



Gridfinity Drawer Baseplate Generator (Fusion360)



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Summary

Fusion-design to create thin baseplates with spacer for given drawer dimensions, split into printable parts

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This fusion-design helps with the creation of perfect-fit baseplates with square corners.

Given drawer dimensions, a baseplate is created with the maximum amount of Gridfinity-units, surrounded by a spacer. The baseplate is centered horizontally, spacer for the depth is at the back.

The result is split into printable parts. As the split can't be fully parameterized, the attached file is for drawers similar to Ikea Alex on a 210x210 print bed. See further below on how to adjust the split.

How to use

After loading the design into Fusion, open the Solid section and go to Modify → Change Parameters. Adjust the values for drawer_width and drawer_depth to your needs. The baseplate automatically adjusts.

To print the parts, **select the body** you want to print in the tree view on the left, then File → 3D Print.

Other drawers and print bed sizes

If the drawer dimensions are changed significantly or you print on a larger bed, so that the given split is no longer suitable, a bit more manual work is needed.

The last 3 features of the timeline have to be adjusted.

1. Hide everything in the component view, except **Splitting Helper** sketch
2. Edit the **Horizontal Split** feature:
 1. Remove the body and splitting tool selection
 2. Select the **vertical lines** (front to back) from the sketch that you want to split on
 3. Select **Body1** again as “Body to Split”
3. Edit the **Vertical Split** feature. Same as for the horizontal split, but:
 - Select the **horizontal lines**
 - Select **all bodies**. The amount depends on the horizontal split
4. Adjust the **Outer Chamfer** feature
Rotate to the bottom view. All the outer lines of all bodies have to be selected (on a Mac, Command+Click changes the selection). I find it easiest to hide all bodies, then show a single body, select the outer lines, hide the body again and show the next one, select and so on.

You can also use this technique to create only the spacers without the baseplate. Split on the outer lines of the grid.

Why is it not fully parameterized

The creation of the baseplate is fully parameterized. Based on the drawer dimensions, the grid-size is automatically adjusted. But I wasn't able to make the split into printable parts parameterizable, as it means to operate on a changing number of bodies.

If anyone has an idea, please let me know.

Model files

drawer-baseplate-2x3-alex.f3d

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