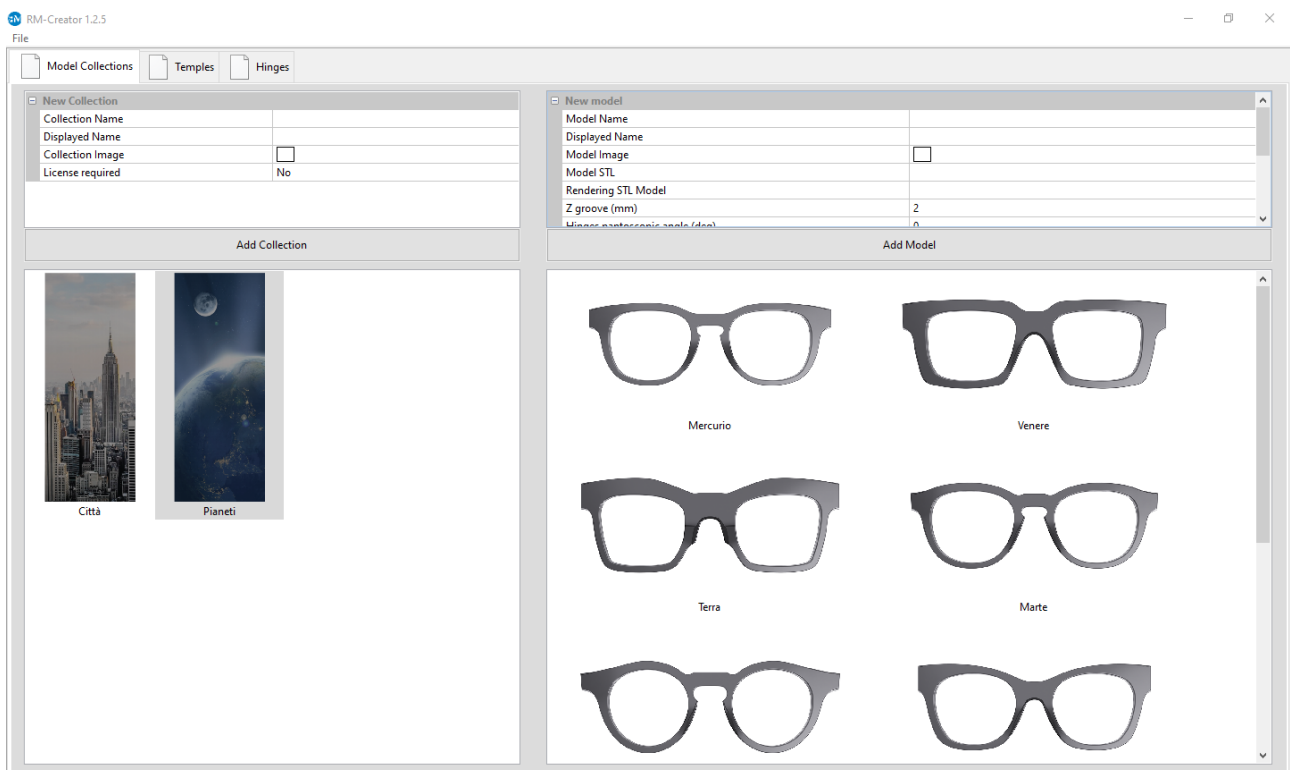


# Software RM\_Creator

User Manual  
v.1.2.5  
November, 2023



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## **Introduction**

The RM-Creator software is supplied with the BeYourGlasses software (hereinafter BYG) and allows you to insert new collections, temples, and hinges, which will be displayed and managed by the aforementioned software.

RM-Creator consists of 3 pages:

1. "Model Collections", where new collections and the models that compose them can be inserted;
2. "Temples", where new temples can be added
3. "Hinges", where new hinges can be added

Navigation between the 3 pages is done using the bar at the top.

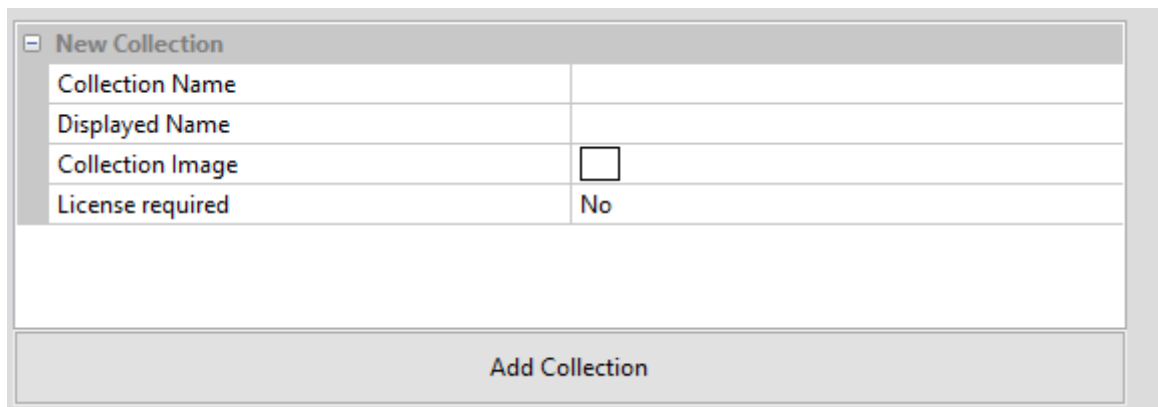
## Collections & Models

On this page you can enter new collections and the models of the glasses that compose them.

Before you can add a new model, you must enter at least one collection.

### Insertion of the new collection

To enter a new collection, you need to fill in the fields in the "New Collection" grid, which have the following meaning:



New Collection	
Collection Name	
Displayed Name	
Collection Image	<input type="checkbox"/>
License required	No
Add Collection	

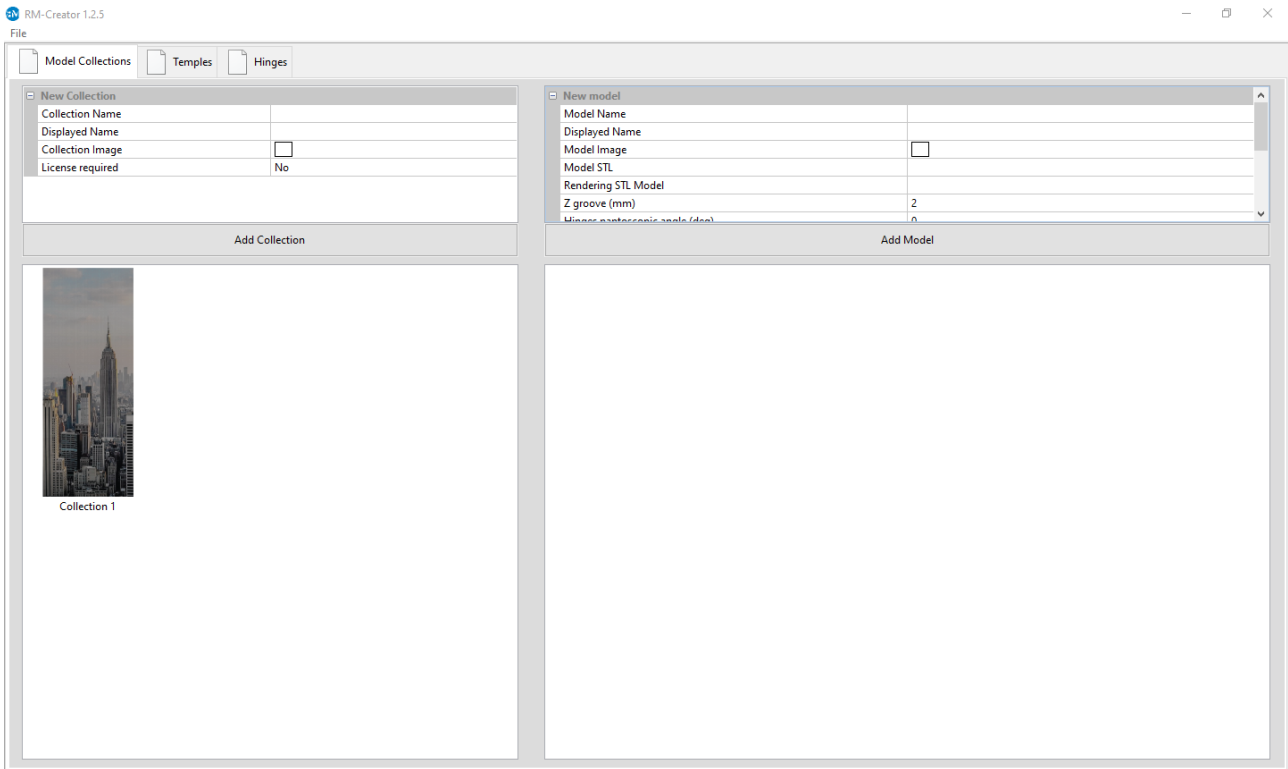
Collection Name	Name of the folder that will contain the collection of templates, only standard characters A-Z, a-z, and 0-9 should be used in this field	
Displayed Name	The name of the collections displayed in the BYG software, all characters can be used in this field	
Collection Image	Image displayed within the BYG software, the image must be in JPG or PNG format and must be 410x1024 in size to display correctly	
License required	Leave "No" in case you are not asked for an activation code for the collection, if you select "Yes" the collection is displayed but will need to be unlocked via a license key	

Once you have entered the fields, press "Add Collection" to add the new collection.

### Inserting models into a new collection

Once a collection has been inserted, it is possible to insert the models of the glasses into it.

To proceed, select the collection and enter the model data in the "New model" grid.

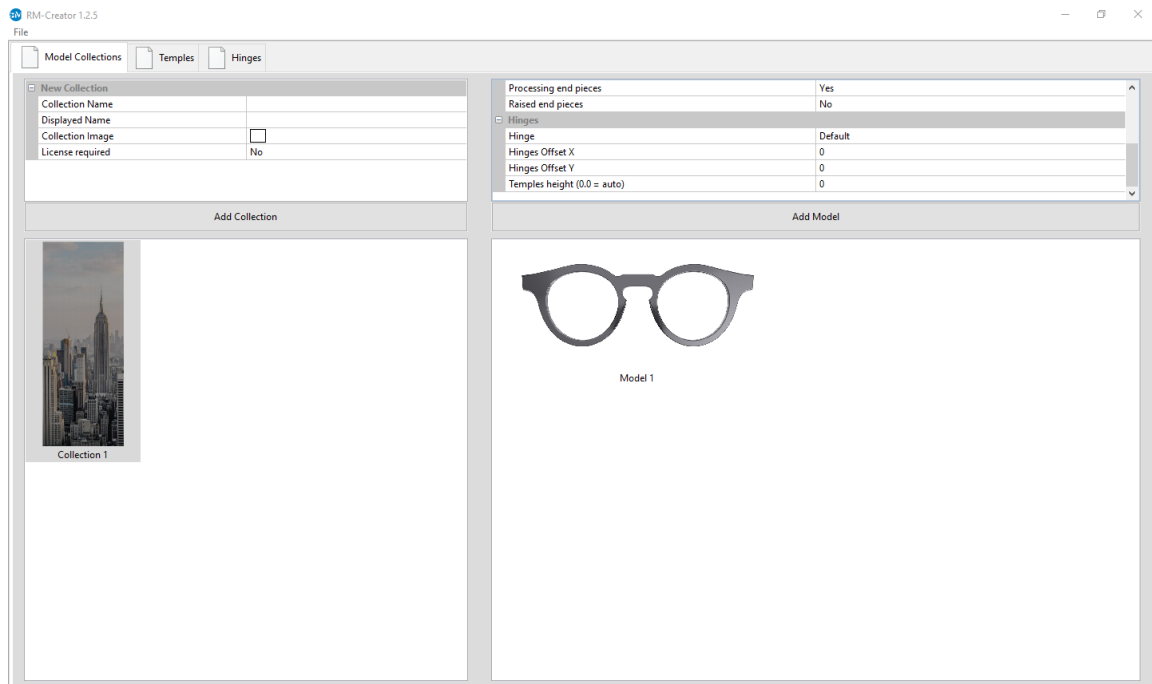


The parameters to be entered are as follows:

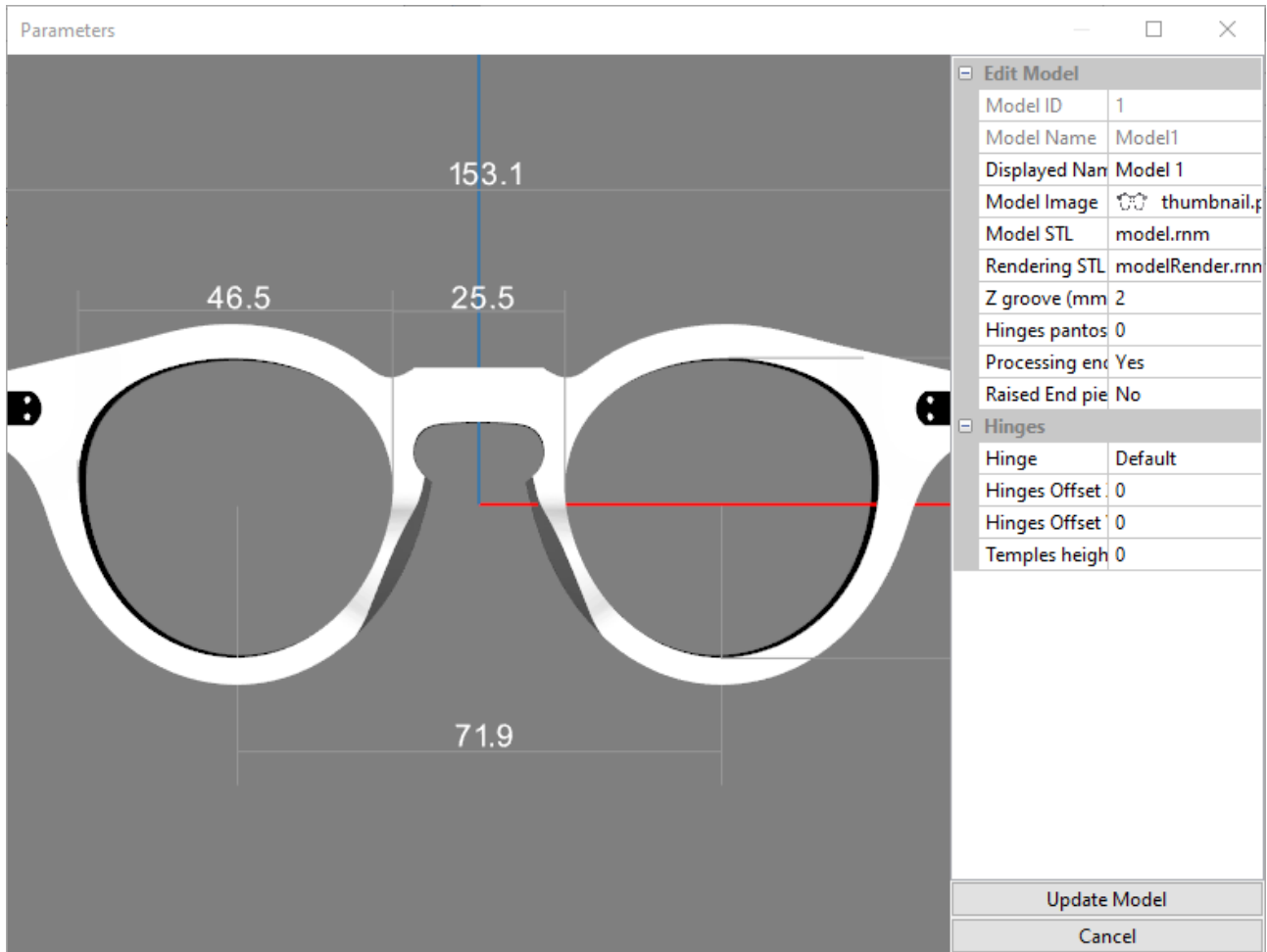
Model Name	Name of the folder that will contain the model data, only standard characters A-Z, a-z, 0-9 can be used in this field
Displayed Name	Displayed name in the BYG software, all characters can be used in this field
Model Image	Image displayed by BYG, must be in PNG format with transparency and must be 1024x512 in size
Model STL	Technical model of the glasses, the model must be oriented as per the example downloadable here:  <a href="https://www.dropbox.com/scl/fi/f9ukiyhvk6jq8poy1qdvw/modelT.stl?rlkey=1ti1pqd06vy1ntecegxc4bh1&amp;dl=0">https://www.dropbox.com/scl/fi/f9ukiyhvk6jq8poy1qdvw/modelT.stl?rlkey=1ti1pqd06vy1ntecegxc4bh1&amp;dl=0</a>  and must be compatible with the technical specifications set out in "Annex A"
Rendering STL Model	Model displayed by BYG, must have the same size and orientation as the technical model, an example can be downloaded here:  <a href="https://www.dropbox.com/scl/fi/mav2x6wemwwaamjalh3ia/model.stl?rlkey=wtl1nhhdxn36vgv31iom5764k&amp;dl=0">https://www.dropbox.com/scl/fi/mav2x6wemwwaamjalh3ia/model.stl?rlkey=wtl1nhhdxn36vgv31iom5764k&amp;dl=0</a>
Z groove (mm)	Height of the groove in relation to the outside of the glasses. This parameter should only be modified by the designer of the glasses and must remain in the range of 1.5 – 2.5 mm

Hinges Pantoscopic angle (deg)	Angolo di fresatura delle cerniere rispetto al piano.
Processing endpieces	"Yes" → the end pieces are milled to provide the angle of attack with the hinge. For some models, this processing is not possible and "No" must be entered. See "Appendix B" for more information on machining the nose.
`	"Yes" → extra processing is added to machine the endpieces "No" → extra processing is not added. See "Appendix B" for more information on the endpieces.
Hinge	You can select the hinge you want to use. In order to be able to choose which hinge to use, additional hinges must first be entered into the software.  See the chapter "Hinges" for more information on hinges.
Hinges Offset X	Extra horizontal distance of the hinges from the edge of the nose
Hinges Offset Y	Vertical distance of the hinges from the center of the nose
Temples Height (0.0 auto)	Required temples height. If the parameter is left at 0, the height is automatically calculated. For some models, you need to define this parameter.

Once you have entered all the parameters, press "Add Model" to add the glasses to the collection.



By double-clicking on the image of the glasses, it is possible to change the parameters of the glasses and view the size of the glasses and the position of the hinge:



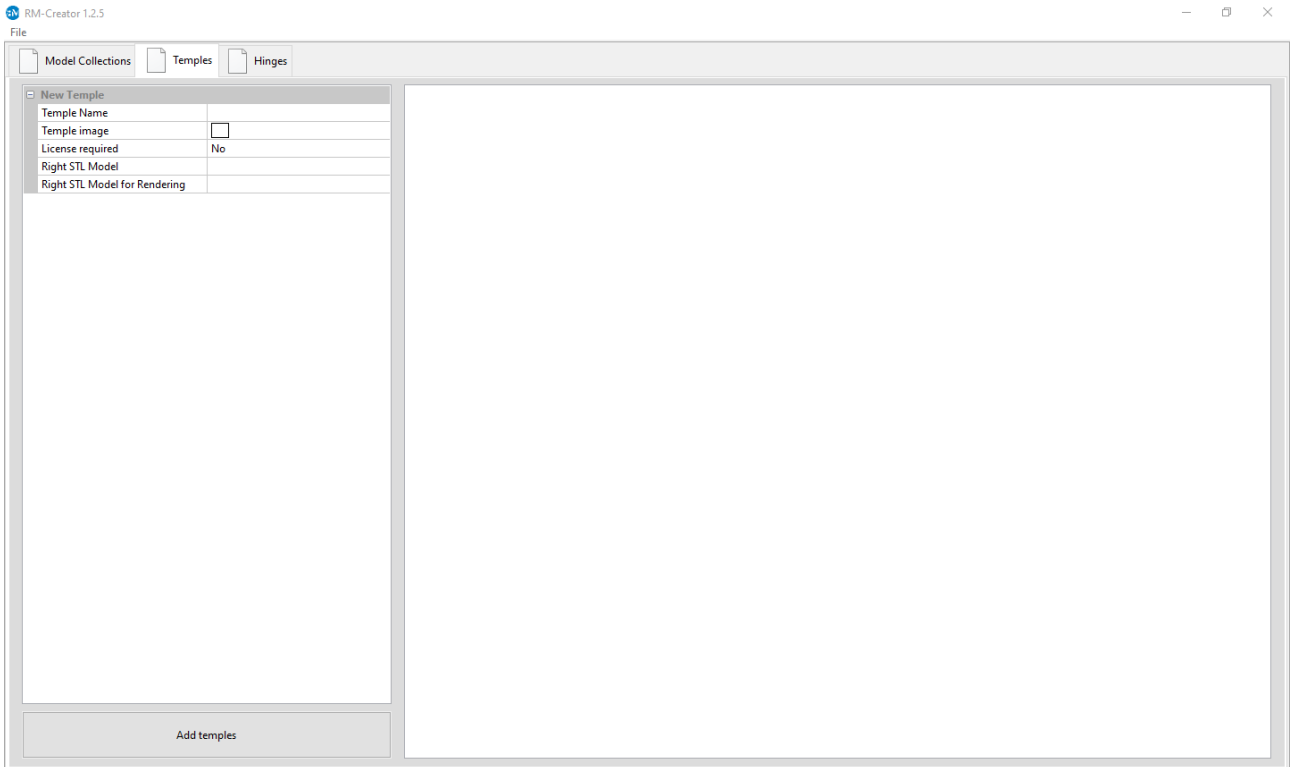
After modifying the parameters of the glasses, press "Update Model" to make the changes effective. Press "Cancel" to close the window.

There are no limitations on the number of models that can be included in each collection, however, it is recommended to enter a maximum of 8 models per collection to ensure an immediate display of all models in BYG.

Right-clicking on the image of the glasses takes you to a menu where you can select "Edit" (access the parameter editing screen) or "Remove" (remove the model from the collection).

# Temples

To be able to add new temples, click on the "Temples" tab at the top.

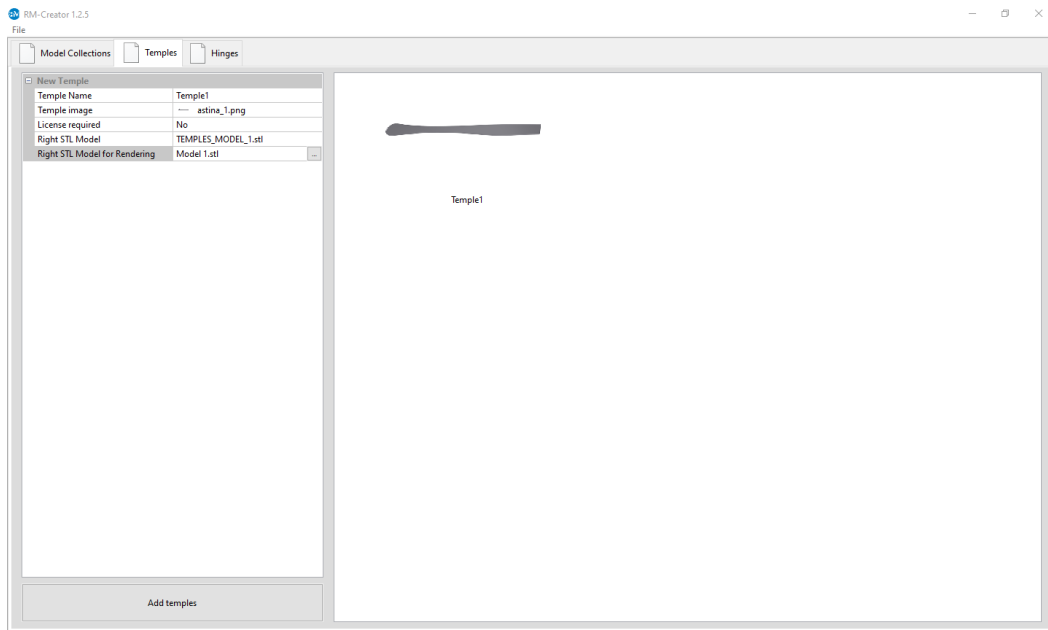


To add a new temples, you need to fill in the fields in the "New Dipstick" grid:

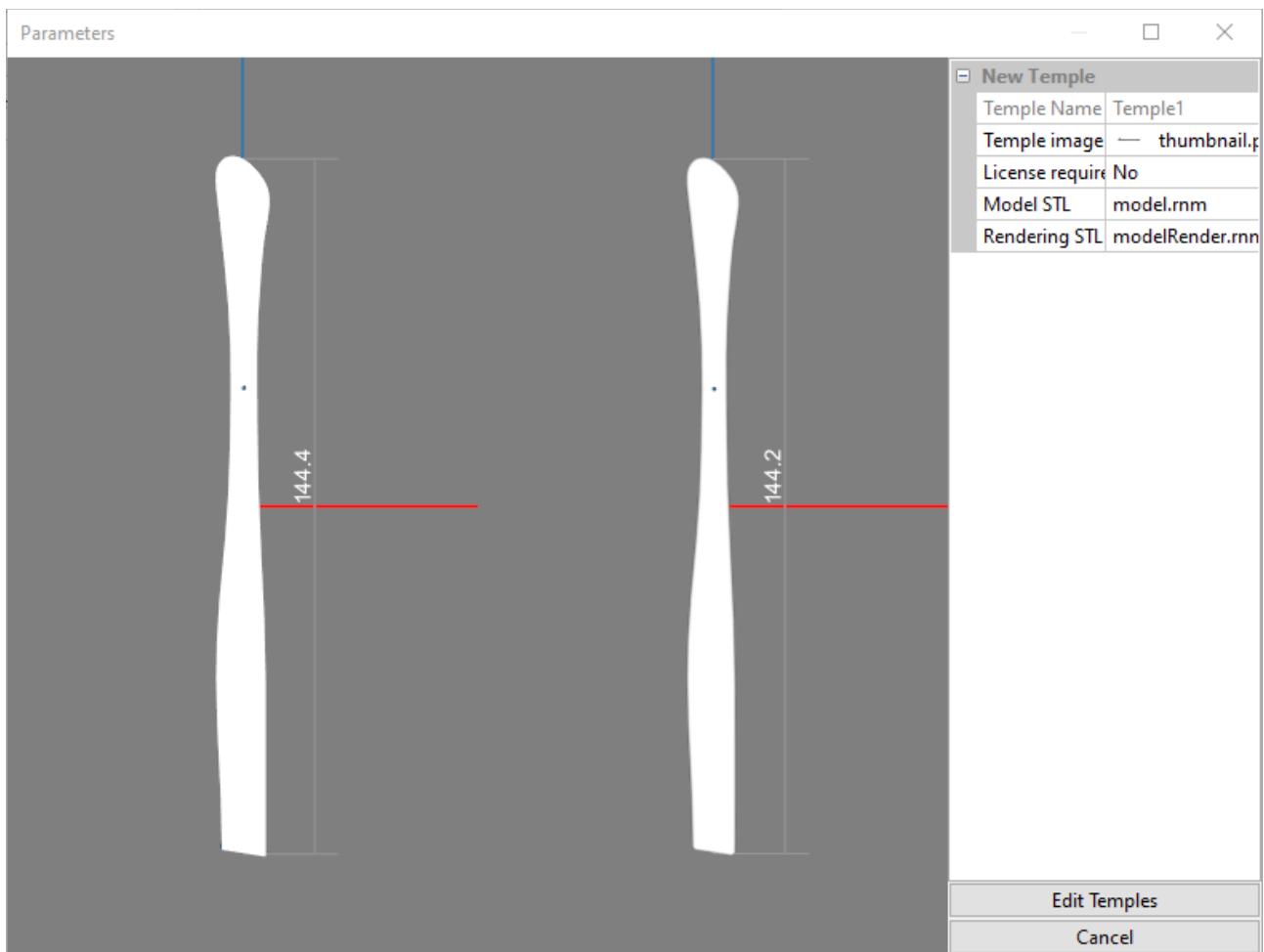
Temple Name	Name of the folder that will contain the rod data, only standard characters A-Z, a-z, 0-9 can be used in this field
Temple Image	PNG image with transparency, the image must be 1280x640
Right STL Model	Right-hand technical model of the fore-end in STL format. The fore-end must have orientation as shown in the example downloadable here: <a href="https://www.dropbox.com/scl/fi/36wpb2n9g5ns1vo812dsb/temp/eRT.stl?rlkey=zi7jcvwsfsl57lodernh5fro&amp;dl=0">https://www.dropbox.com/scl/fi/36wpb2n9g5ns1vo812dsb/temp/eRT.stl?rlkey=zi7jcvwsfsl57lodernh5fro&amp;dl=0</a>
Right STL Model for Rendering	Model displayed by the BYG software. This model must be the same size and orientation as the technical model. An example can be downloaded here: <a href="https://www.dropbox.com/scl/fi/c5qd26zq14v1v6et8a4oo/temp/eR.stl?rlkey=mufy161vk85ab3f2ng05yoh6&amp;dl=0">https://www.dropbox.com/scl/fi/c5qd26zq14v1v6et8a4oo/temp/eR.stl?rlkey=mufy161vk85ab3f2ng05yoh6&amp;dl=0</a>

Once you have entered the parameters, press "Add Temple" to add the temple to the software.





Double-click on the image of the dipstick to access the parameter editing screen where the technical model and the rendered model are displayed.



Once you have changed the parameters, press "Edit Temples" to save the changes.

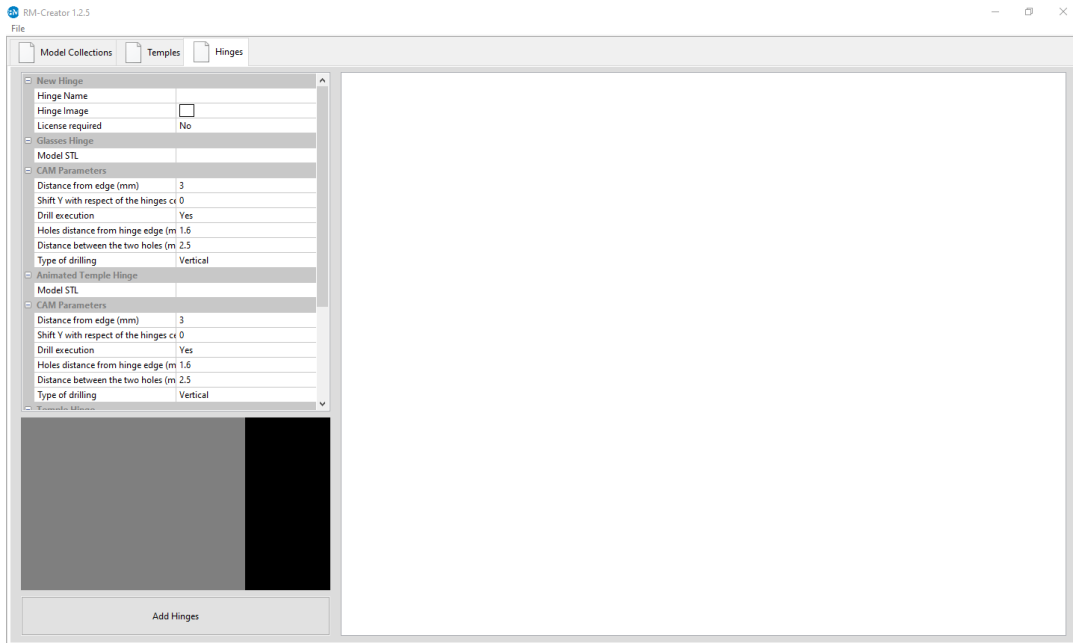
Press "Cancel" to exit the screen.

Right-clicking on the dipstick image takes you to a menu where you can select "Edit"

(accesses the parameter editing screen) or "Remove" (removes the dipstick from the program).

# Hinges

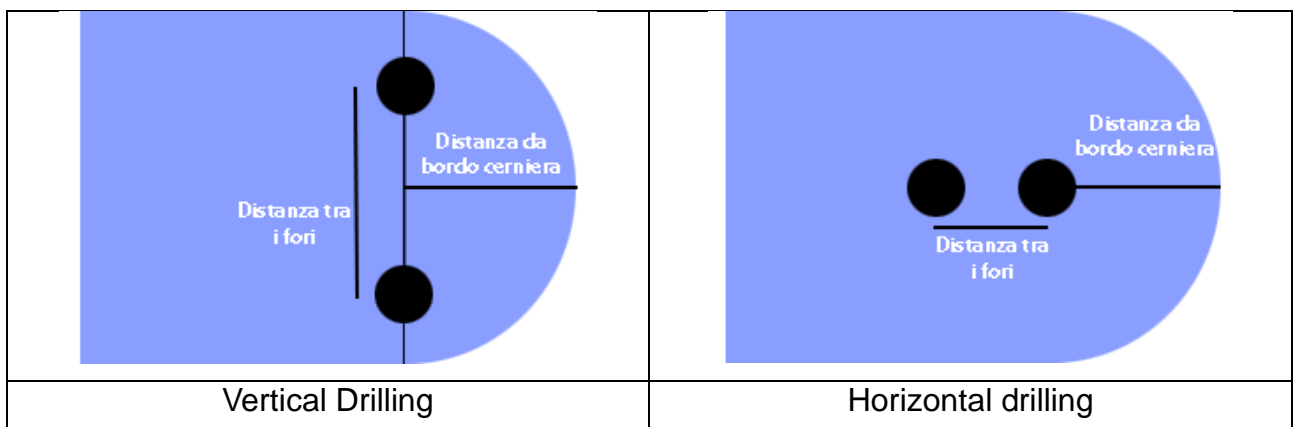
Clicking on the "Hinges" tab at the top will take you to the hinge management screen.



To add a new hinge, you need to fill in the fields in the "New Hinge" grid.

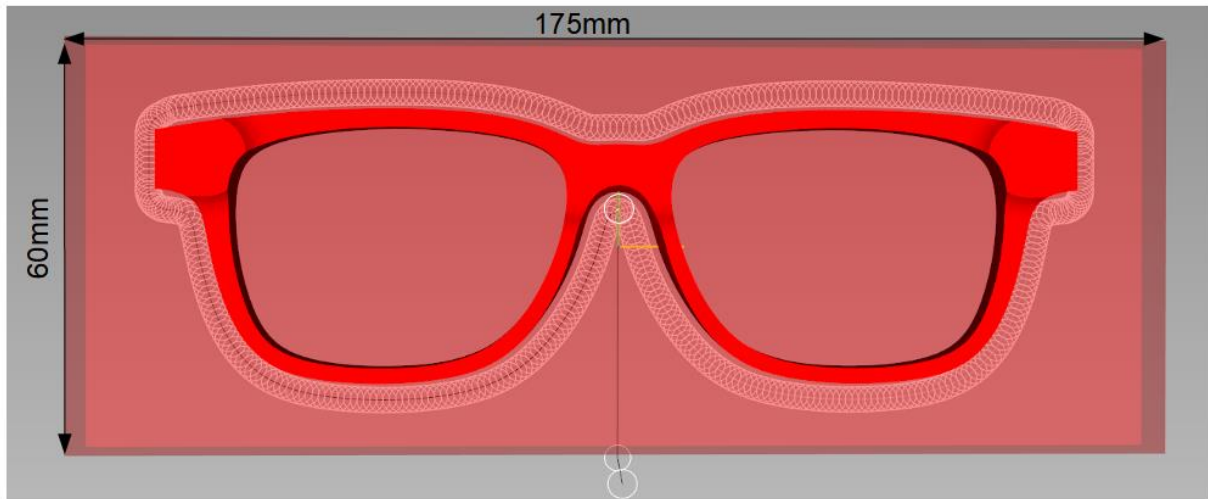
Hinge Name	Name of the folder that will contain the rod data, only standard characters A-Z, a-z, 0-9 can be used in this field
Hinge image	Insert the zipper image in PNG format, there are no size restrictions.
License Required	Leave "No"
Model STL	3D model in STL format of the hinge on the side of the glasses. It must have orientation as shown in this example: <a href="https://www.dropbox.com/scl/fi/wny86iyit1ob13a0q7858/hinges.stl?rlkey=1xc88px2ilalpw7ew0o069k7g&amp;dl=0">https://www.dropbox.com/scl/fi/wny86iyit1ob13a0q7858/hinges.stl?rlkey=1xc88px2ilalpw7ew0o069k7g&amp;dl=0</a>
Distance from edge (mm)	Horizontal distance of the hinge from the center of the endpieces of the glasses.
Shift Y from the center of the nose (mm)	Vertical distance of the hinge from the center of the endpieces
Drill execution	"Yes" -> drilling is done "No" -> no drilling is done
Hole distance from hinge edge (mm)	Distance of the holes from the edge of the innermost hinge to the glasses.
Distance between the two holes (mm)	Distance between the two holes. At the moment, the milling system only handles hinges with two attachment holes.
Type of drilling	Vertical or horizontal, refer to the next image for more information.

Model STL	3D model in STL format of the hinge on the side of the temple. It must have orientation as shown in this example: <a href="https://www.dropbox.com/scl/fi/wny86iyit1ob13a0q7858/hinges.stl?rlkey=1xc88px2ilalp7ew0o069k7g&amp;dl=0">https://www.dropbox.com/scl/fi/wny86iyit1ob13a0q7858/hinges.stl?rlkey=1xc88px2ilalp7ew0o069k7g&amp;dl=0</a>
Distance from edge (mm)	Horizontal distance of the hinge from the center of the forerod.
Shift Y from the center of the endpieces (mm)	Vertical distance of the hinge from the center of the temple edge.
Drilling execution	"Yes" -> drilling is done "No" -> no drilling is done
Hole spacing from hinge edge (mm)	Hole spacing from the innermost hinge edge to the foreend.
Distance between the two holes (mm)	Distance between the two holes of the fore-end hinge. At the moment, the milling system only handles hinges with two attachment holes.



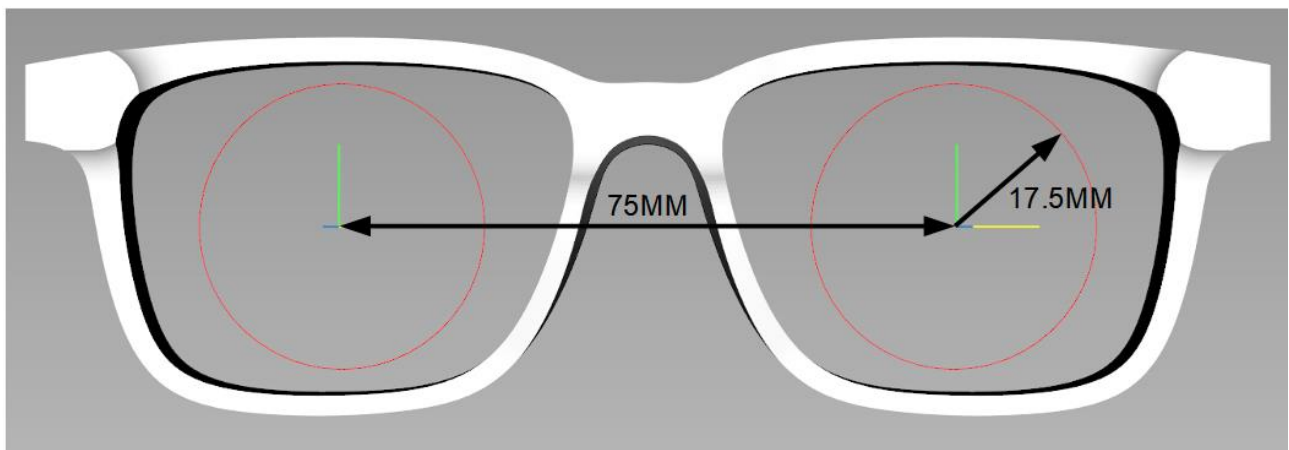
## Appendix A – Eyewear Parameters

### **Maximum size of glasses:**



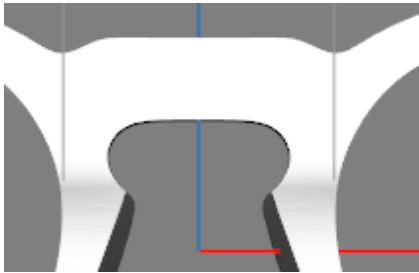
Maximum width: 175mm  
Maximum height: 60mm

### **Lens sizes:**



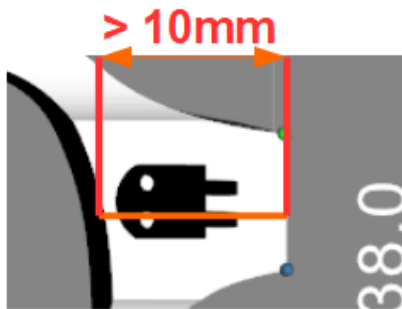
The centers of the lenses are positioned horizontally at  $-37.5\text{mm}$  and  $+37.5\text{mm}$  to the center of the glasses. The lenses should be designed to be farthest apart at each point of the  $17.5\text{mm}$  radius circle positioned on the center of the lenses.

### ***Key Nose Radius:***



If the glasses are designed with a key nose, the radius of the curve must be greater than 2mm

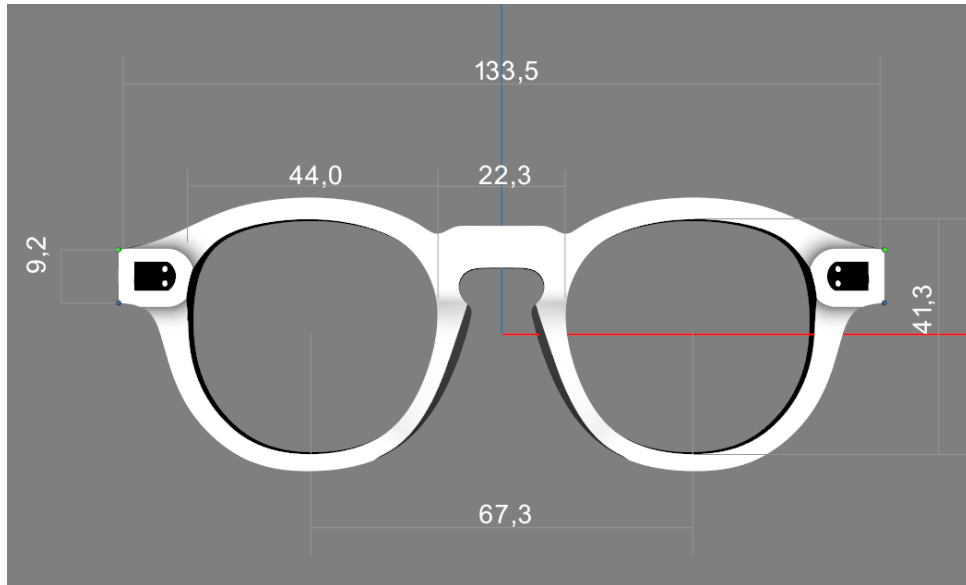
### ***Endpieces size***



For a correct positioning of the hinges, the distance of the edge of the lens from the center of the nose must be greater than 10mm

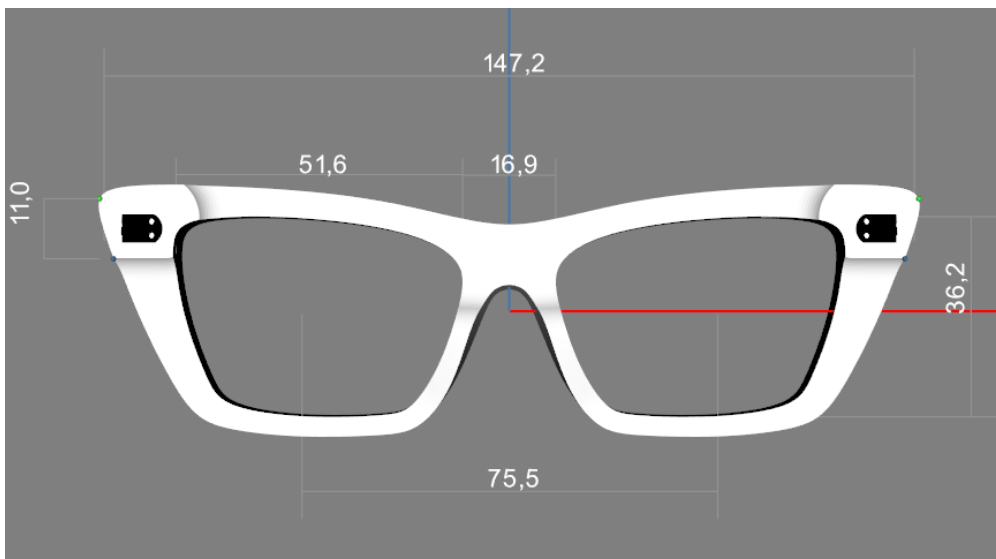
## Appendix B – Endpieces

The BYG system is able to automatically detect the size of the endpieces if they have a linear geometry, as shown in the following image:



In this case, you can leave 0 in the "Stick Height" parameter when adding the model. The hinge positions are then calculated based on the center of the Green and Blue dots.

In the case of endpieces with non-linear geometry, it is necessary to define the desired height, as the software is not able to exactly compute where the endpieces ends. In the example below, a pair of glasses with a "Temple Height" of 11mm has been defined:



In this case, the Green dot is calculated automatically by searching for the most extreme point of the glasses, while the Blue dot is calculated based on the value of the "Temple Height" parameter, also in this case the placement of the hinges is calculated starting from the midpoint of the two points.