

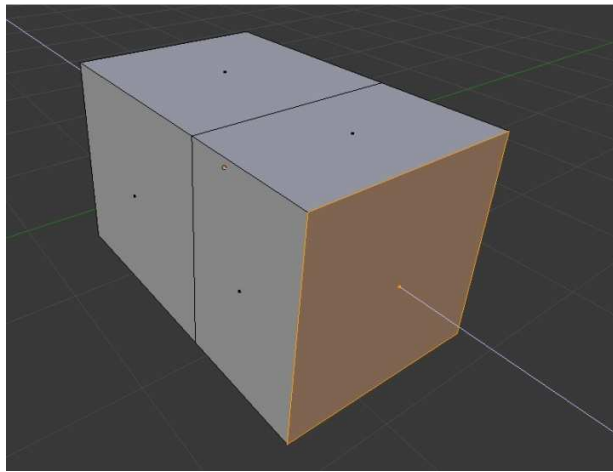
Simple object editing

Simple Extruding (Hotkey E)

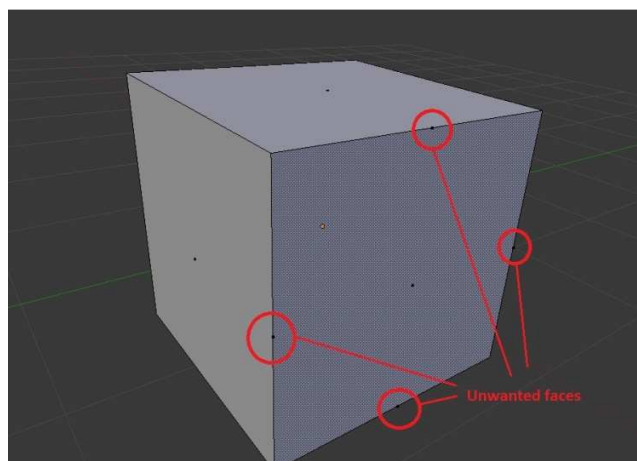
Extruding creates a new set of edges or faces from an existing vertex, edge or face. Default key for extruding is E.

By default, extrude will make an extrusion while snapping to a local axis. You can deselect the current axis snapping by clicking MMB.

You can use all snapping methods discussed previously with extrude.



IMPORTANT: Pressing ESC to cancel an extrude operation will only cancel the moving process, but not the actual creation of the faces. This will result in unnecessary and harmful faces left over from the incomplete extruding process. Be sure to use Ctr+Z after canceling extrusions to remove said faces, or remove them manually.

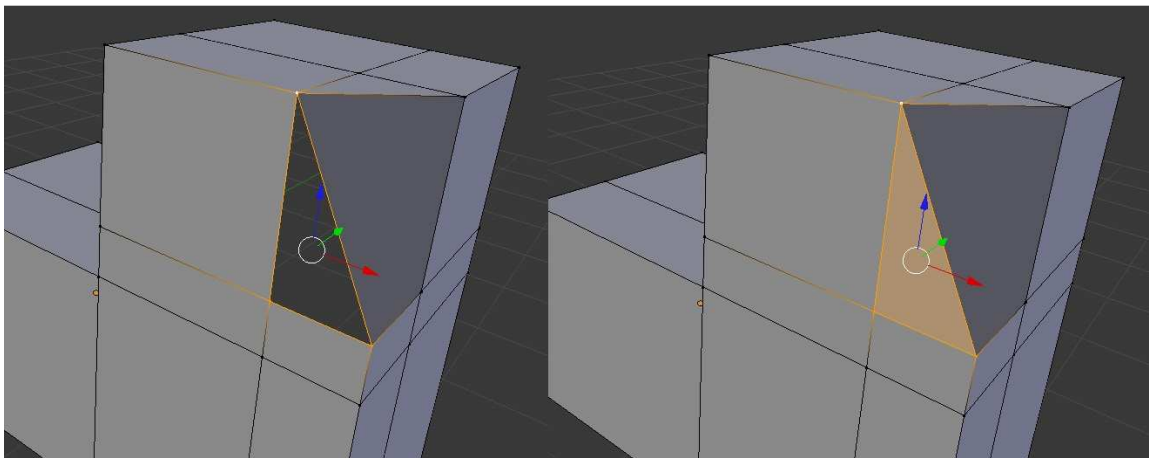


Deleting faces (Hotkey Del)

Whenever you want to delete a selected object (default key = Del) you will be prompted to select what you want to delete. Careful when selecting to delete edges when in fact you only wanted to delete a face, for it will delete a lot more.

Making new faces (Hotkey F)

You can make new faces by selecting 2 to 4 edges or vertexes and using the key F. Blender does not check topology consistency, so be careful what you select

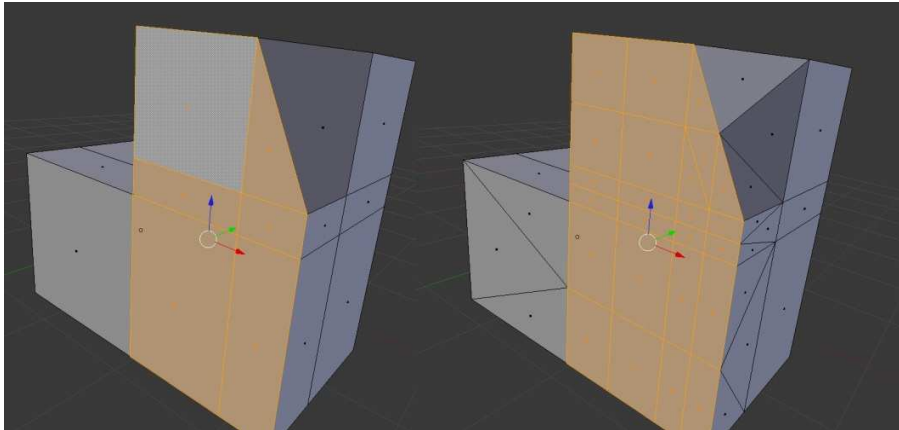


Adding geometry details

There are several ways to add more detail to geometry, by cutting, splitting, subdividing, etc..

Subdivide (Toolbox)

Divides the selected faces a given number of iterations (set at the bottom of the toolbox)

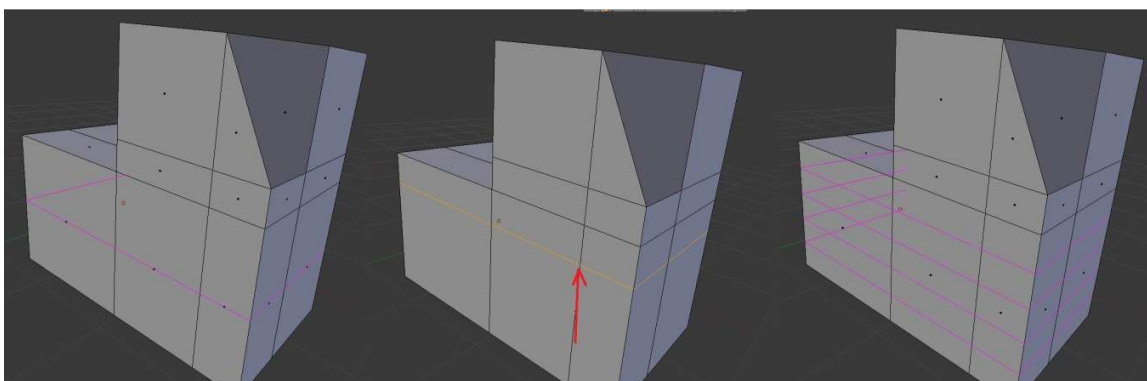


LoopCut (Ctrl+R)

One of the most useful densification tools. Creates a cut along a ring of connected edges and lets you slide it into position.

Ctrl+R and place your mouse on the edge you want to cut. A purple line will show you the cut. Clicking once will make the cut and allows you to slide it into position. Clicking again will make the cut.

Using the mouse scroll (or the toolbox at the left) will allow you to make more cuts simultaneously, but disables edge sliding.

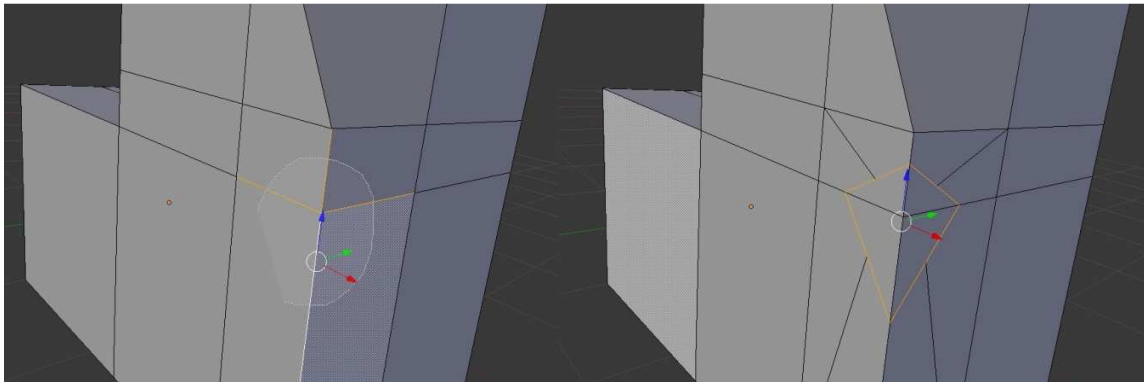


Knife Cut (LMB+ holding K)

Knife Cut allows you to cut a set of selected edges exactly where you want to.

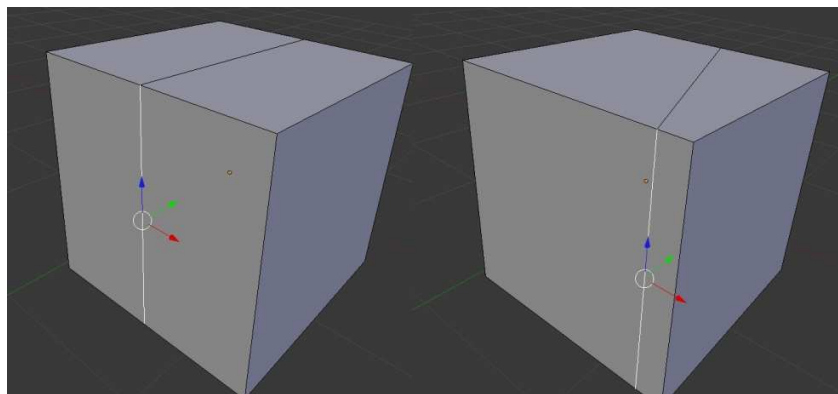
First select your edges, then by holding both LMB and K move your mouse through the edges (you will see a lasso indicating the cut). The cuts will be made once you let go of the mouse. Blender will automatically make additional edges. Cleanup will be necessary. You can select different cutting modes in the bottom of the toolbox after you made the cut.

YOU CANNOT CUT THE SAME EDGE TWICE IN A SINGLE OPERATION



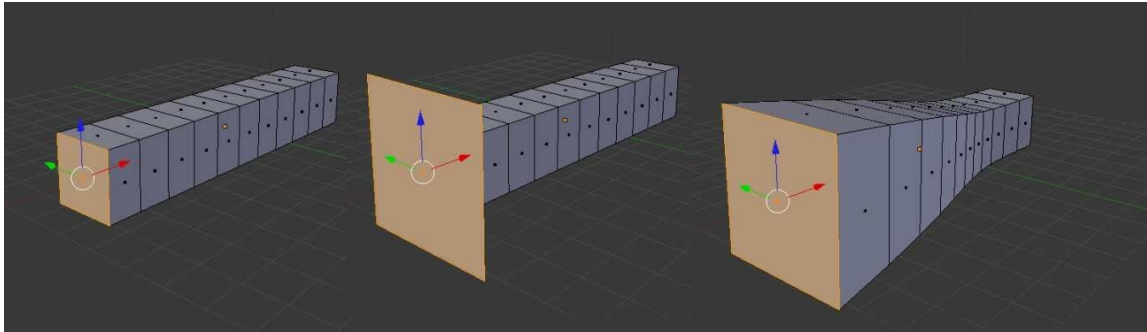
Edge slide (toolbox)

Edge slide allows you to move an edge along two “rail” edges.



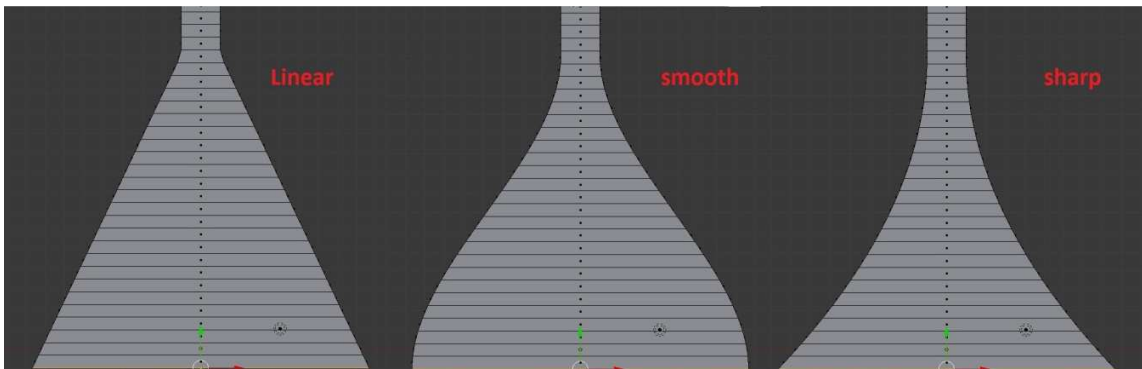
Proportional editing (Toolbox)

Proportional editing is enabled in the bottom half of the toolbox whenever rotation or scaling is applied. PE allows a certain transformation to affect its immediate surrounding geometry, which can be used to make smooth transition between different section sizes



(Left to right: unmodified object , 1 face scaled without PE , same face scaled with PE enabled ->smooth)

Using the Proportional editing falloff and size option you can set up the transition from the unmodified geometry to the modified one.



Using two commands at once

Some commands can be used together to create geometry easier

Extrude + Scale (Hotkey E & S)

By selecting a face or edge, then pressing E and then pressing S while extrude is still active, you will extrude and scale at the same time. At this point, all keyboard and mouse input (axis/plane snap selection and numpad numbers) will go as scale input.

