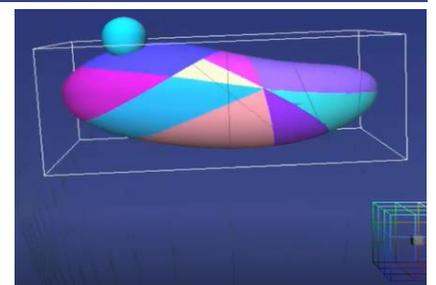
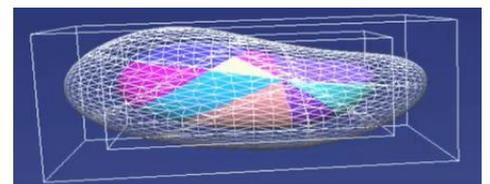
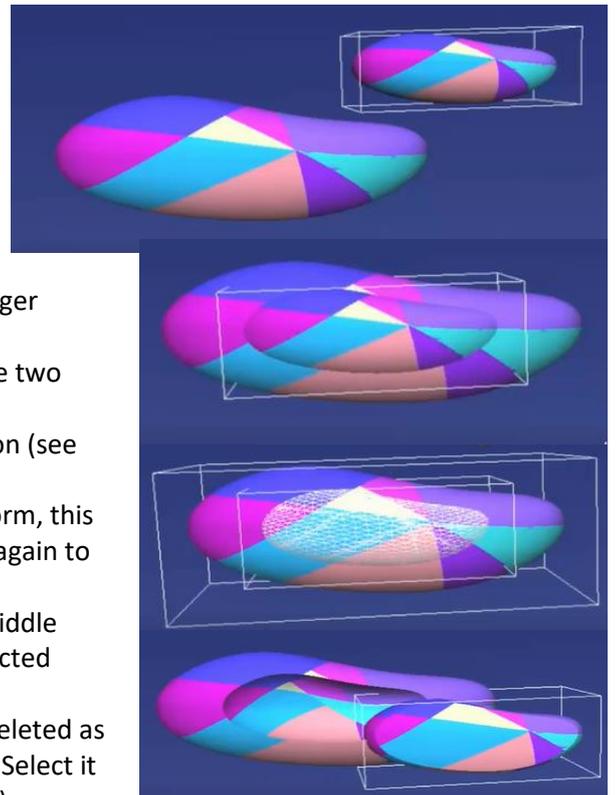


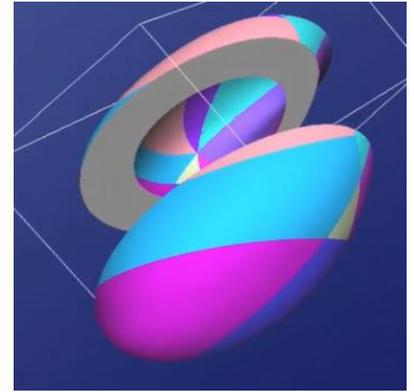
Anarkik3d Design V3.1. Tutorial 6

Boolean subtraction, slice, scale, play, deform, CTRL+F. (Goes with Video Tutorial6)

1. Open the saved object created in Tutorial4 (sliced coloured object) or create an object.
2. Zoom in using Falcon right button and pulling grasp towards you – like pulling the object closer!
3. Rotate world (Falcon right button and moving grasp) to see object shape
4. Select the object by touching it and clicking the Falcon back button.
5. [If you want to re-size the object select scale (or use 'Q'). Hold down centre button on Falcon handle/grasp and push/pull to uniformly scale object. Approx. size given in text on upper right corner of working space]
6. Copy object (copy on menu or use Ctrl+C keys)
7. Paste the object near the original object. It will paste where the cursor is positioned
8. Select this new form, select scale on the menu or use 'Q', and scale the object down smaller
9. You can play and experiment by rotating it, scaling it, non-uniformly too and/or deform it if you want as there is an undo arrow in the menu.
10. Move the form to intersect and embed into the main larger object.
11. To Boolean subtract, hold down 'Shift' key and select the two objects
12. In Menu, click on the Boolean bar to activate this function (see lower left text bar which shows active function)
13. Press '1' key. Whichever selected object flashes in wireform, this one will be subtracted. '1' key can be pressed again and again to toggle between the two objects.
14. In Menu, click on the Boolean subtraction icon (in the middle under Boolean button) or use 'X' key to subtract the selected object from the other
15. The intersection, the overlap area is not automatically deleted as it can be surprisingly beautiful and interesting as a form. Select it to move it aside (or delete it, or export it to your folders.)
16. [If the result is not quite right use 'undo' button (or Ctrl+'Z') to get back to the unsubtracted state and re-form etc.]
17. [Use save as and a different name for these new models ie Boolean_subtracted_sliced_oval]
18. For another way to use these two shapes, use undo to get back to a single object
19. Copy the object and paste it using **Ctrl + F**: this key combination pastes the object in the precise position it was copied from.
20. Select one of the objects and scale it down smaller. Use the dimensions text for gauging the size.
21. Select Boolean subtraction. To get both objects selected, use Tab key to select inner model, then hold down the shift key and click Falcon back button when cursor is red to select outer model
22. Press '1' key. If it is the outer model in wireform press '1' key again. The internal object when selected cannot be seen in wireform.
23. Click on Boolean subtraction icon, or use 'X' key, to subtract the selected object from the other
24. The 'intersection' part can be more easily selected using the 'Tab' key to extract it and move it from inside the main form.
25. Select Slice from the menu and select the object
26. Position the cursor where you want the slice plane to intersect the object, move the grasp to angle it or use 'x', 'y' or 'z' keys to control rotation and release the Falcon centre button when happy

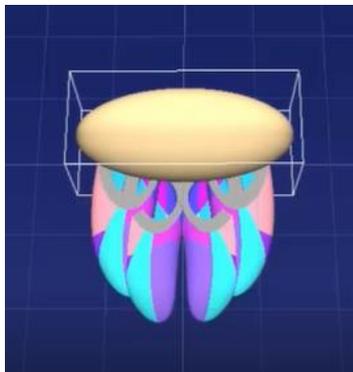


27. Select one of the sliced sections and move it
28. Rotate world (right button on Falcon) to see inside the hollow created
29. The colours and pattern of the subtracted form are 'left' on the surfaces of the hollow
30. The colour of the sliced planes is the colour of the cube selector in the colour box
31. [There are always the undo/redo arrows to play with and the 'save as' function to keep options open.]
32. 'Save as' will save all the objects in the working space. To save different forms separately, use the 'Export' function.
33. Select the object to save separately, click on 'Export' and in the open window, give it a file name and click OK



Method to Boolean subtract one shape from many without Using Boolean Unioning the many together as Boolean cannot be un-booleaned

34. Select a form (This is the sliced form, flattened using scale + z).
35. Copy and mirror object to create a group



36. Create the object (A) to be Boolean subtracted from the group (B, C, D & E) and position it (Grid can be handy for precision)
37. Rotate world to make sure (A) is positioned as wanted.
38. Select (A), copy it, then select (B).
39. Toggle 1 key to select (A) in wire form and Boolean subtract. Delete intersection.
40. Use Ctrl+F to paste (A) in original position, select it and select (C).
41. Repeat steps 39 and 40 with (D) & (E) to complete subtractions..



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