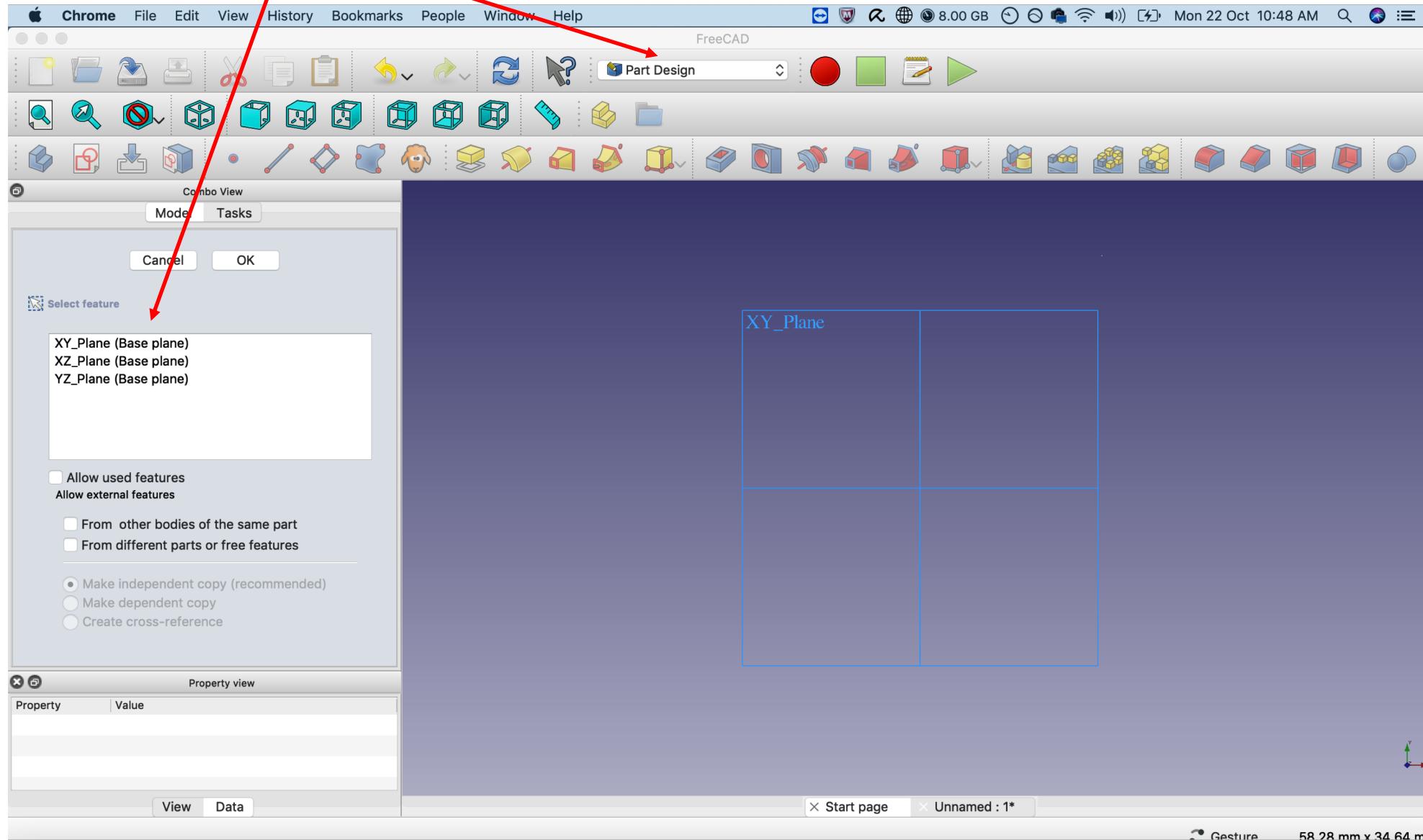


# Engineering Drawing- FreeCad – Part Design

Step 1. Select Part design from dropdown menu, then click “new document”

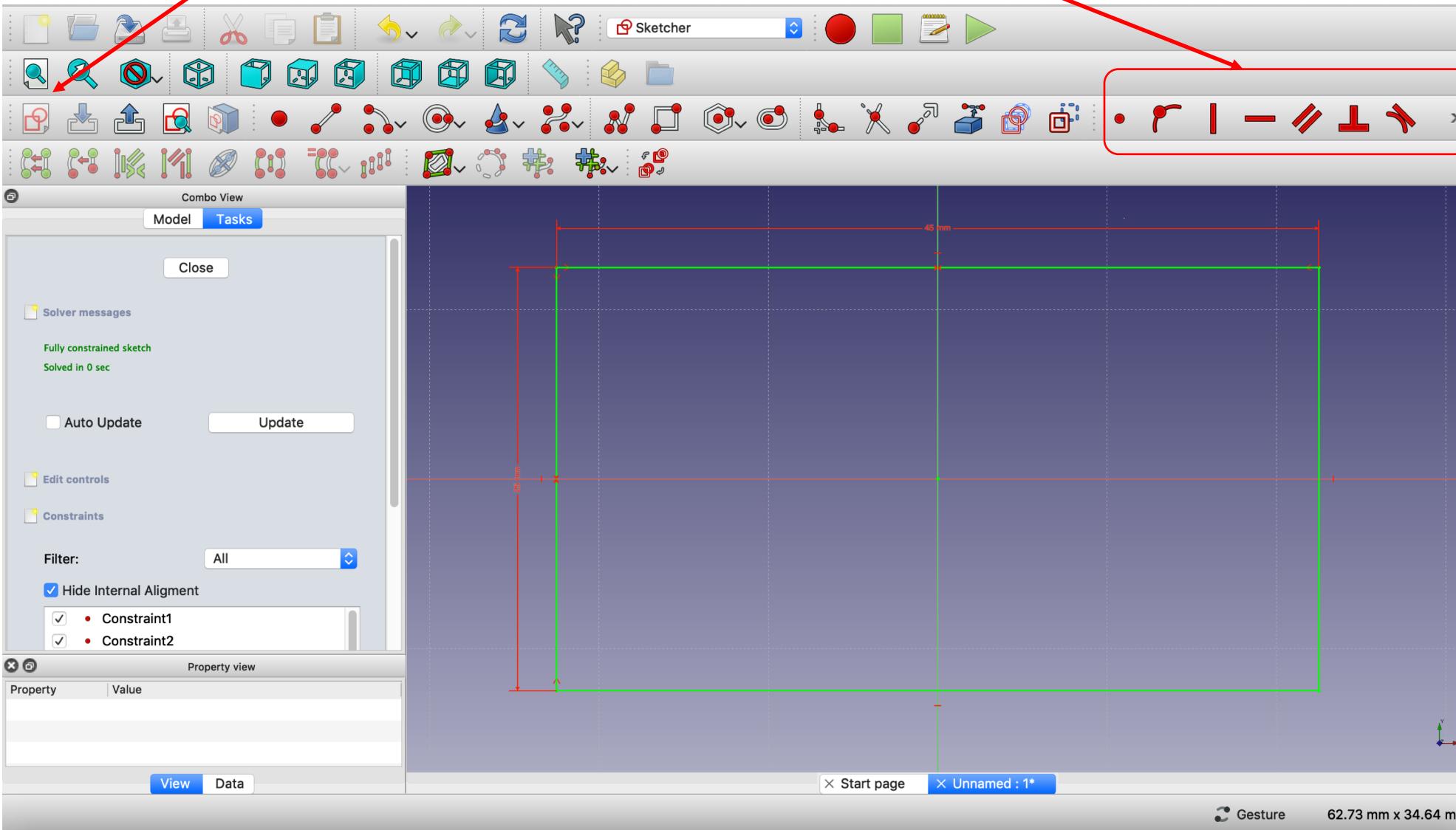
Step 2: Select the Plane and then click “ok”



# Engineering Drawing- FreeCad – Part Design

Step 3: Click “Sketcher” and draw the 2D image

Step 4: Make the sketcher fully-constrained by using “constrain options” and then click “close”

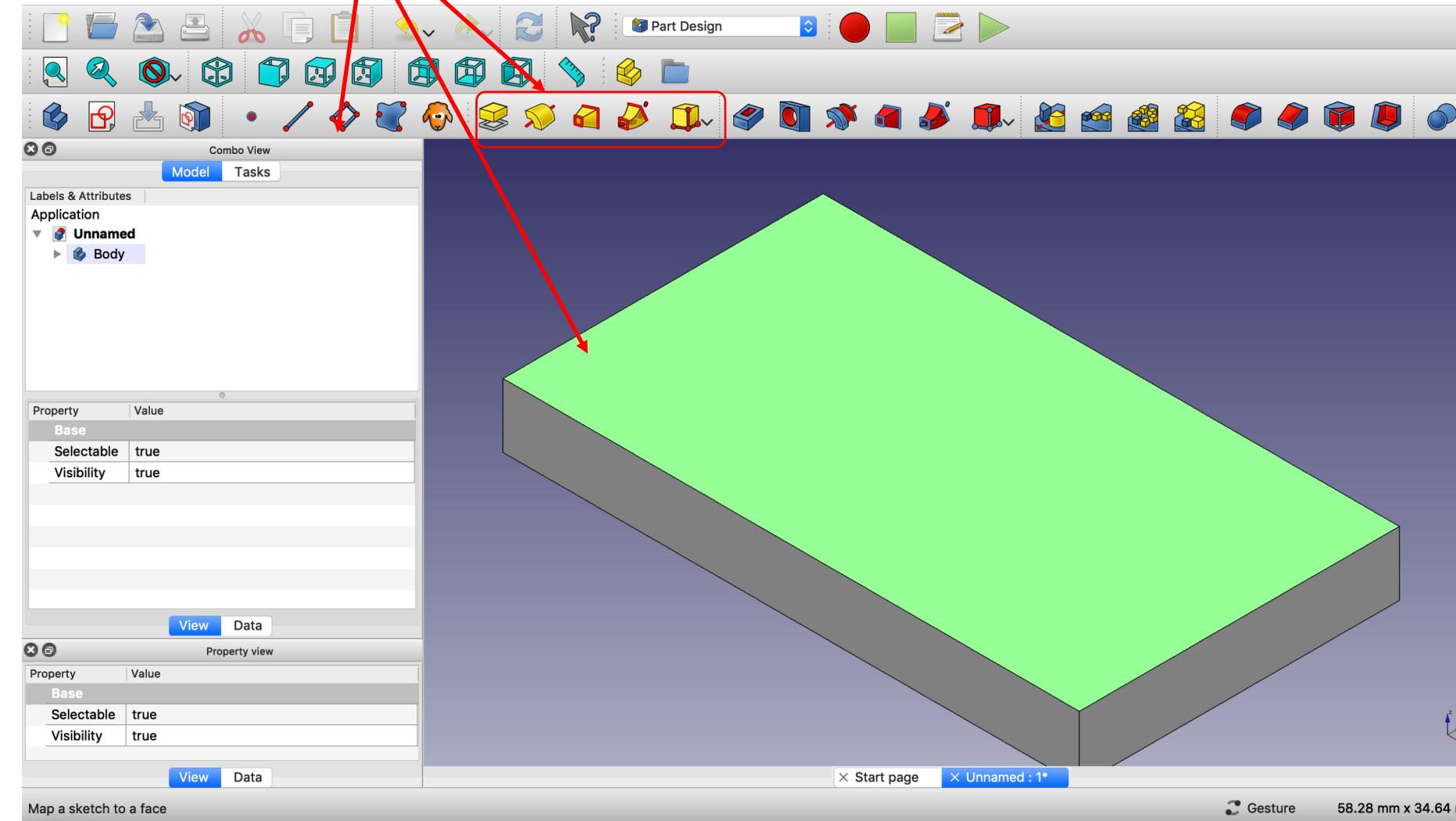


# Engineering Drawing- FreeCad – Part Design

Step 5: use “pad” option to convert 2D image to 3D image

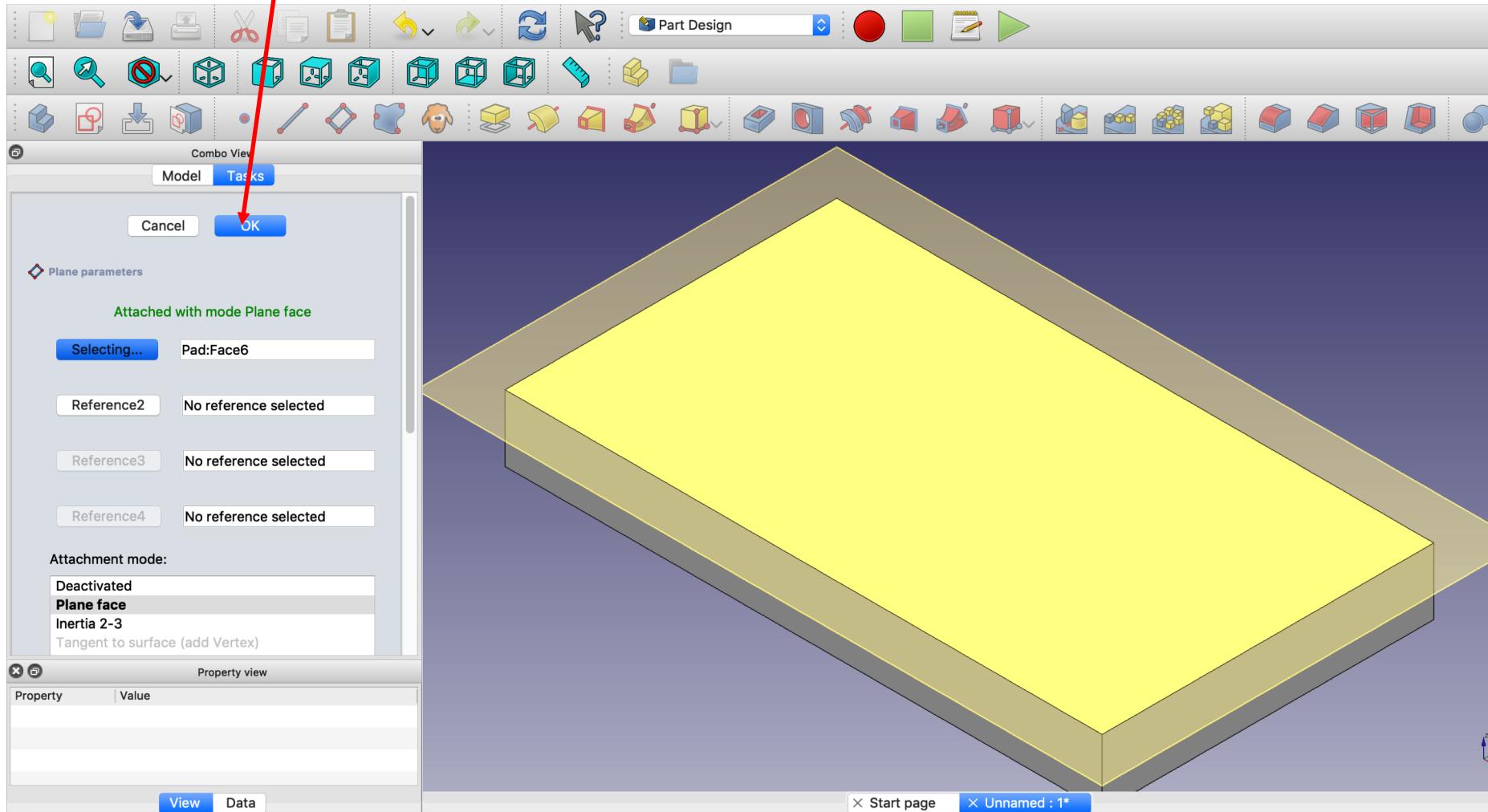
Step 6. Select the plane

Step 7: Click “datum plane”



# Engineering Drawing- FreeCad – Part Design

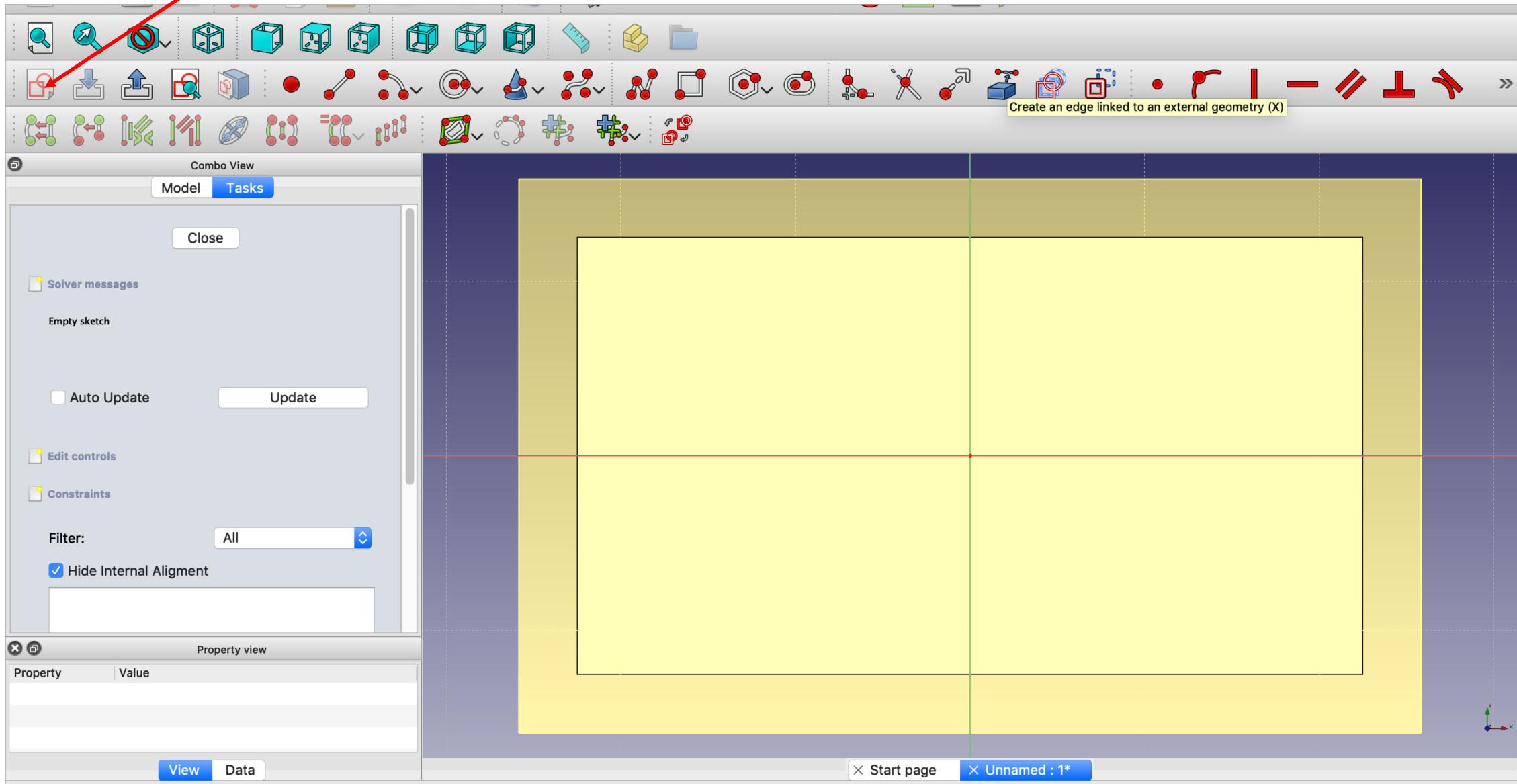
Step 8. Click “ok”



# Engineering Drawing- FreeCad – Part Design

Step 9: Select the datum plane then

Step 10: Click “sketcher” to create a new sketcher on the selected datum plane

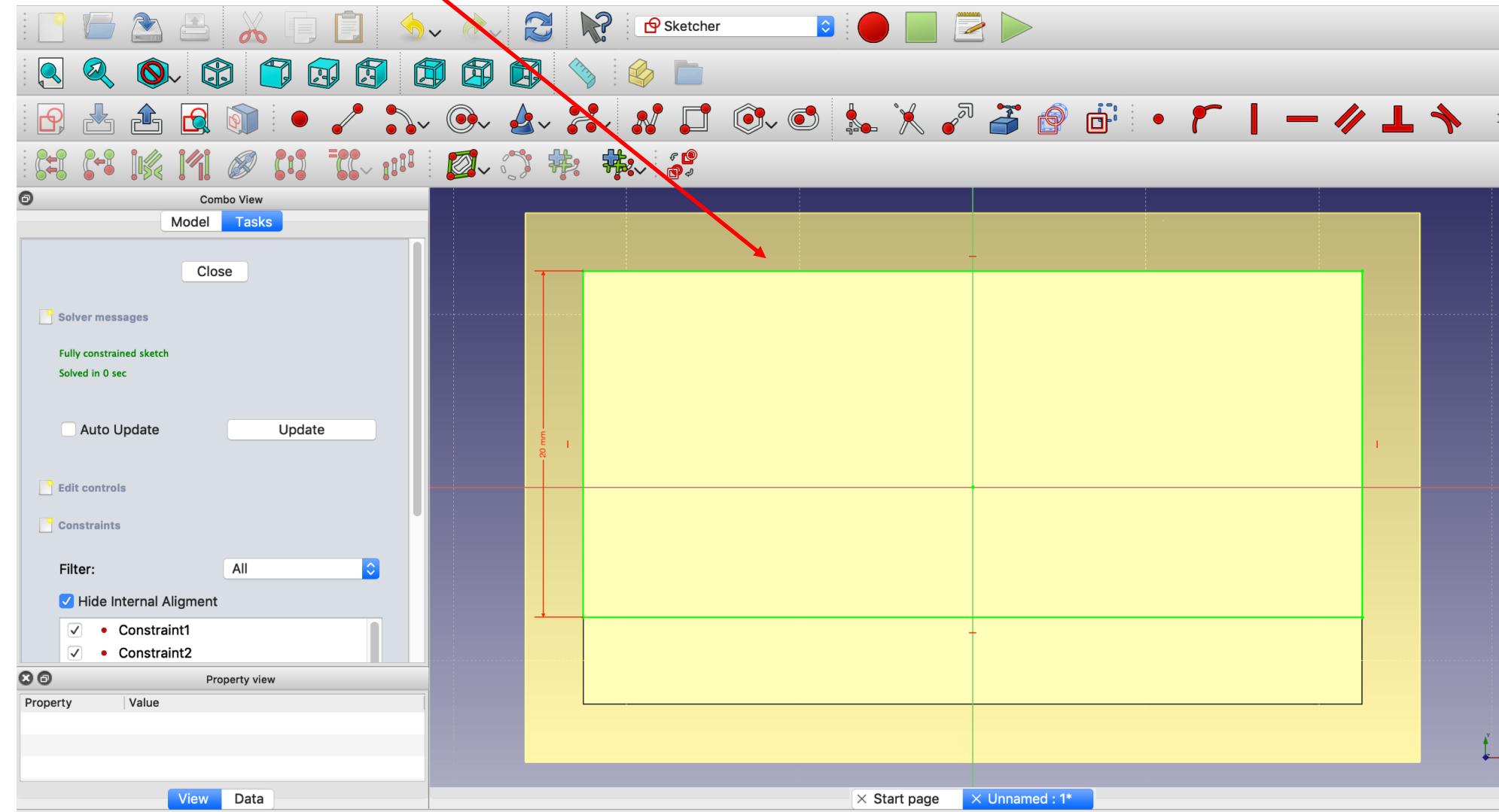


# Engineering Drawing- FreeCad – Part Design

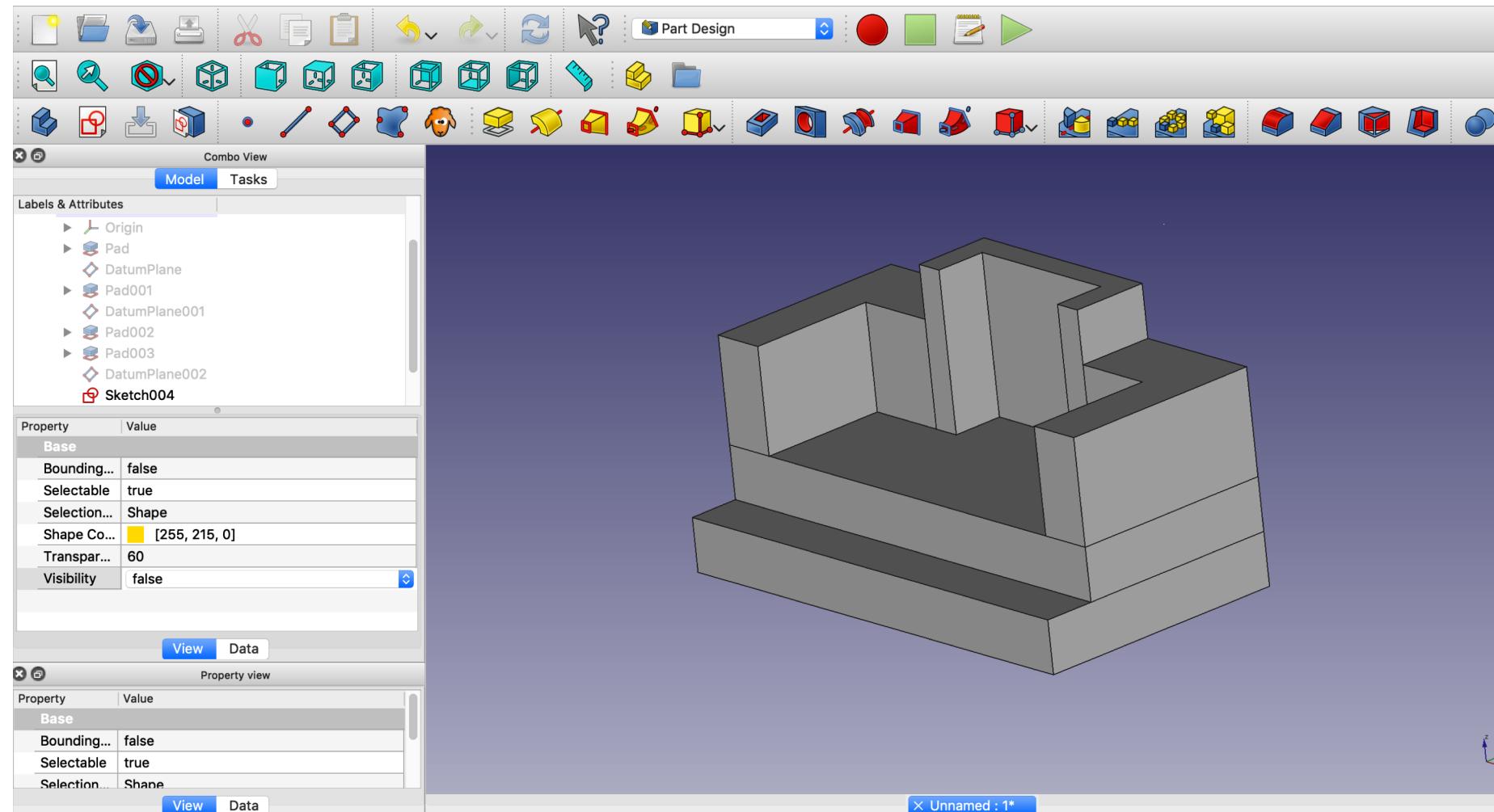
Step 11. Draw the 2D image and make it fully constrained

Step 12: Click “ok”. After that use “pad” options to make it 3D image

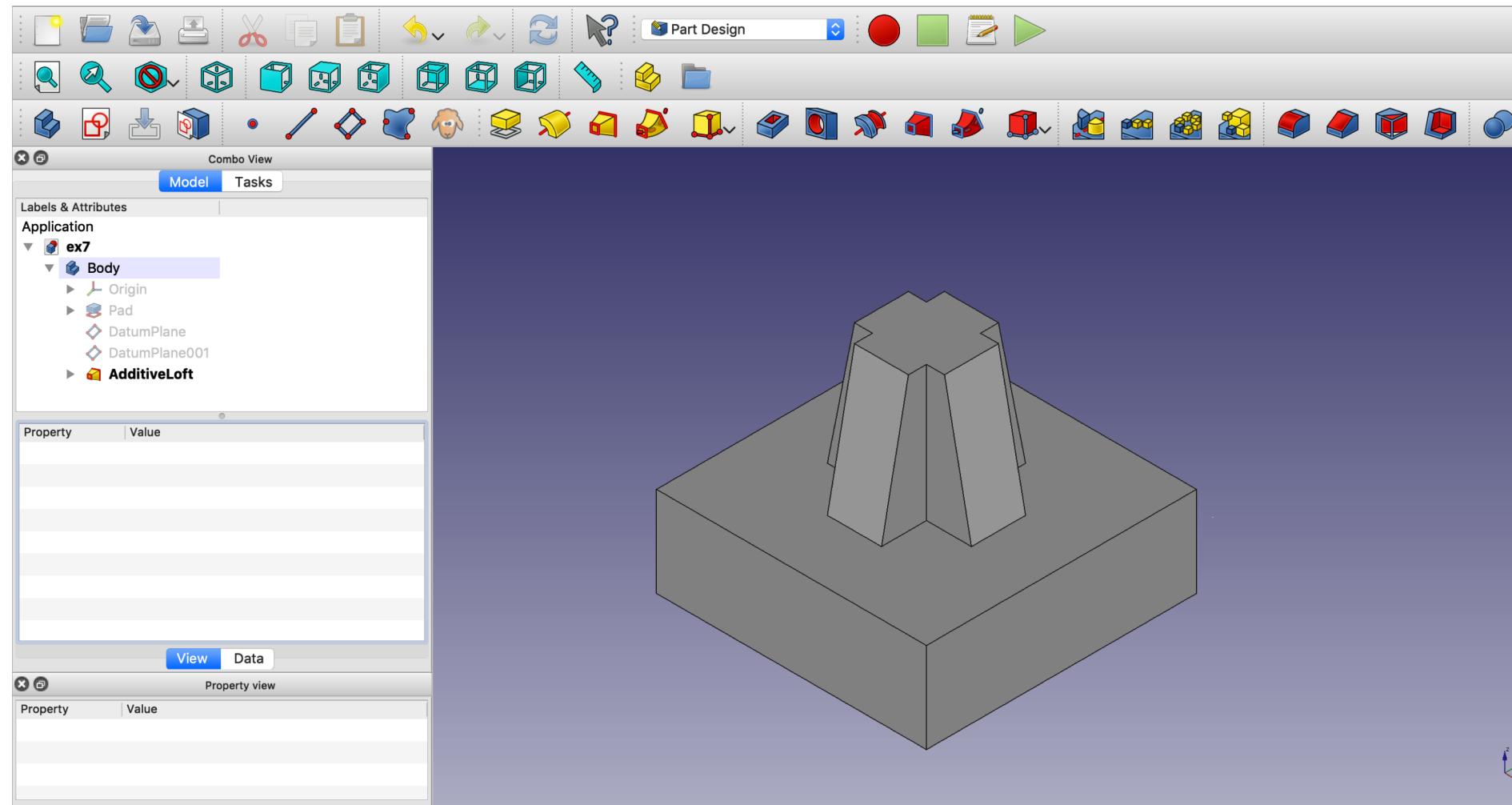
Step 13: repeat the above mentioned procedure to finish the 3D objective



# Engineering Drawing- FreeCad – Part Design

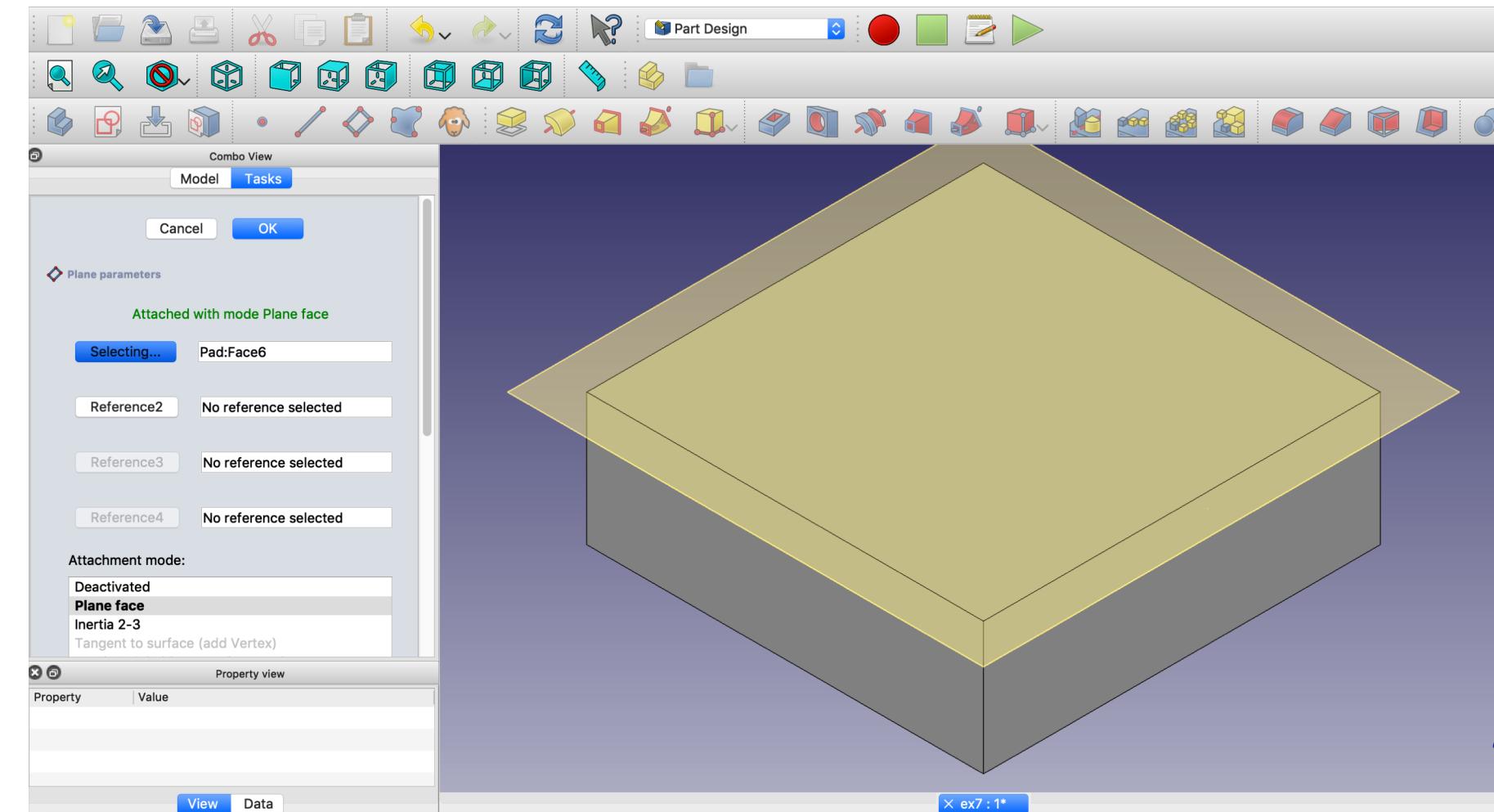


# Engineering Drawing- FreeCad – Part Design- connecting two planes



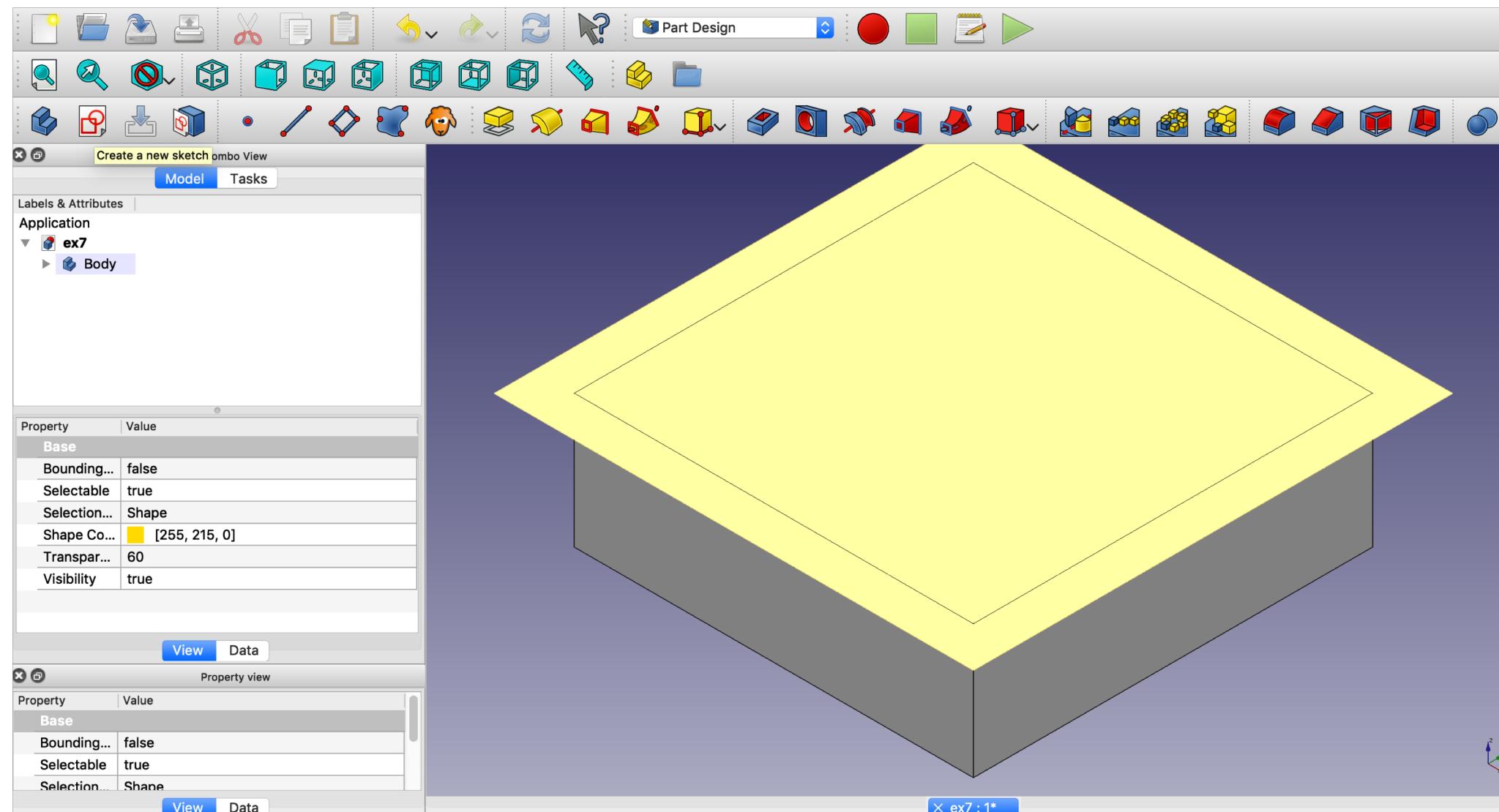
# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 1: Select a datum plane



# Engineering Drawing- FreeCad – Part Design- connecting two planes

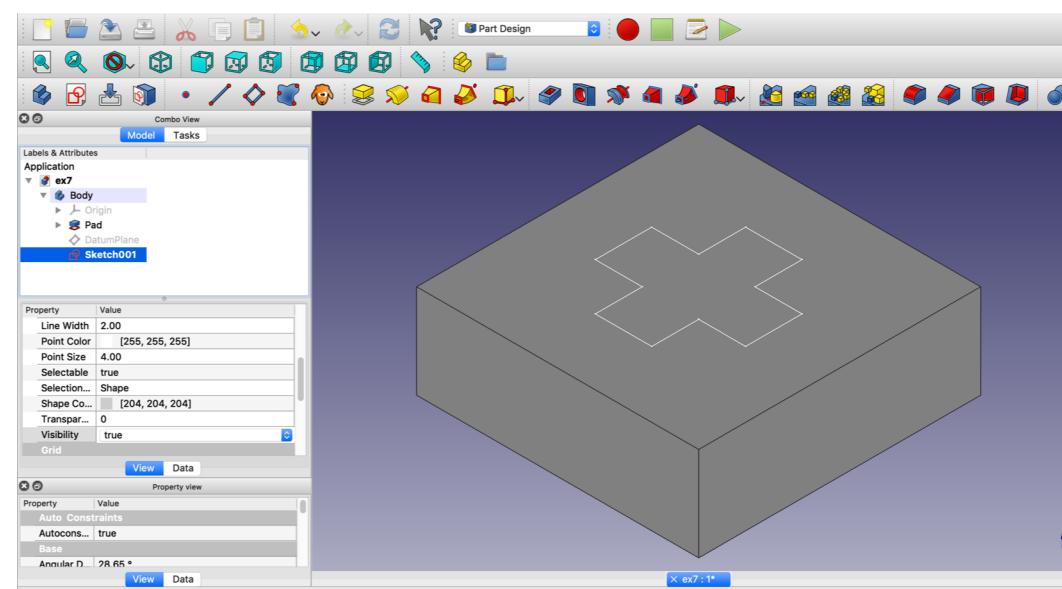
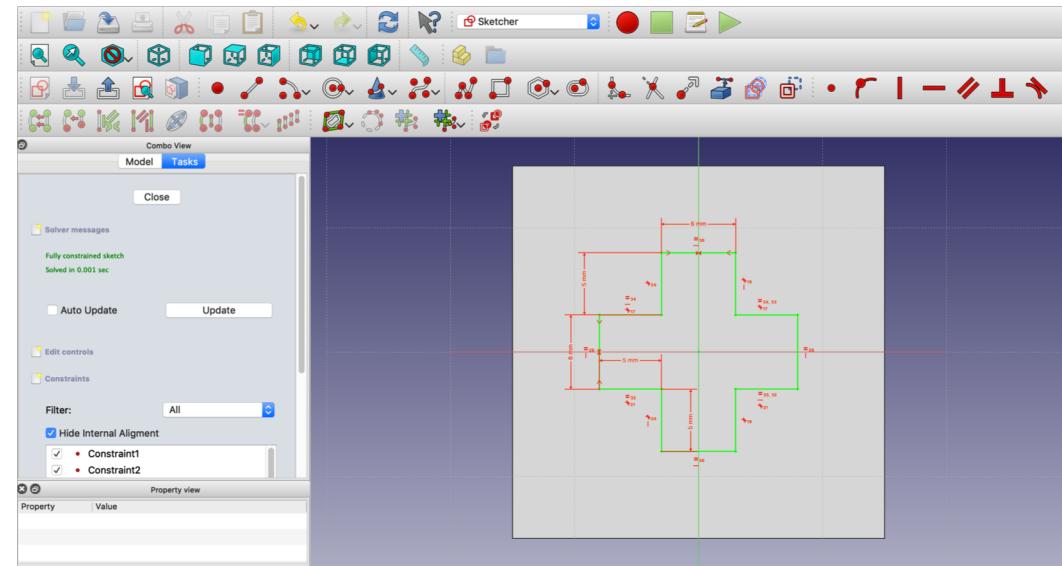
Step 2: Create a new sketch on the selected datum plane



# Engineering Drawing- FreeCad – Part Design- connecting two planes

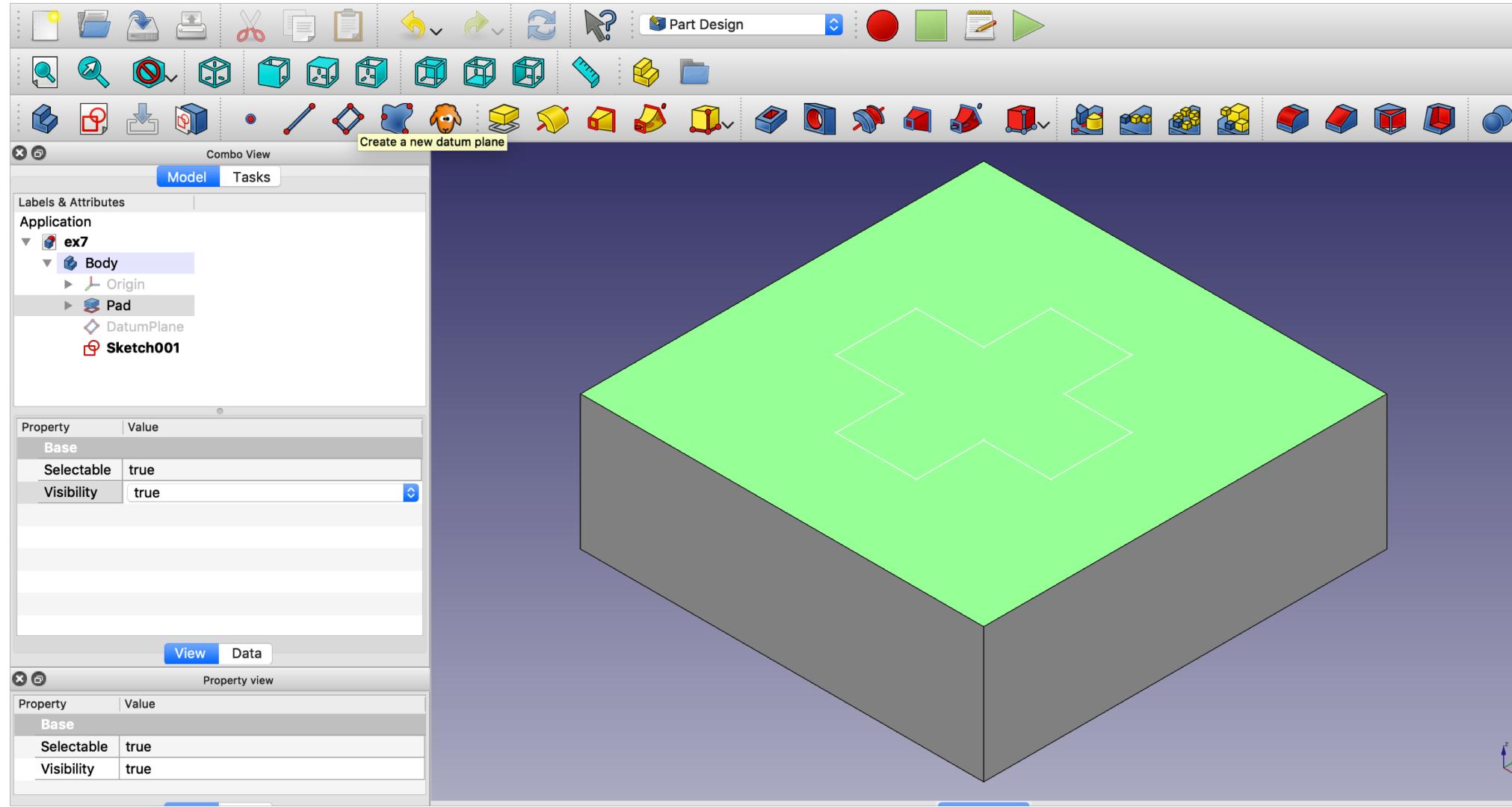
Step 3: Draw the 2D diagram and make it fully constrained

Step 4: click “close”



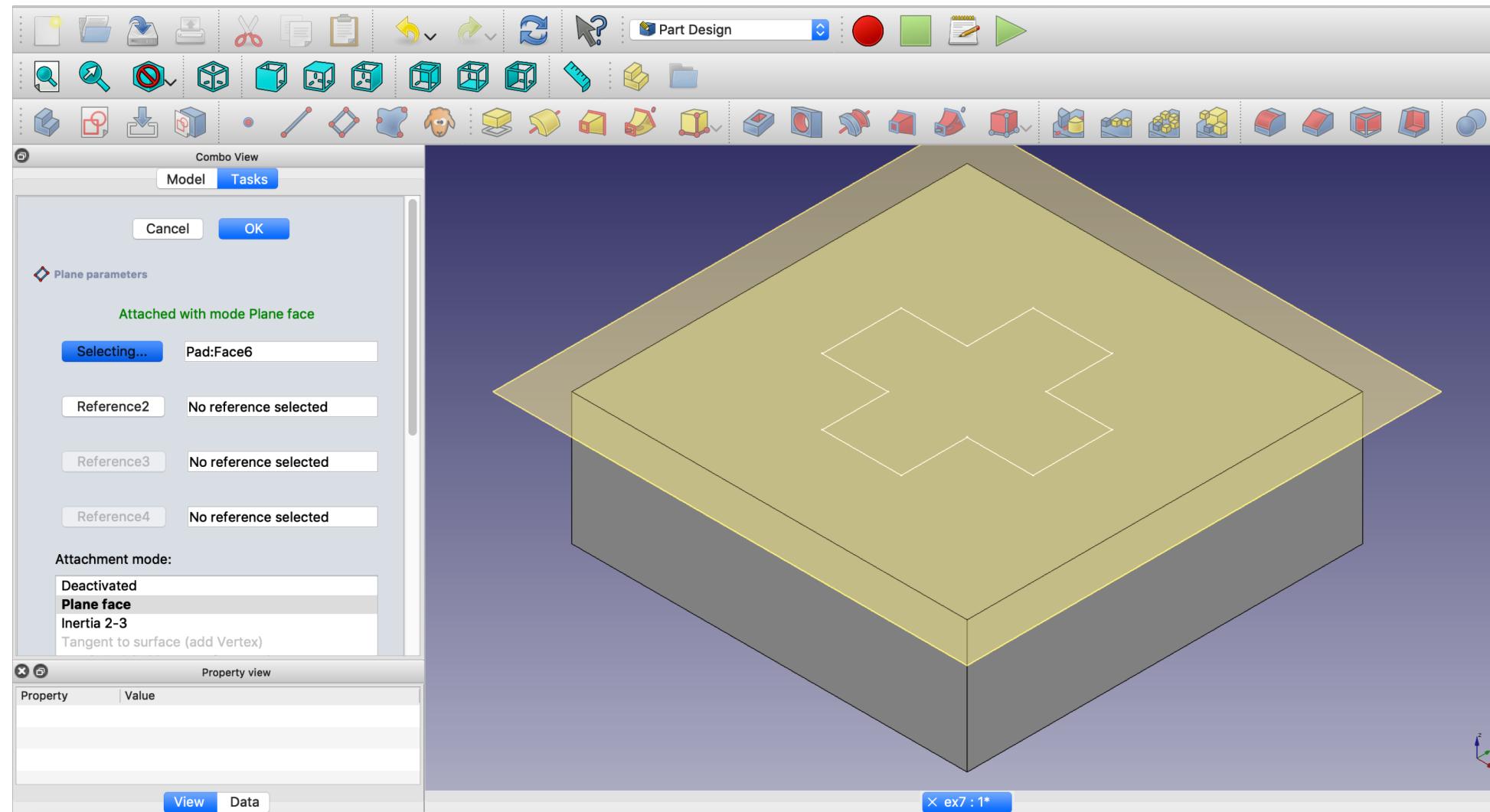
# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 5: Select the plane and create a new datum plane



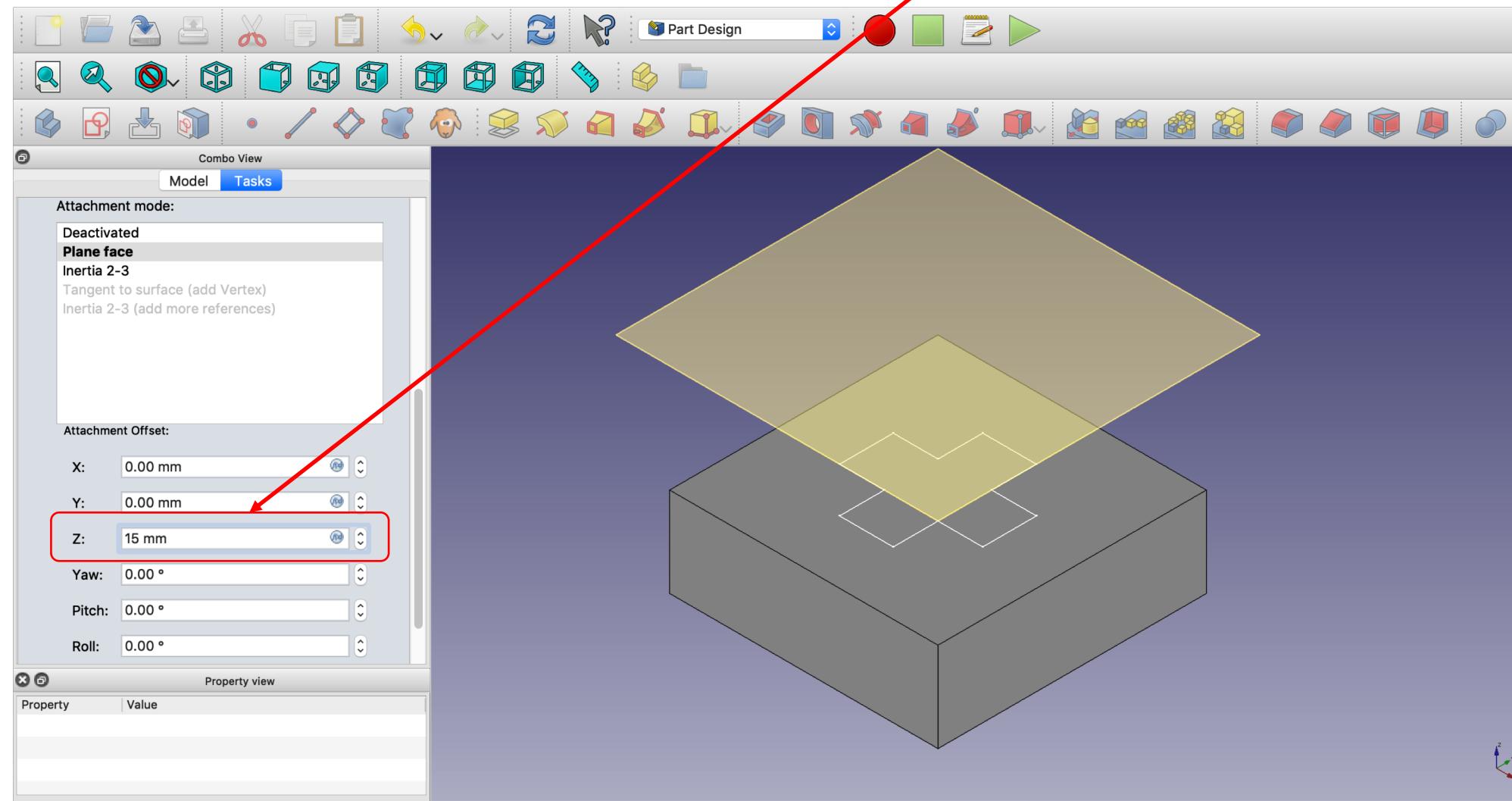
# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 6: Select the datum plane



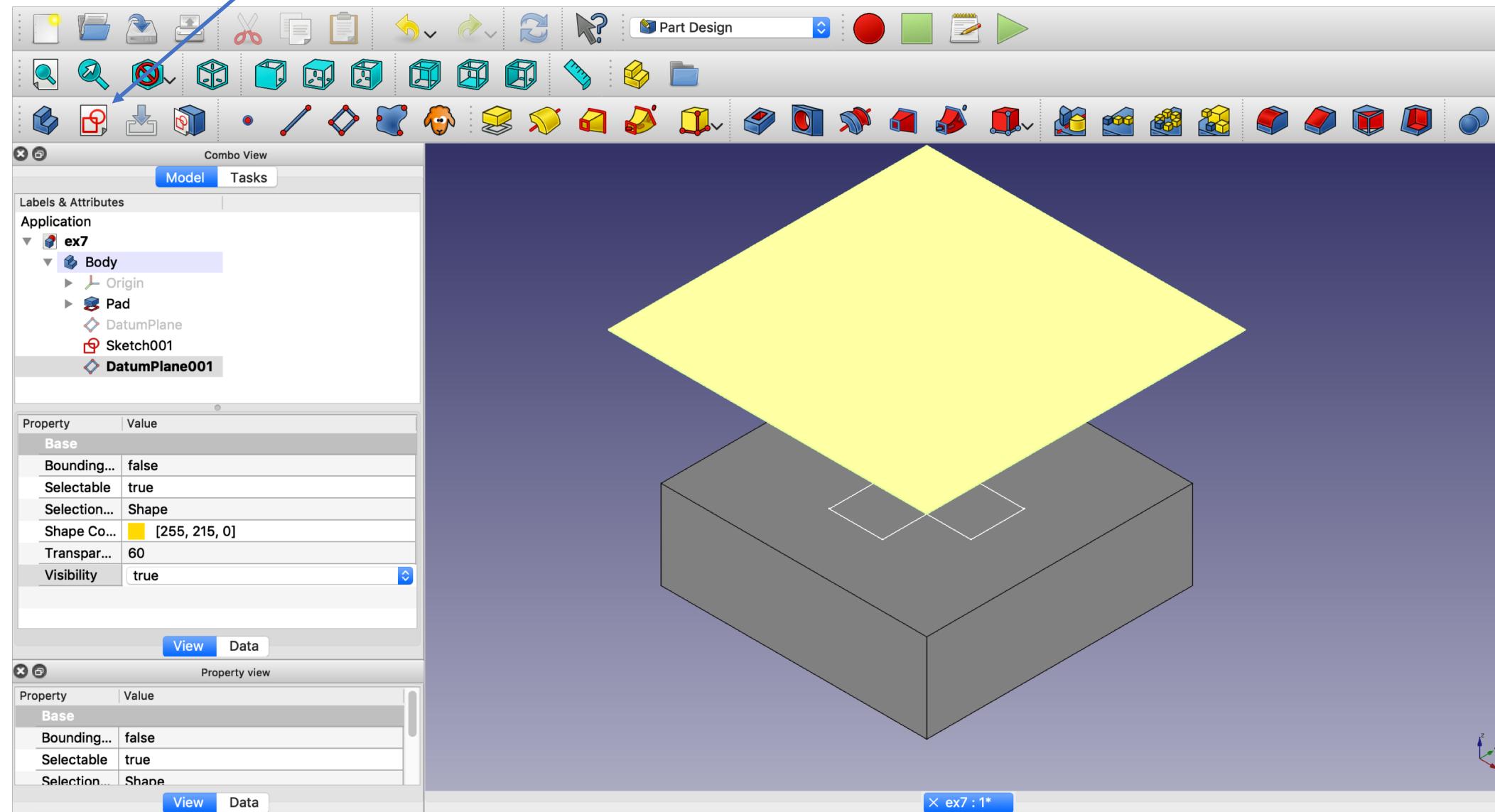
# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 7: Move the datum plane in "Z" direction by changing the Z value



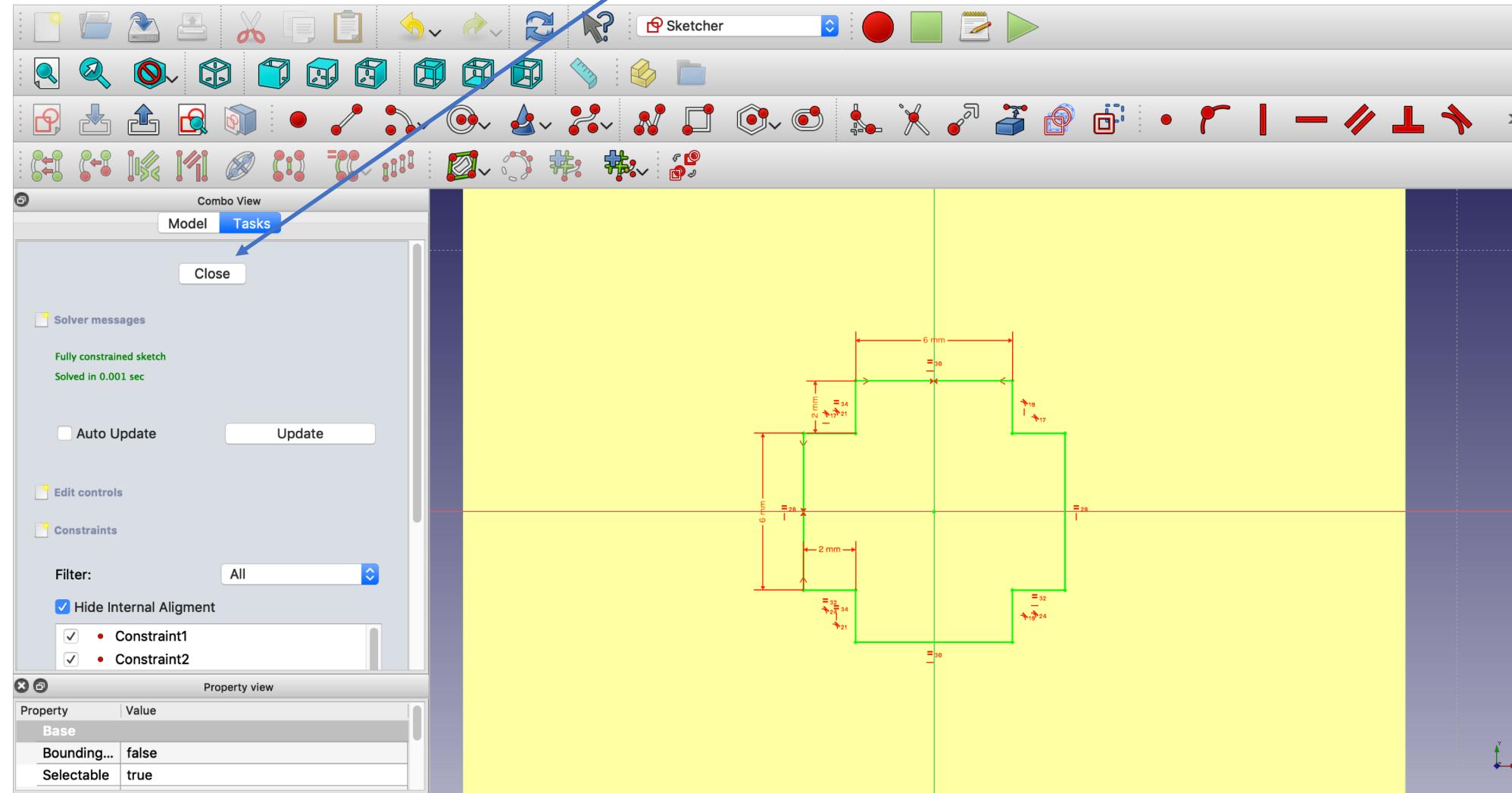
# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 8: Select the new sketch on the datum plane



# Engineering Drawing- FreeCad – Part Design- connecting two planes

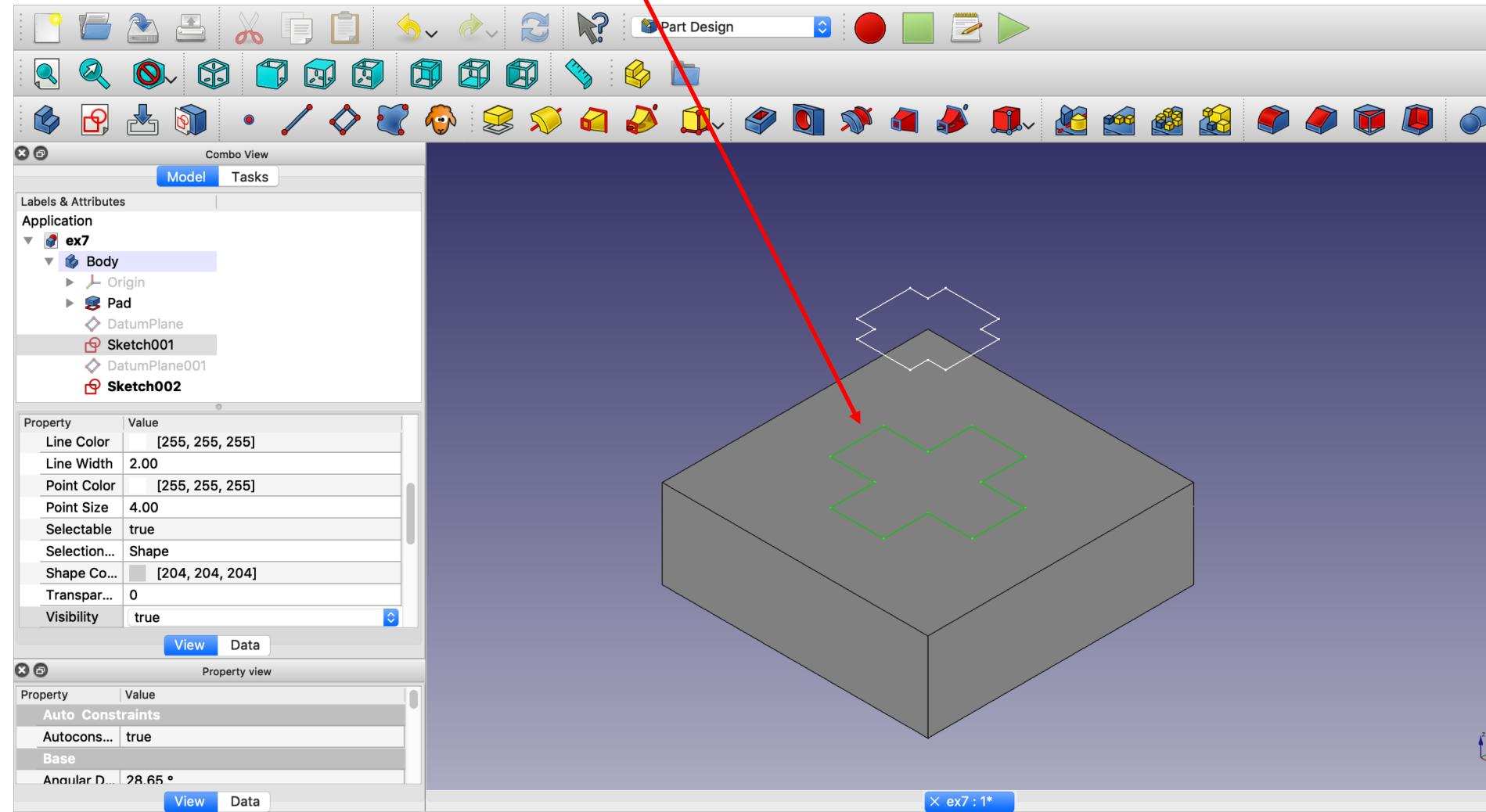
Step 9: Finish the 2D sketch and then click “close”



# Engineering Drawing- FreeCad – Part Design- connecting two planes

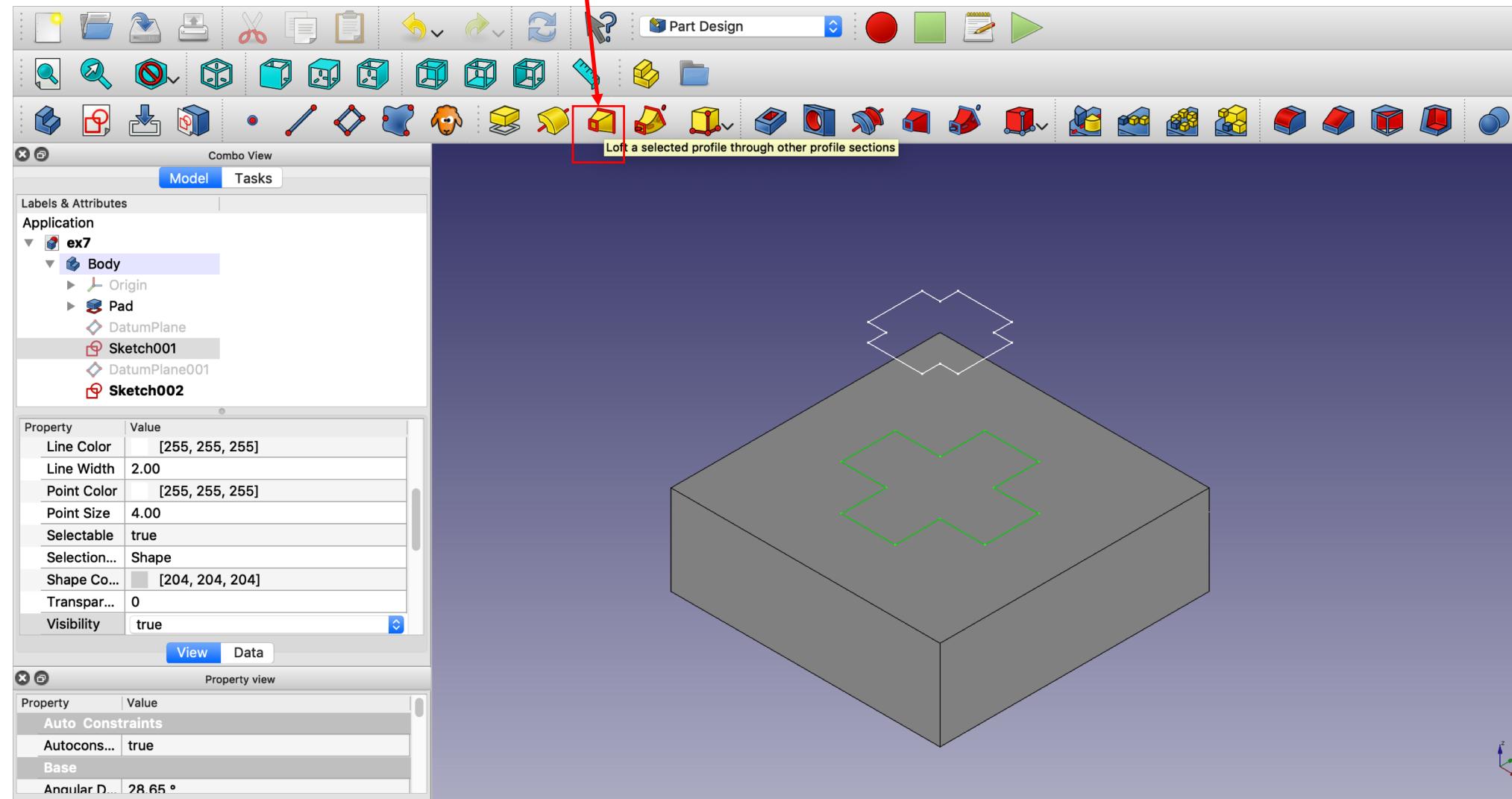
Step 10: you will see the sketches on two planes

Step 11: Select the lower sketch (double click on the sketch line)



# Engineering Drawing- FreeCad – Part Design- connecting two planes

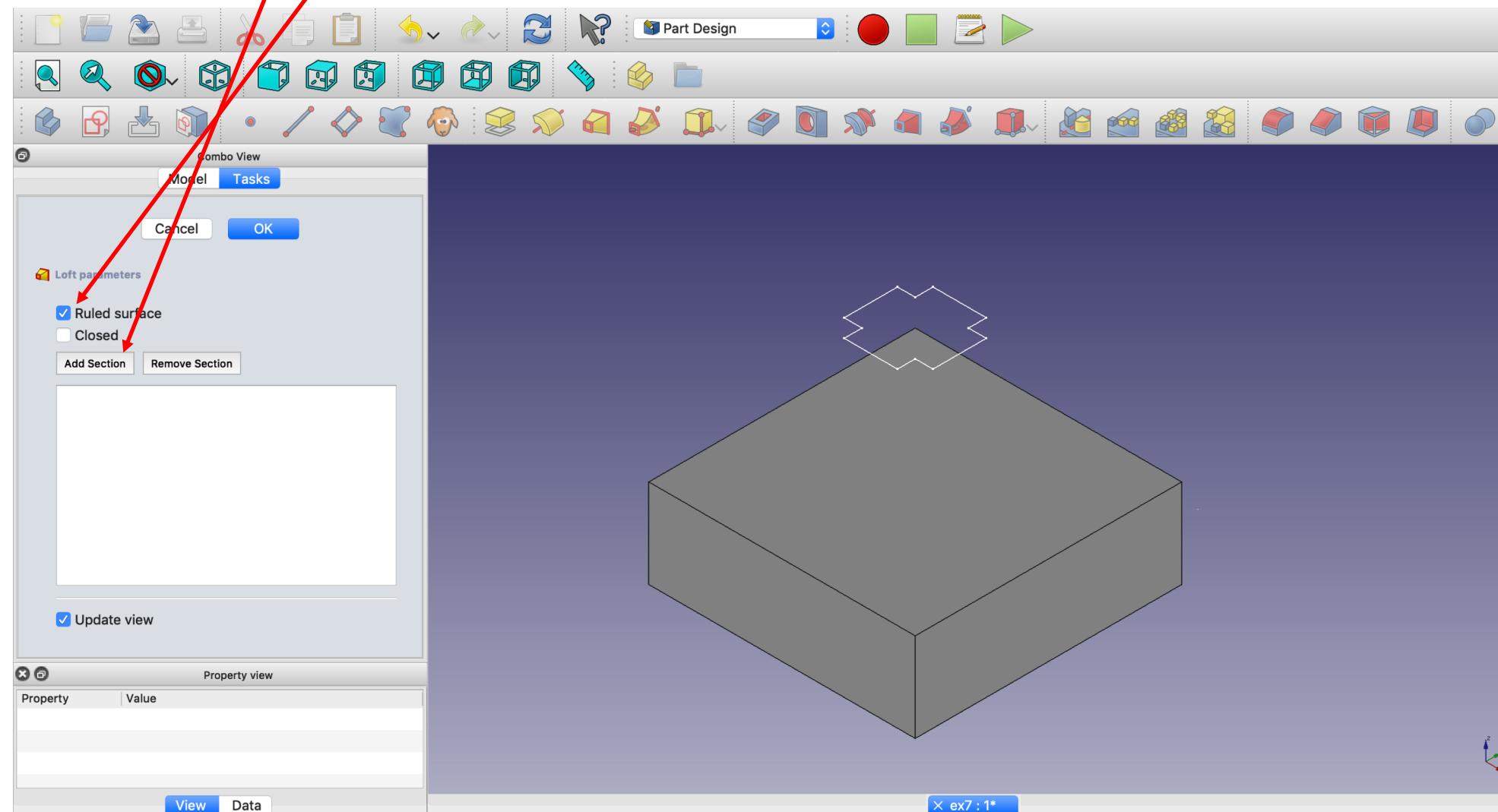
Step 12: Click “Loft a selected profile through other profile sections”



# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 13: select “ruled surface”

Step 14: Click “Add section”

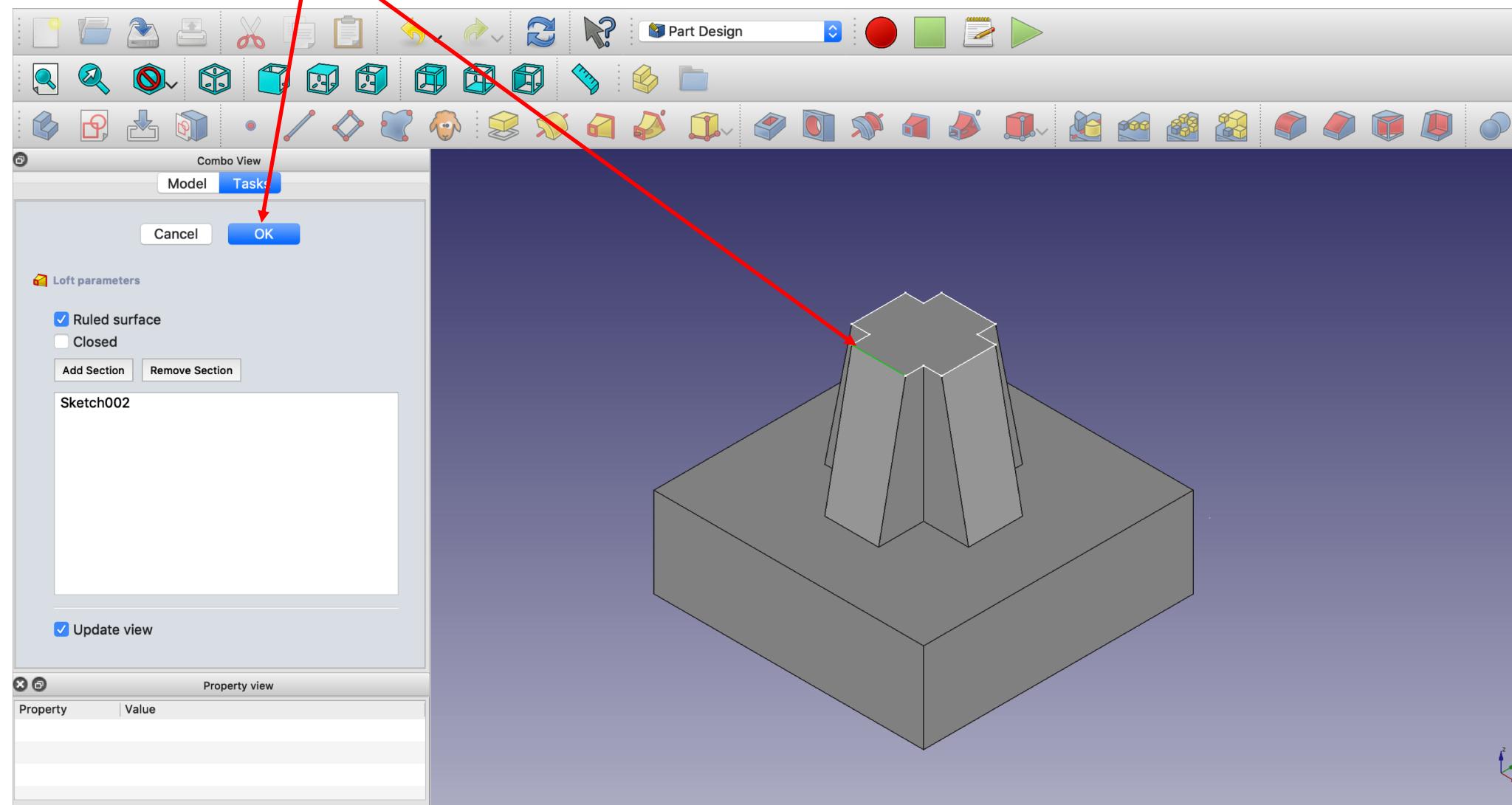


# Engineering Drawing- FreeCad – Part Design- connecting two planes

Step 15: select any line from the top layer

Step 16: automatically it will create the 3D objective by connecting the all the edges

Step 17: Then click “ok”



# Engineering Drawing- FreeCad – Part Design- connecting two planes

