HOLOLIGHT
SPACE

TUTORIAL

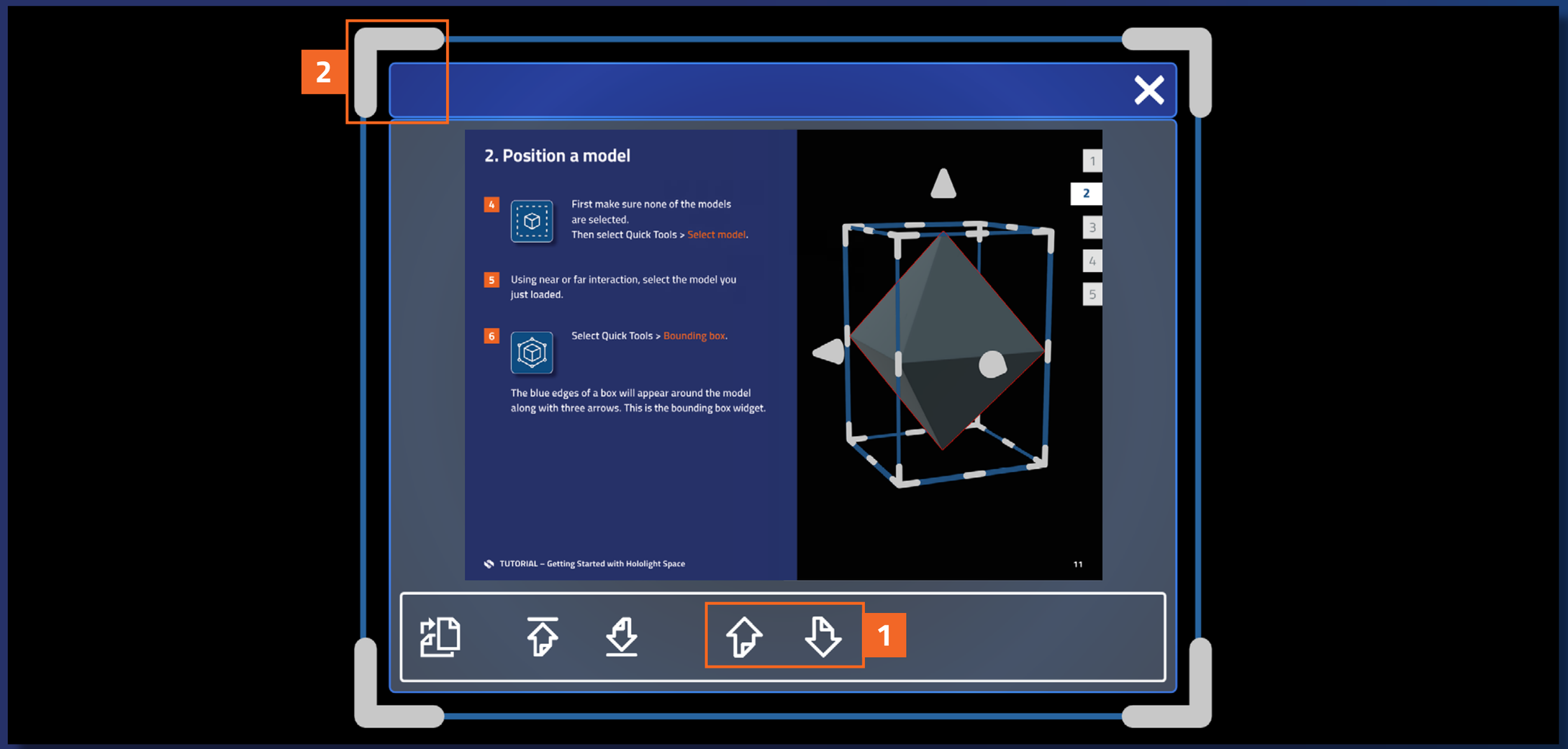
Getting Started with Hololight Space

Using this Guide “Getting started with Hololight Space“

This guide uses Hololight Space’s media viewer.

1 To navigate through this guide, use near or far interaction to select Page up or Page down.

2 If you have trouble seeing the guide, use near or far interaction to drag the corners of the media viewer to make it larger or smaller.



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HOLOLIGHT SPACE

Introduction

Thank you so much for choosing to use Hololight Space. Hololight Space is a 3D CAD software tool for use in virtual and augmented reality. Using Hololight Space you can realize your models in full detail across leading XR devices. This makes it easy to review and share designs with your team in both digital and real-world spaces to transform your 3D workflows.

Introduction

This guide will walk you through the fundamentals of using Hololight Space. You will learn how to:

- Place 3D models
- Position 3D models
- Adjust 3D models
- Align the space
- Save the space

These are essential skills you will return to again and again when using Hololight Space. Following this guide will also prepare you for using more advanced features in the future, allowing you to fully leverage the power of Hololight Space to streamline your 3D engineering and design projects.

1. Place a model

The workspace where you load and manipulate 3D models is called a space. When you open Hololight Space, you start in an empty space.

In this section you will load a 3D model and place it in the space. You will then select and deselect the model.

1. Place a model

1 Open Quick Tools.

If you are using your hands without a controller, look at the palm of your hand and Quick Tools will appear. Quick Tools is a menu of frequently used options and tools.

If you are using controllers, you can open Quick Tools by pressing the Quick Tools button (A or X button on Meta Quest controllers).

2 When Quick Tools appears, select Load from the options.

1. Place a model

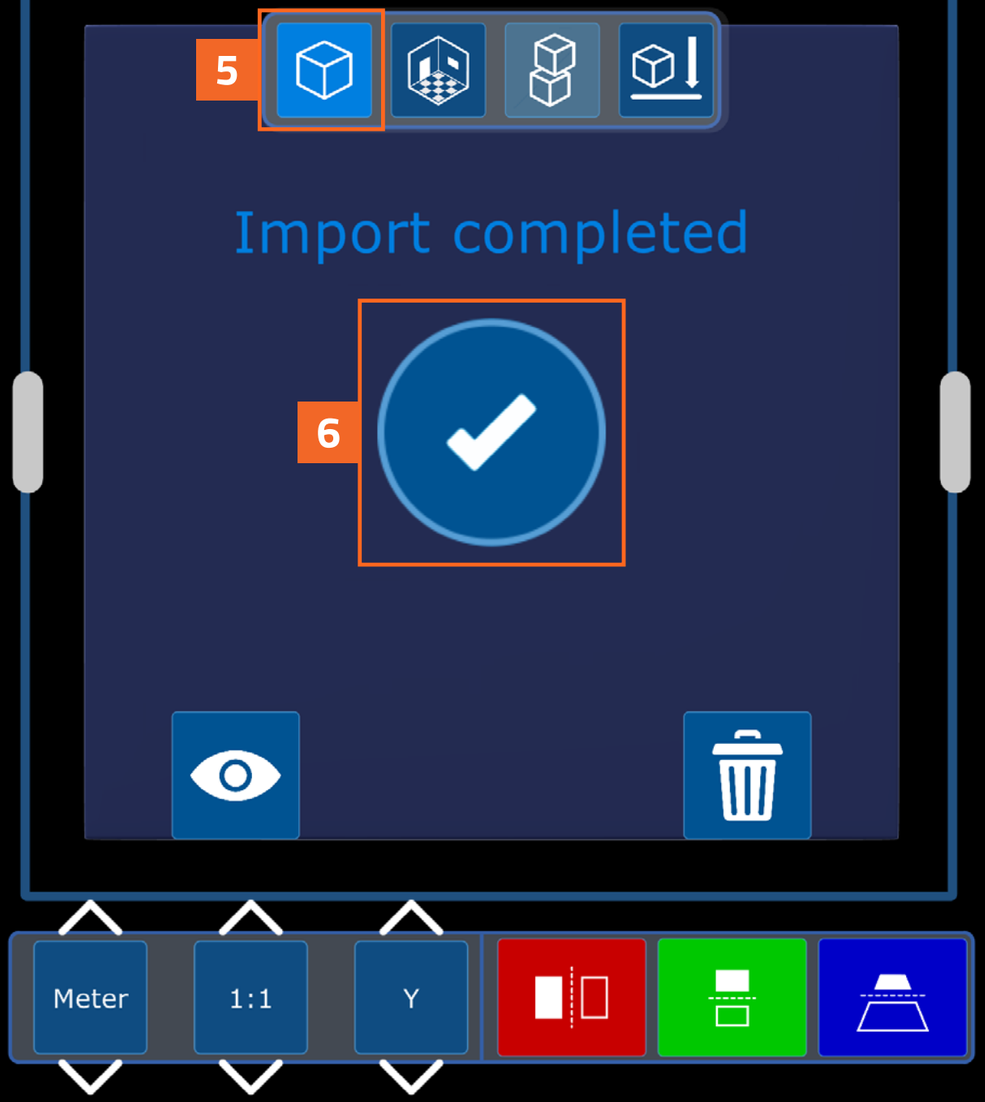
3 Using the file browser, navigate to the “root/demo files” folder. You can easily do this by selecting “root” at the top of the file browser and then selecting the folder demo files.

4 Select the file named “_model_a.glb”.
The loading cube will appear. The loading cube will light up to show the file loading.

5 After the file finishes loading, the 3D model “Model A” will appear in the loading cube.

Make sure Place from cube position is selected on the top menu of the loading cube.

6 Select the Checkmark on the face of the cube to place the model.

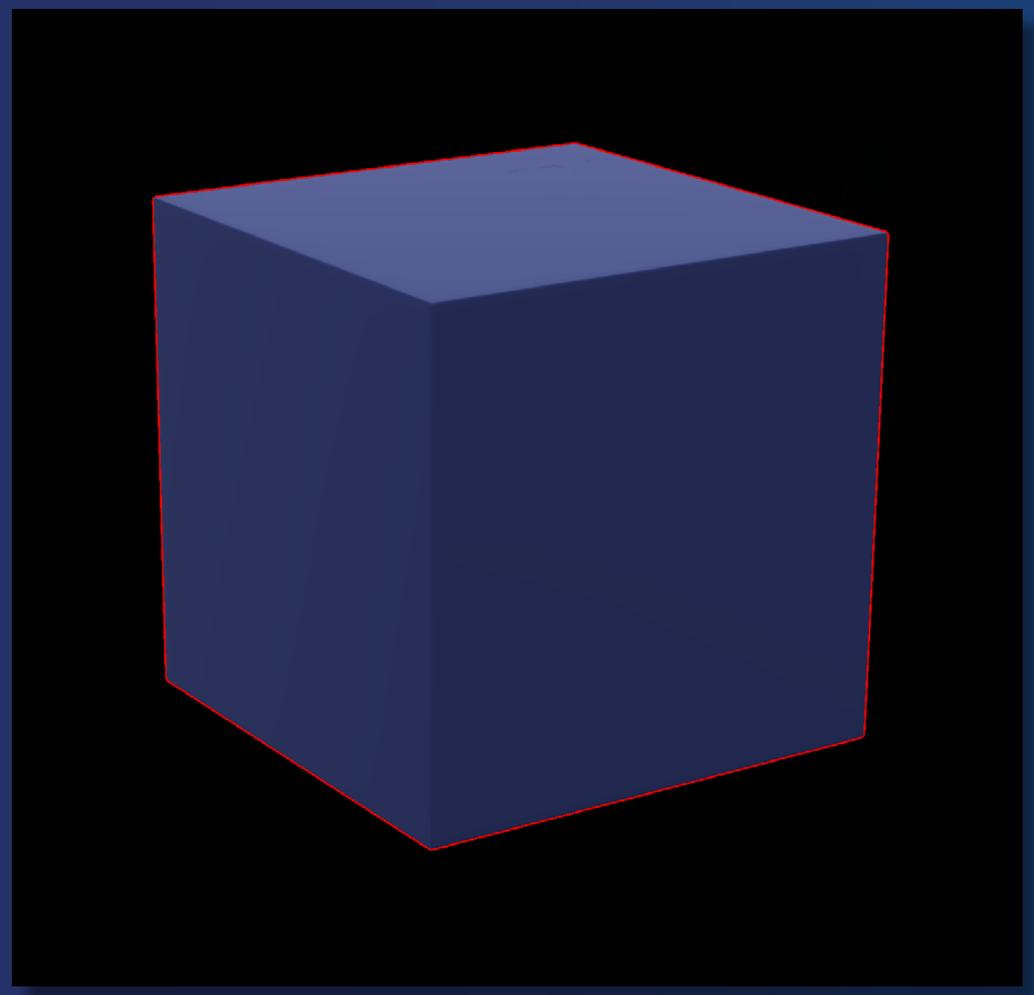


1. Place a model

7 To do anything with a model you need to select it.

To select a model quickly, particularly when there is just one, select Quick Tools > Select all.

The model is now selected. You should see a red outline around the model. If there were two models in the scene, both would be selected when using Select all.



8 There will be times when you won't want to have a model selected.

To quickly deselect all models, select Quick Tools > Deselect all. Try this now.

Now you have a space with a 3D model in it.

2. Position a model

Once you load a model into a space, it is important to be able to move it around.

In this next section, you will load a second model into the space, select that model specifically, and position it with the Bounding box.

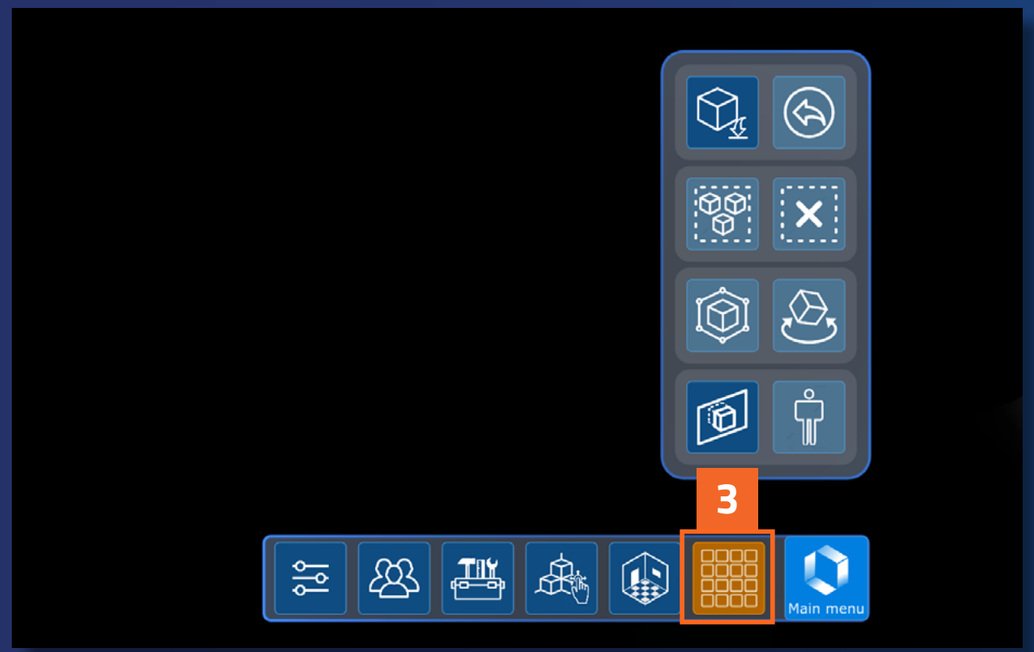
2. Position a model

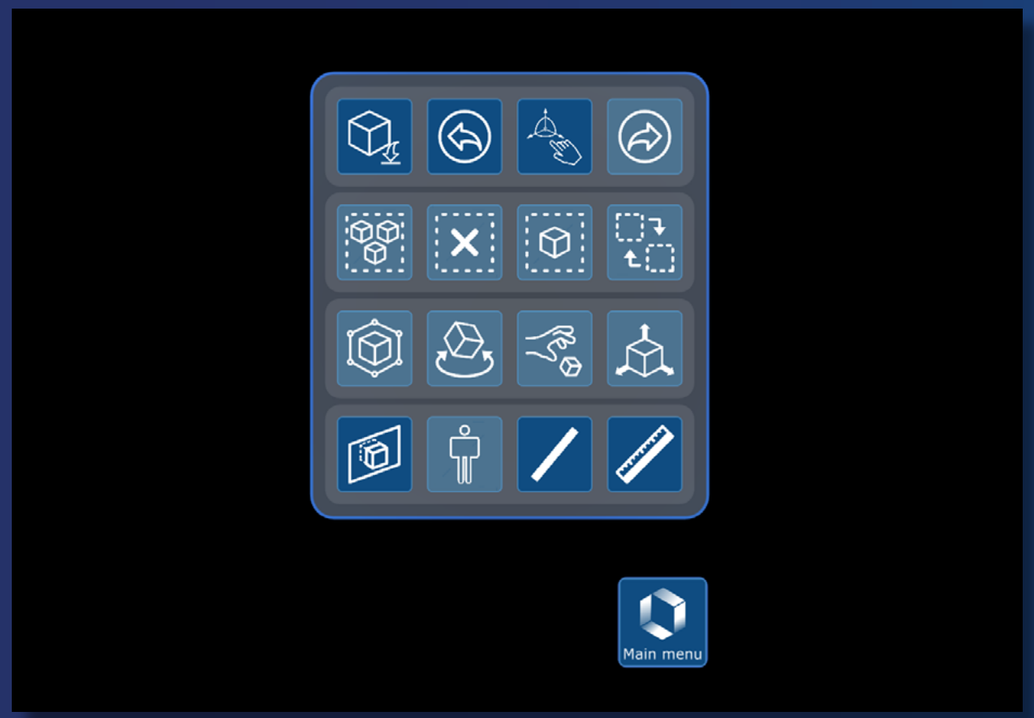
1 Select Quick Tools > Load. Like before, navigate to the “demo files” folder and select “_model_b.glb”.

2 When the loading cube appears and the model finishes loading, select the Checkmark to place the new model.

With two models in the space, you need to be able to select one without the other. You can select a single model using Select model. This option is in the extended version of Quick Tools.

3 To use the extended Quick Tools, select Quick Tools > Main menu > Extended Quick Tools.





2. Position a model

4 

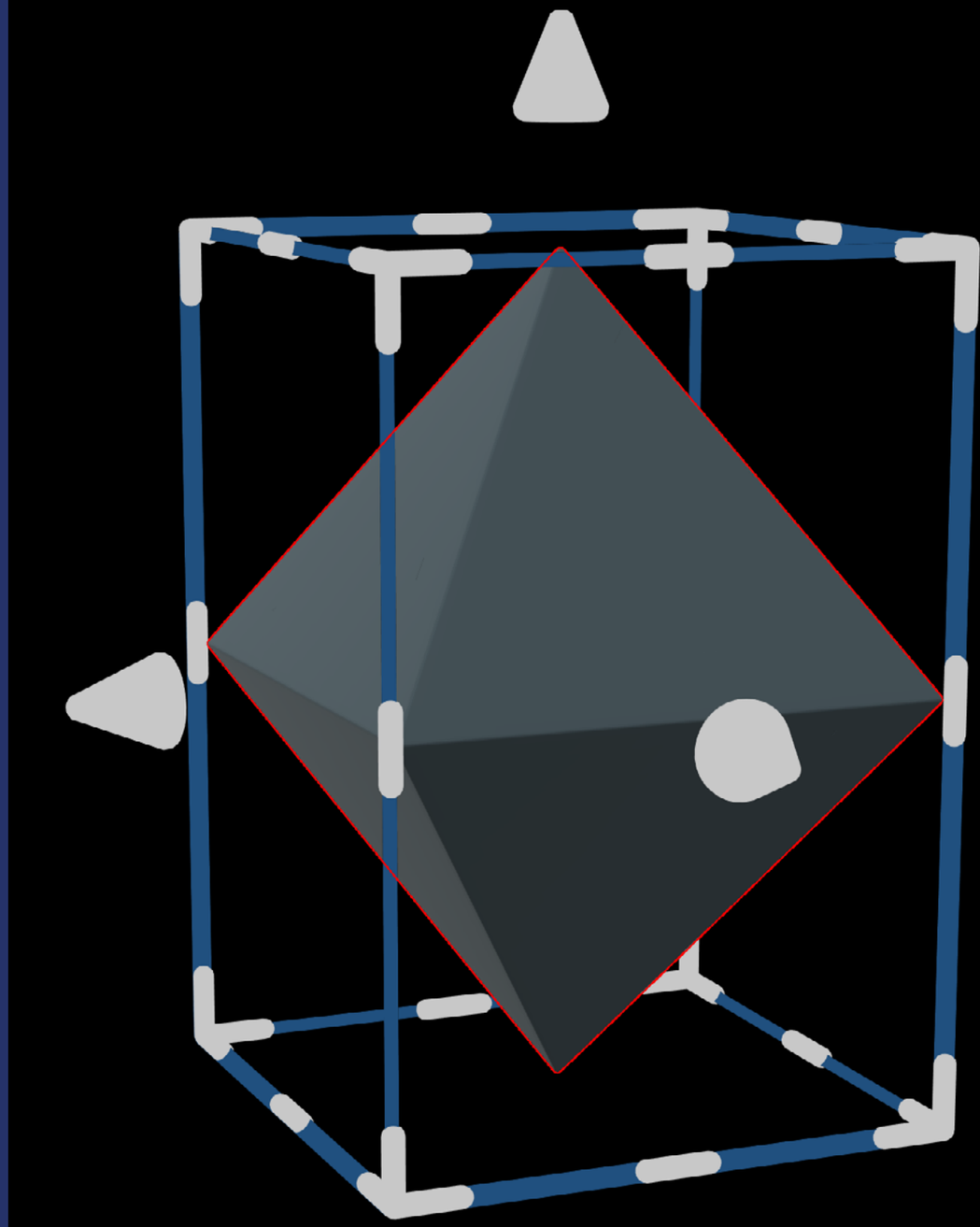
First make sure none of the models are selected.
Then select Quick Tools > Select model.

5 Using near or far interaction, select the model you just loaded.

6 

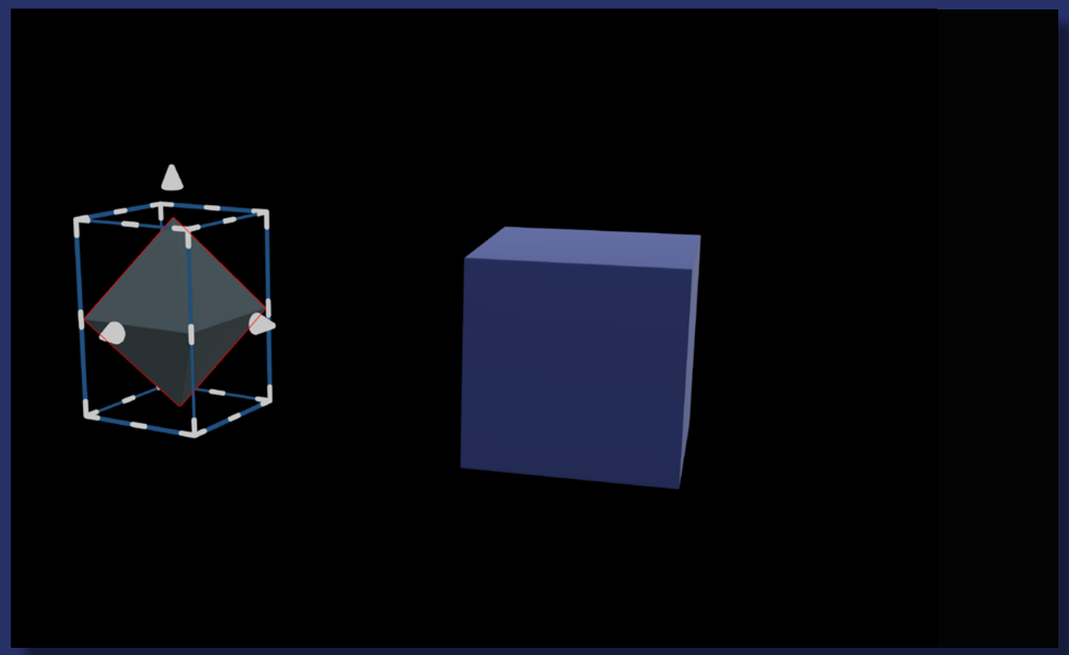
Select Quick Tools > Bounding box.

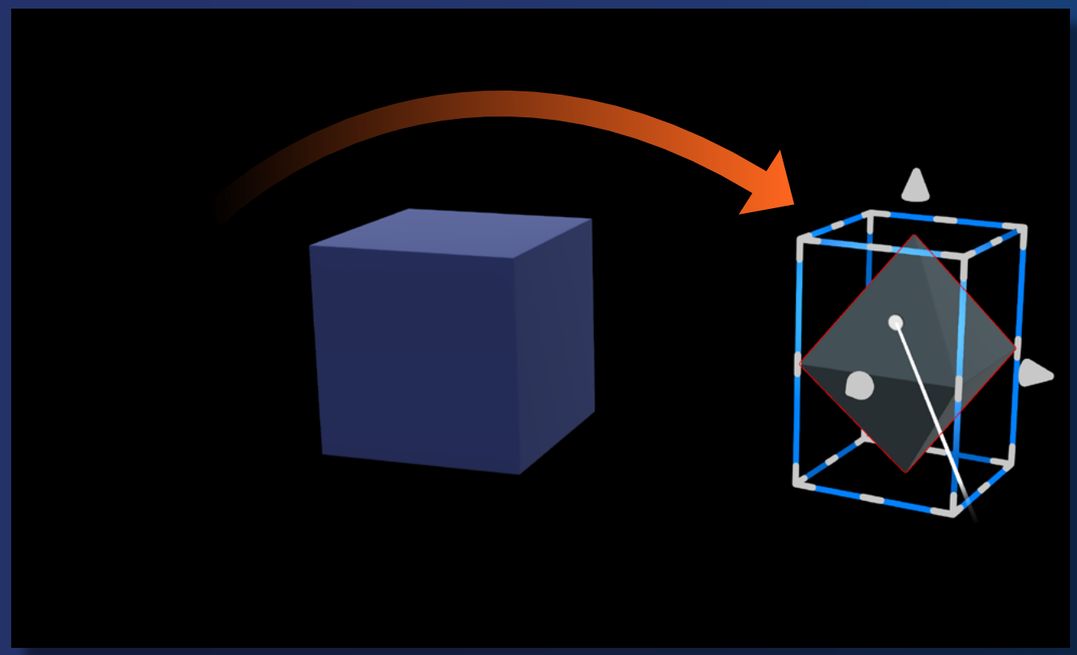
The blue edges of a box will appear around the model along with three arrows. This is the bounding box widget.



2. Position a model

7 To move the model, select a side of the bounding box and hold. Make sure to avoid the edges or corners when selecting the box. While holding the selection, drag the box to move both the box and the model inside of it.





7 Move the model to a position you prefer.

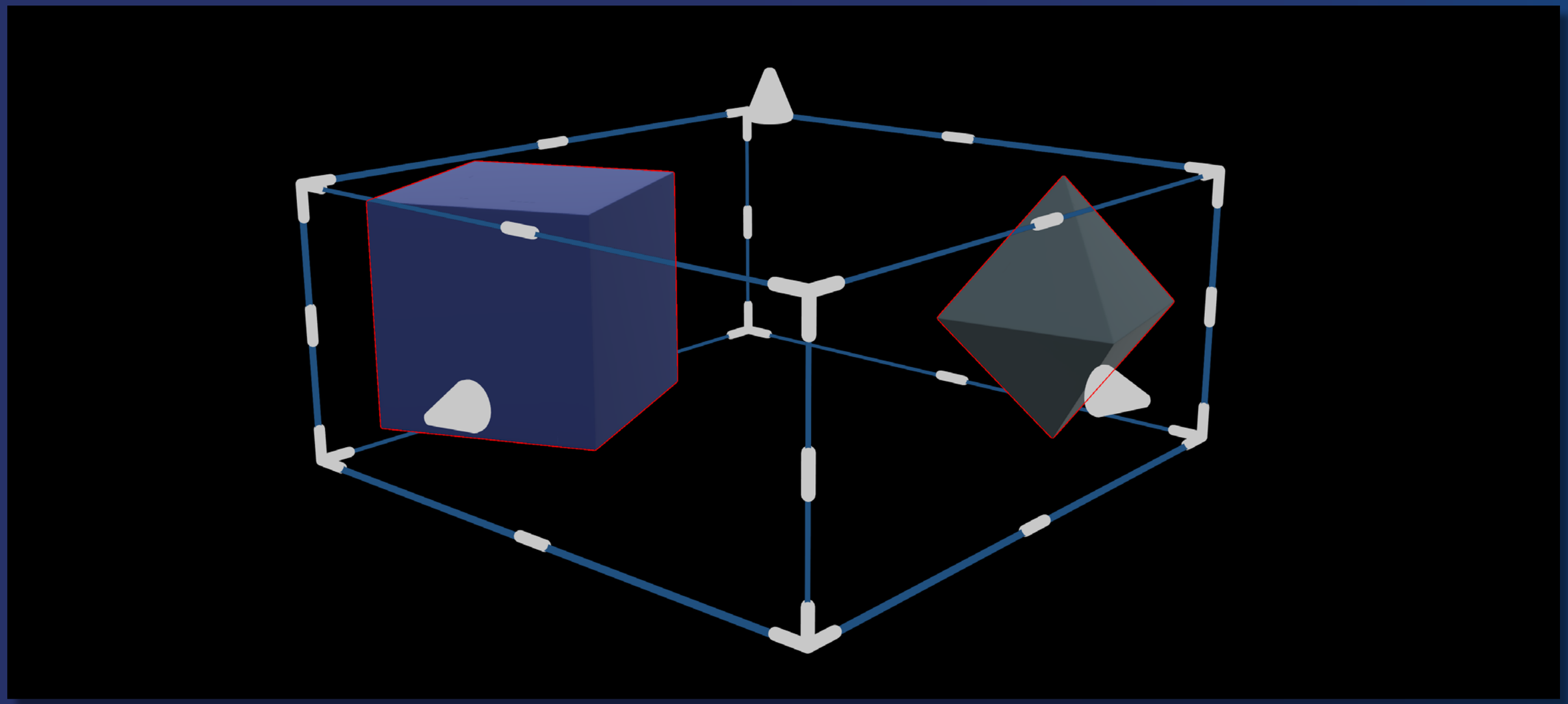
2. Position a model

Select all

Select model

Deselect all

Using Select all, Select model, and Deselect all you can choose which models you want to move with the bounding box.
When selecting multiple models you can move them together.



3. Adjust a model

Using the bounding box is a great way to position models. Sometimes you will want to adjust models into a more precise position or even make them bigger or smaller.

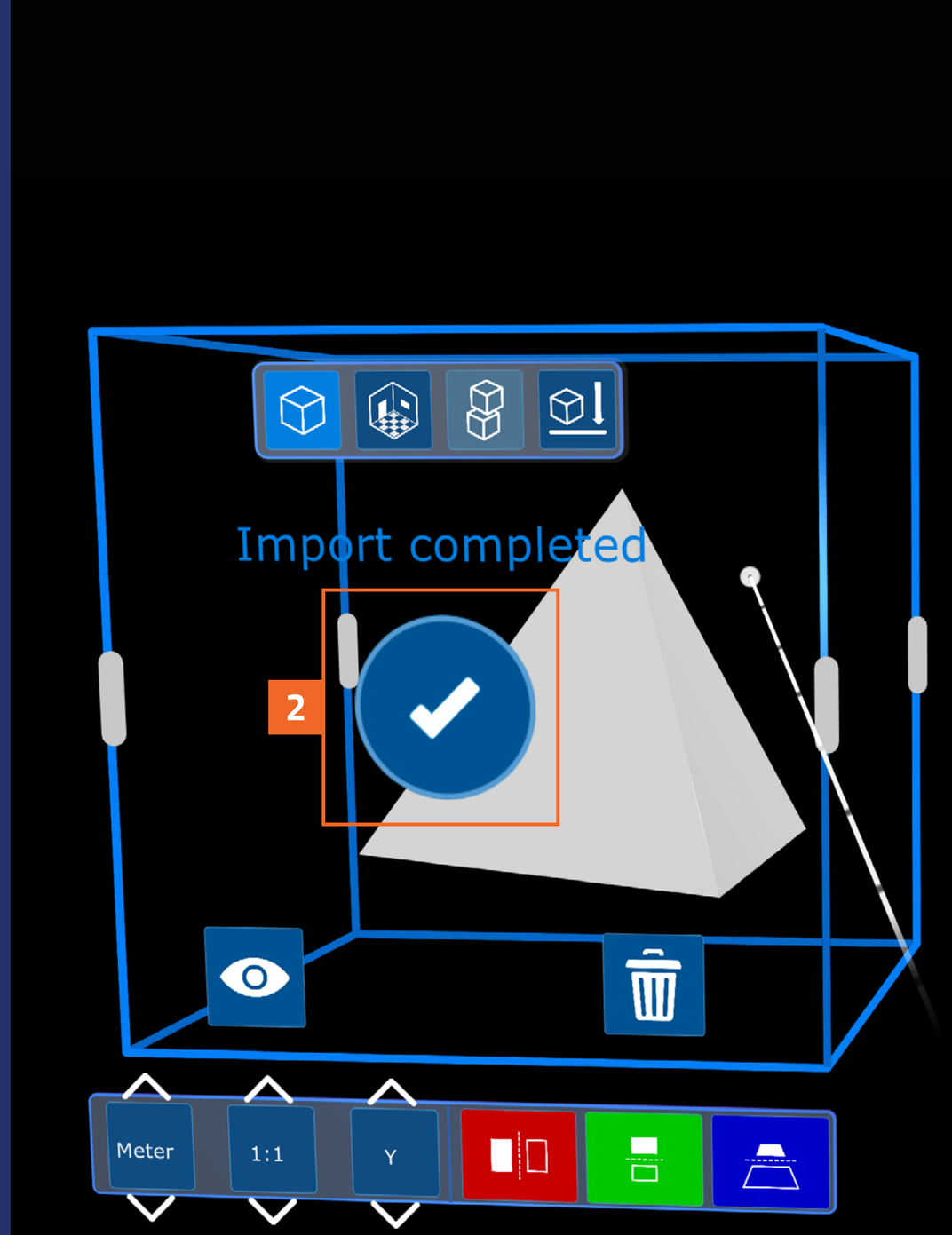
In this next section, you will place a third model in the space, select it, and use the bounding box to adjust the model's position, rotation, and size.

3. Adjust a model

1 Select Quick Tools > Load.
Select "_model_c.glb" from the "demo files" folder.

2 When the loading cube appears try moving it just like you moved the bounding box. This lets you position a model before placing it.

Select the Checkmark to place the object when you are done.



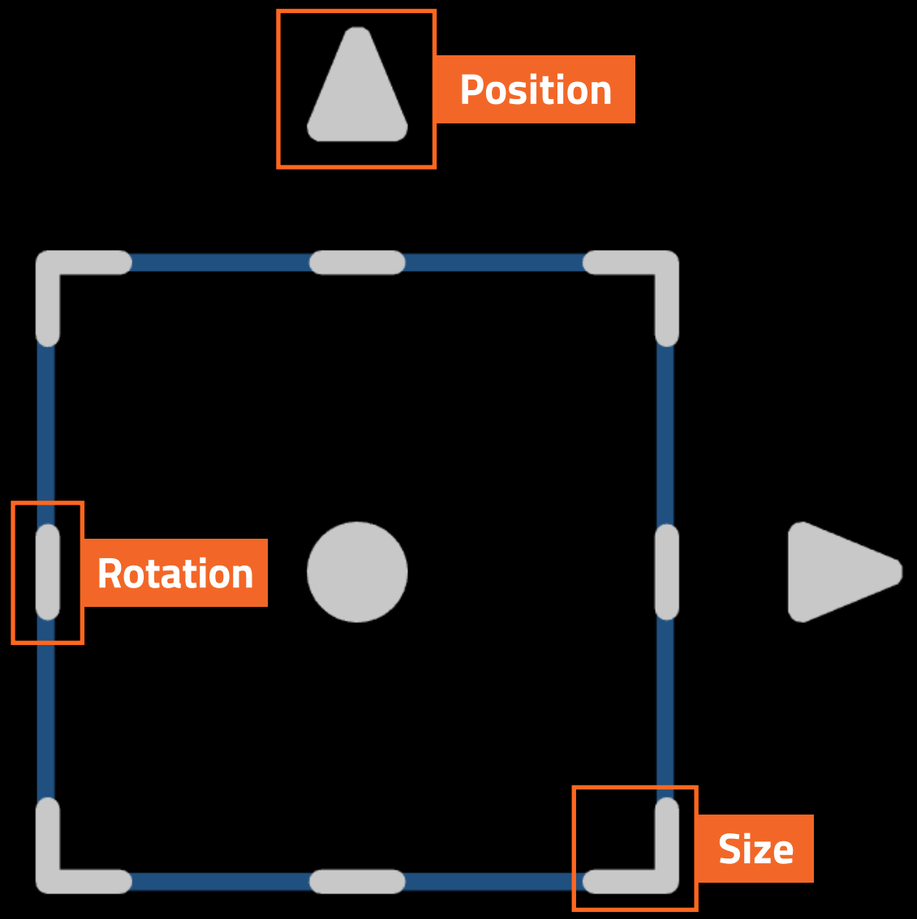
3. Adjust a model

3 Select Quick Tools > Select model.

4 Select Model C.

5 Select Quick Tools > Bounding box.

Now, look at the bounding box surrounding the model. In addition to broad positioning, the bounding box includes handles you can use to precisely adjust your model's exact position, rotation, and size.

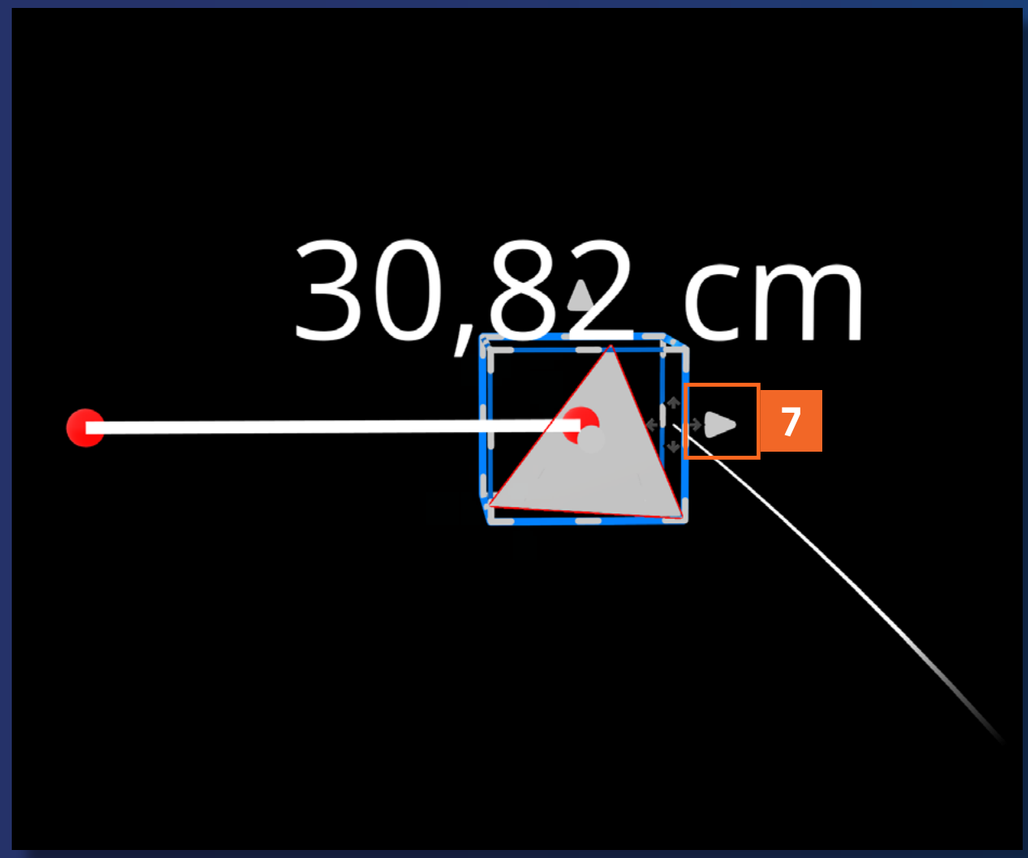


3. Adjust a model

6 Find the move handles surrounding the bounding box. These arrows are for moving the model along a single axis.

7 Select a move handle, hold, and drag to move the model along the arrow's axis.

8 Try adjusting the model's position using the other arrows.



TIP

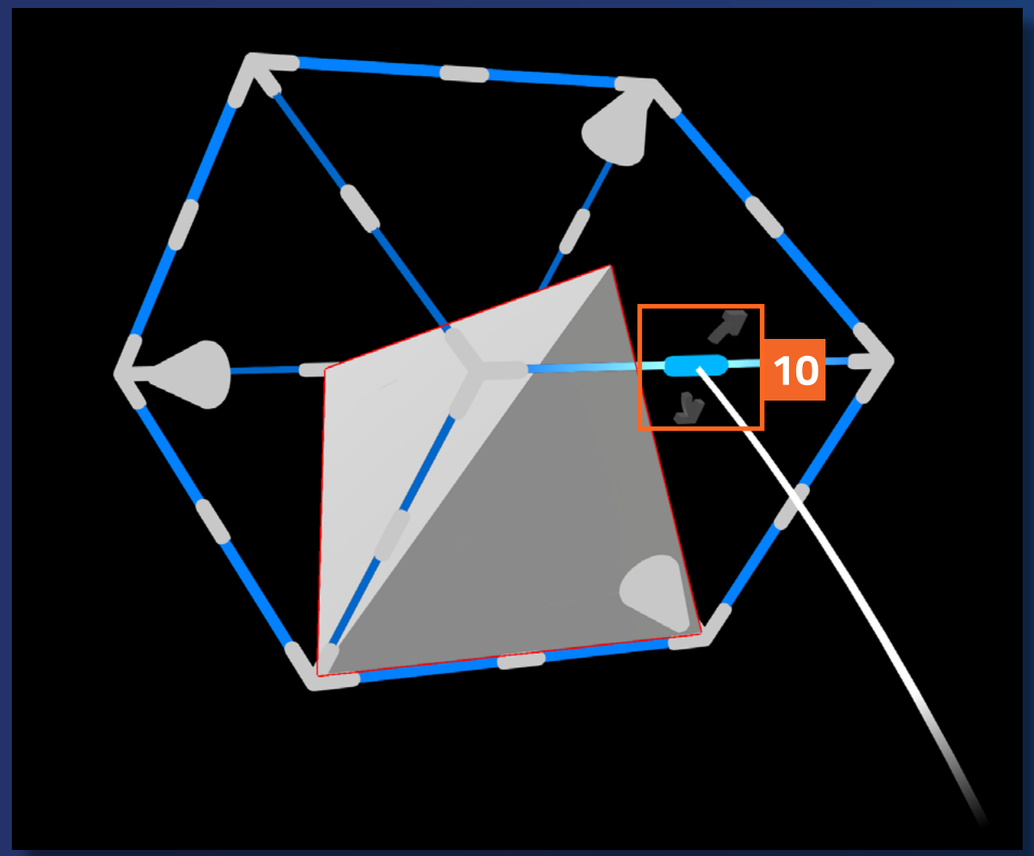
You can undo actions you take in Hololight Space. Go to Quick Tools > Undo to undo an action. This is especially helpful when you change a model in a way that makes it difficult to work with.

3. Adjust a model

9 Find the rotation handles on the edges of the bounding box. These handles are for rotating the model around a single axis.

10 Select a rotation handle, hold, and drag to rotate the model.

11 Try this with the other rotation handles.
Explore rotating your model to be able to see all of its sides.



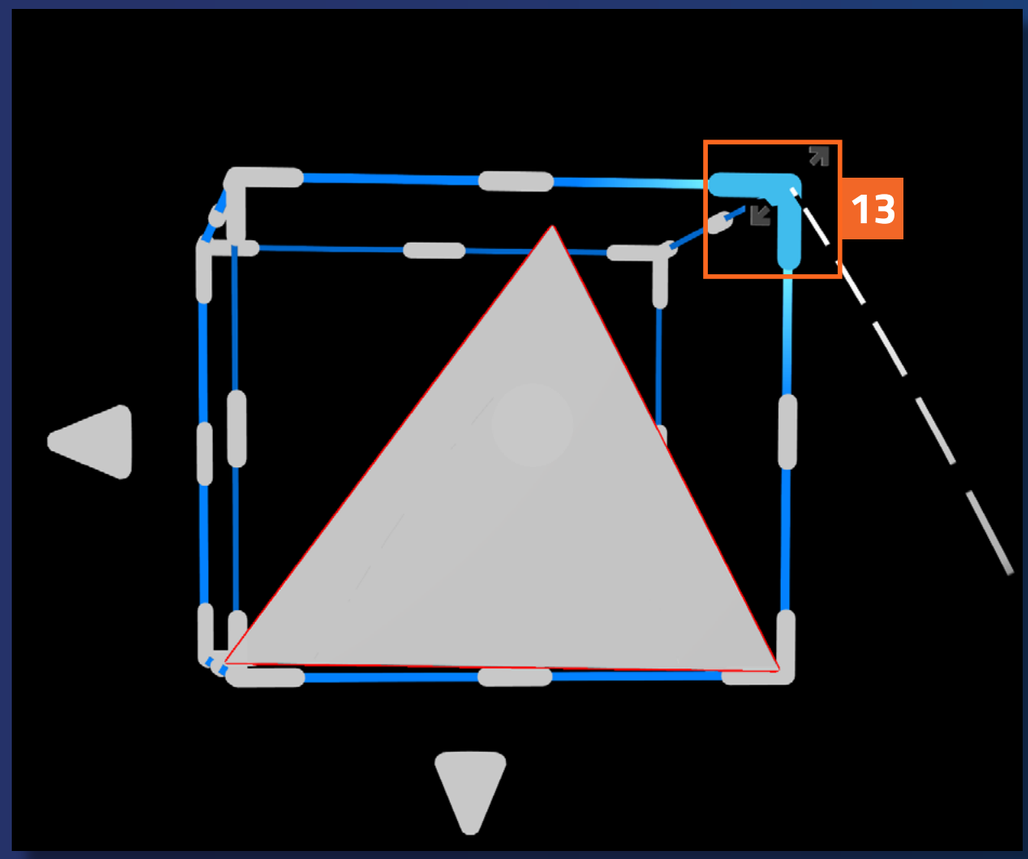
3. Adjust a model

12 Find the size handles on the corners of the bounding box. These handles are for quickly changing the size of the model.

13 Select a size handle, hold, and drag to scale the model.

Size handles at all eight corners of the bounding box work the same way as one another.

Take some time to position and adjust all three of the models in the space. Think about how the models relate to one another. If you are working in augmented reality, also consider the real-world environment when making your adjustments.



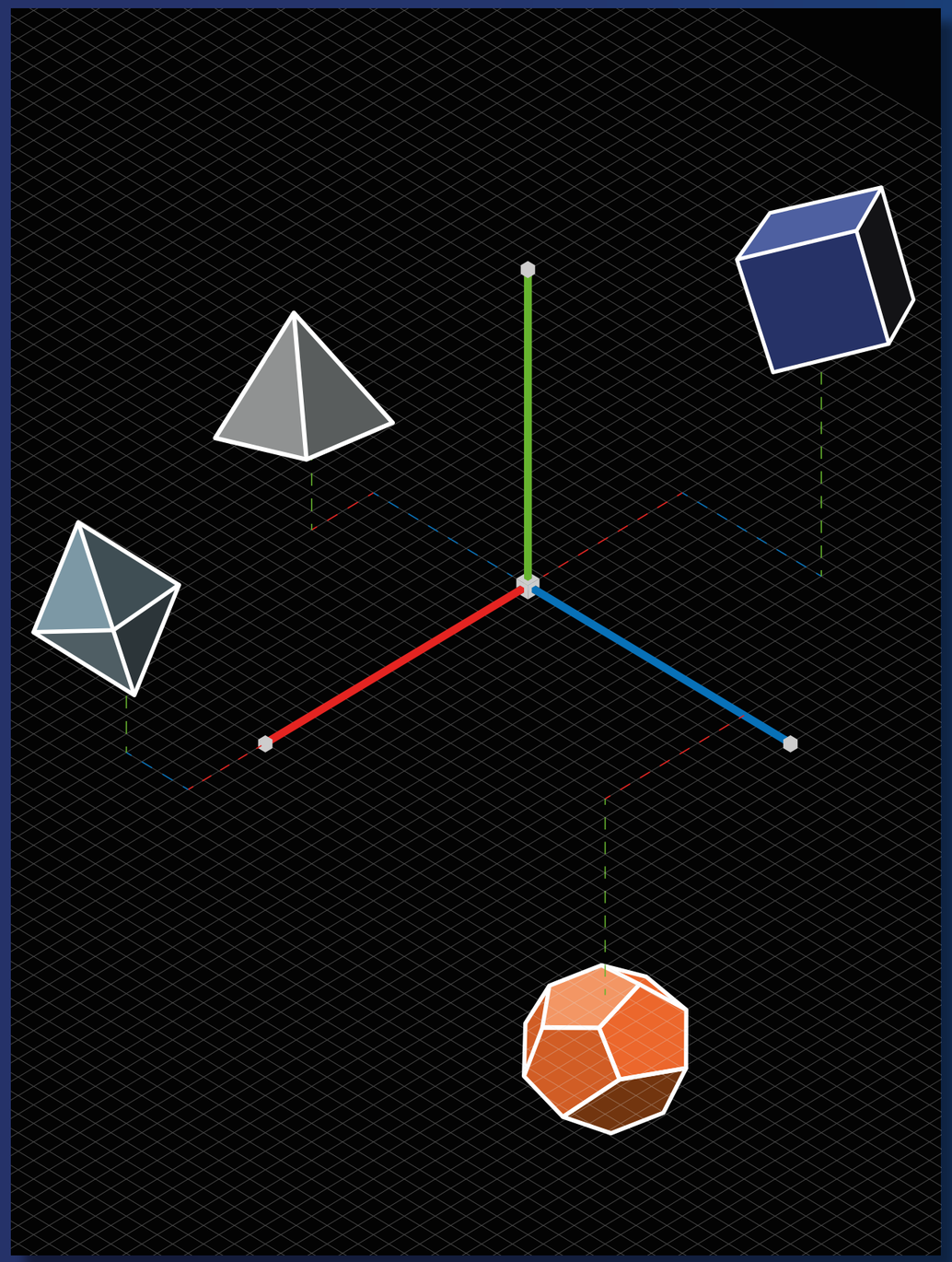
4. Align the space

Before you save your space, you should align the space origin.

The space origin is just a point much like any other in the space. What makes the space origin different is that everything in the space is positioned relative to it. How you position the space origin makes it so the next time you open up Hololight Space all of your models will appear in the same position and orientation as in your last session.

This persistence isn't always necessary but offers many advantages when using XR devices. Imagine you set up a presentation of a 3D CAD model relative to a table in your presentation room. If you close the space, load it later, and then match the space origin to where you had it when you made the presentation, the 3D CAD model will be in exactly the same place as last time.

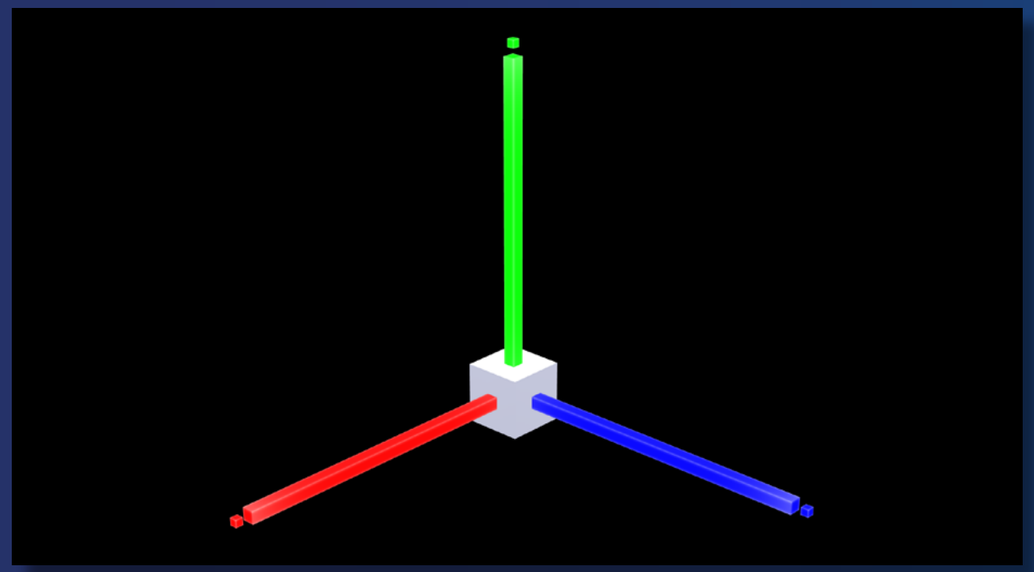
In this section, you will find the space origin and place it meaningfully in the space for future Hololight Space sessions.



4. Align the space

Find the space origin in the space. You can see what it looks like on the right.

For the best experience, the space origin should be somewhere you can easily reach with your hand or controller. Even better, you should place the space origin relative to a fixed reference position in the real world. This isn't always possible of course, and Hololight Space still delivers an excellent experience regardless.

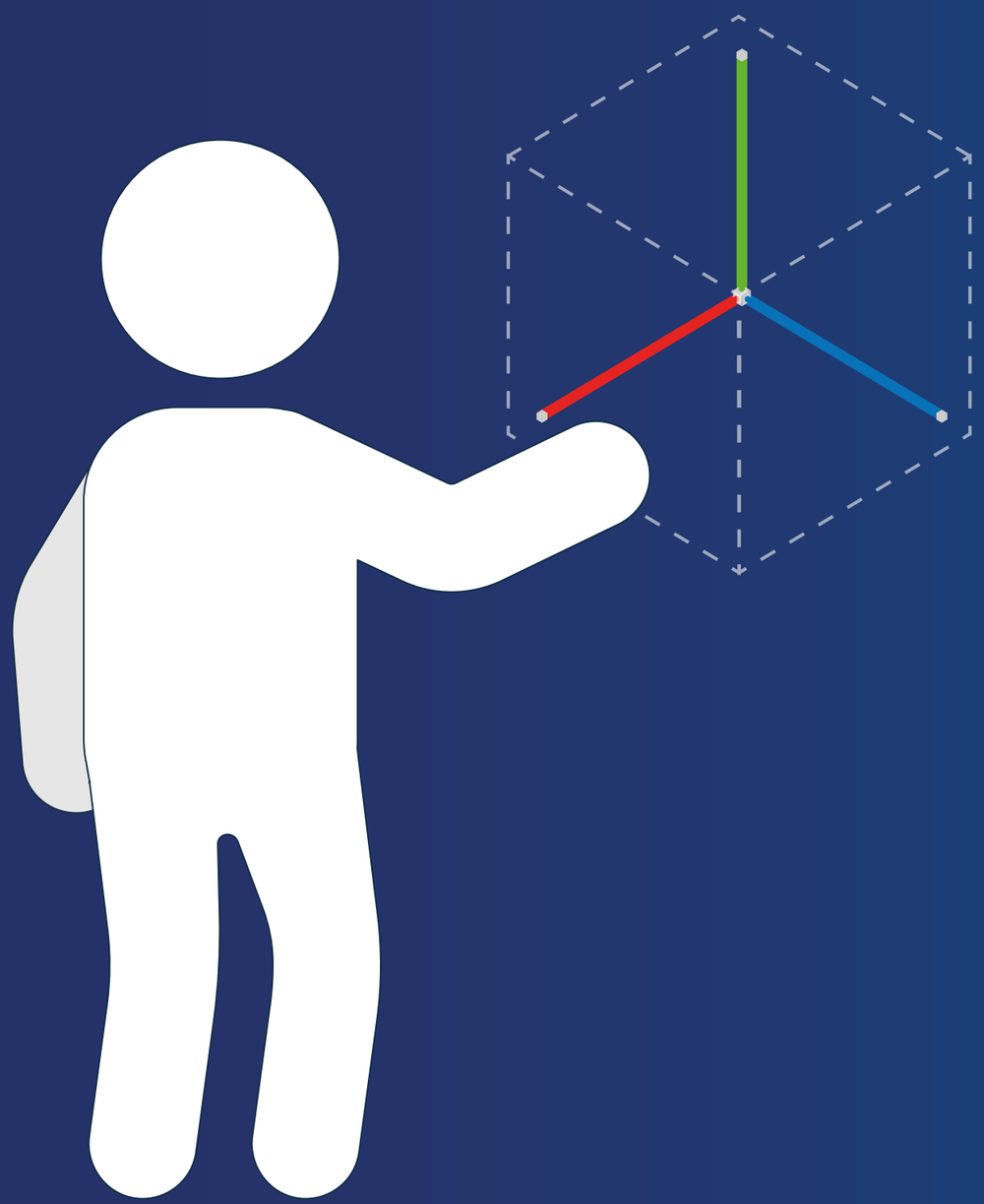


If you are working in augmented reality, a great reference point for the space origin is one that is consistent and never moves. One great idea to line up the space origin to the corner of a table.

4. Align the space

If you are working in virtual reality, the same rule applies with the space origin being in reach.

However, finding a consistent reference point can be trickier since you can't see the world around you. In this case imagine you are holding a glass of water in front of you. The point where the glass would be is an excellent space origin position in VR.



If, having found your space origin, you are satisfied with where it is, you can skip to the next section, Save the space. Otherwise, continue this section of the guide.

4. Align the space

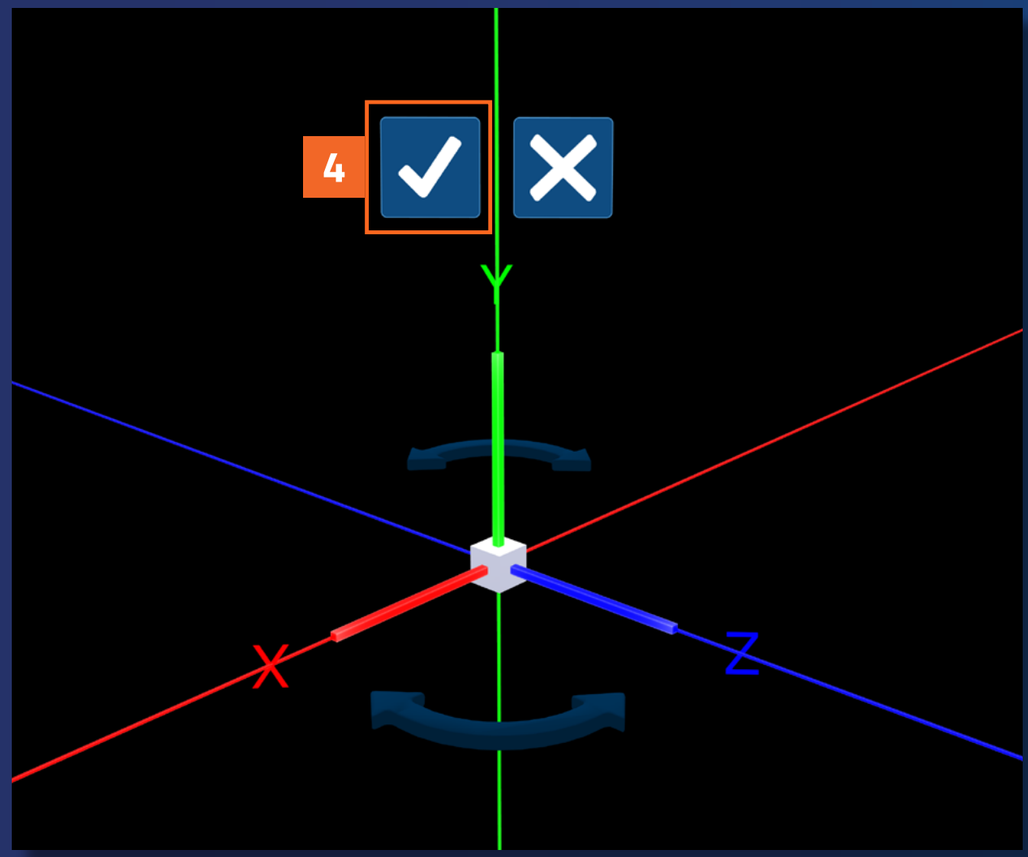
1

If you aren't happy with the position of the space origin, you will need to realign it. With Quick Tools in extended mode, select Quick Tools > Manually align space. A positioning gizmo will appear around the space origin.

2 Like with the bounding box, position the space origin. Select the center of the space origin to move it in the space and select the rotation handles to rotate the space origin.

3 Select the Checkmark above the origin to confirm its new position.

4 A panel will appear letting you know that the position of the space origin and loaded 3D models will change. In this case you do not want to change where the loaded models are. Select Apply only to origin since you set up your scene before aligning the origin.



TIP

The next time you align the space origin, select Confirm. This will align the space origin and move all of the models with it.

5. Save the space

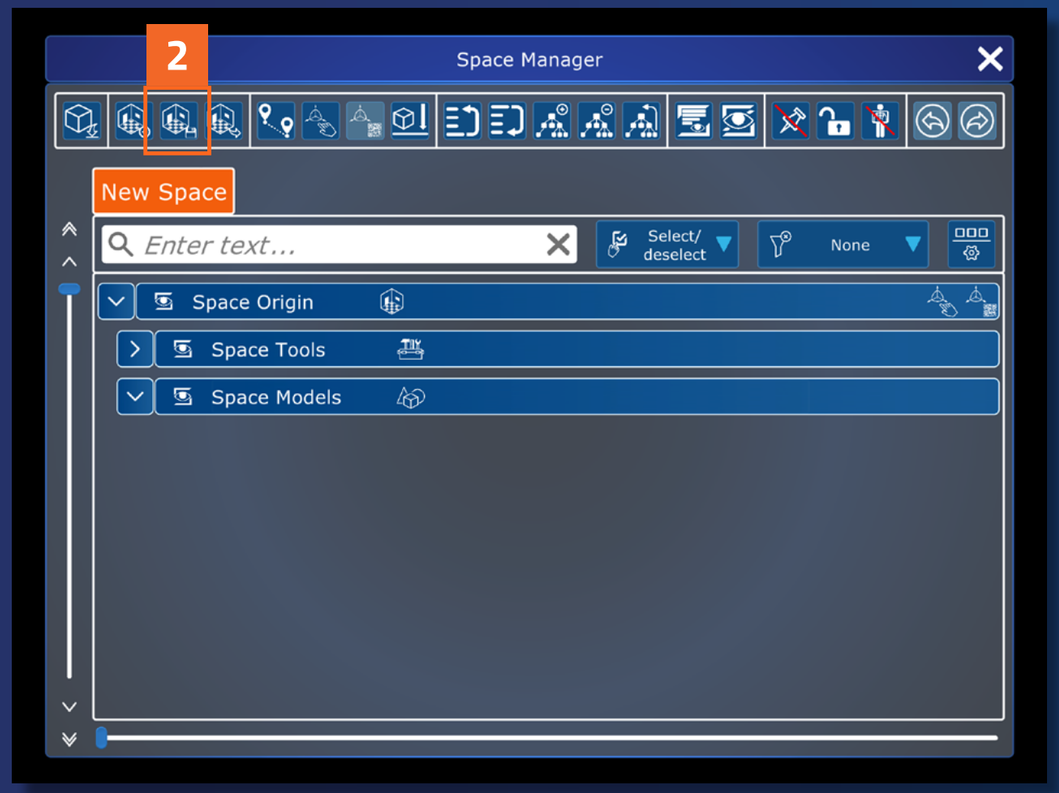
Now you have a space with three models and a meaningfully aligned origin. In this next section, you will save the space so you can continue working with it again later.

1

Select Quick Tools > Main menu > Space Manager. Space Manager will appear.

2

On the top menu of the Space Manager select Save space.



5. Save the space

3 Select the text field. Use the keyboard that appears to enter the name “My first space”.

4 Close the keyboard by selecting the X.

5 Select Confirm. A prompt will appear letting you know that you successfully saved the space.

5. Save the space

Next time you open Hololight Space, select Quick Tools > Manually align space. When you confirm the space origin position, select Confirm this time. This will move the entire space to align to the space origin.

After aligning the space origin, select Load and navigate to the folder with the space you saved. The default folder is “saved spaces”. The three models will appear in the same position as before.

Continue your Hololight Space journey

You have taken your first steps to becoming a Hololight Space expert.

To open this tutorial again, select Quick Tools > Load > “demo files” folder > Getting Started.pdf.