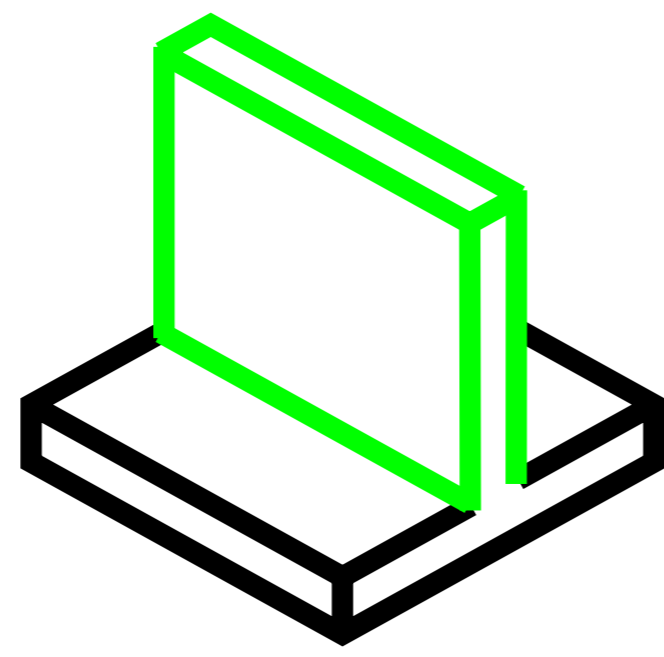


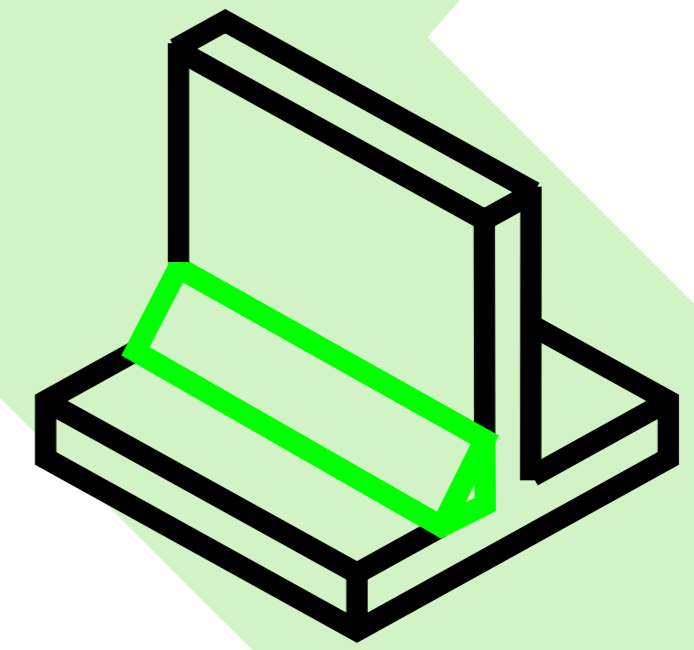
# FFF 3D modeling rules

## Walls



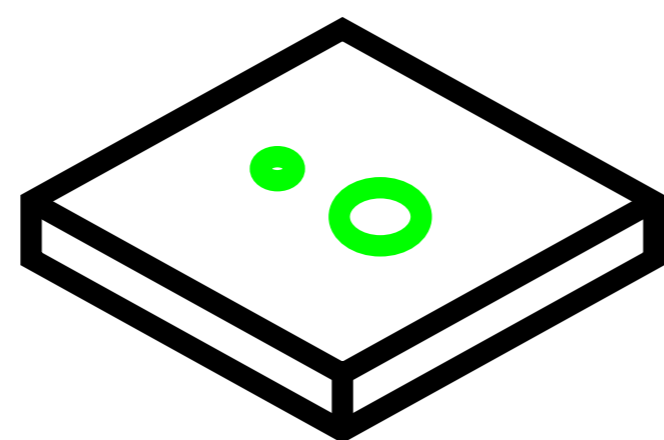
Best practice: 1.6 mm thickness or higher  
Minimal: 0.8 mm thickness

## Chamfer / Fillet



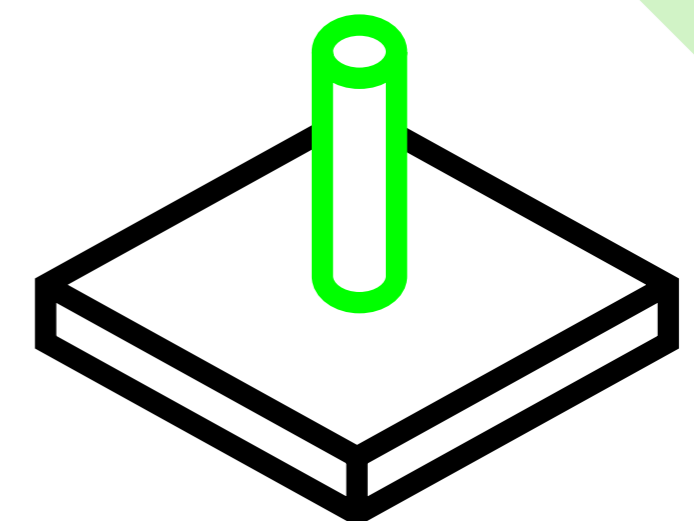
Best practice:  
Use a chamfer or fillet in the corners to reinforce the model.  
This ensures that walls or pins break off less quickly.

## Holes



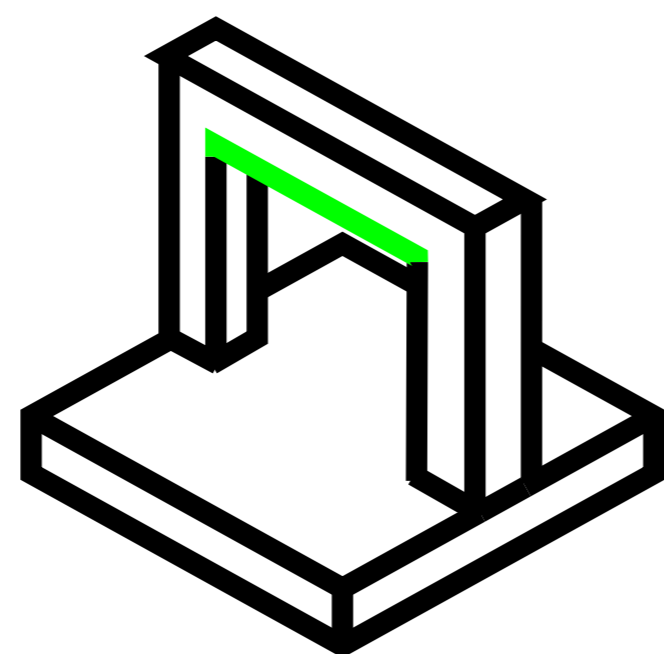
Best practice: 3 mm diameter holes  
Minimal: 2 mm diameter

## Pins



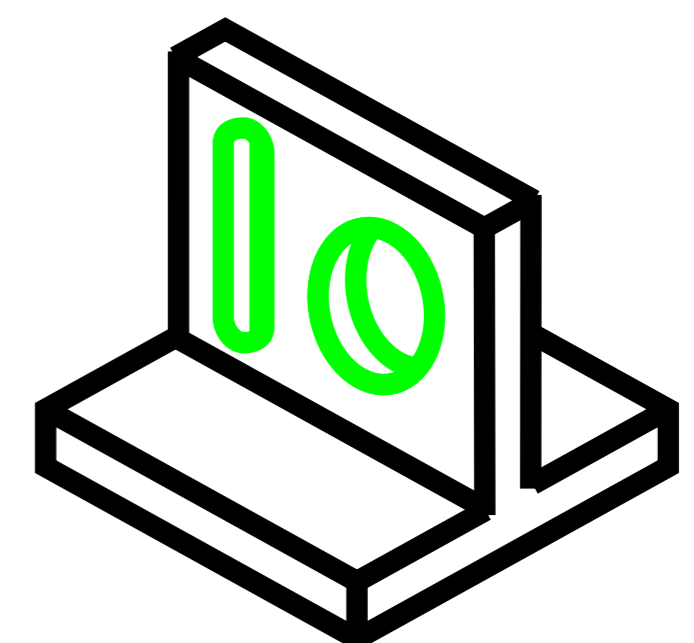
Best practice: 3 mm diameter or wider  
Minimal: 2 mm diameter

## Bridging



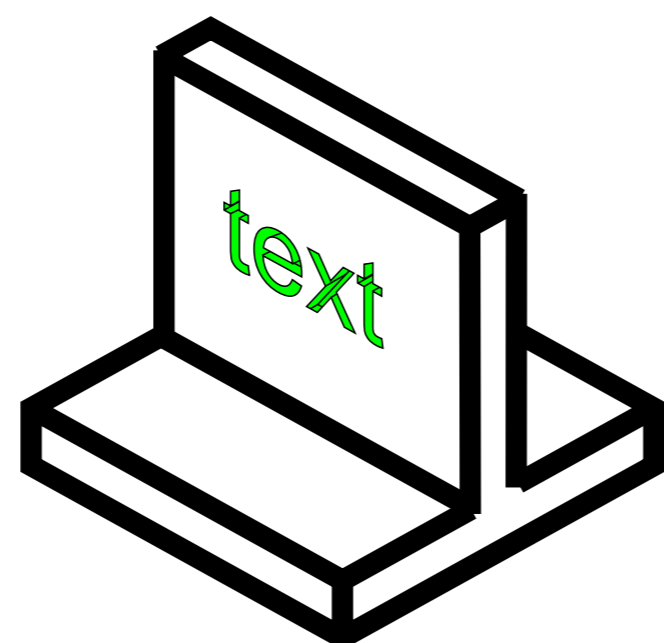
Print bridges up to 50 mm in length without printing supports underneath

## Windows



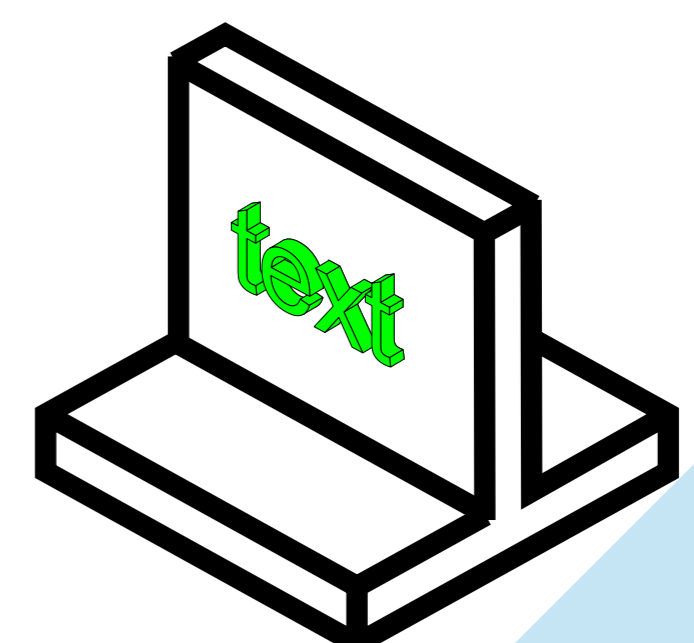
Print holes in vertical walls up to the size of 25 mm in length without printing supports underneath

## Engraved details



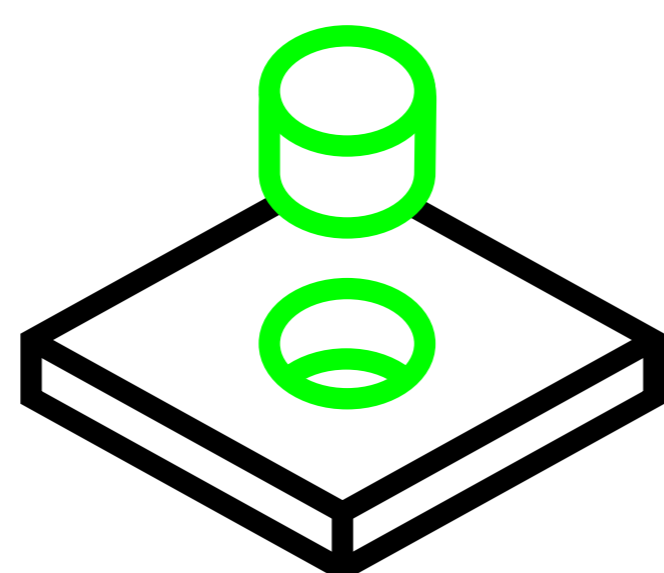
Protrude embossed details 1 mm on vertical walls.  
It can print without support material.

## Embossed details



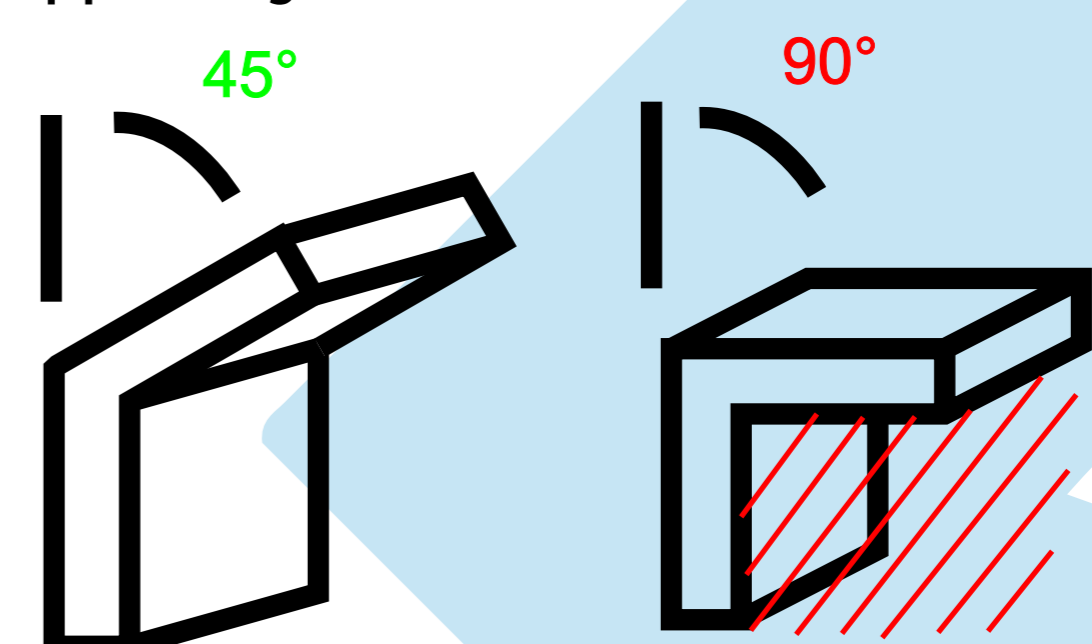
Extrude 'embossed' details 0.5 mm on vertical walls.  
It can print without supporting material.

## Tolerance



If two parts need to fit together loosely use a tolerance of 0.4 on every side of the model.  
Minimal: 0.2 mm tolerance

## Supports



Angles bigger than 45 degrees need support to print it properly. Try to make your angles 45 degrees and smaller to prevent printing support.

## Optimisation

If possible try to optimise your print by removing extra material and making your prints more organic

