

ULS AND AUTODESK® FUSION 360™

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WHAT THIS GUIDE IS ABOUT

This guide is designed to help outline the process of generating a model in Fusion 360 and exporting the required components for use with a Universal Laser System.

This is very handy in designing a complete model that may involve several manufacturing processes such as laser cutting and 3D printing.

Once you have finished your model, you are able to extract the required information to then run on your Universal Laser System.

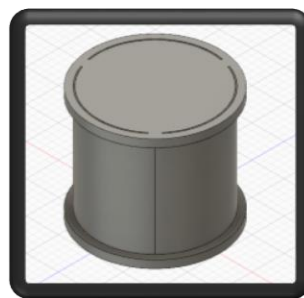
To make this process easier, available for purchase from LST Group is the Direct Import feature, for more details on this or if you require further help with the information contained in this guide, please contact the LST Group support department at support@lstgroup.com.au

ITEMS REQUIRED

- Computer
- Fusion 360
- Design Software

CREATE YOUR MODEL

The first step is for you to create your entire model of your finished product. The example we will follow is shown below, where we have two manufacturing processes to be completed.

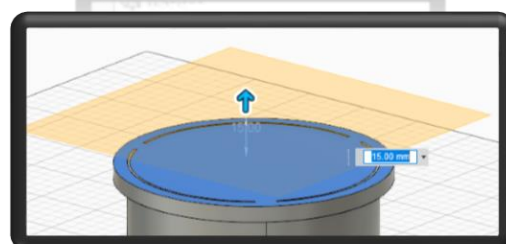
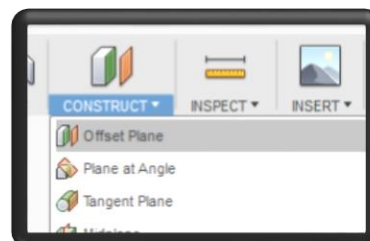


The side panels are to be 3D printed, for which you can follow the normal printing procedures for your brand of 3D printer. The top and base are to be laser cut. As you can see they are not a 2D representation of what we require to enable use in a Universal Laser.

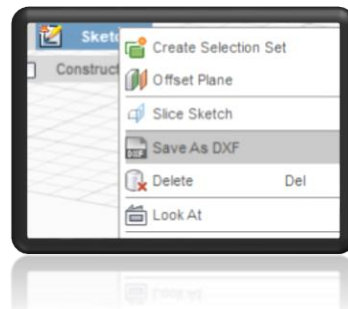
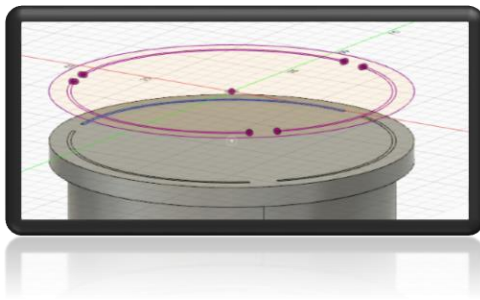
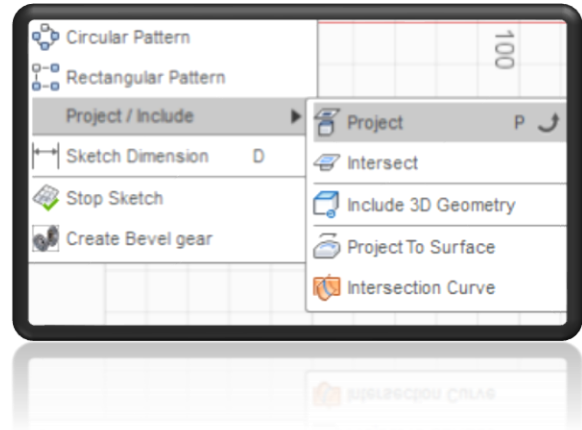
GENERATING A DXF

To be able to laser cut the lid and base we need the 2D representation of them. Fusion 360 can export DXF's but first we need to generate a 2D sketch of the shape.

- 1- Determine the face you would like to laser cut
- 2- Create a new offset plane by clicking Construct then offset plane and finally choosing the face you would like to laser cut.



- 3- Confirm the offset plane, the distance of offset doesn't matter.
- 4- Now we need to Project all edge to that plane as a sketch. Click Create Sketch and choose our newly created off set plane.
- 5- Click the dropdown box underneath and choose Project/Include and finally Project.
- 6- Choose the same face as chosen in steps 1 and 2, then confirm your selection.
- 7- A new sketch has been created with your chosen face.
- 8- Right click on the sketch that was just created and choose Save As DXF.



DIRECT IMPORT

Utilising the Direct Import feature of the Universal Control Panel, you can now import the DXF you just created directly into the software ready to be run on your Universal Laser Machine. For further information, please consult our guide that explains the use of the Direct Import feature in the UCP.

GRAPHICS PROGRAM

If you have not purchased the Direct Import feature, you will need to import the DXF file into a graphics program and follow the standard procedure for printing to the UCP.

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