawing tool) and add more color / more details to the drawing. Save the new drawing to your device, go back to Monster Mash and upload the new drawing (the same way as you did before: “Import template image...”</p> <p>It is important to not start a new project on Monster Mash but to keep working on the project you were already working on. This way, the outline you drew on Monster Mash will remain intact and the added color / details will appear.</p>

	<p>If you are not satisfied with an outline, you can select a line (by clicking on it, it will turn blue) and then select the trash can icon to delete.</p>
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The inflation function

	<p>When you go to the “inflate” function at the top of the program, Monster Mash will show you the inflated version of your drawing.</p> <p>In this step you can also move the creature (and the other elements) around by clicking on it and dragging it around the page (without lifting your fingers from the computer mouse or screen).</p> <p>Tip: During the drawing stage, you switch back and forth between the “draw” and “inflate” function to get a better idea of what the creature will look like.</p>
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The animation function

	<p>To start animating your creature (making it move), go to the “animate” function.</p> <p>You can now pin down parts of your drawing by clicking on the spot you want to pin down. A red dot will appear on every spot you have pinned down.</p> <p>During the animation process, you can always remove dots (by clicking on them and then clicking on the trash can icon) or add more dots.</p> <p>When you click and hold a red dot, you can move that part of the creature around</p>
<p>recording button:</p>  <p>button = red while recording:</p>  	<p>When you want to save your movements and record them, you have to push the record button first, then click a red dot and move it around. Your movement will be tracked by a line. The recording will automatically stop when you stop the movement. (When recording, the record button will be red, if it has stopped recording, the button will be white again).</p> <p>Once you have recorded the movement of 1 dot, you can now do the same for the other ones.</p> <p>If you are not satisfied with a movement, you can delete it by click on the movement line and then clicking on the trash can icon.</p>

To save your Monster Mash creature, click the little arrow next to the download icon and select “Export animation as glTF (.gltf file)...”



Next click the “export” button and wait for it to fully download your file. Depending on the device and browser used, the saved document can be found in either the browser download folder or the device download folder.

Export to glTF

Warning: The export first generates the file in the memory which may cause Monster Mash to crash if the animation being exported is too large. Therefore, make sure to save the project before exporting it.

Animation length: 94 frames

Pre-roll frames:

Number of frames to precompute before exporting the sequence. Useful for obtaining animation loops without glitches.

Full quality: Enable

Check this box to resolve the depth during the export. Uncheck for faster exports, which may, however, include interpenetrations.

Per-frame normals: Enable

Check this option to also export normals for each frame. The resulting file will be twice as large.



Close


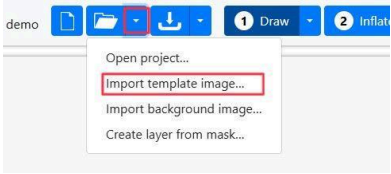
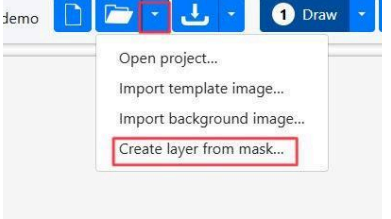


Good to know


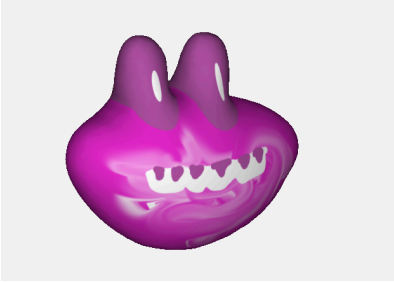
The “help” function in Monster Mash provides more information and other tips & tricks to use the program.



During every step in Monster Mash, you can go back or switch in between the different functions to change elements at every step. You can also go back to kleki.com (or the other drawing tool you’ve used), make changes and upload it to your Monster Mash project.

If you have a hard time outlining the creature, you can use the following trick

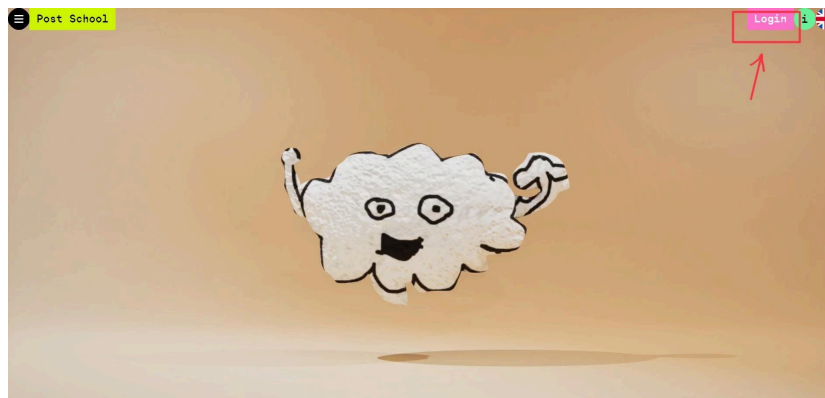
	<p>Go back to kleki.com (or the other drawing tool you've used) and color the background black (you can use the bucket from step 1 to easily do this).</p>
	<p>Go to Monster Mash and start a new file, upload your drawing</p> <p>Import your drawing the same way as explained at the beginning of step 2: click the little arrow next to the folder symbol and select "Import template image..."</p>
 	<p>Next, click the little arrow next to the folder symbol and select "Create layer from mask..."</p> <p>Upload the same image as before (the one with the black background).</p> <p>The program will now outline your drawing for you.</p>
  	<p>When you use the inflate button, there will possibly be a black border around the creature.</p> <p>You can leave it like this or remove it by going back to kleki.com and adding more color to the outside of your creature.</p> <p>Download this drawing and go back to your project in Monster Mash (do not open a new canvas)</p> <p>Upload your image using "Import template image..."</p>

	<p>The new template/background will appear and the outline that was created before will remain the same.</p>
	<p>When you go to "inflate", the black border will now be gone.</p>

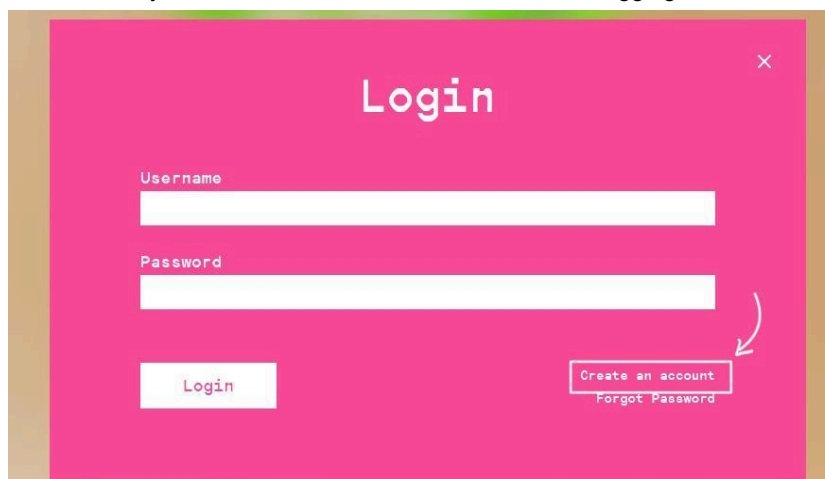
Step 3: add the creature to Hoppi World

The third and final step is to upload and edit your creature on Hoppi World (hoppiworld.com). You can create an account on the website and save your creations for later access and editing.

The login button can be found in the top right corner of the page.



The first time you need to create an account first before logging in:



The sign up page looks like this:

Do you have an email address?

Email address

First name

Username

Age

Country

I agree to the terms and conditions

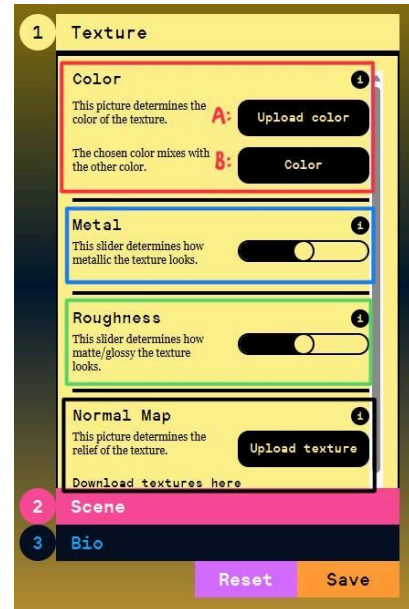
Your creature on Hoppi World

<p>You have space for three creatures – upload a new one or continue working on an existing one!</p>	<p>On Hoppi World, you can upload 3 different creatures at the same time by clicking an empty circle and uploading the “.glb”-file you have downloaded from Monster Mash (step 2).</p> <p>You can always delete creatures and upload new ones.</p>
<p>When you upload or click on your creature, an editing page will be shown. You can move your creature around by clicking, holding and moving your computer mouse.</p>	

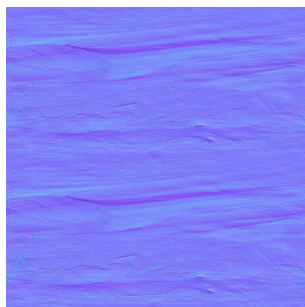
Editing and personalizing your creature

You can now edit the creature's texture, the scene/background, and you can add a bio with information about your creature

Changing the texture



Normal map example:



In the **color function**, you can (A) upload one of your downloaded drawings (from kleki.com) to change the color of your creature. (For example your creature is mainly blue but you also have a drawing of this creature with pink coloring).

- When you remove an uploaded color, the creature becomes a blank canvas.
- Any drawing or color you upload will project on the outline of your creature.

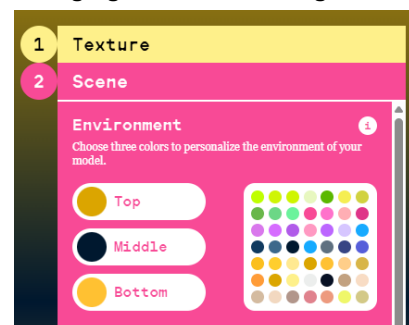
You can also play around with a mixing color (B): a color gradient will be shown and will mix with the existing drawing (or "color" you have added).

The **metal and roughness functions** work together. Play around to make your creature look more or less metallic ("metal") or to make it look more shiny or matte ("roughness"). For example: when "metal" is very high and "roughness" very low, you can create a chrome effect.

With the "normal map" function, you can add texture to your creatures. You can download textures by clicking on "Download textures here" or you can find your own textures by searching for your own and adding "normal map". (These textures have a purple coloring but this will not project onto your creature).

You can play around and try out different things. If you end up not being happy with the result and want to start over, there is a "delete" option on the bottom left side. You can then re-upload your ".glb"-file and start over

Changing the scene / background

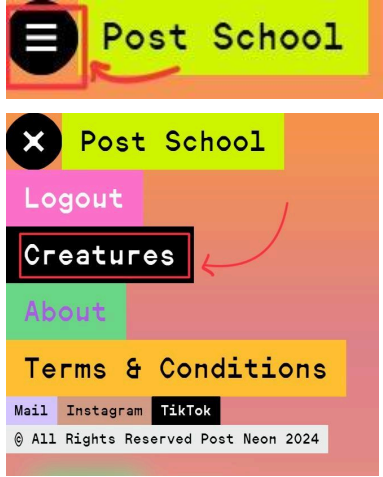
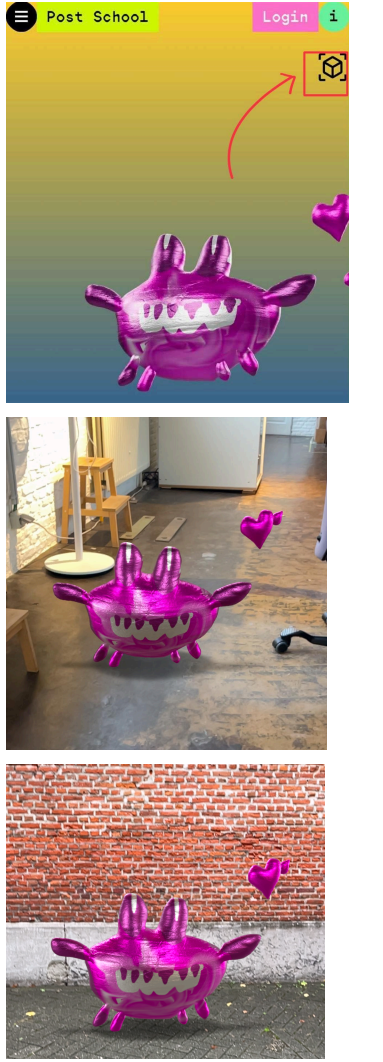


You can change the background colors on three levels: top, middle and bottom. First select what part of the background you want to change, then pick a color from the options on the right.

	<p>With the “light” slider you can change how much your creatures “lights up”. The left side of the slider makes the creature more dark and the more you move to the right, the lighter it becomes.</p> <p>The “light environment” function makes it seem as if your creature is standing in the described environment on the right (for example, the “clouds” light up your creature as if it is floating in the clouds)</p> <p>With the “shadow” slider, you can choose how visible / how opaque the shadow underneath the creature is.</p>
	<p>You can now personalize your creature by giving it a name.</p> <p>You can also add a description. A question is suggested to answer but you can also click the button “Click for a question” to change this question.</p> <p>Lastly, you can describe where your creature lives or more about the environment you envision you creature to exist in.</p>
	<p>Do not forget to save your creature by clicking the “save” button.</p> <p>Your creature will now be visible when you go back to “your profile”.</p> <p>You can go back to the editing page by clicking on the creature.</p>

Move your creature around in your room

One fun feature of Hoppi World is the ability to visualize your creature in your own room through your smartphone or tablet.

	<p>Every creature has its own hyperlink. You can find your own creatures on your own profile but you can also find other creatures by going to the menu at the top left corner, clicking the three horizontal stripes and then clicking "creatures".</p> <p>You will be directed to a page where all creations can be found. If you know someone else that has created something you can look up the name of their creature and find theirs.</p>
	<p>When you open a creature on your phone or tablet (using a hyperlink), you can click the icon in the top right corner, just underneath the information-button to open your camera and place your creature in the room or space you are in at the moment.</p> <p>You can click on the creature and move it around in the space.</p>