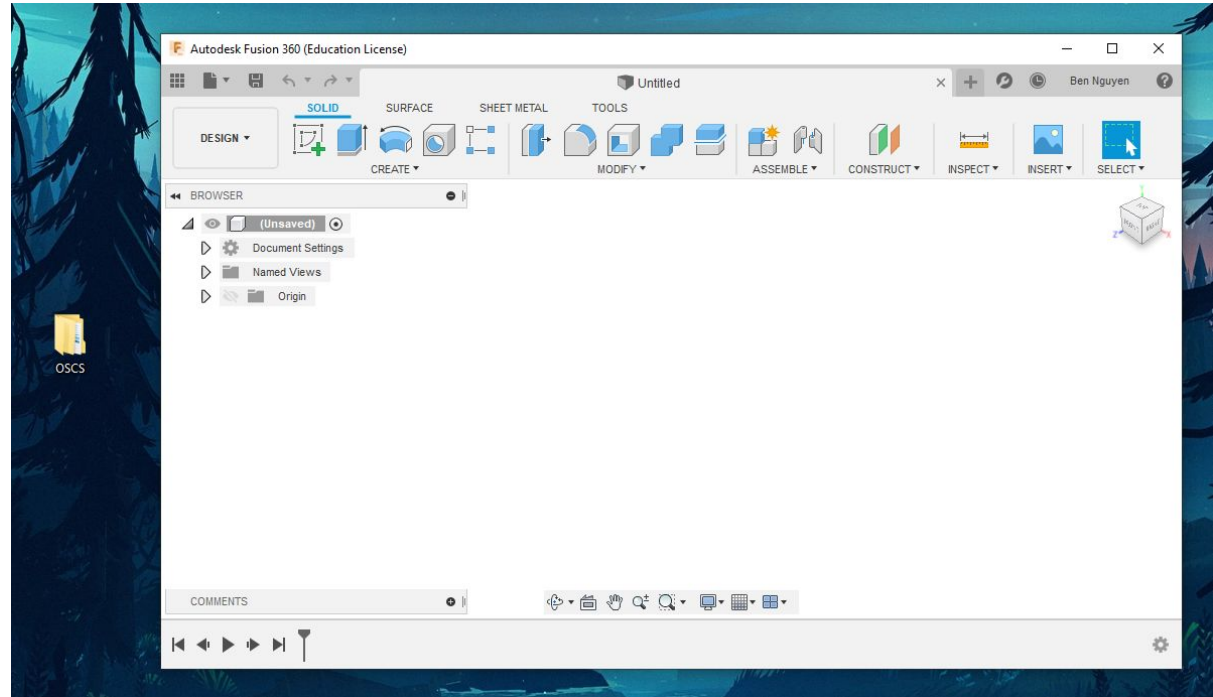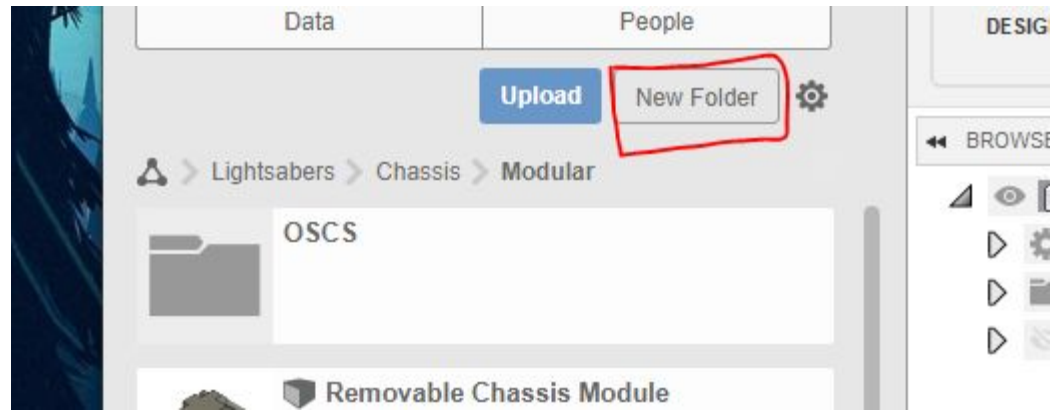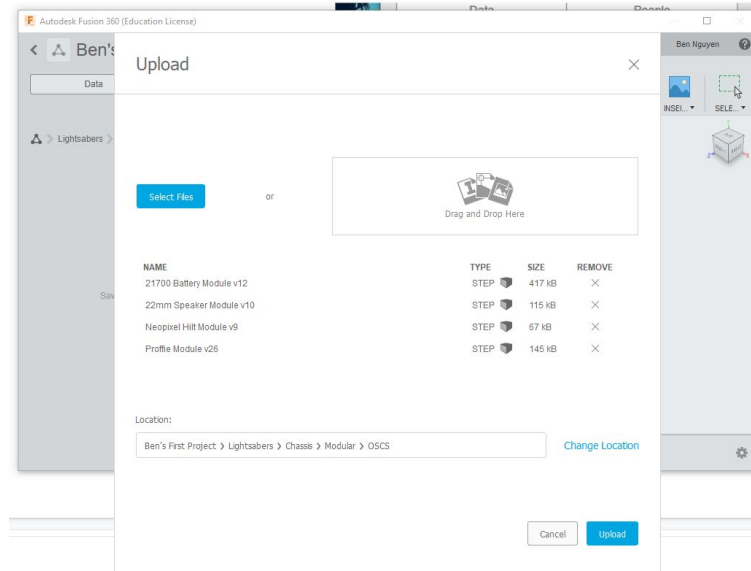# Exporting Instructions

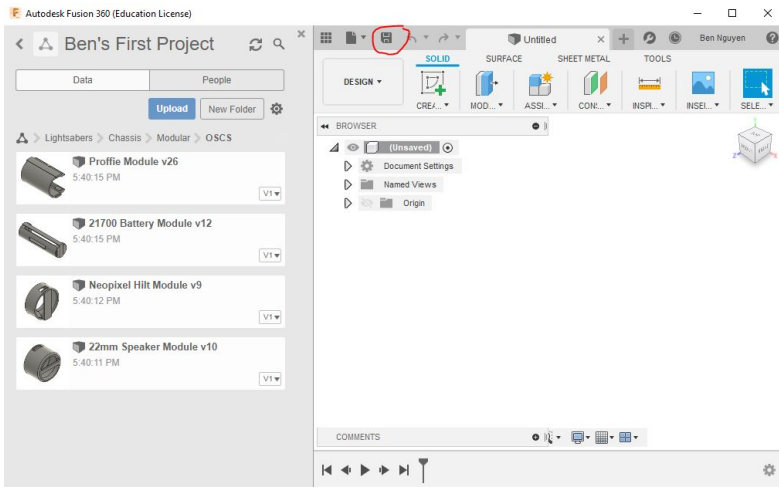OSCS tbenen

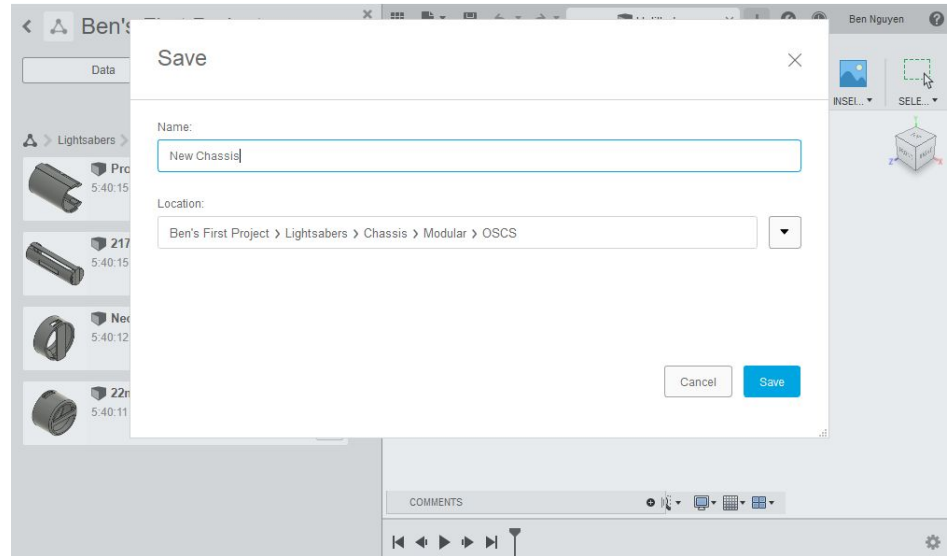Download both the OSCS folder and Fusion 360

Create a new folder titled OSCS

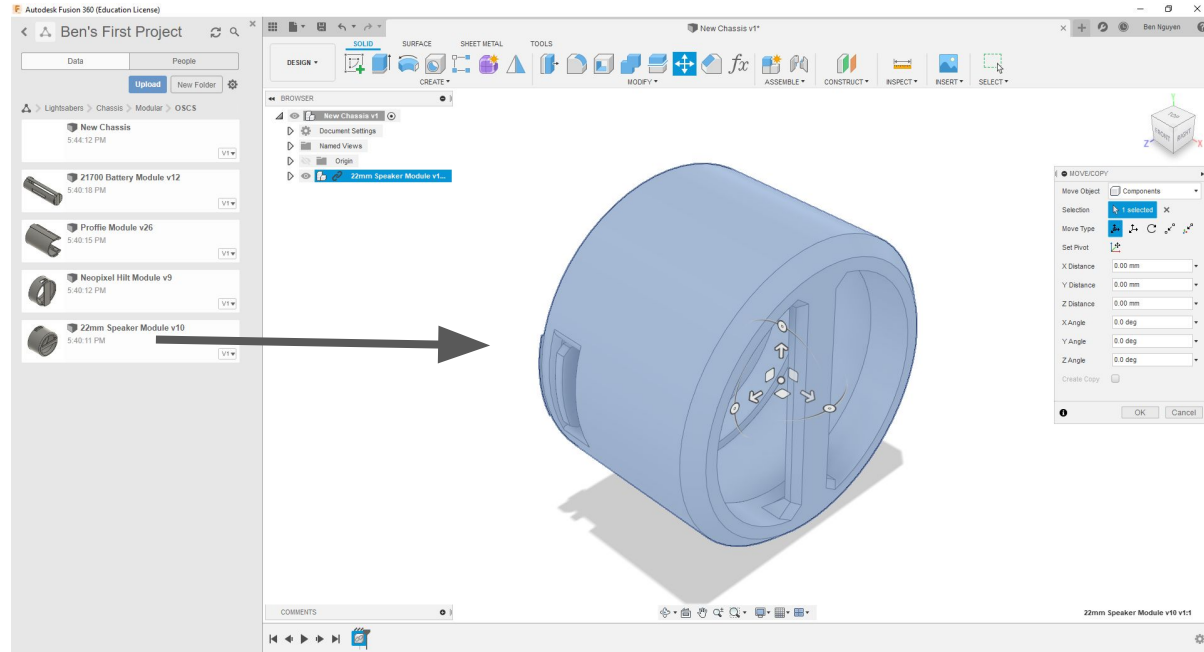Upload all the necessary modules for your chassis in the folder

After all the uploads finish, create a new file and save it. Fusion 360 automatically opens a new document on starting the program, so you can use that.
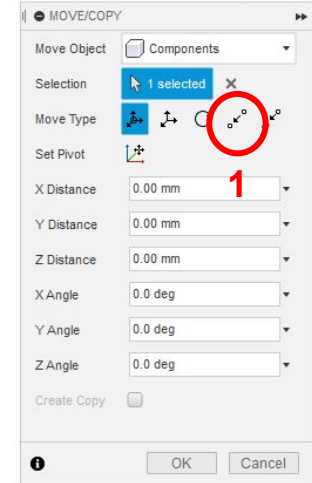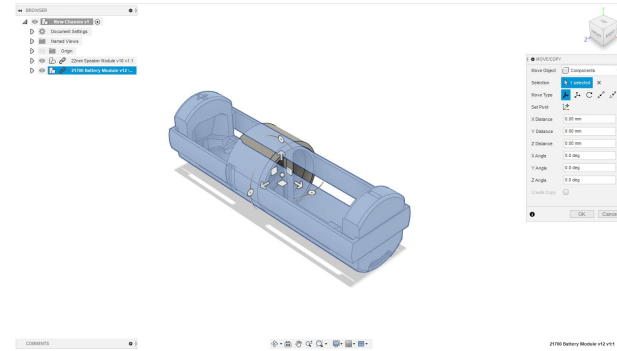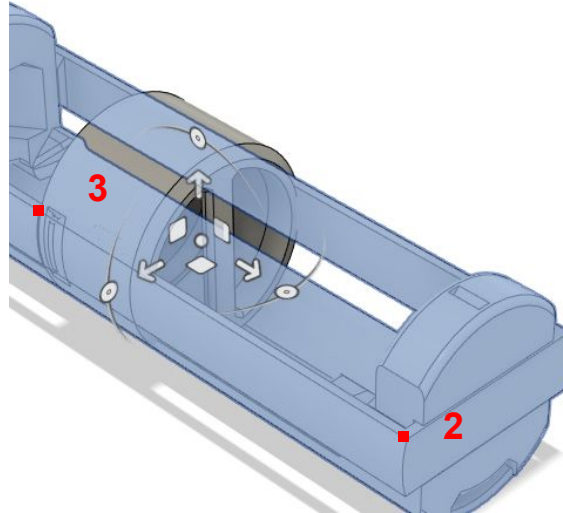
Drag and drop your speaker module into the new file. It does not need to be moved, as it will act as the starting point to the rest of the chassis.
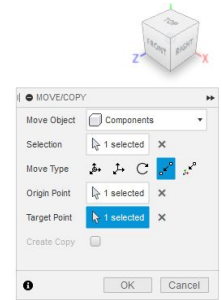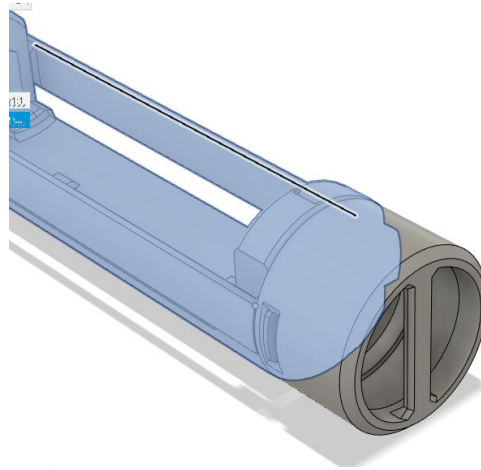
Press OK

Drag and drop the next module into the file. Use the move tools to position it end to end with the previous module so that they can be combined later into one piece. This can be done easily with the Point to Point move tool.

Click the point to point tool, then the corner of the rail (2), then the corner of the speaker rail (3).

MOVE/COPY		
Move Object	Components	
Selection	1 selected	✕
Move Type		
Set Pivot		
X Distance	0.00 mm	**1**
Y Distance	0.00 mm	
Z Distance	0.00 mm	
X Angle	0.0 deg	
Y Angle	0.0 deg	
Z Angle	0.0 deg	
Create Copy		
	OK	Cancel

It should look like this:

Press OK
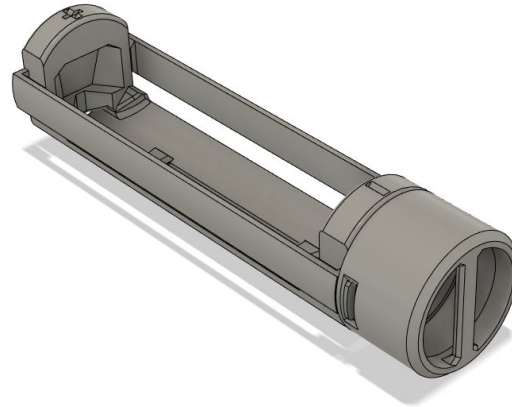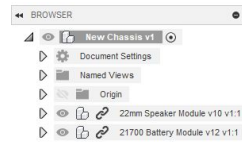
Repeat with the rest of the modules.
My chassis in this example has a
22mm speaker, a 21700 battery
cradle, and a Proffie cradle.

Break Link for each module by right clicking each link icon and choosing Break Link.
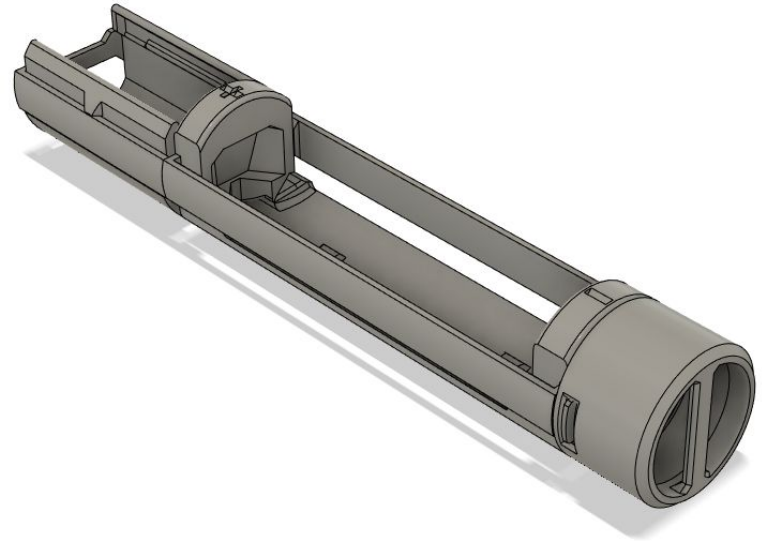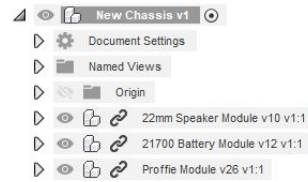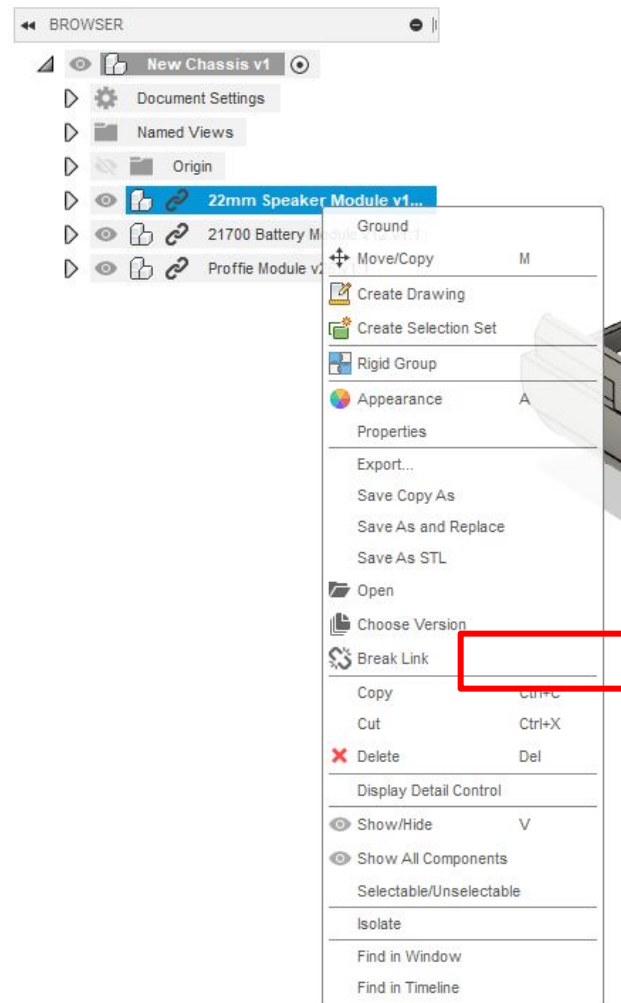
It'll look like this:
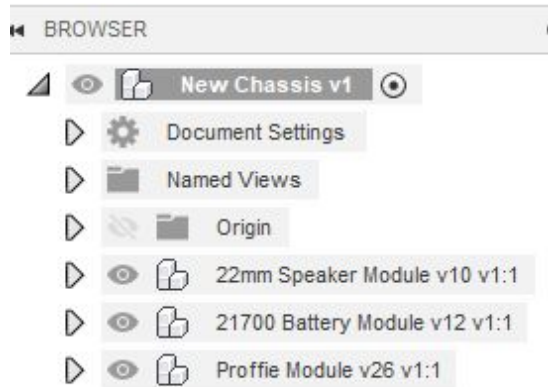
Adding extensions

Skip to slide 15 if your chassis is only made out of pre-modeled components and is only one part.

Insert the other necessary components into the design. Move the longest module to the base of the speaker using the draggable arrows and/or the point to point tool.

Do not press OK
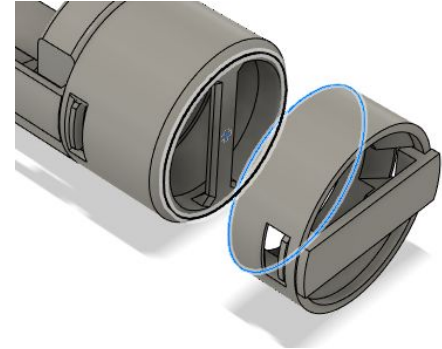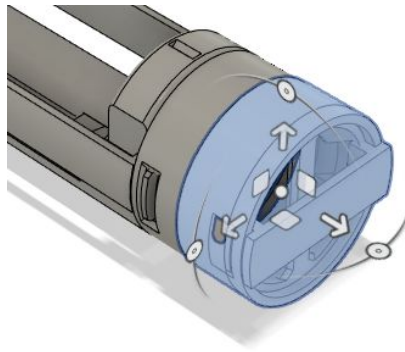
Click on the Translate tool, then the arrow that faces right. Type in the total length of your chassis as a negative number.
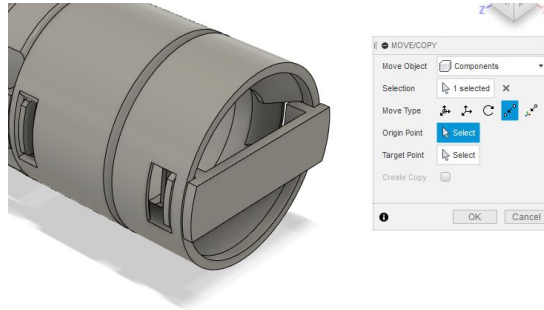
For example, this chassis will go in an 11in saber that has a 2in blade well. The total length is 9in, I type -9in into the highlighted box.

INCLUDE UNITS WHEN INPUTTING INCHES
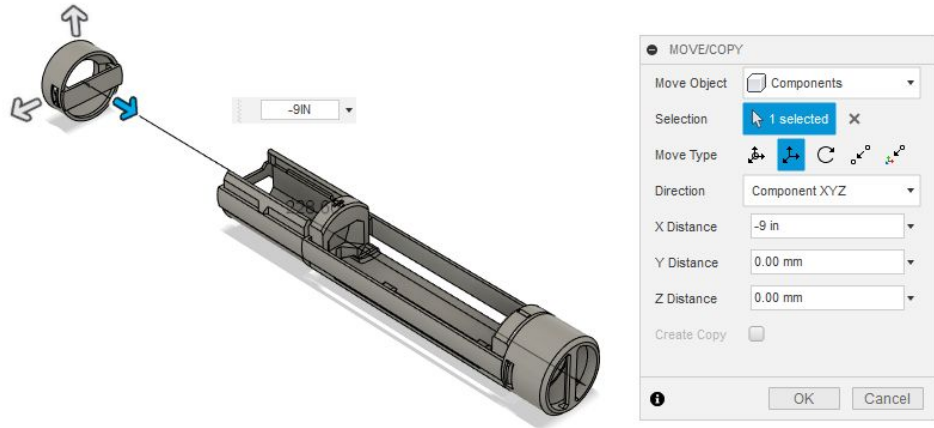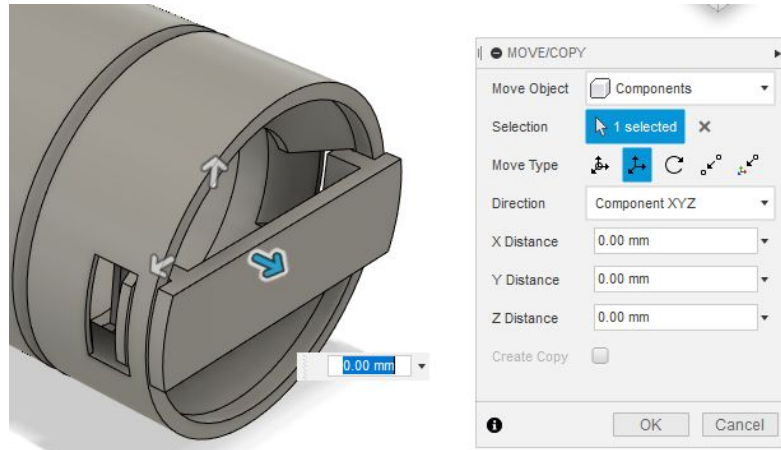
Break the link for the new module, then start a sketch on the back face using the Create Sketch tool under the Create tab.

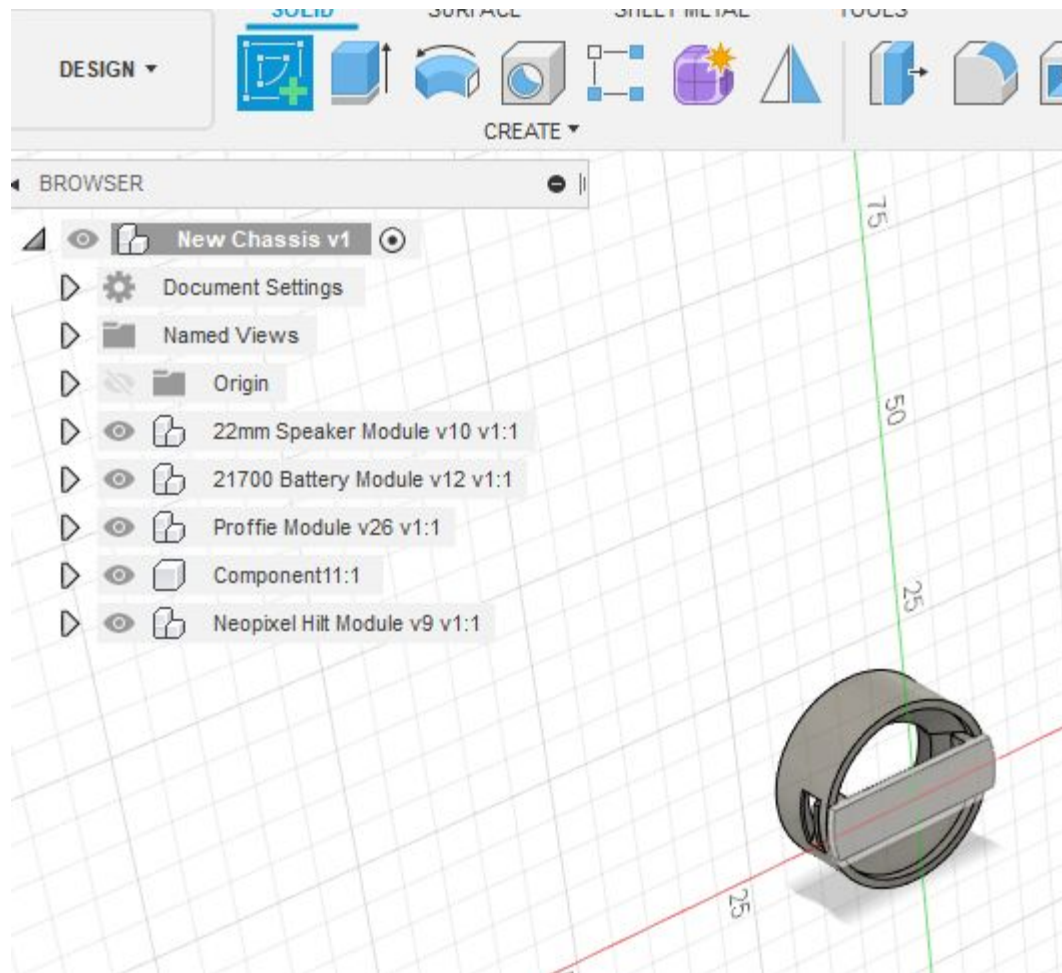Create two circles: 25.1mm, 22mm

Create a rectangle with the Center Rectangle tool that's 7.25mm tall. The center of the rectangle should be the center of the circles. The length of the rectangle should be longer than 25.1mm.

You can pan and orbit using the tools at the bottom.
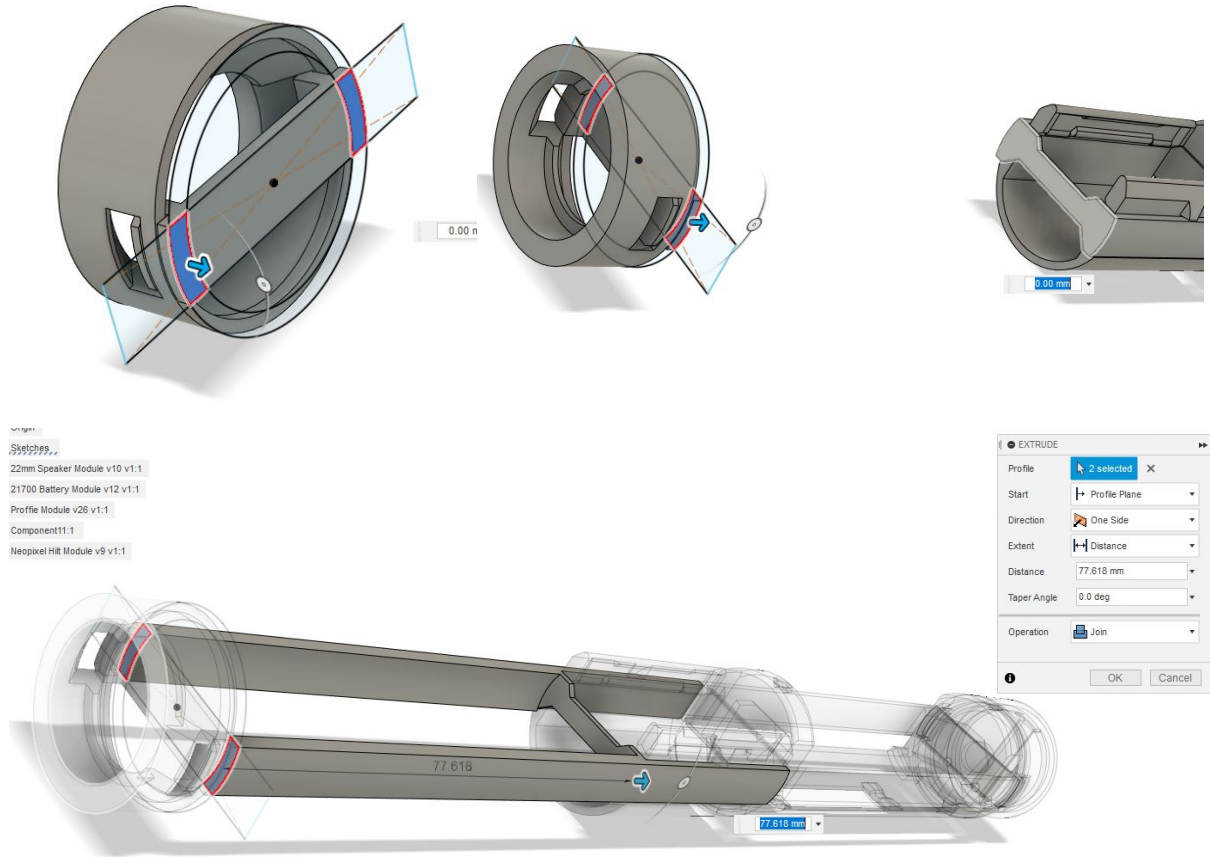
The sketch should look like this:

Finish the sketch using the green button in the top right of the screen.

Ø22.00

Ø25.10

7.25

Camera Tools
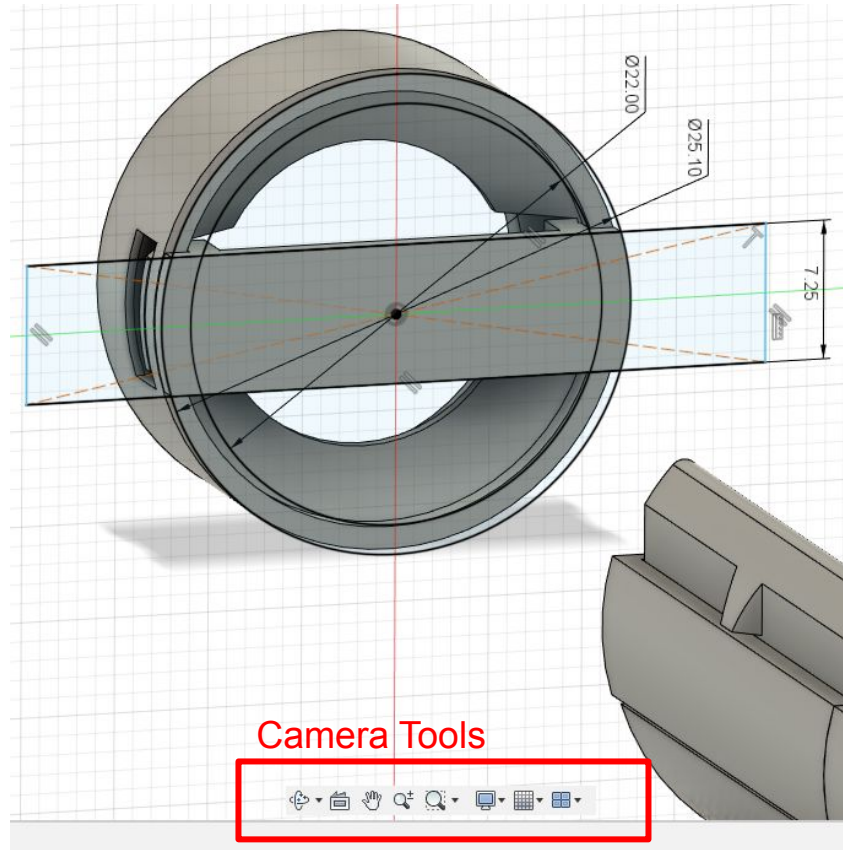
Click Extrude, next to the create
sketch button. Select the two profiles
shown inside your sketch. Then, click
on the nearest face of the rail module.

The Proffie cradle is the next nearest
part, so I click on the front face of the
rails for that module (highlighted white
in the picture).

Press OK

EXTRUDE		
Profile	2 selected ✕	
Start	⊢ Profile Plane	▼
Direction	One Side	▼
Extent	⊢⊣ Distance	▼
Distance	77.618 mm	▼
Taper Angle	0.0 deg	▼
Operation	Join	▼
ⓘ	OK Cancel	

Origin
Sketches
22mm Speaker Module v10 v1:1
21700 Battery Module v12 v1:1
Proffie Module v26 v1:1
Component11:1
Neopixel Hilt Module v9 v1:1

0.00 n

0.00 mm ▼

77.618

77.618 mm ▼

Use the Combine tool under the Modify tab to combine all the rails of each module together. This is done by clicking on all of them until the rails for every module is highlighted, then pressing OK.

Note: Speaker rails may be hard to click on. They're the little hooks on the side of the housing.

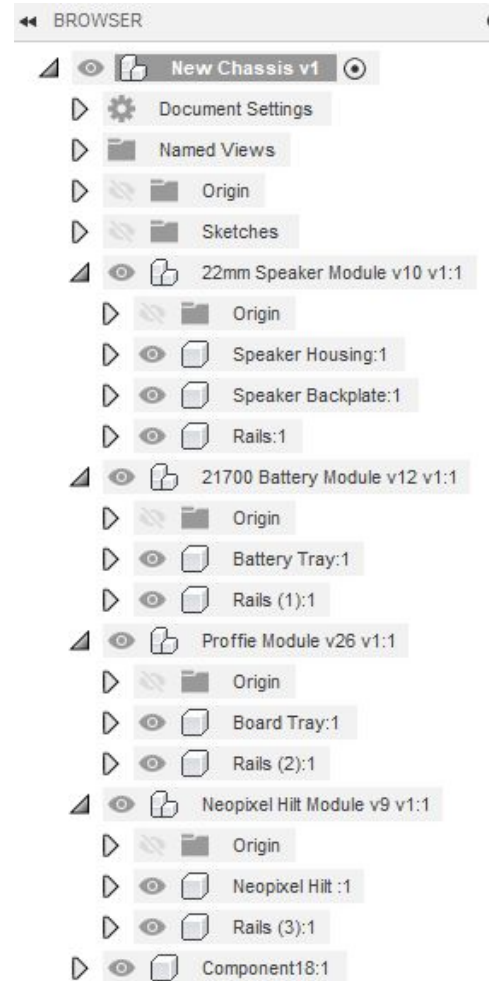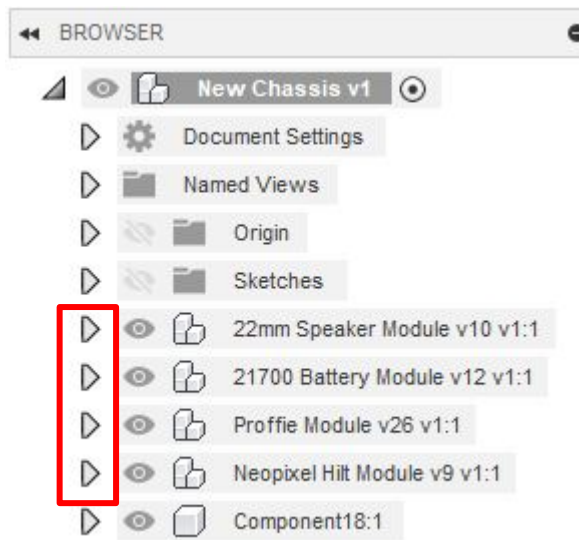Be sure to click on the New Component box
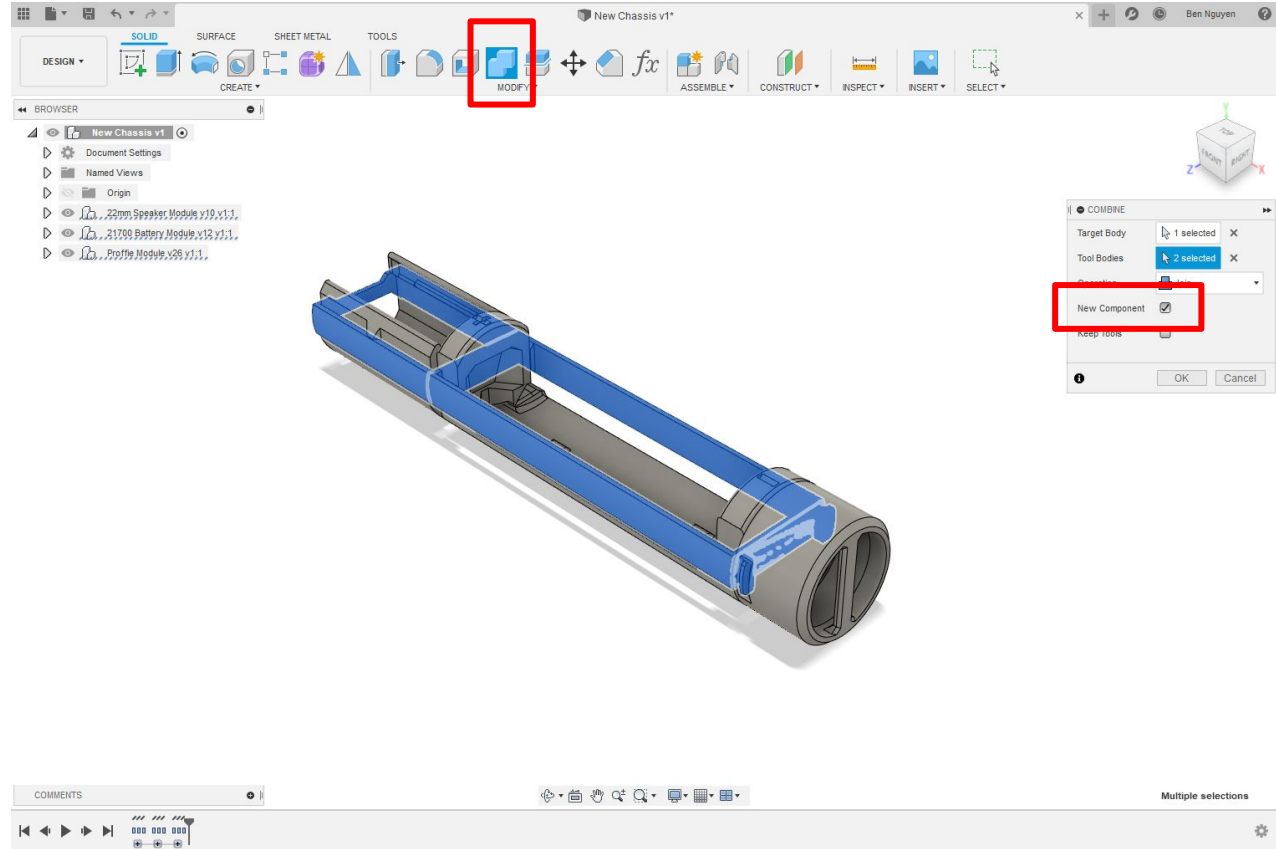
If you added an extension, this is what it might look like:
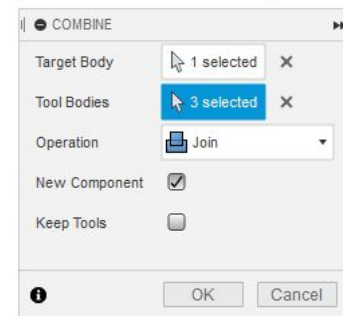
By now, your chassis should be complete and ready to export.

Go to the browser and click the arrows next to your components to show their drop down menus.

Each module has at least two components: a cradle or holder and a set of rails. Every part other than the rails should be exported as an stl.

For example, the speaker module has the housing, backplate, and rails. The housing and backplate should be exported as stl files.

This is done by right clicking on the name, selecting Save as STL, pressing okay on the right, then exporting to a known file location to be 3D printed later.
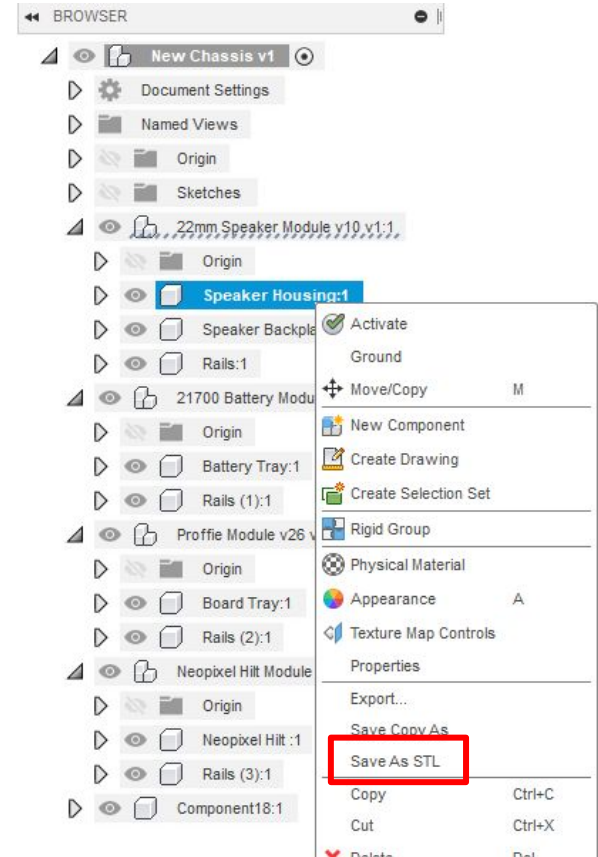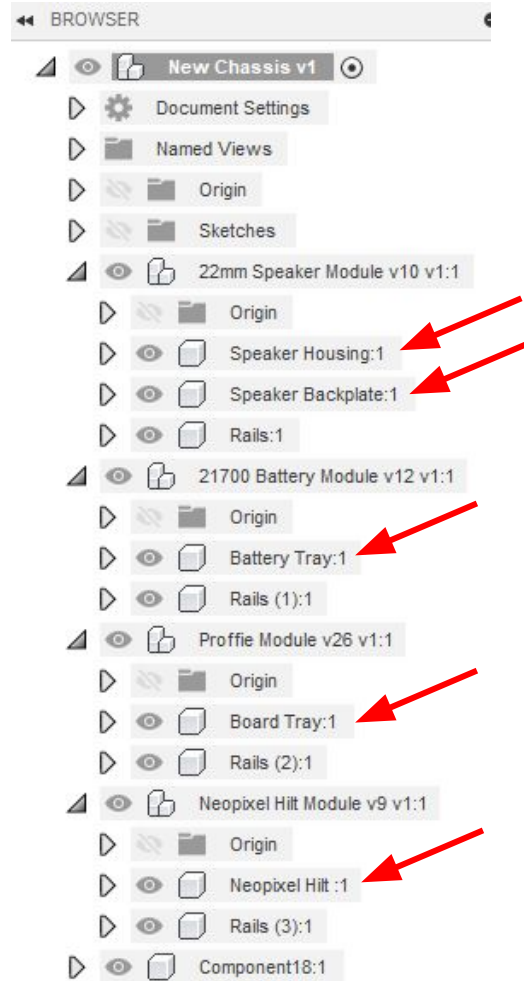
The last component is the combined rails. It should also be exported to an stl file for printing.

In total, I had 6 parts to print for this chassis with the extension.