



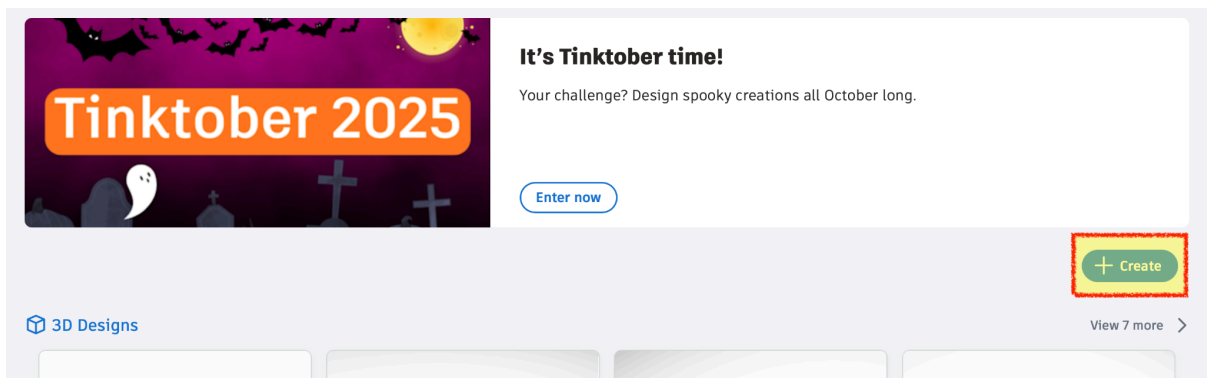
MakersSoc Halloween CAD Modelling

Charlie Kingsland

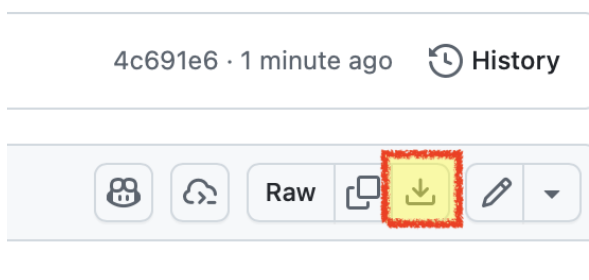
Using CAD software to digitally 'carve' a pumpkin. The pumpkin model has been sourced from [Printables - Tutorial Pumpkin for Fusion 360](#).

Tinkercad

1. Sign into [Tinkercad](#)
2. Create a new 3D design project

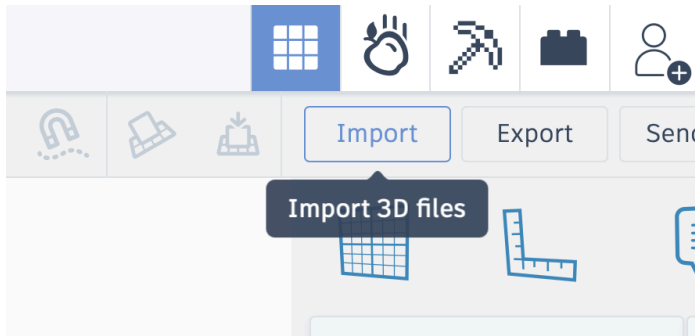


3. Download *Pumpkin_tinkercad.stl* from [GitHub](#)





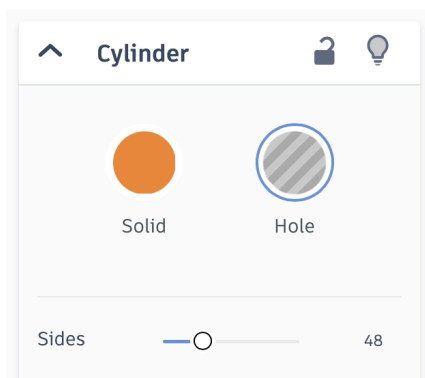
4. In the top-right, press Import and select the downloaded stl (leave all settings as they are)



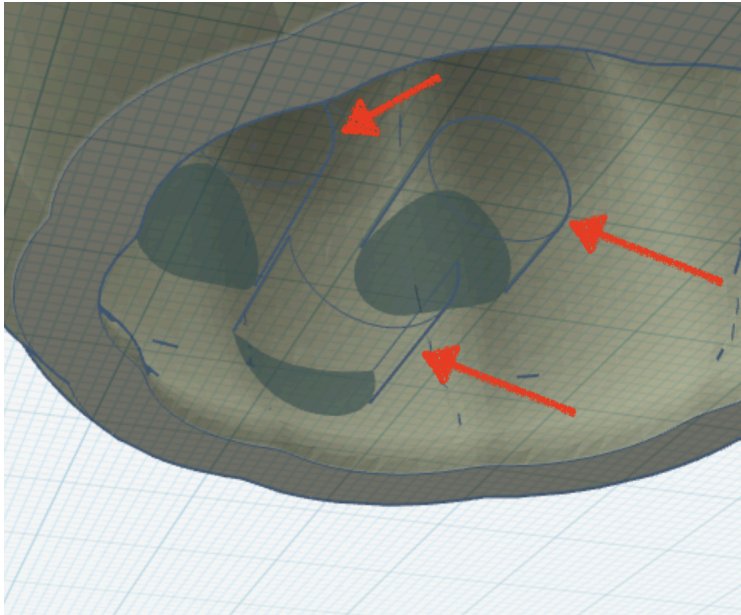
5. Add in all of your shapes that you would like to make the design



6. Select all of your added in shapes, and in the panel in the top-right, change it from 'Solid' to 'Hole'



7. Rotate the view to underneath, and make sure you can see all of the extruded shapes inside the pumpkin (this means they will be fully extruded and 'carve' the pumpkin)

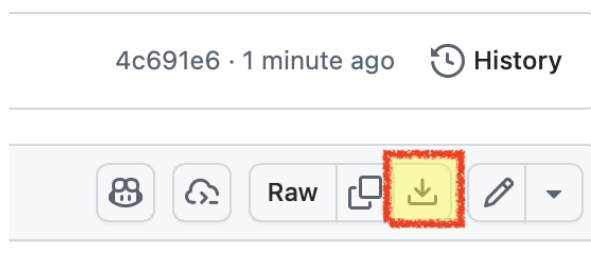


8. Go to Export > STL, Ta-da! You have a pumpkin, export it and email it to Royal Holloway Makers' Society (makers@royalholloway.su) - we will let you know what colours we have in the lab

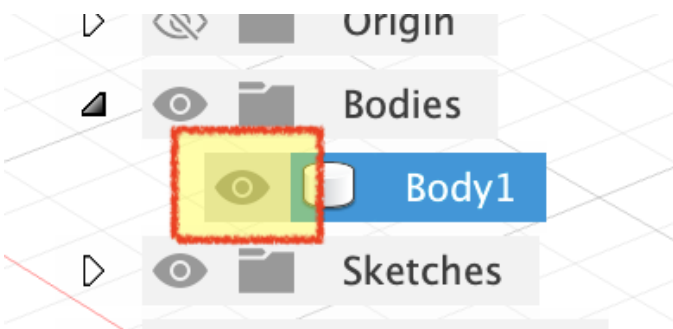
Fusion

1. Open and login to Fusion with your student Autodesk account (refer back to the [Fusion introduction workshop](#) if you need to create an account)

Download the *Pumpkin_fusion.f3d* from [GitHub](#)

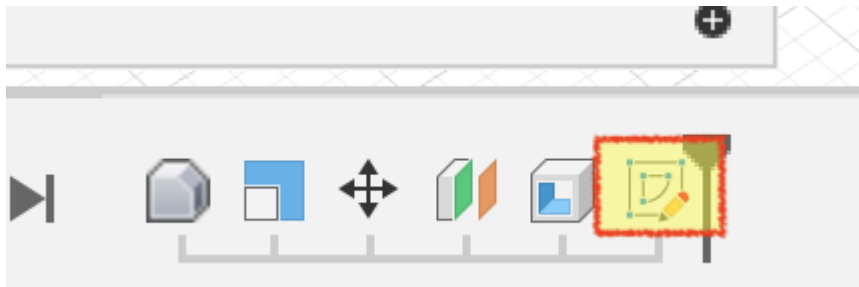


2. Open the downloaded file in Fusion
3. Once opened, hide the pumpkin model by clicking on the eye symbol next to 'Body1'

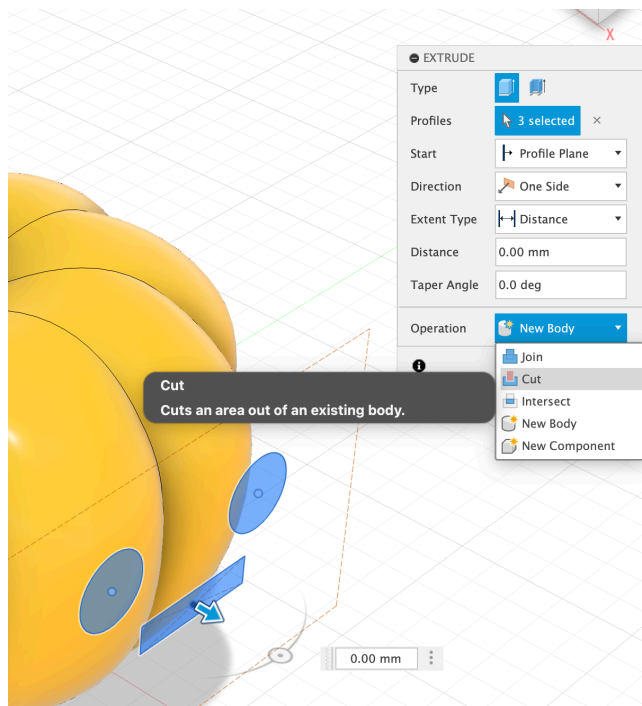




4. To add your design, double click on the sketch in the timeline along the bottom



5. Use the skills you learnt in the Fusion introduction workshop to sketch your design (Ask a committee member or refer back to the lab sheet). Ensure that your design stays within the construction rectangle that is already in the sketch for you
6. When you have finished your sketch, unhide the pumpkin model
7. Go to Create > Extrude, and select your sketch
8. In the panel that has appeared, change 'Operation' to 'Cut'



9. Set 'Distance' to -20mm
10. Ta-da! You have a pumpkin, export it and email it to Royal Holloway Makers' Society (makers@royalholloway.su) - we will let you know what colours we have in the lab