

My AR Studio



Course program

My AR Studio

- My AR Studio: what it is
- My AR Studio: how it works
- Exercise
- Preparing a model in KeyShot
- Real-time rendering and exporting in GLB

What it is

www.myarstudio.cloud

My AR Studio is a cloud system that allows you to upload and distribute your products on the web and in AR.





MY
AR
STUDIO



Share your **products in 3D**,
web channels and **Augmented Reality**
in 4 simple steps

DESIGN BY
puntoquindici



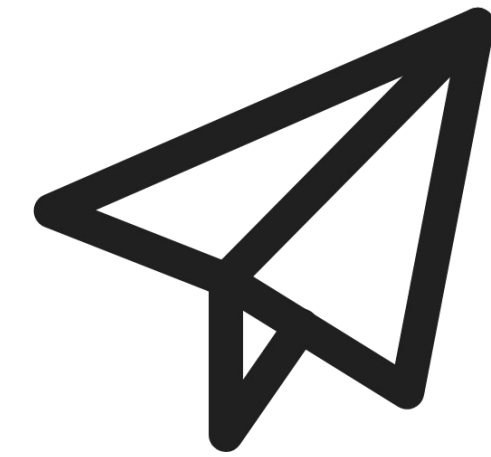
[click to see the video](#)

Links

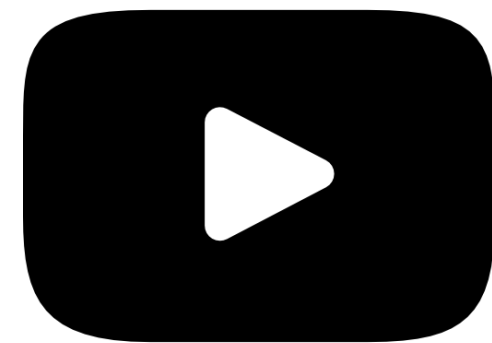
Access our contents



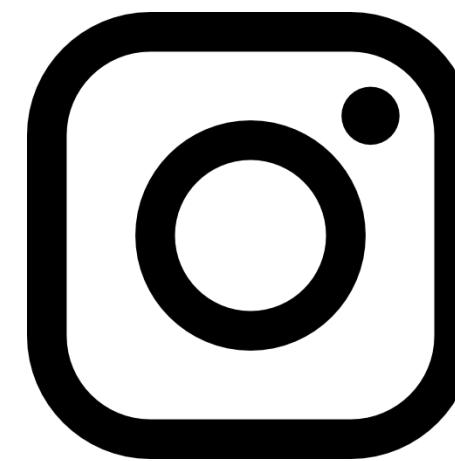
it.linkedin.com/showcase/myarstudio



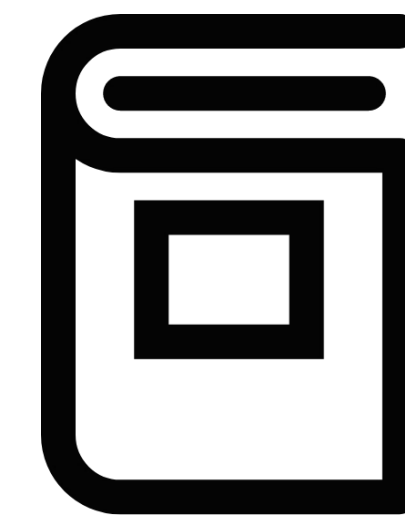
info@myarstudio.cloud



youtube.com/@myarstudio



instagram.com/my.ar.studio



myarstudio.cloud/learn

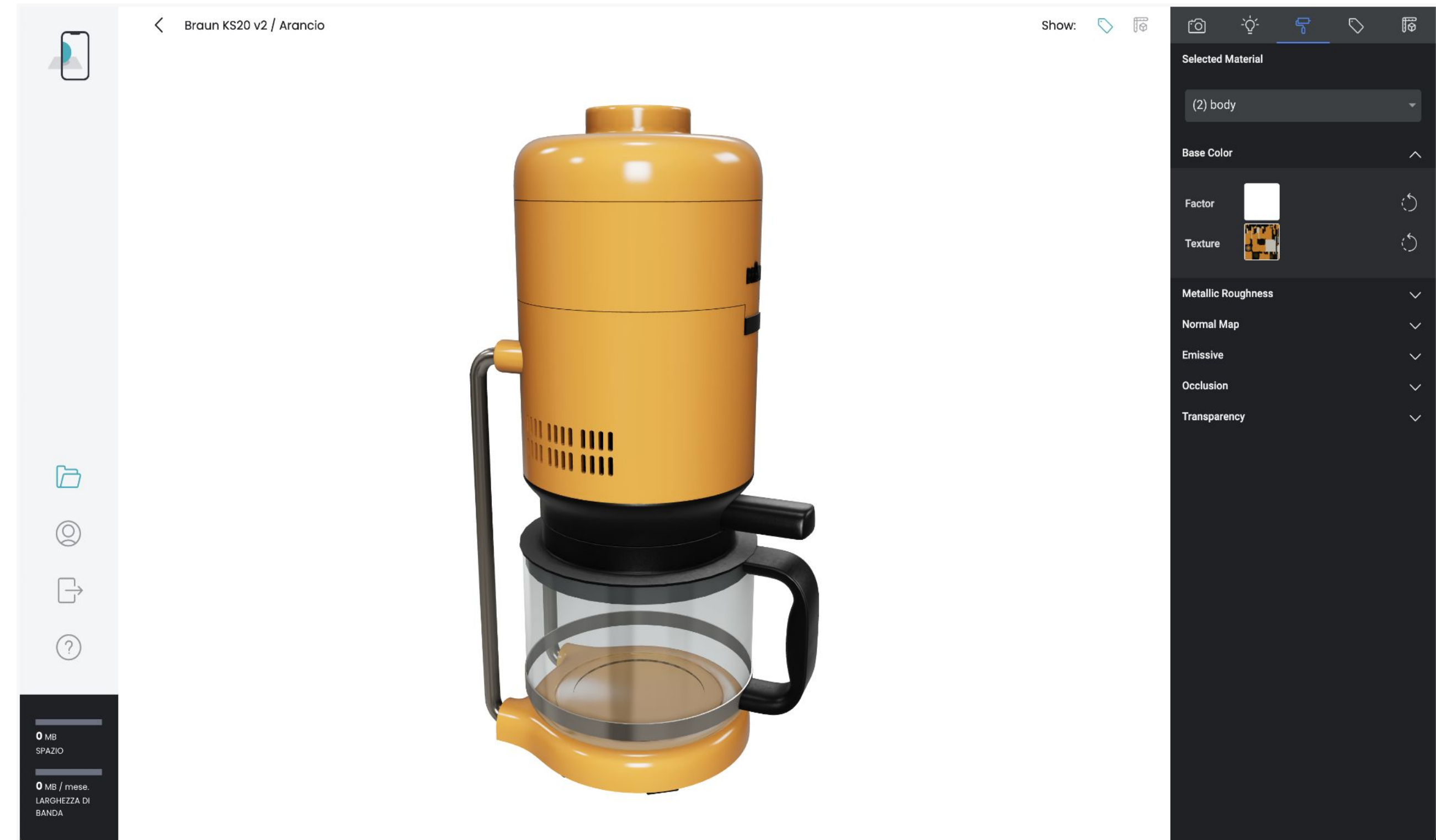


How it works

Drag the model of your product in GLB format into the My AR Studio editor.

Set the colors and lighting that best enhance it.

Publish it in several independent configurations or grouped in a single product selector.





Distribution

The Universal Viewer of My AR Studio is the tool to distribute your products on any type of device.

Through the automatic generation of links, QR Codes and HTML, you can cover both desktop and mobile browsers, as well as the native Augmented Reality view of Apple iOS and Android.

No app needed.





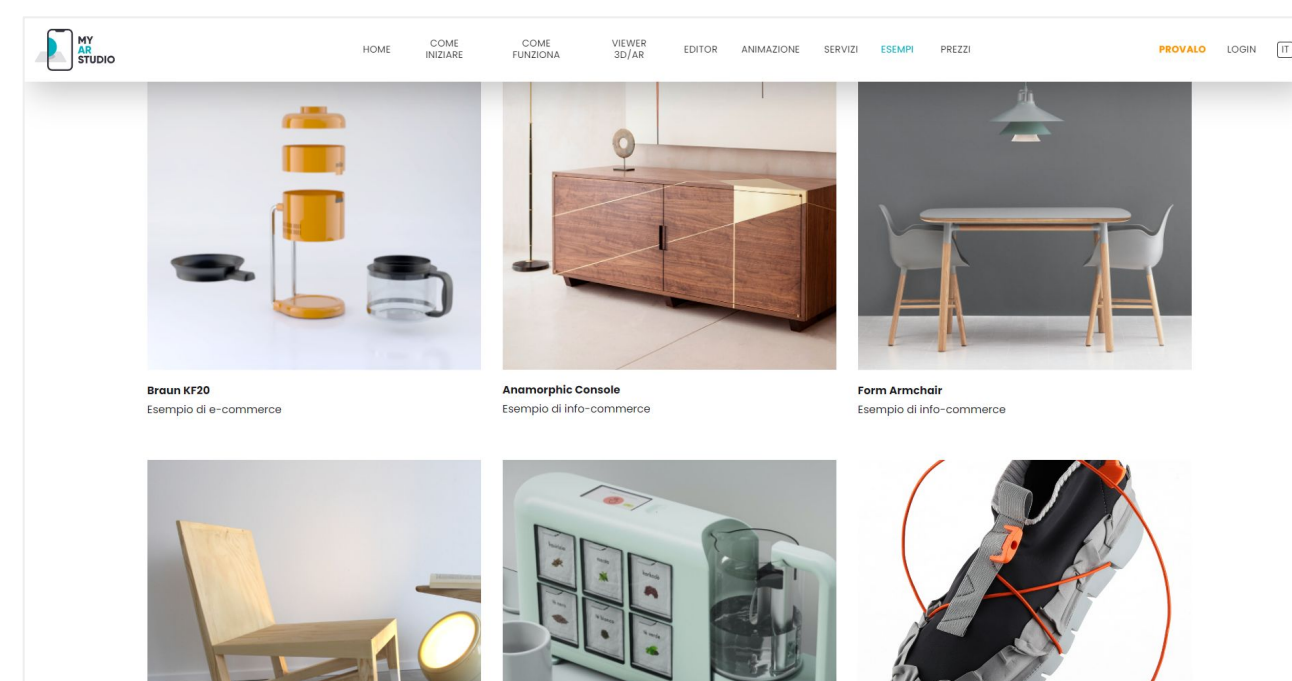
Use Cases

Quality and versatility exemplified.

[Click on the images to open the examples](#)



myarstudio.cloud/examples





Documentation

myarstudio.cloud/learn

youtube.com/@myarstudio

Extensive documentation with video tutorials:

- My AR Studio
- KeyShot
- Blender
- Substance Painter

Prerequisiti
Accedere a MyARStudio

Utilizzo base
Utilizzo base

1. Aggiungere un nuovo progetto
2. Importare un modello 3D
3. Scattare una fotografia (poster)
4. Impostare un nome
5. Pubblica sul cloud

Editor: panoramica

Progetti

Configurazioni

Selettore prodotto

Utilizzo intermedio

Materiali Veloci in My AR Studio
GLB Fix

Preparazione dei dati

Preparazione del modello
Consigli per esportare in GLB

Distribuzione dei contenuti

Visualizzatore Universale
Realtà Aumentata

Utilizzi avanzati

Oaetti flottanti

Projects + 2

Search...

It's empty here!

1

2

3

0 MB
SPACE

0 MB/mo.
BANDWIDTH

Benvenuto nella documentazione di MyARStudio

Il sistema più semplice per pubblicare i tuoi modelli 3D e renderli disponibili su Web e in Realtà Aumentata.

Qui puoi trovare informazioni su come utilizzare MyARStudio, dalle operazioni base agli utilizzi avanzati.

Questa guida viene costantemente aggiornata ad ogni rilascio o funzionalità aggiunta. Pubblichiamo inoltre articoli su integrazioni con strumenti di terze parti o casi d'uso interessanti in modo da fornire consigli e idee per ottenere il massimo da questa tecnologia.

Se per caso non trovi risposta ai tuoi quesiti non esitare a contattarci.

[Accedi alla documentazione](#) [Scopri My AR Studio](#)

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MY AR STUDIO
Makes your products stand out on the Web and in Augmented Reality

My AR Studio | Augmented Reality

HOME VIDEO PLAYLIST CANALI INFORMAZIONI

Video caricati

GUIDA ALL'USO

HOW TO USE

MATERIALI KEYSHOT IN AR

KEYSHOT MATERIALS IN AR

STIMANZA ED ESPORTA PER MY AR STUDIO

SOFTWARE AND EXPORT FOR MY AR STUDIO

CONSIGLI LE TEXTURE IN PHOTOSHOP

CORRECT THE TEXTURE IN PHOTOSHOP

CORREGGI IL MODELLO IN BLENDER

CORRECT THE MODEL IN BLENDER

IMPORTA IL MODELLO IN BLENDER

IMPORT THE MODEL IN BLENDER

GENERATE THE MODEL

GENERA IL MODELLO

ESEGUI GLI SCATTI

EXECUTE THE NEEDS

INTRODUZIONE

INTRODUCTION



Recommended requirements

To work in Augmented Reality with My AR Studio we advice:

Creation

- Chrome web browser

Web viewer

- Any web browser

Augmented Reality

- Recent or enabled smartphones (see this [link](#))
- Chrome on Android
- Safari on iOS



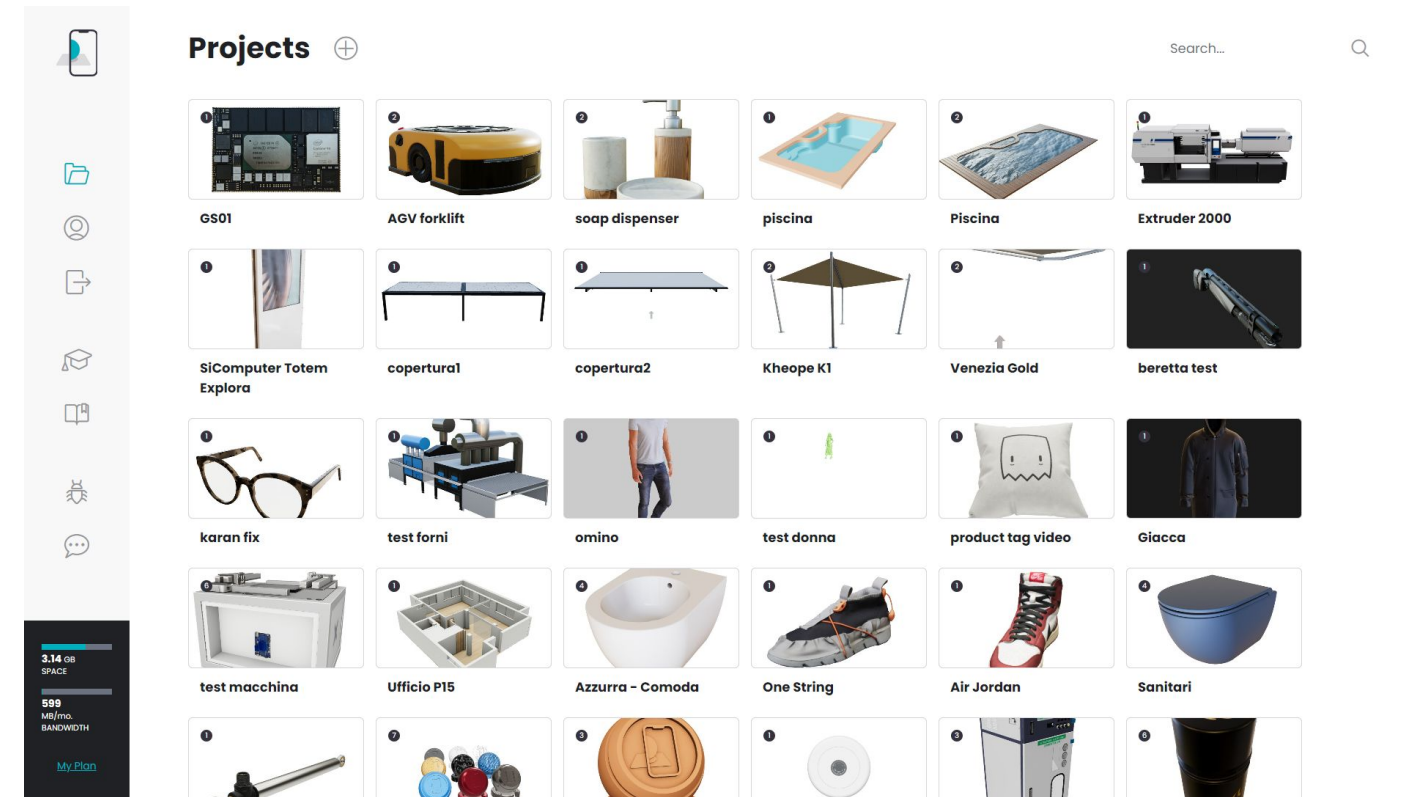
Test your smartphone

My AR Studio

How it works

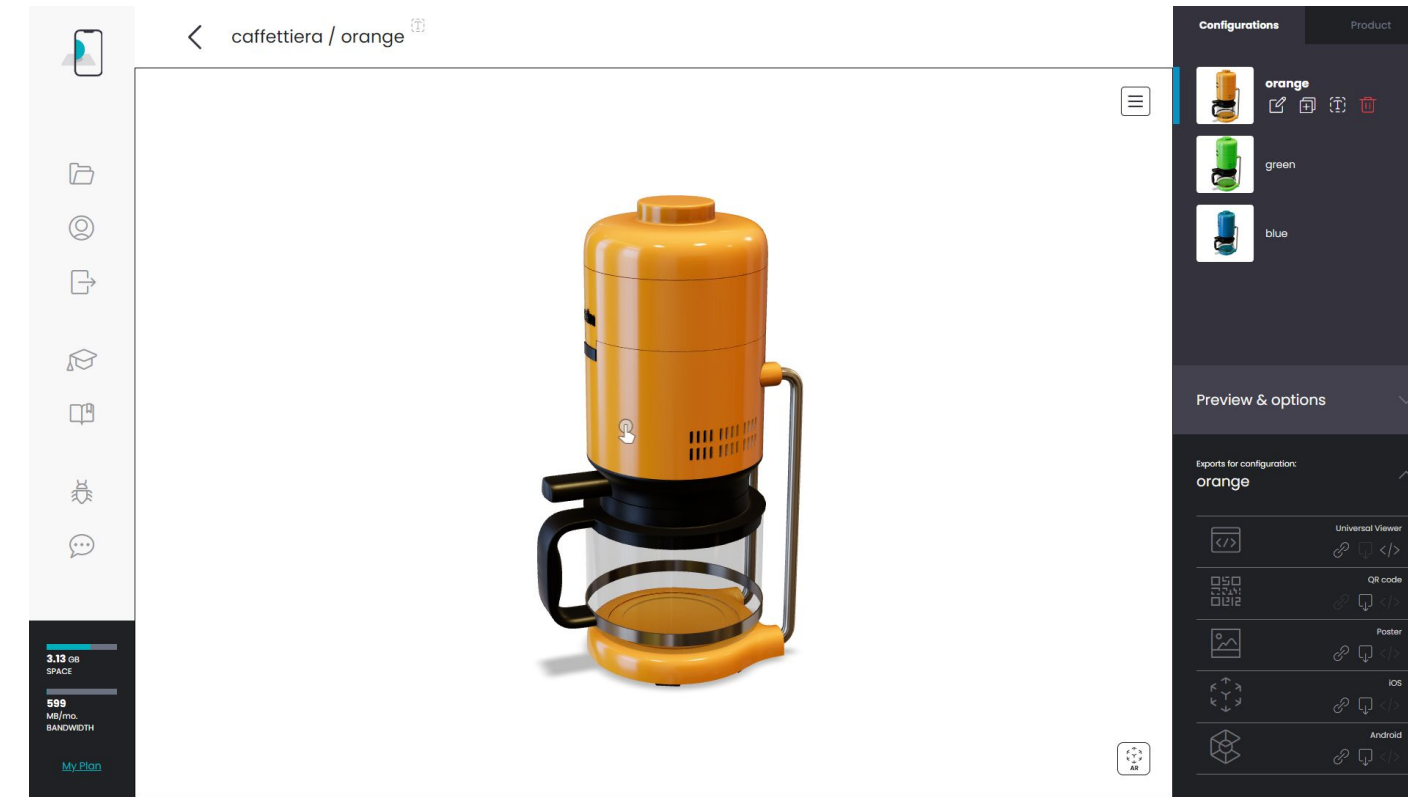


My AR Studio



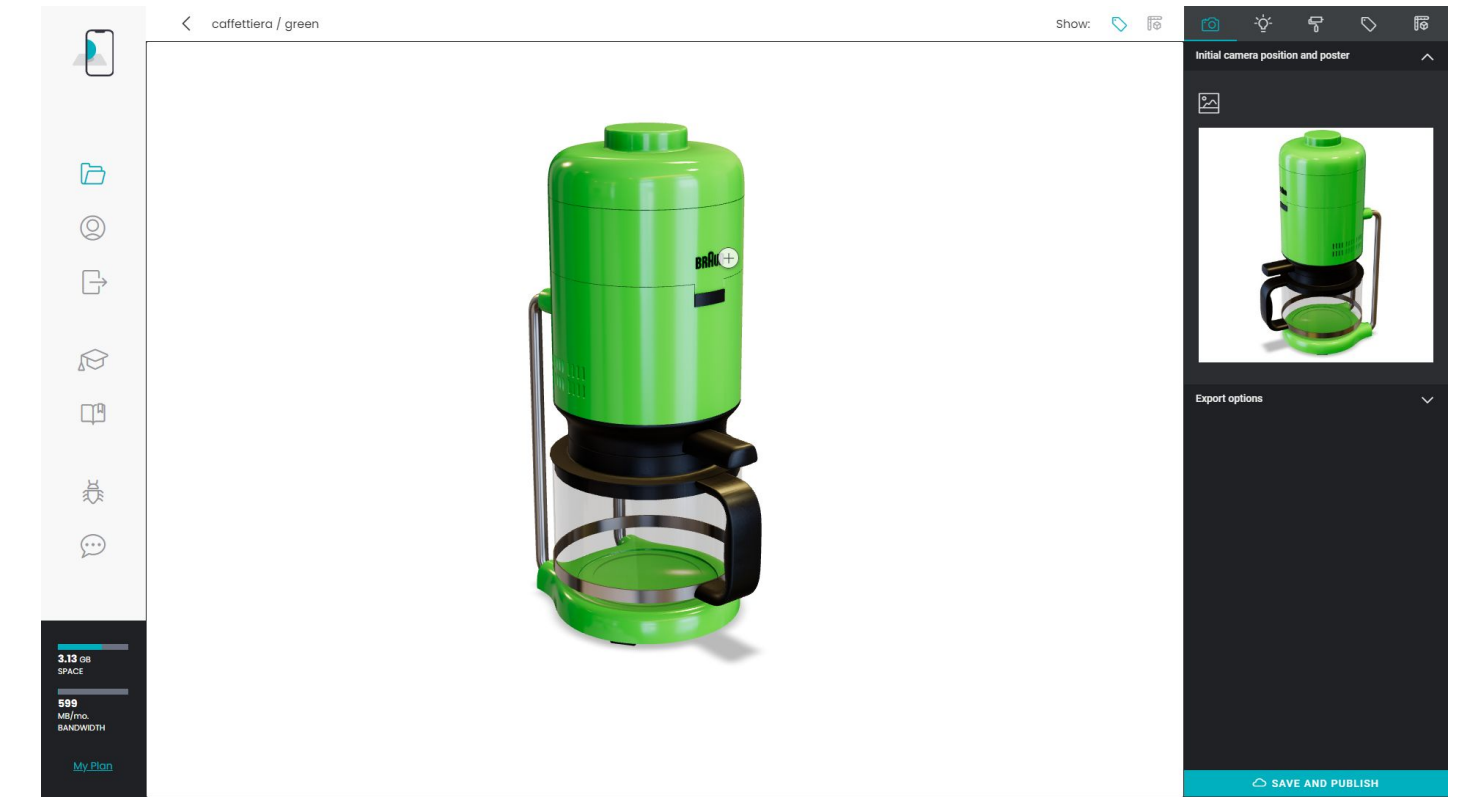
Projects Page

Project list, account management and useful links.



Configurations Page

Management of the configurations that belong to a project.



Editor Page

Set up and modify a single configuration



Projects Page

Left column

- Project List
- User Profile
- Logout
- Contextual guide
- Documentation
- Bug reports
- Chat

Plan details panel

Main area

- Add project button
- Search projects by name
- Project list

The screenshot displays the 'Projects' page in My AR Studio. It features a sidebar with navigation icons, a main grid of project thumbnails, and a bottom panel with a video tutorial. The project thumbnails include titles such as 'GS01', 'AGV forklift', 'soap dispenser', 'piscina', 'Piscina', 'Extruder 2000', 'SiComputer Totem Explora', 'copertura1', 'copertura2', 'Kheope K1', 'Venezia Gold', 'beretta test', 'karan fix', 'test forni', 'omino', 'test donna', 'product tag video', and 'Giacca'. The bottom panel shows a video player for 'My AR Studio Tutorial - Projects tutorial' with a list of steps: '0:00 what is the projects page?', '0:20 delete a project', and '0:50 the project loaded'. A 'Projects page' button is also present.



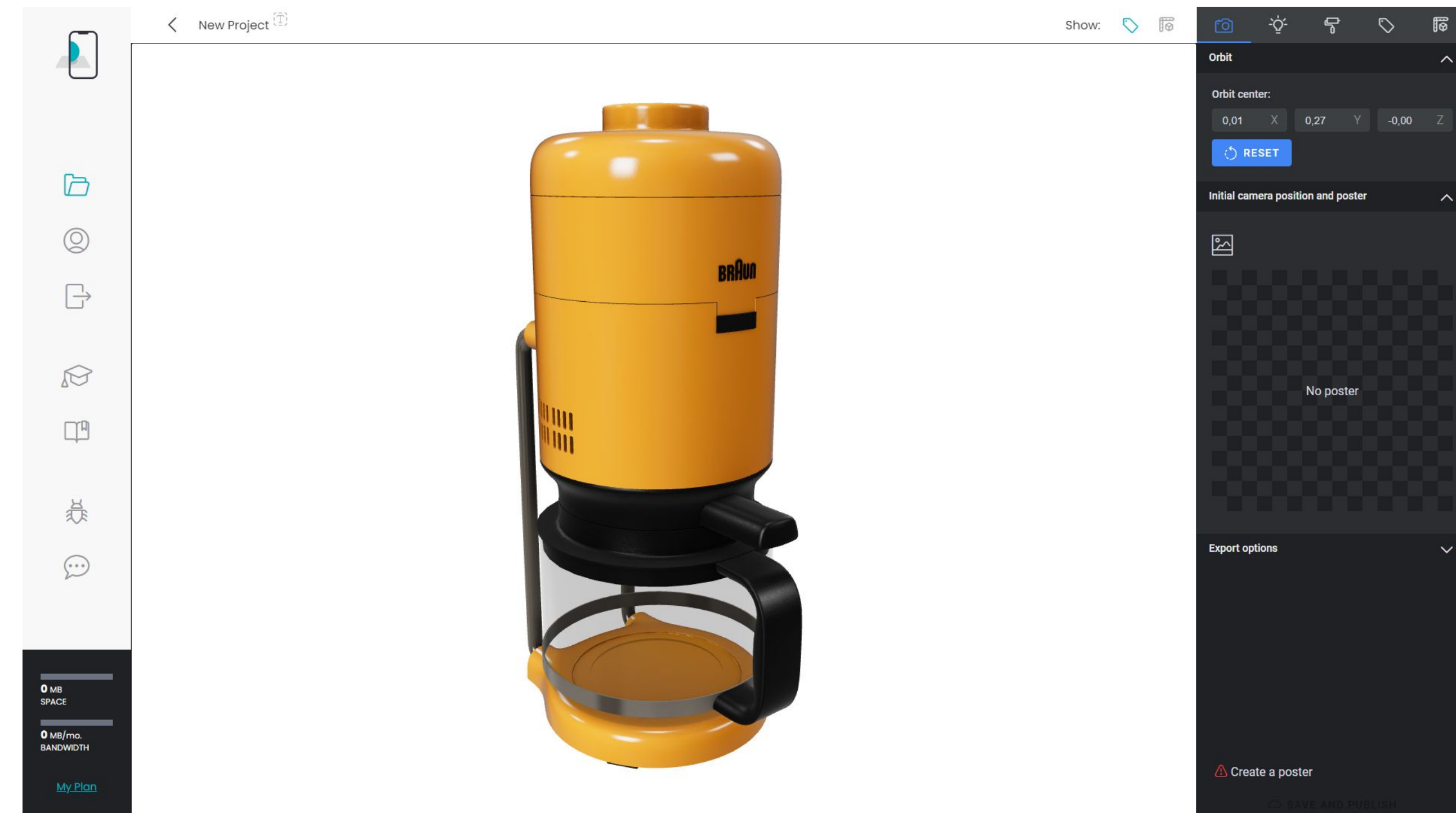
Editor

After clicking the **+ button** next to the Projects header, the editor screen for a new project opens.

- **Center** 3D area
- **Top** Project header
- **Right** 5 tabs with project properties

Drag a GLB file into the window to have it loaded into the editor.

Click in the header to give the project a meaningful **name**.





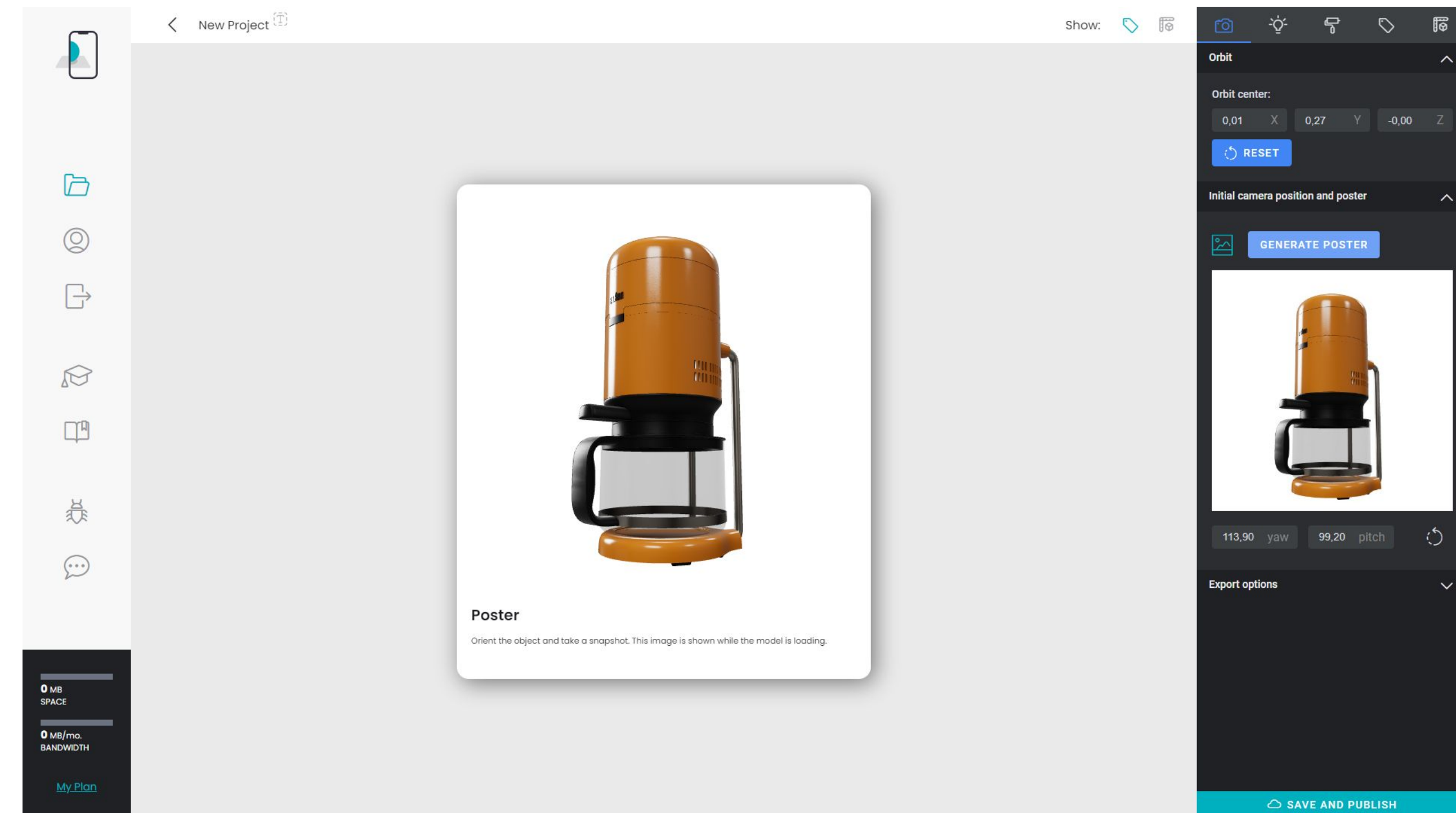
Editor: Export Tab

In the first tab you can **generate the poster**, the image used as a preview of your project:

- Activate the poster icon
- Orient the template as you prefer
- Click the generate poster button
- Deactivate the poster icon

Set the **export options** for the project. These are the same options available on the configurations page.

Click the **Save and Publish** button to publish the project in My AR Studio.

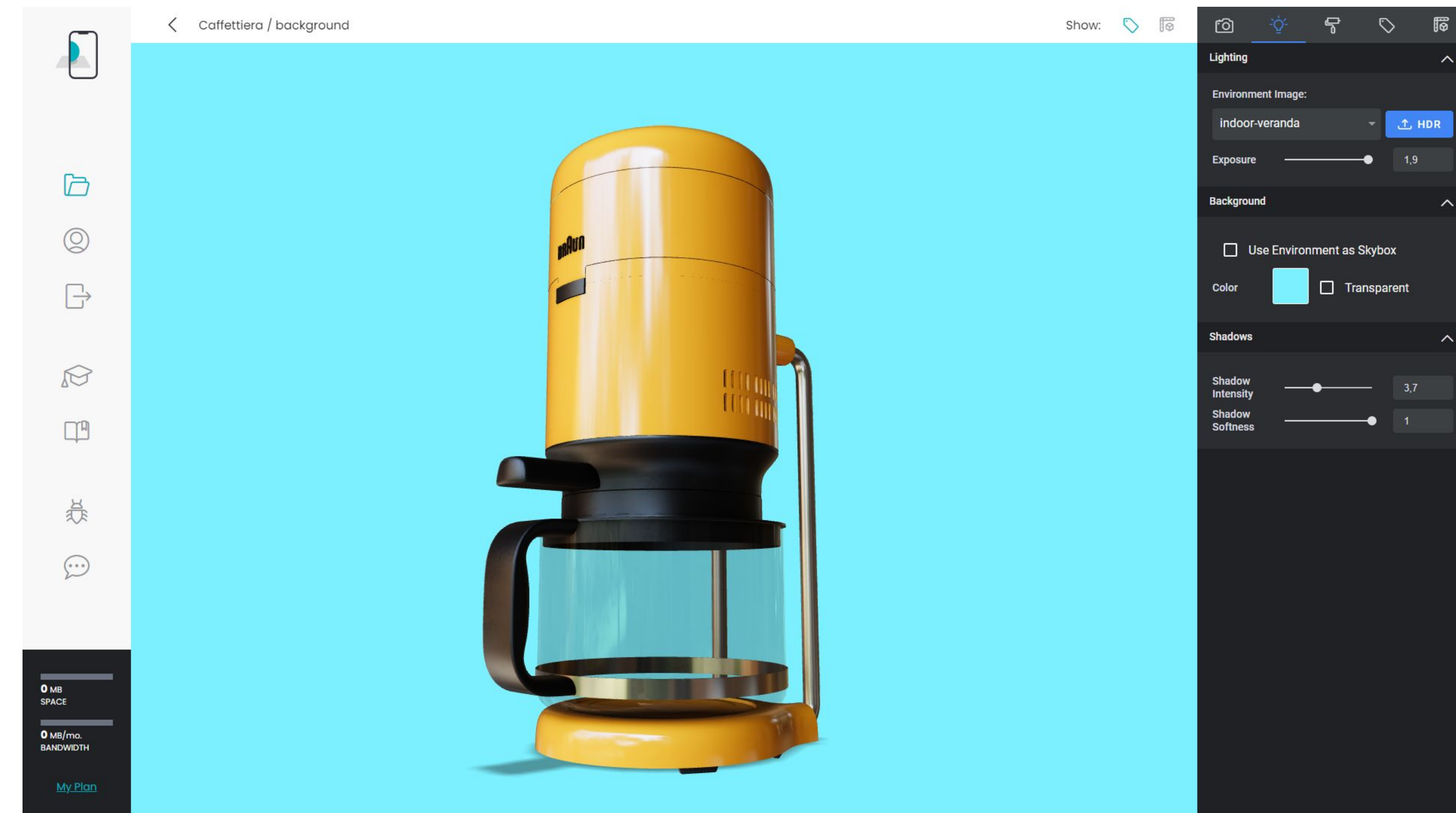




Editor: Lightning Tab

Here you can set how the model will be displayed in the Universal Viewer. Specifying:

- The HDR to be used for the lighting and its exposure
- The background
- The intensity and blurring of the shadows



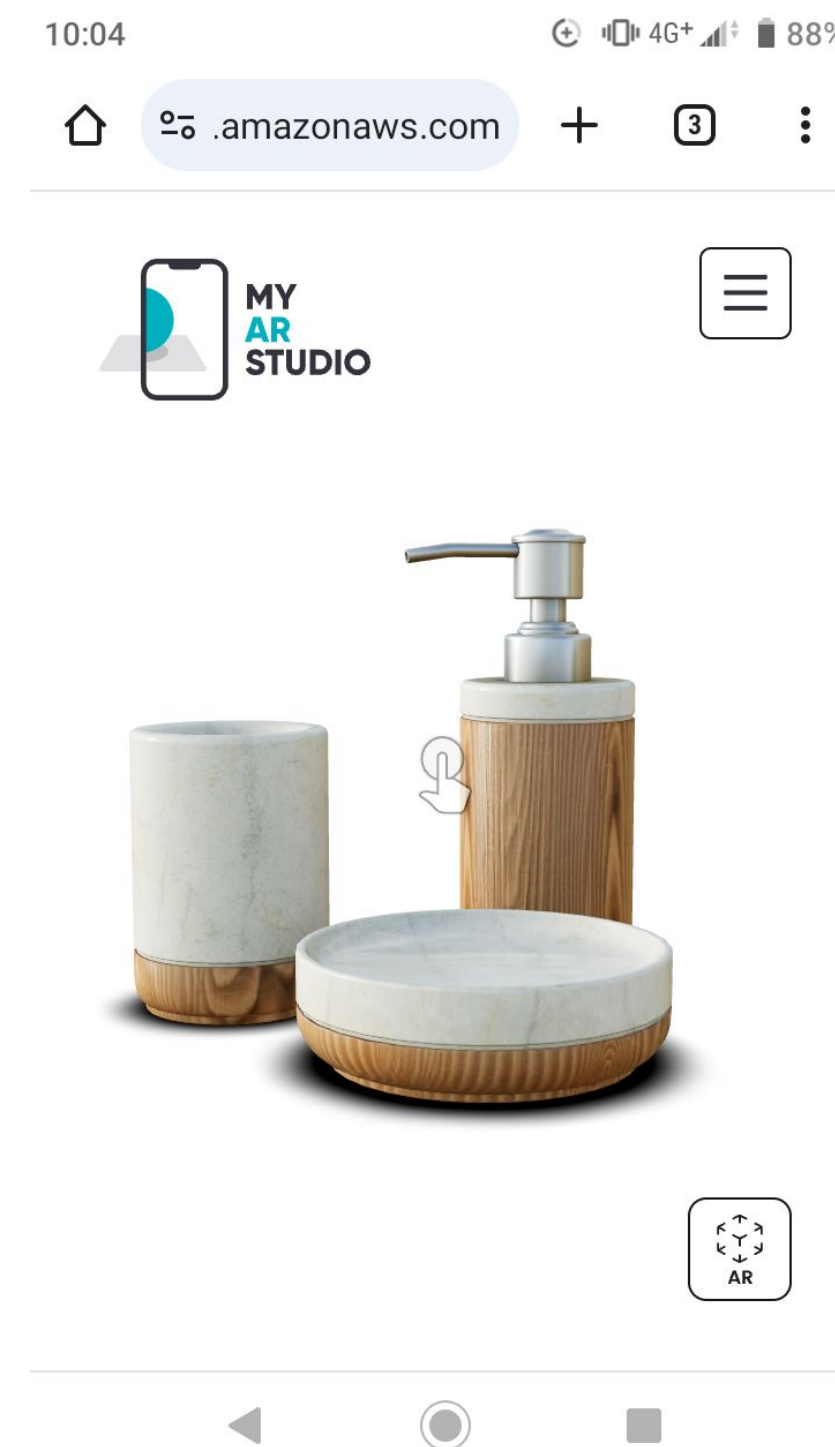


Editor: Lightning Tab

The final appearance of the model will depend on the viewing mode used.

In the **Universal Viewer** the lighting settings specified in the editor will be used.

In the **AR Viewer** the user's smartphone will sample the ambient light. It will use this instead of the lighting settings to better fit the rendering into the image captured by the camera.



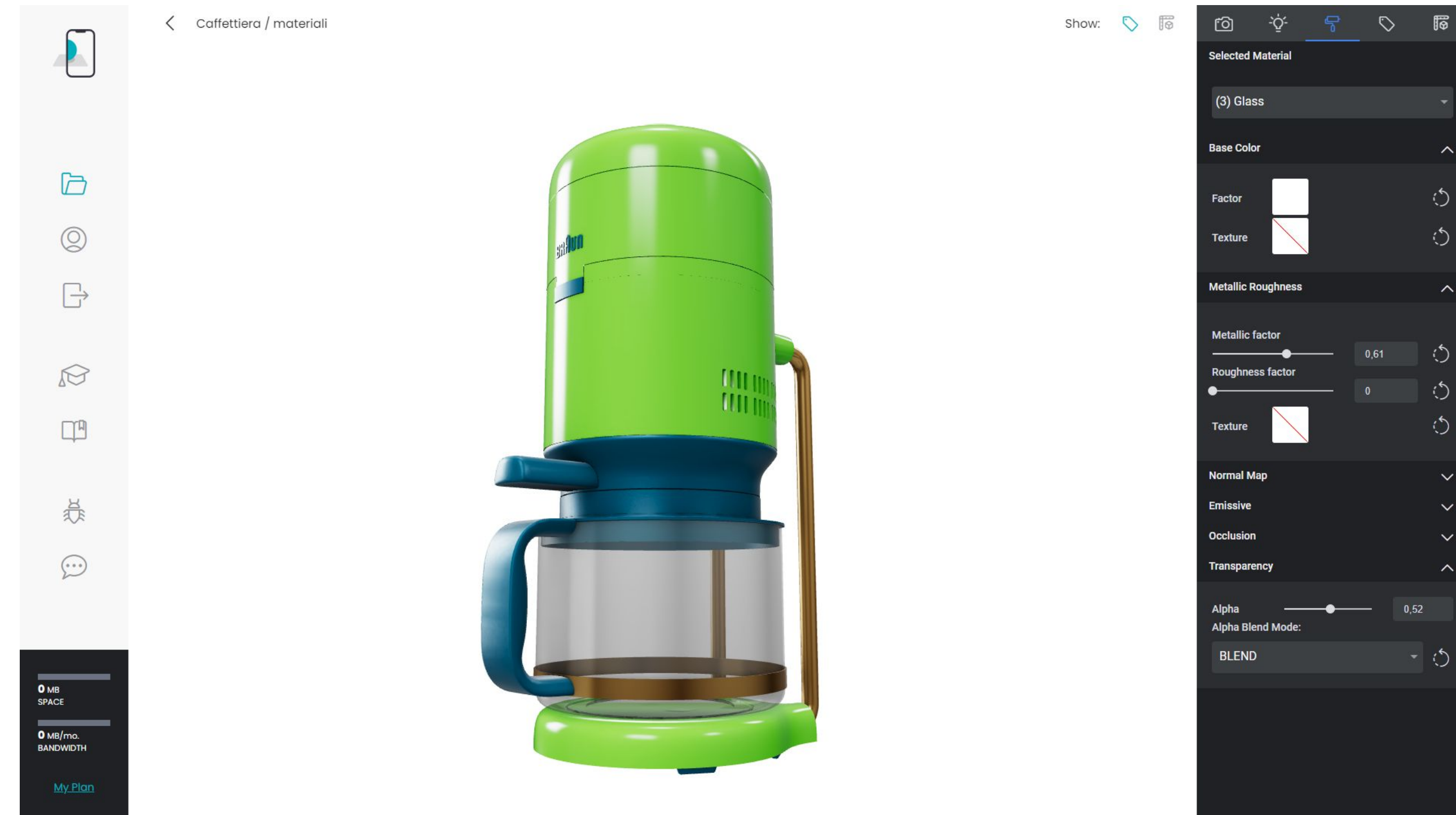


Editor: Materials Tab

In the materials tab you can change how the model will look in both the Universal Viewer and AR.

It is possible to affect: color, roughness, metallicity, emission and transparency.

The actual editing possibilities depend on the export specifications that were used in generating the GLB file.

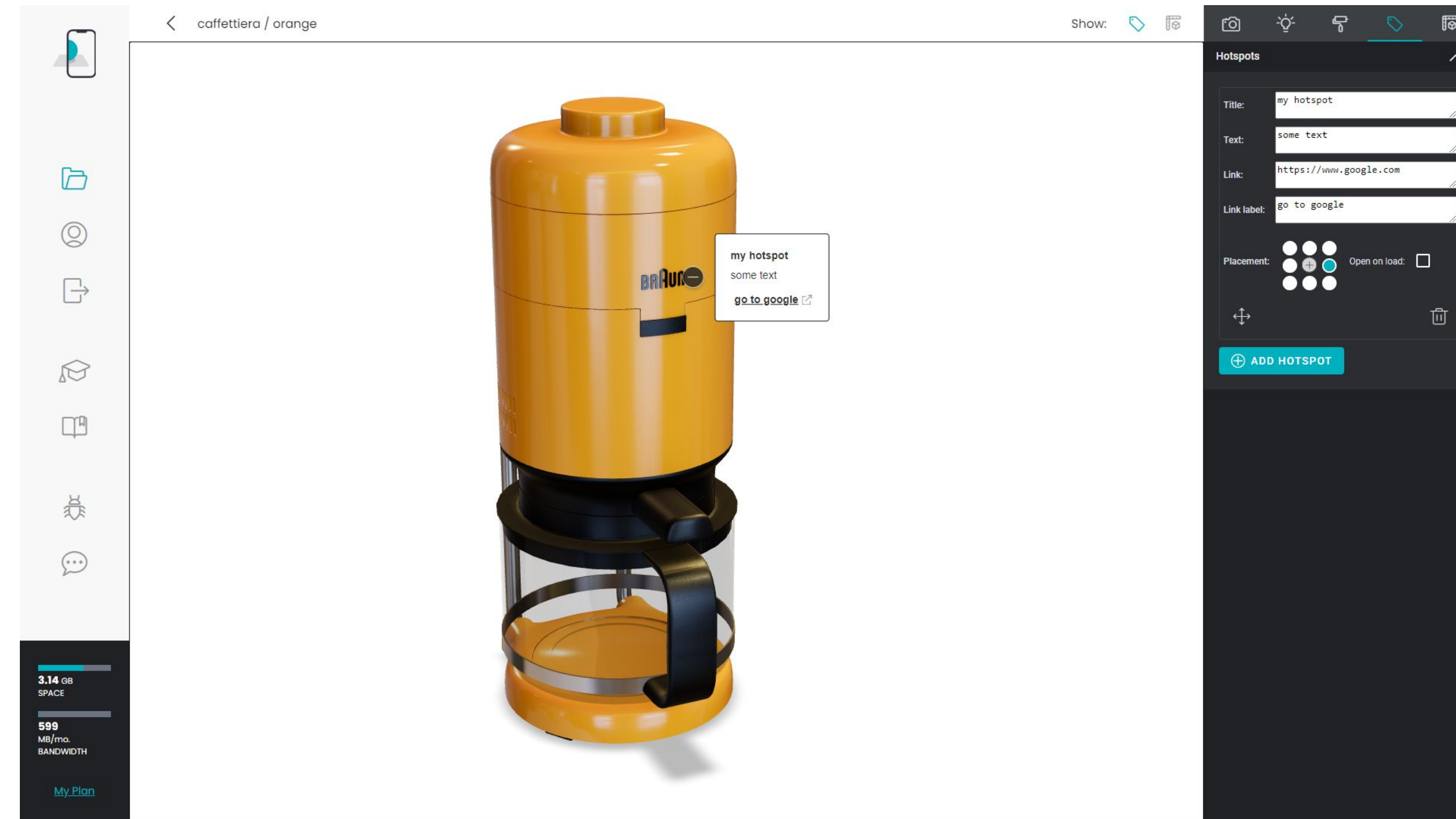




Editor: Hotspot Tab

Here you can add hotspots with interactive labels that will only be visible in the universal viewer

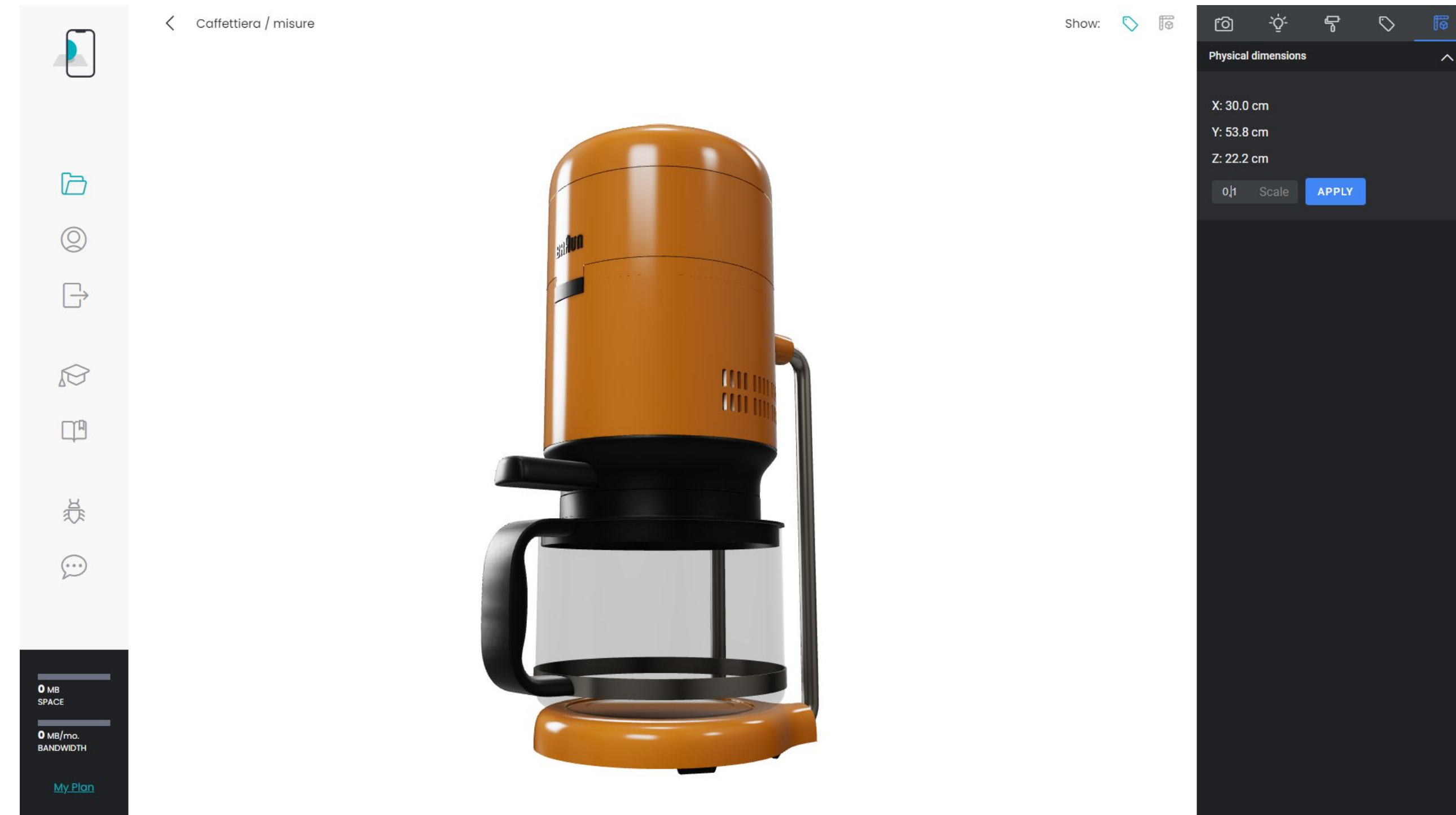
Optionally, the user can be given the choice of whether or not to display the hotspots.





Editor: Dimensions Tab

In the dimensions tab you can check the actual size of the model and scale it to your liking.





Configurations Page

By publishing a project from the editor, or by clicking on the project icon from the project list page, you enter the configuration editor.

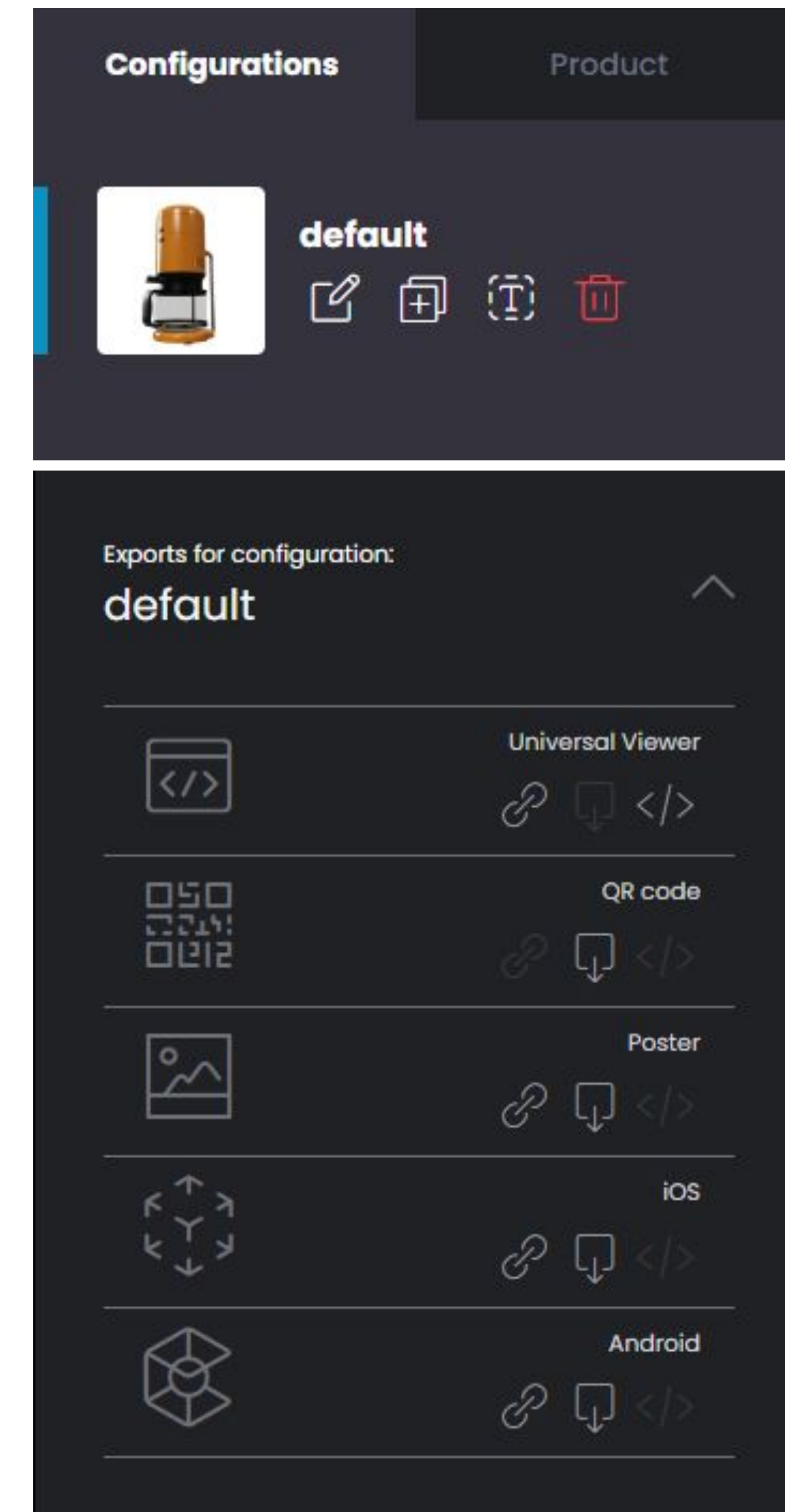
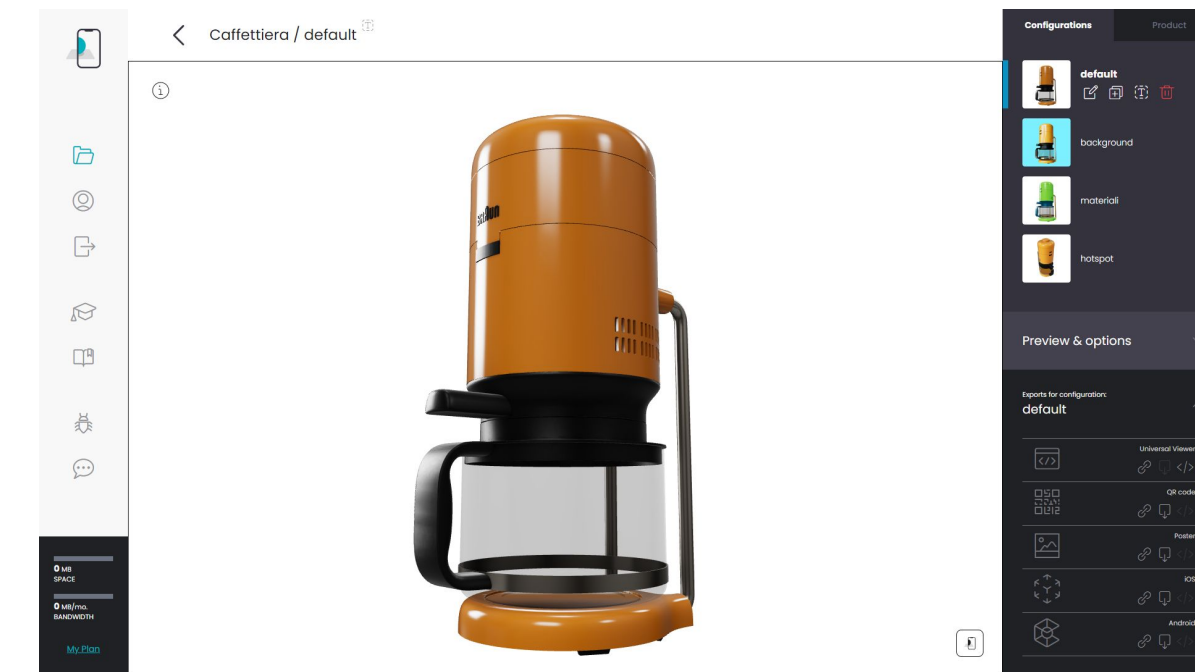
A configuration is a particular setting of your product that can vary by: materials, lighting, model, etc.

Next to the **thumbnail** of each configuration are 4 buttons:

- **edit** configuration
- **duplicate** the configuration
- **rename** the configuration
- **delete** the configuration

At the bottom right are the **exports** of the selected configuration:

- **Universal Viewer** link and embed code
- **QRcode** download
- **Poster Image** link and download
- **USDZ model** link and download
- **GLB model** link and download





Configurations Page

Open the **Preview & Options** panel to enable the Universal Viewer features for the selected configuration.

- Model Visibility in AR
- Automatic start of 3D web visualization
- Visibility of hotspots
- Visibility of dimensions
- Model placement in AR view

The screenshot displays the 'Configurations Page' for a 'Coffe Maker / Orange'. The main area shows a 3D model of an orange coffee maker. To the right, the 'Universal Viewer Configuration preview' section explains that this is a preview of the Universal Viewer for the selected configuration and that users can change its behavior via the 'Preview & Options' panel. It also notes that hovering over an option provides a description of its function, with a link to 'configuration documentation' for more details.

On the right side, the 'Configurations' panel lists color options: Orange (selected), White, Red, and Green. Below this is the 'Preview & options' panel, which includes several toggle switches:

- View in AR UI enabled
- Autostart viewer
- Autostart AR
- Hotspots UI enabled
- Start with hotspots enabled
- Dimensions UI enabled
- Start with dimensions visible

The 'Placement' dropdown is set to 'Floor'. At the bottom, there are 'Save' and 'Cancel' buttons, and an 'Exports for configuration: Orange' section.

At the bottom left of the interface, there is a status bar showing '3.29 GB SPACE' and '24 MB/mo. BANDWIDTH', along with a 'My Plan' link.



Configurations Page

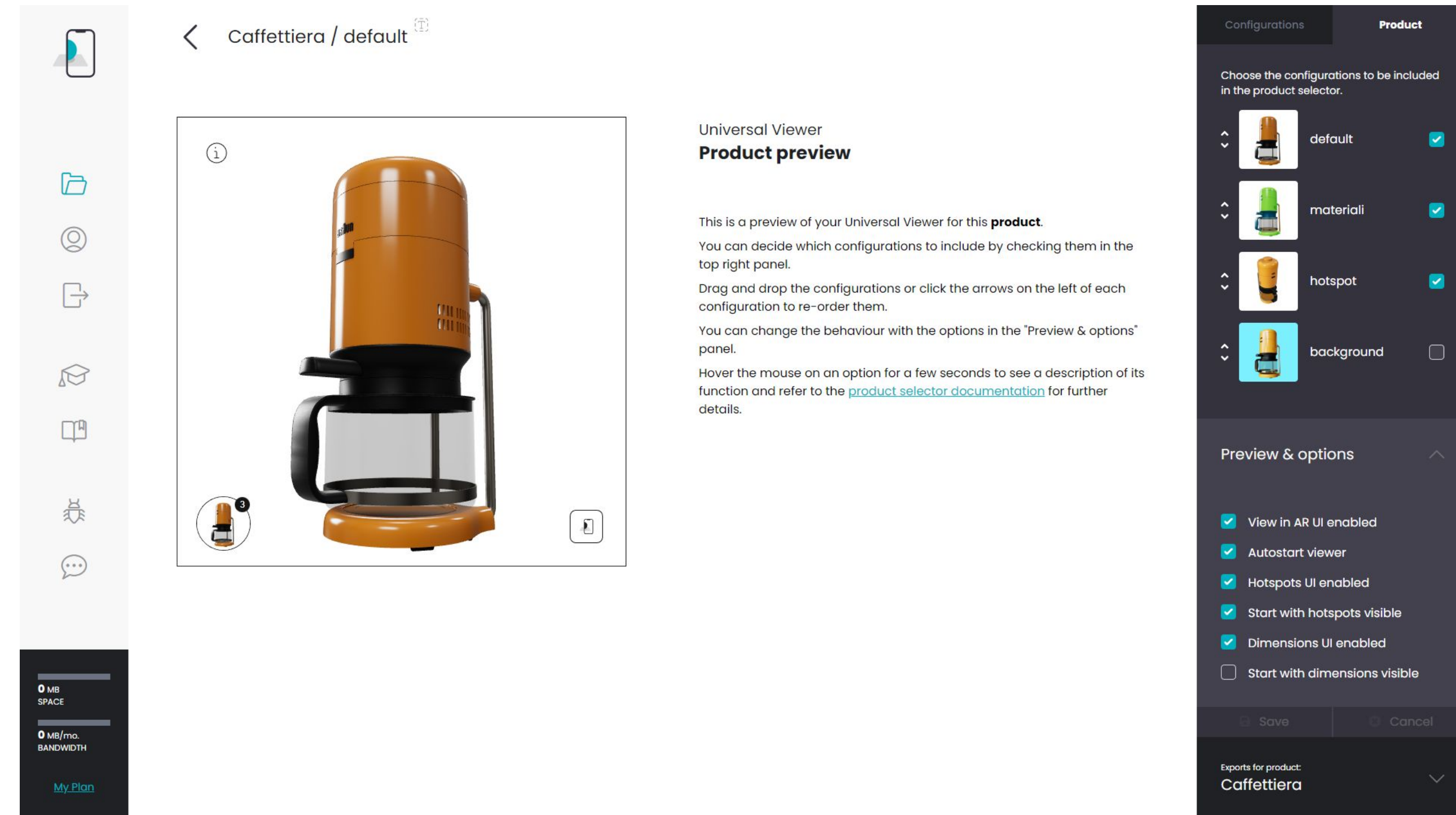
The **Product Selector** tab allows several configurations to be included in a single view in the Universal Viewer.

The user could then choose the version of the product they prefer via a convenient drop-down menu.

The Product Selector has its own specific **preview & options** settings, distinct from those of individual configurations.

At the bottom right will be the Product Selector exports, also distinct from those of the individual configurations.

- **Universal Viewer** link and embed code
- **QRcode** download





Delete a configuration

Clicking on the **delete configuration** button or the **delete project** button, depending on which page we are on, will open a confirmation dialog.

My AR Studio does not immediately perform the deletion because the **links, embed code** and **QR code** associated with the configuration will stop working. So to users who click on an already published link will be returned a "project not found" page.

Deleted links are not recoverable. If we load the same object into a **new project** or a **new configuration**, new links will be generated that are different from the previous ones.

Instead, remember that configurations are **continuously updatable**. For example, if a new version of our product has come out, we can change the already published configuration by uploading the new model. The old links will continue to work, however, showing the updated version.



Delete configuration "default"

Please confirm that you want to delete this configuration.

8.84 MB will be freed.

Warning: all currently deployed QR codes and viewer embeds will cease to function.

NEVERMIND

DELETE

Exercise

Load and publish a model

Model preparation

Optimization and troubleshooting with KeyShot

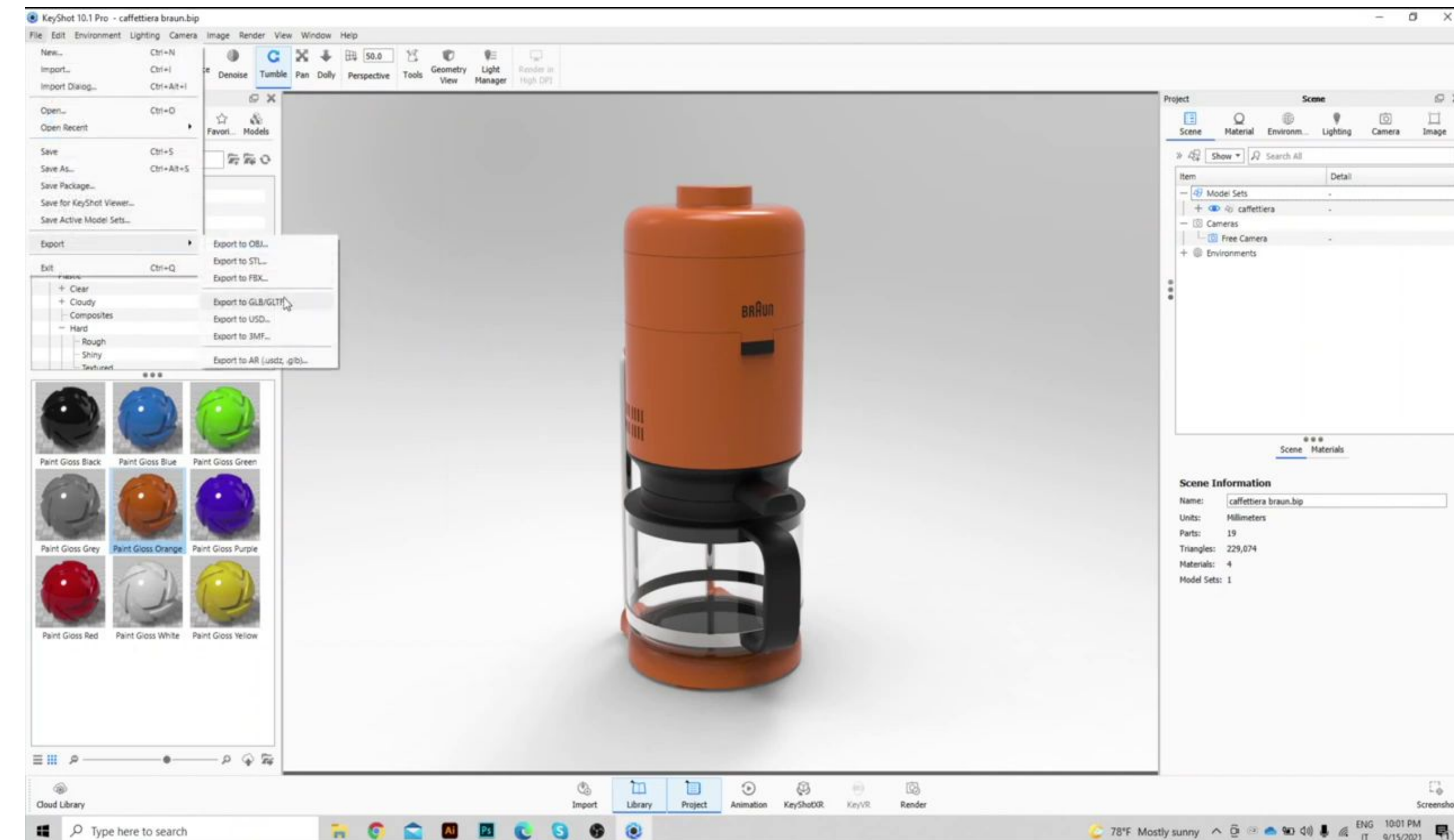


Overview

The purpose of preparing the model for export is to find the best possible compromise between weight and quality. Ensuring less loading time for the user and a performant AR view on every enabled smartphone model.

Export checklist

- Reducing the number of objects
- Reduction in the number of polygons
- Orientation of surface normals
- Separation of surfaces by material
- Compatibility of materials





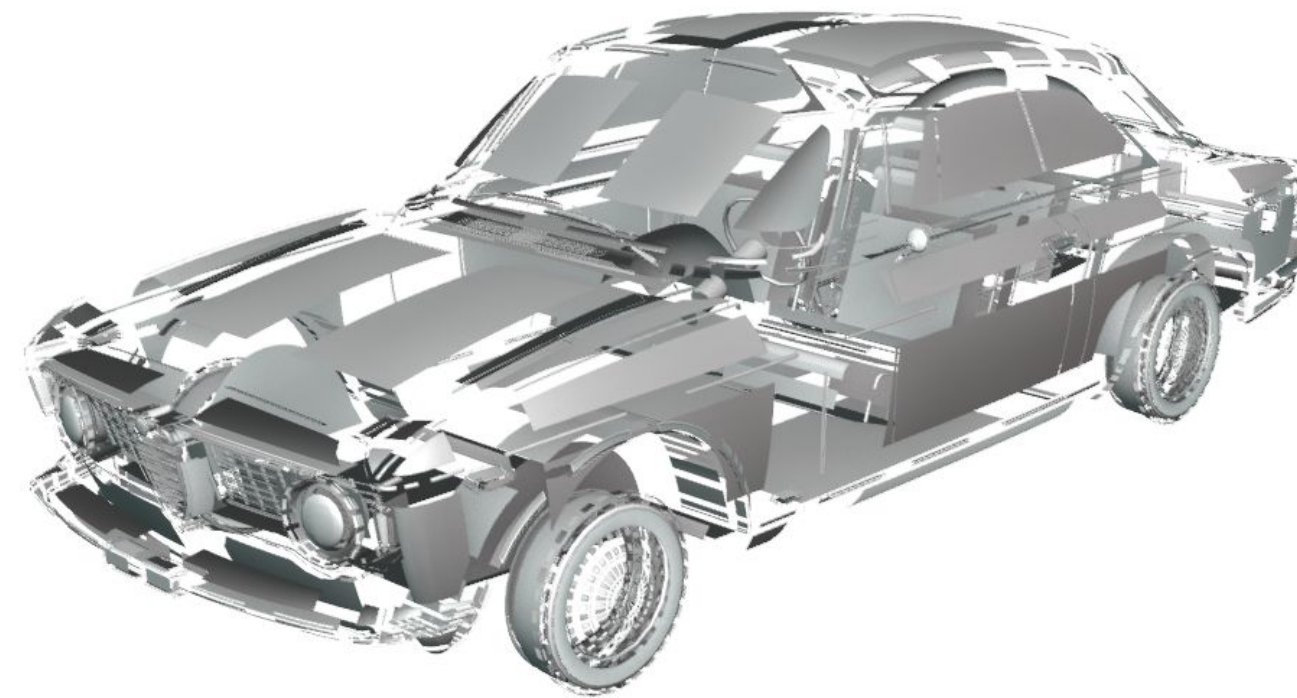
Number of objects

Real-time engines cannot handle a high number of objects. The web viewer will struggle to show them and the AR view may crash.

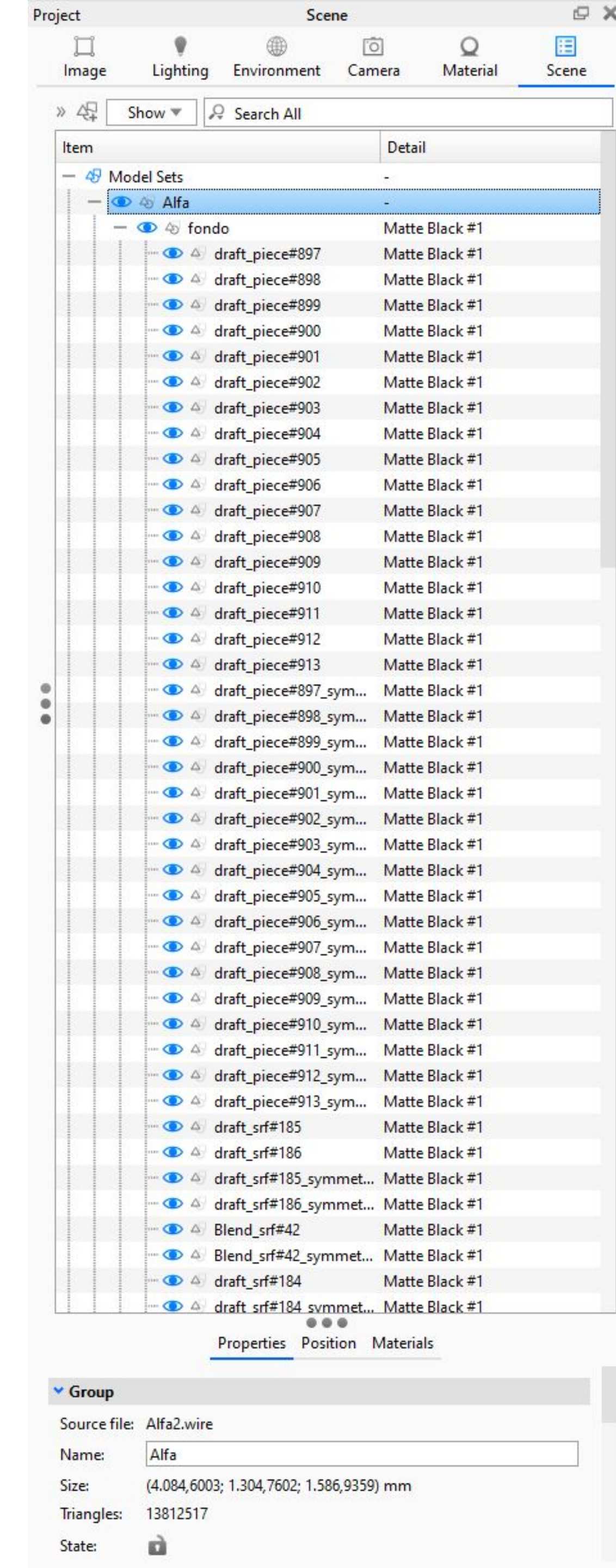
KeyShot is not a modeling application so it's better to solve the issue before importing the model into KeyShot.



15 objects



7425 objects





Number of polygons

A high number of polygons can be a problem for most smartphones hardware. Also a higher polycount means a higher download time for the end user.

Keyshot can simplify the model using different tools depending on the geometry type.

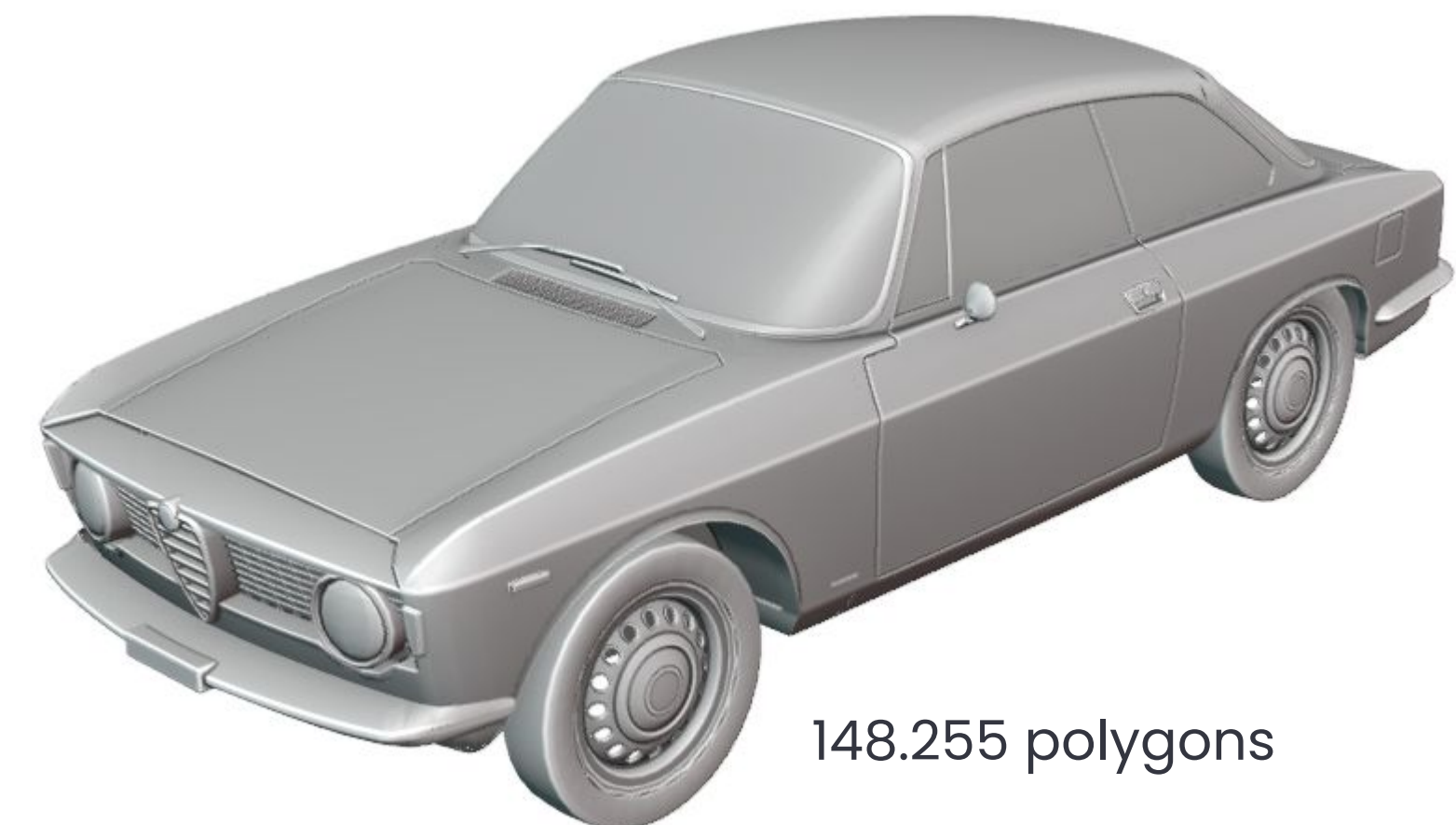
NURBS surfaces:

Tools > Re-Tessellate

Mesh surfaces:

Tools > Mesh Simplification

Tools > Edit Normals





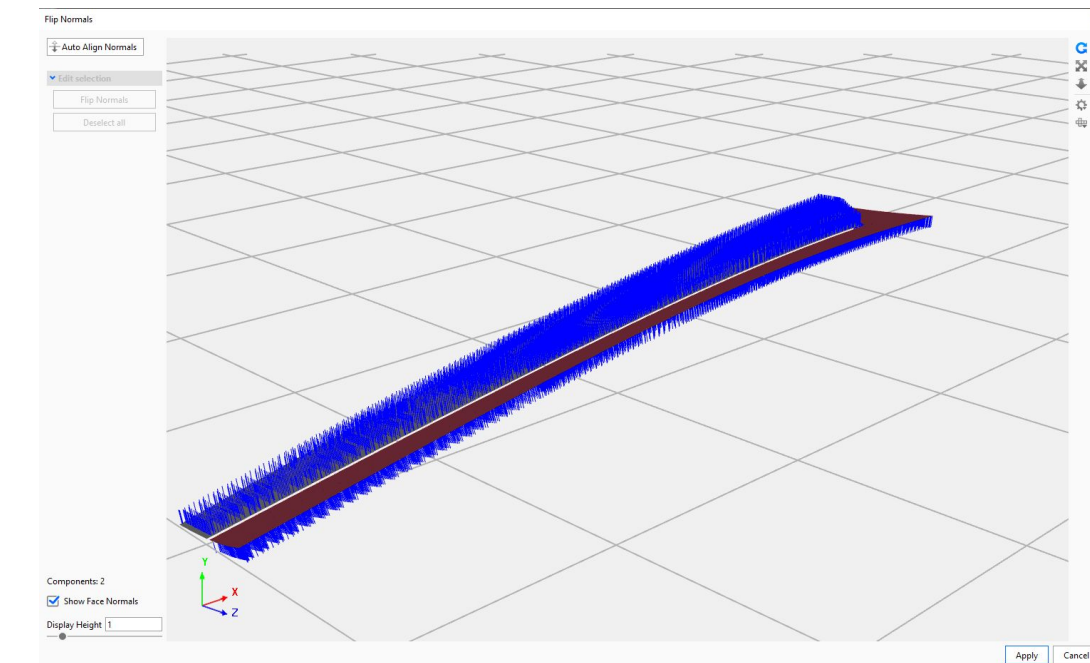
Normals orientation

Real-time engines shade a surface by looking at the surface normal direction. If the normal orientation is not consistent across surfaces, rendering errors may appear.

KeyShot has two tools that must be used in sequence to solve the issue:

Tools > Flip Normals

Tools > Edit Normals



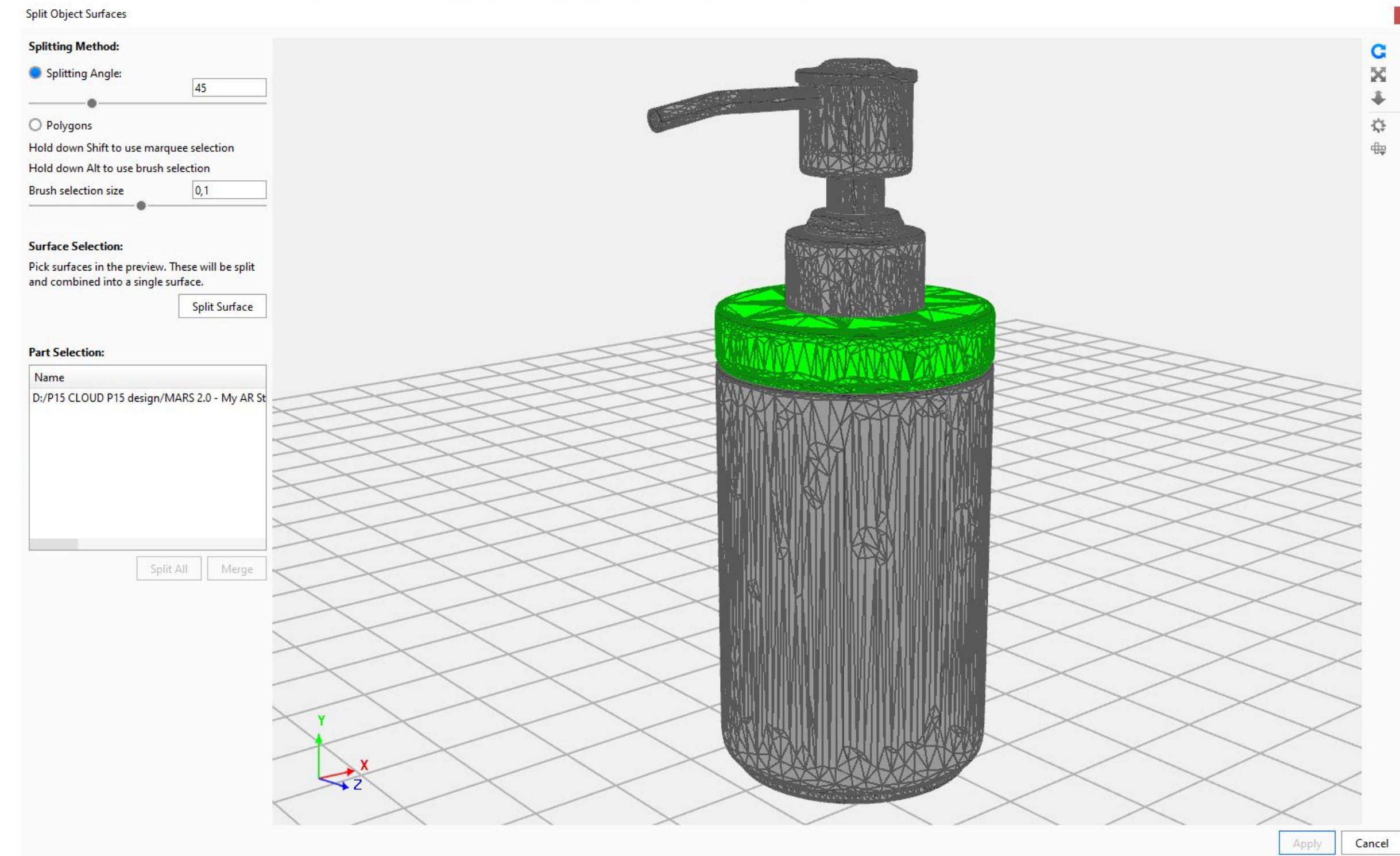


Surface separation

Separate the surfaces of a model to:

- **save weight** in export by hiding non-visible parts
- **assign different materials** to model components

Tools > Split Object Surfaces





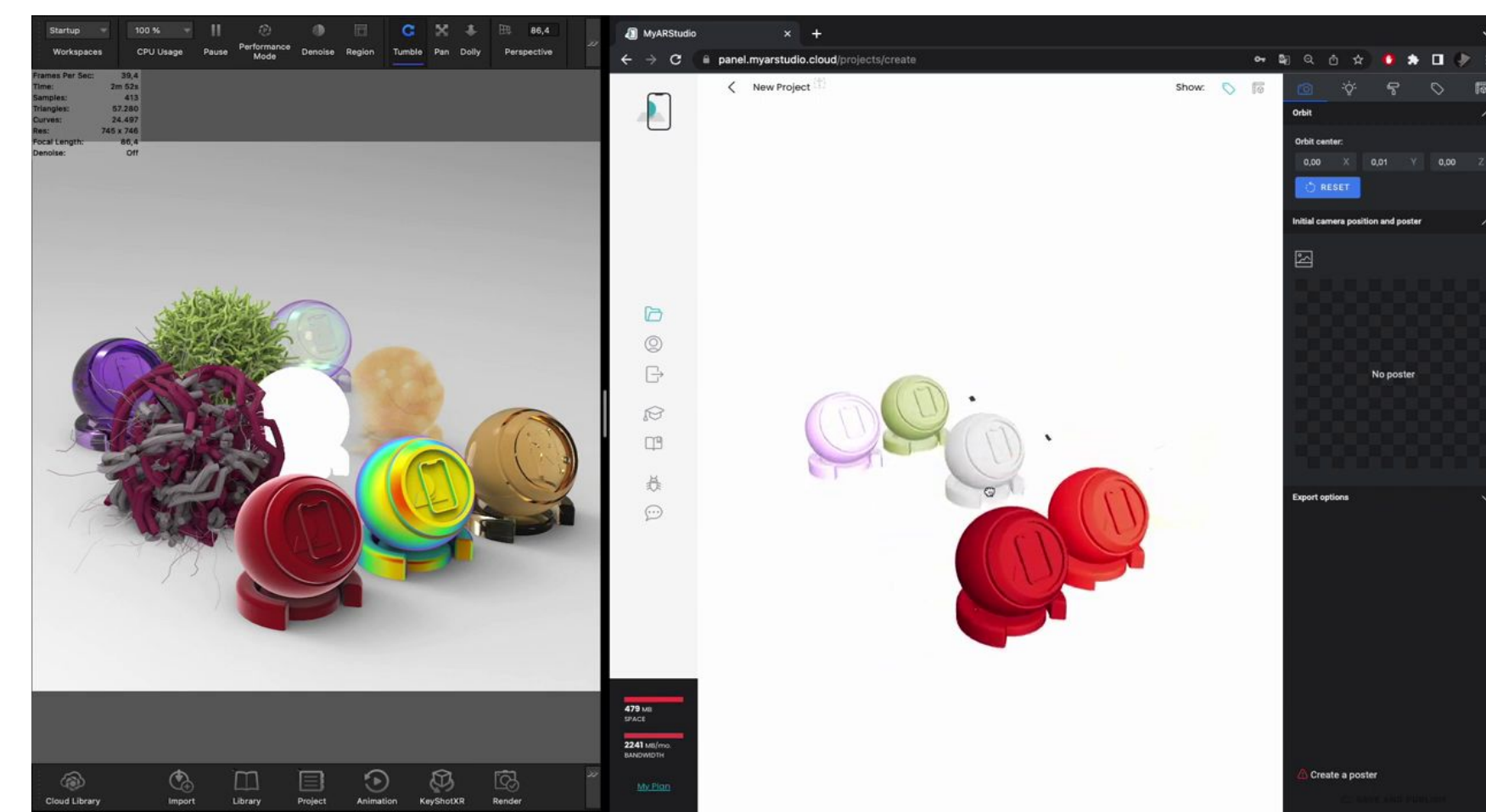
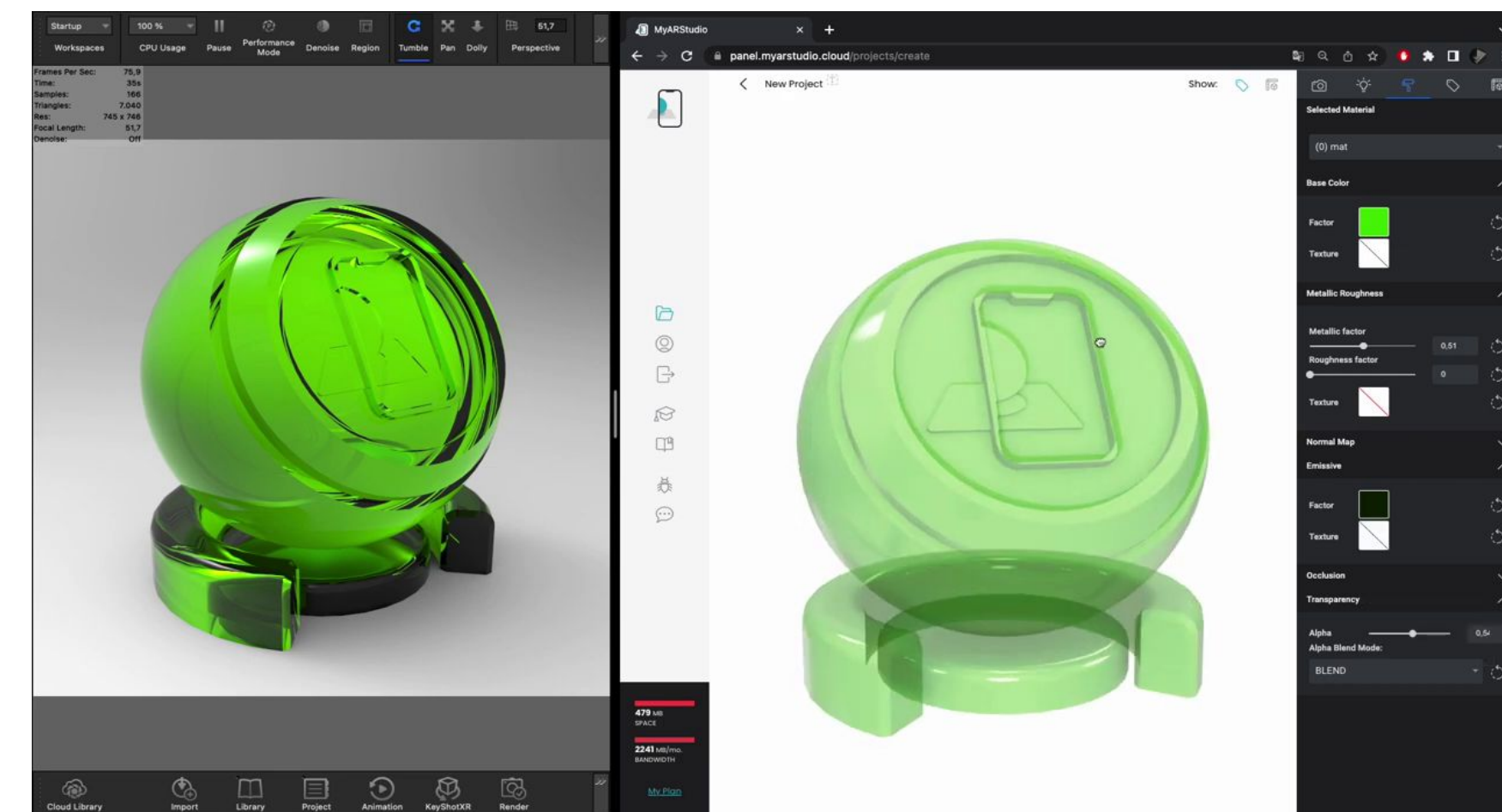
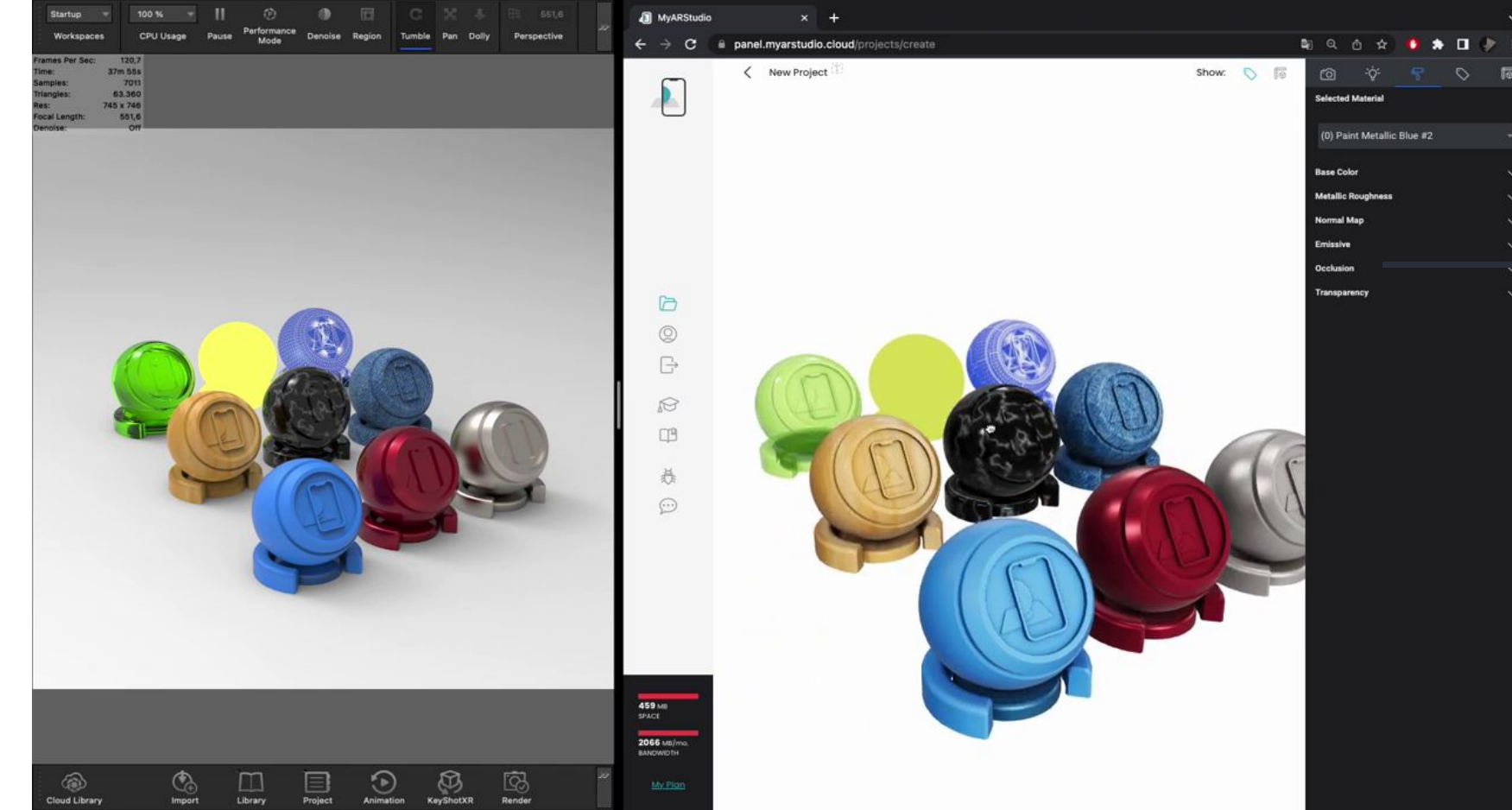
Materials compatibility

Some types of materials are not exportable from KeyShot: iridescents, volumetrics, and geometry-generating materials.

To maintain compatibility with Android and iOS AR engines, transparencies in My AR Studio are rendered without refraction.

<https://manual.keyshot.com/manual/models-tab/export/export-formats/>

<https://www.myarstudio.cloud/learn/documentation/keyshot/keyshot-materials-in-ar/>



Real-time rendering

Exporting in GLB with KeyShot



Rendering: Offline vs Real-time



OFFLINE RENDERING

- KeyShot
- Stills & Animations
- Long rendering times
- Advanced photorealism



REALTIME RENDERING

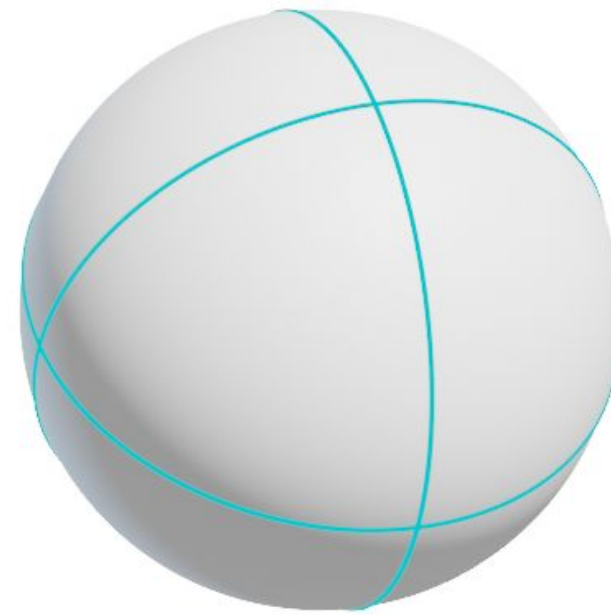
- My AR Studio
- Interactive content
- Maximum 1/30 sec per rendering
- Limited photorealism



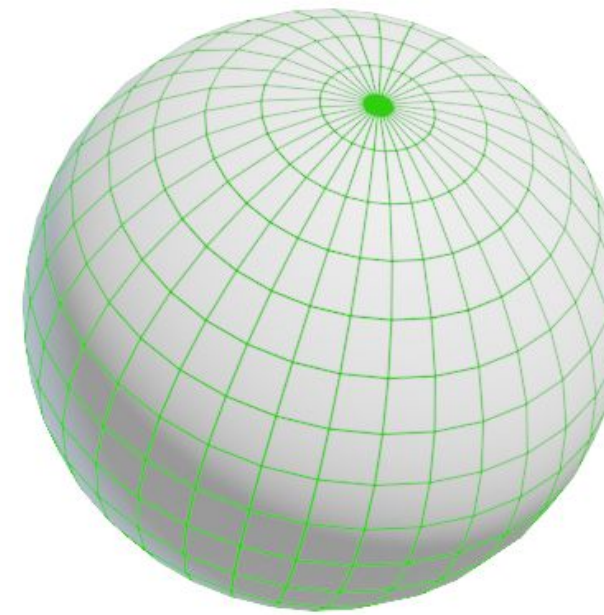
Geometry in real-time

Real-time engines support only mesh geometries.

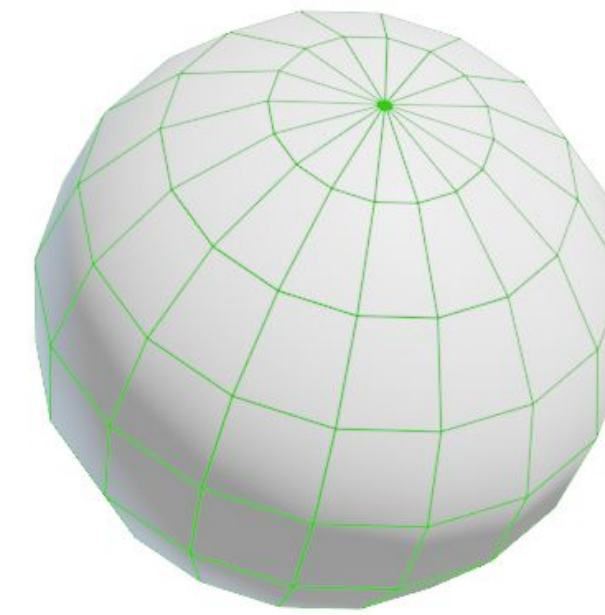
In most software, **NURBS surfaces** are automatically converted to **mesh** at the time of export.



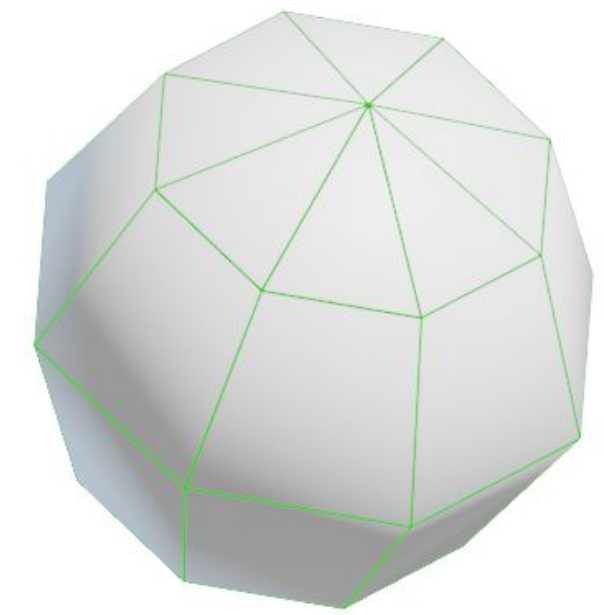
NURBS surface



960 triangles



224 triangles



48 triangles



Real-time materials

Real-time models have a set of **UV** coordinates that allow **textures** to be used to define the characteristics of materials.

The GLB format can use a maximum of 3 textures to define the characteristics of a material.

Color Texture

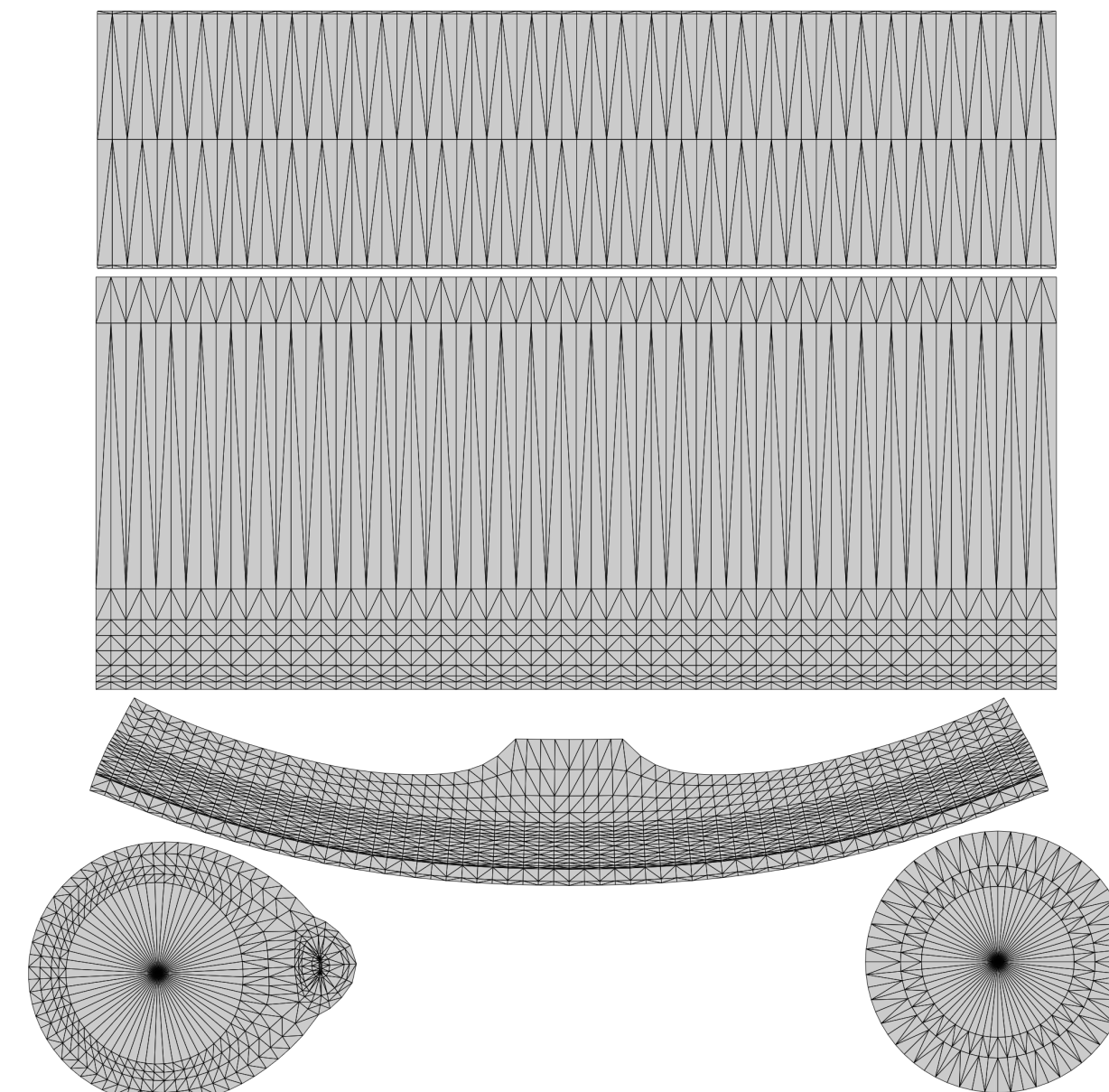
- Color
- Transparency

ORM Texture

- Occlusion
- Roughness
- Metallicity

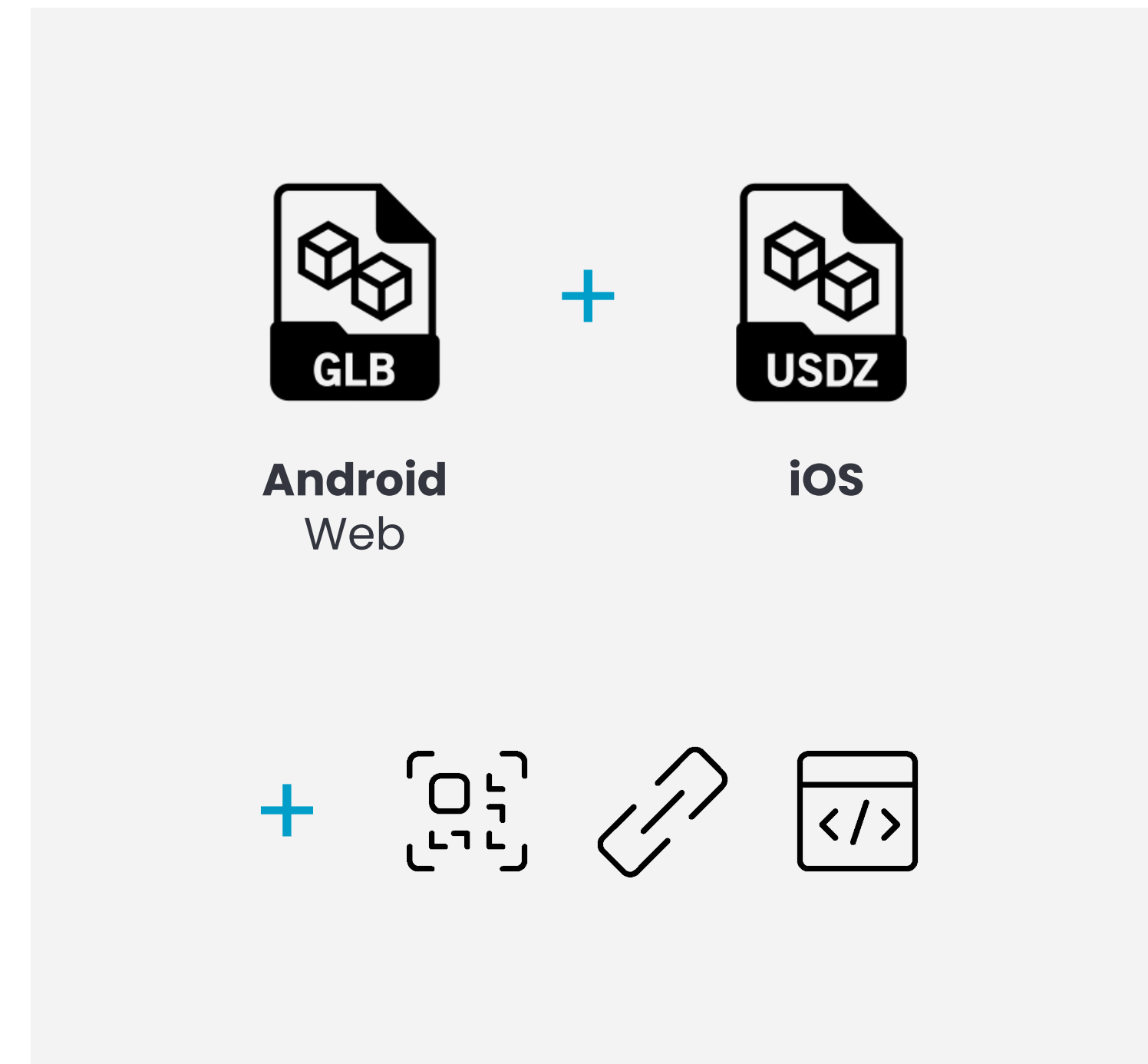
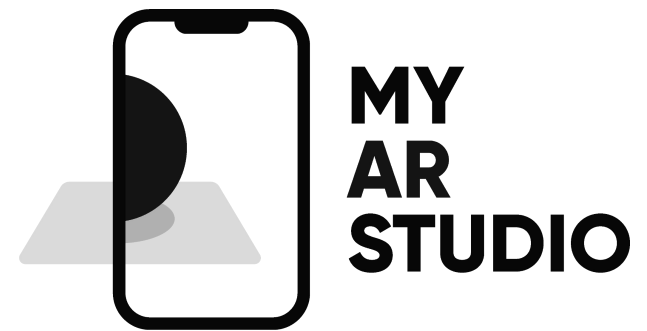
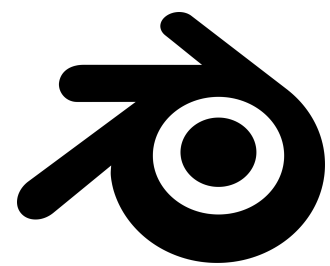
Normal Texture

- surface reliefs





Workflow

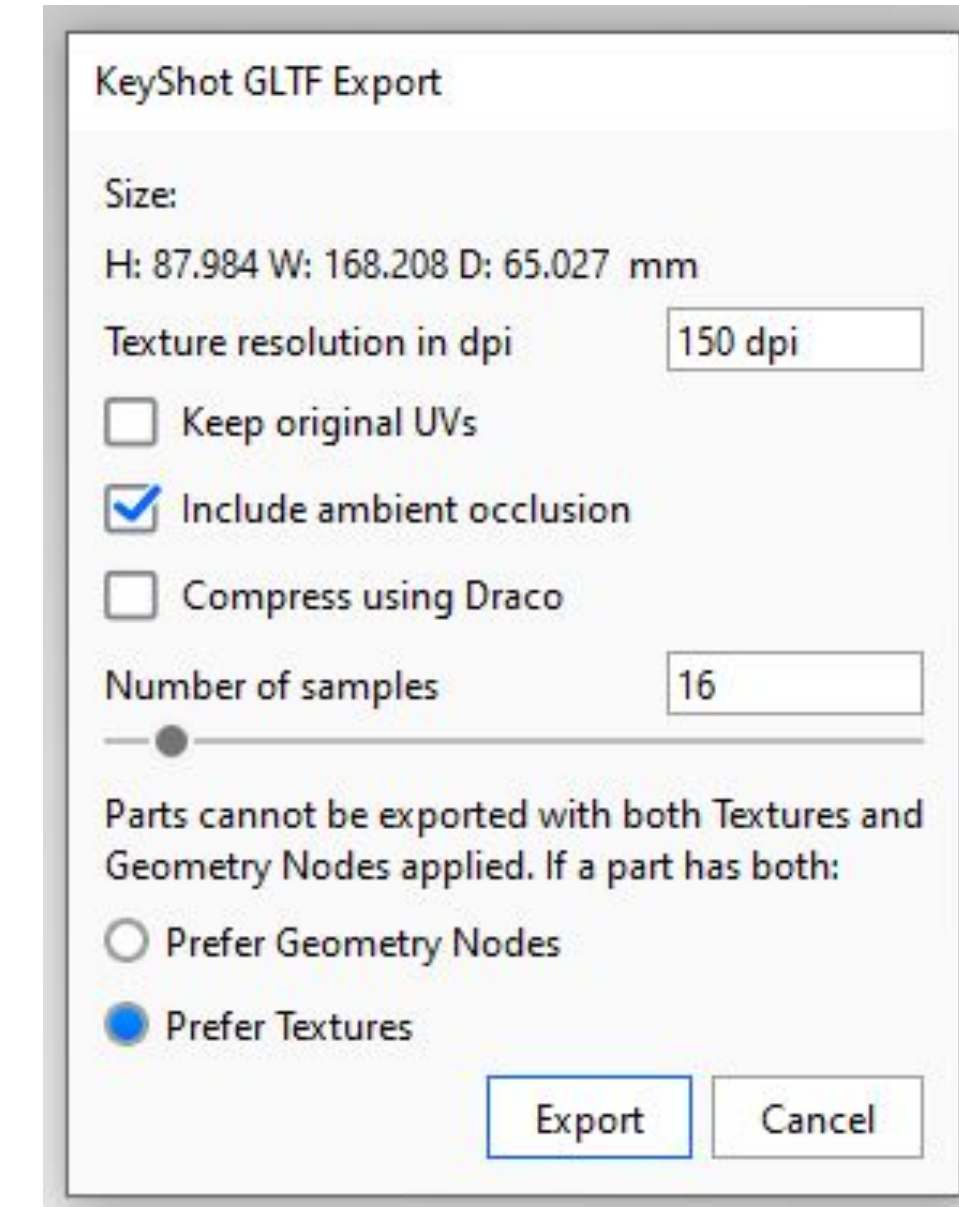




Export to GLB

KeyShot will export only visible objects in the scene, hidden objects will be ignored.

File > Export > Export to GLB/GLTF





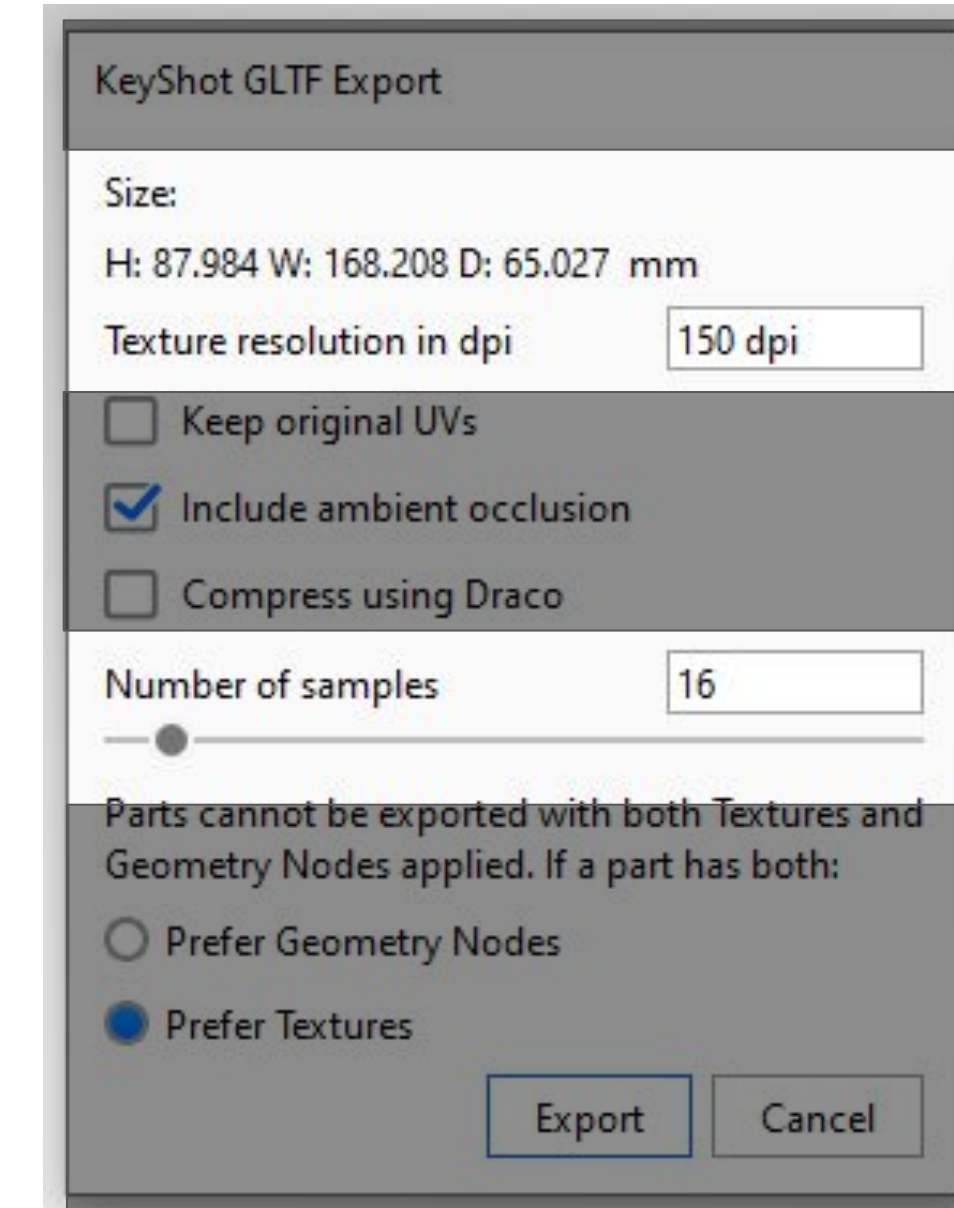
Export to GLB

The **DPI** parameter determines the size of the exported textures. The higher the DPI value, the more defined and heavy the textures will be.

The size of the model also affects the weight of the textures, so it is recommended to set DPI low for large models and vice versa.

Maintain a minimum of 16 **samples** so as not to detract from texture definition.

[Click here](#) or use the QR code on the side to see the sphere in **My AR Studio**.



Low DPI



High DPI



Export to GLB

Activating **Ambient Occlusion** in KeyShot will generate a global shading texture for the object.

Increasing the **samples** parameter will increase the quality of the texture, however at the expense of export time.

[Click here](#) or use the QR code on the side to see the sphere in **My AR Studio**.



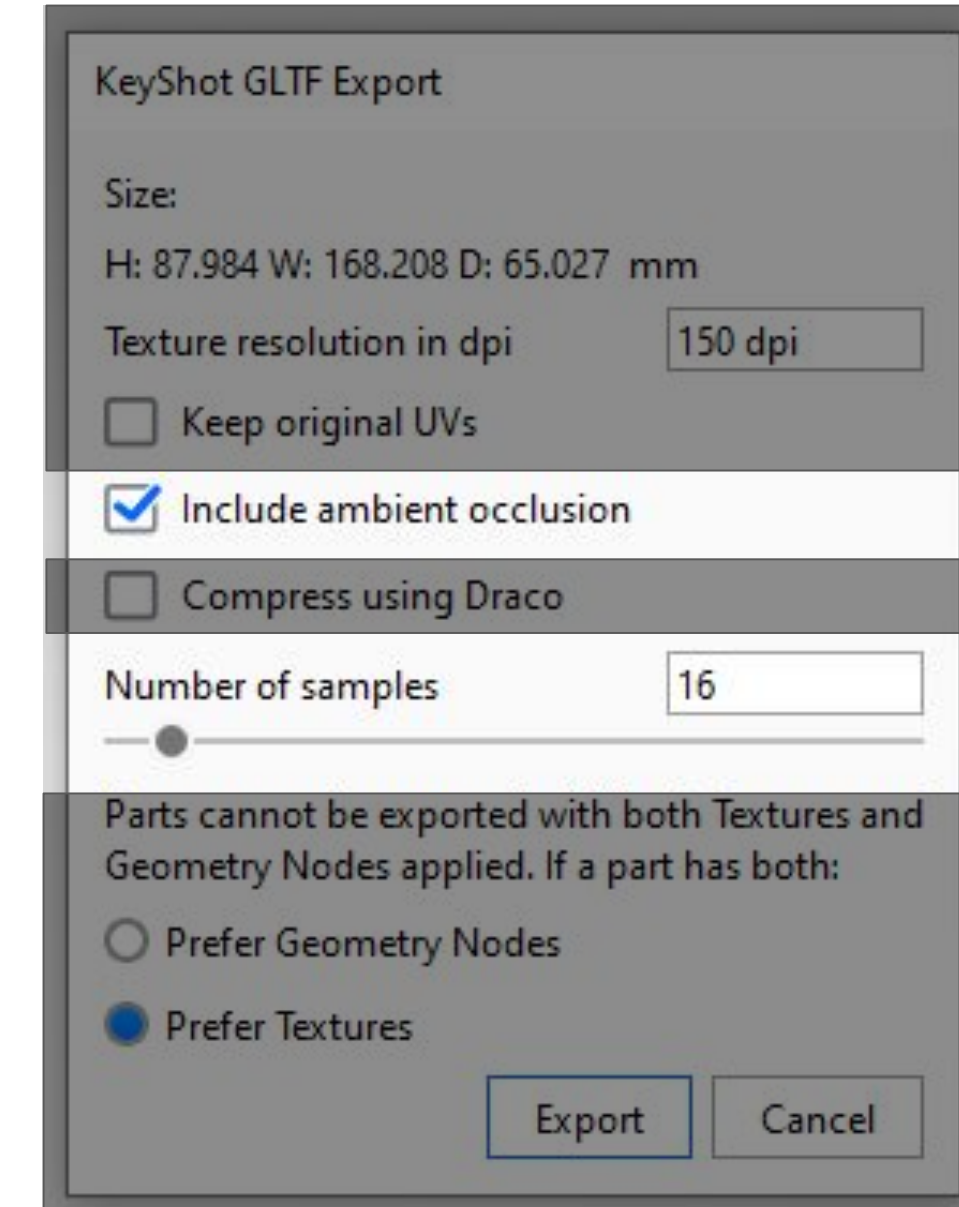
No AO



AO low samples



AO high samples





Export to GLB

Latest parameters:

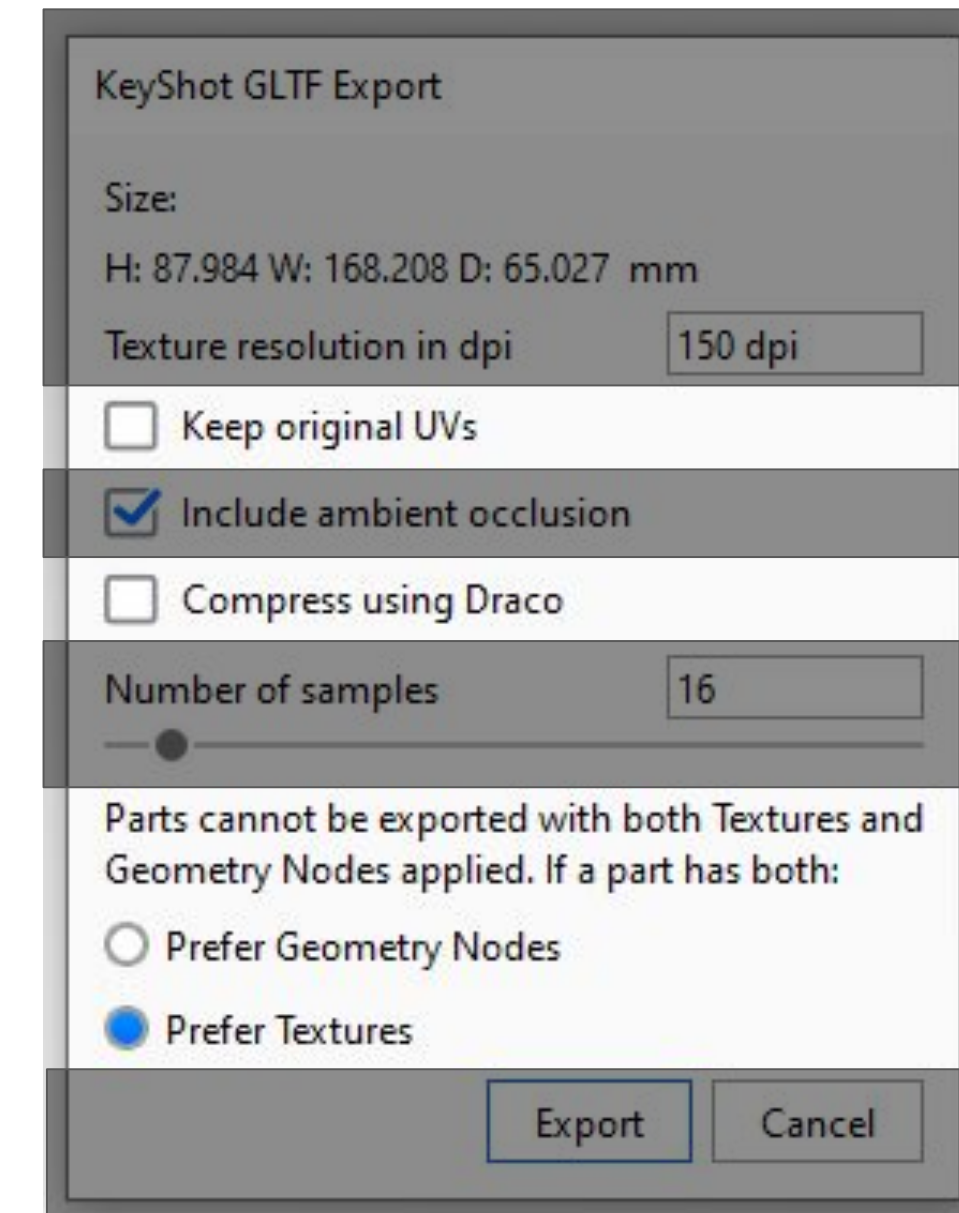
Keep original UVs:

disable it if the model does not already have a set of UV maps

Compress using Draco:

keep always disabled, not used by My AR Studio for compatibility with iOS.

Enable **Prefer Textures**





GLB file weight

Small GLB files are good for two reasons:

- The model **download time** for the end user is shorter
- The model can be displayed with a good framerate on **older smartphones**

Reference sizes:

- < **5MB** ideal file size
- < **10MB** good enough
- My AR Studio can display models up to **80MB**



Register

myarstudio.cloud



Welcome to
My AR Studio

Email

New to My AR Studio? Enter your email and start virtualizing today!

[Already registered?](#)

NEXT



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[COOKIE PREFERENCES](#)

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