



HOW TO: Modular Low Poly Dragon

Thank you for downloading my modular low poly dragon model! In this quick guide, I will show you how to create your custom dragon variations using the stl or Blender files.

All parts are designed to be combined digitally – they are not meant to be printed separately and then glued together. Combining them before printing ensures clean transitions and sturdy prints.

Various ways to digitally fuse the parts are described below.

Available components

Before customizing your dragon, choose one of two body types:



DRAGON BODY (SHORT)



LUNG BODY (LONG)

Then, you can select from the following parts:



NO WINGS



WINGS



NO HORNS



HORNS



NO BACK SPIKES



BACK SPIKES



NO LEGS (DRAGON)



FRONT LEGS



FRONT & REAR LEGS



NO LEGS (LUNG)



FRONT LEGS



FRONT & REAR LEGS



STANDARD TAIL (NONE)



TAIL SPIKE 1



TAIL SPIKE 2



TAIL SPIKE 3



TAIL SPIKE 4

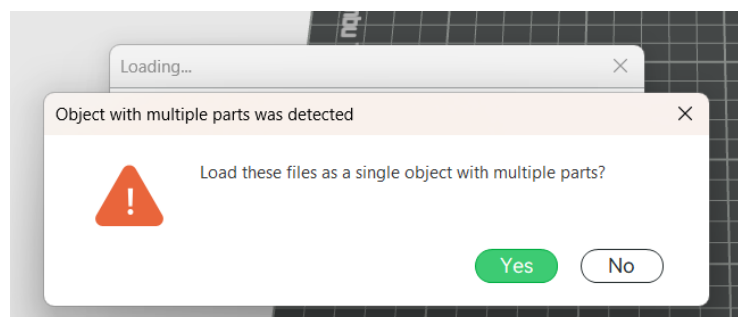
How to combine the separate parts

In the slicer:

The easiest way to fuse together the separate parts is in the slicer. Unfortunately, not every slicer enables you to do this. I tested CURA, Bambu Studio, Orca Slicer and Prusa Slicer.

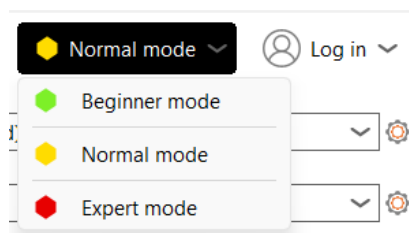
CURA: I did not find a way to merge objects in a clean way in CURA. You open the separate parts, select all of them in CURA and then right click -> "Merge" to position all of them correctly, but this will cause overlapping lines after slicing. Maybe a feature to correctly merge objects will be added in the future.

Bambu Studio and **OrcaSlicer:** Open all relevant parts of your dragon configuration at one, and then when the popup window asks you if you want to load the files as single object, click "Yes".



Prusa Slicer:

First, you need to switch the slicer mode from "Beginner mode" to "Normal mode" or "Expert mode" on the top right.



After this, load **just the body** of the dragon, then right click on it -> add part -> Load -> and then choose the desired other parts for your dragon variant (you can select them all at once).

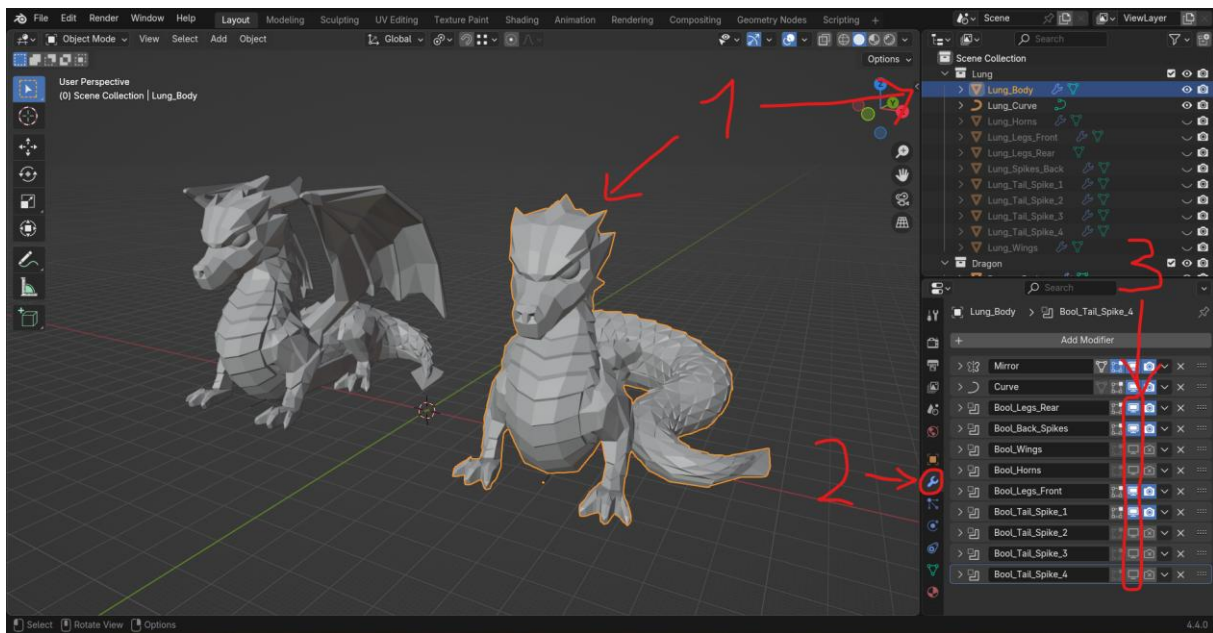
If you load in all parts the normal way in the beginning, they will not end up in the right position. But using right click -> add part on the body, the added parts will be positioned correctly and automatically merged to the body.

Bonus: you can still select the individual parts in the Object list on the right and re-position them afterwards. This allows you to place e.g. the wings and feet wherever you want!

In Blender:

If you don't have a slicer that supports merging parts or if you have experience in Blender, this method is for you. In addition to combining the existing parts, you can also adjust the curve that defines the body curvature of the dragon (which is especially interesting for the lung variant) or edit or add parts to create even more versions!

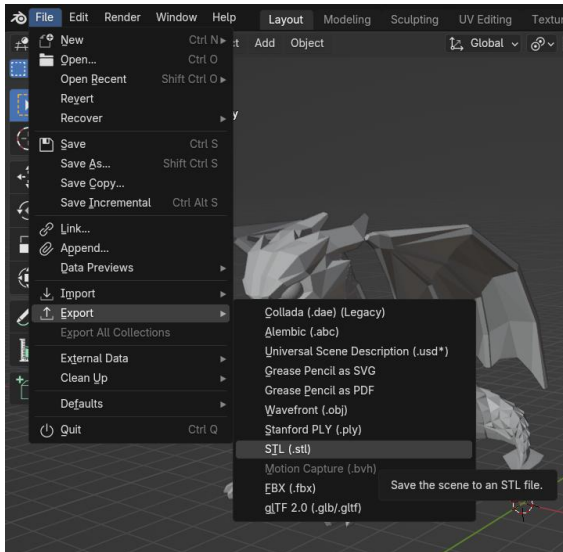
To choose which body parts you want for your dragon, open the blender file and then ...



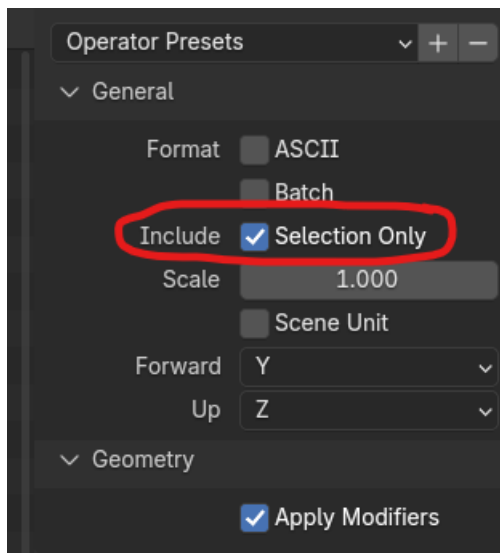
1. Select one of the bodies either by clicking on it in the viewport or the outliner on the right
2. Go to the modifiers tab in the properties menu
3. Activate or deactivate the Boolean modifier for each part by clicking on the little computer screen icon ("realtime").

After customizing your dragon, you can export the stl file by making sure the body of the dragon that you were working on is selected and then ...

1. ... Going to File -> Export -> STL



2. And then choosing "Selection Only" on the right side of the export settings window



To adjust the body curvature, select the "Lung_Curve" or "Dragon_Curve" object, go into edit mode and move the handles to change the curve shape. As this can cause problems for beginners, I will not go into detail here and leave it to the intermediate Blender users :)

Fusion 360:

I don't use Fusion 360 myself, but if you want to combine the parts using Fusion 360, this tutorial might help: <https://www.youtube.com/watch?v=nq4SEwv0Xsc>