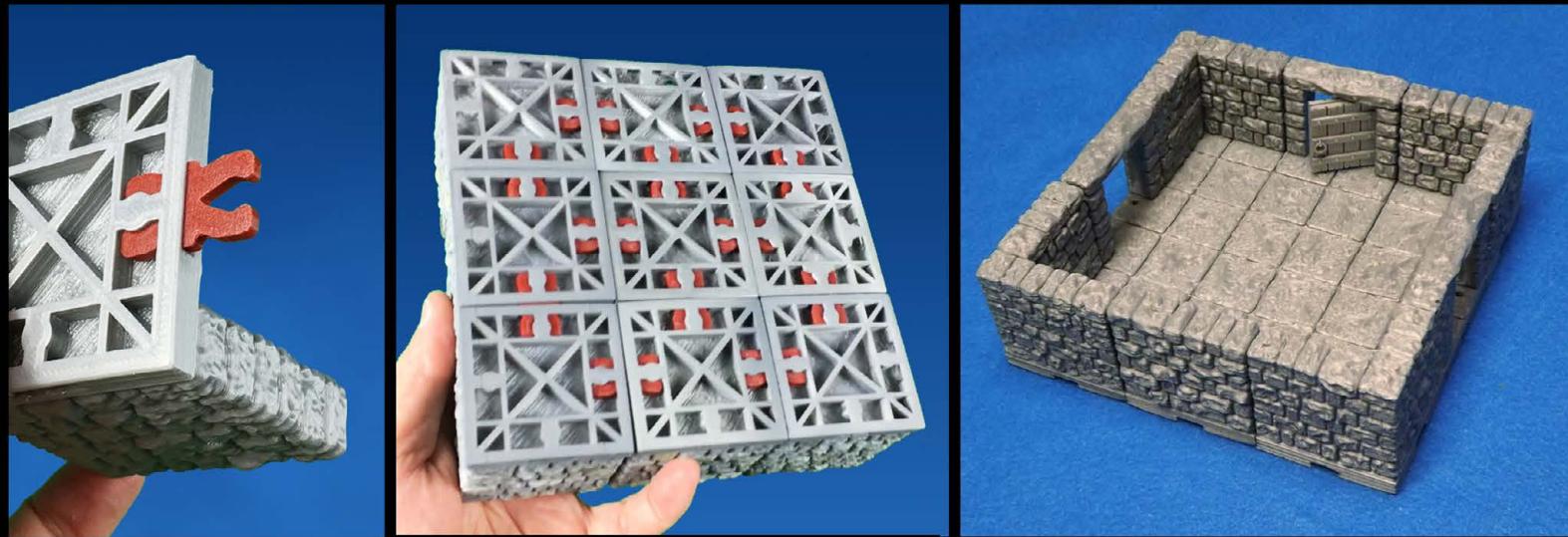


DRAGONLOCK

ULTIMATE



DRAGONLOCK

Getting Started

Welcome to the DRAGONLOCK: Ultimate™ terrain system. This instruction manual will outline some basic materials you will need for 3D printing these models, specific printing information for the models in this set, and links to additional resources.

For more information on getting started with 3D printing, help with choosing a printer, settings for many popular printers, troubleshooting, and more; please visit our 3D Printer forums:
<http://fatdragongames.proboards.com/board/21/3d-printing-dragonlock-terrain>

For painting tutorials on these and other models in the DRAGONLOCK: Ultimate™ product line, please visit our Youtube channel:
<https://www.youtube.com/channel/UC5Lbnd97HV3rU98gcwHklzQ>

Basic Tools and Materials



For gluing models with multiple pieces together, we have found that Gorilla Glue works great (especially the 'gel' type.)



While not necessary, it helps to have a pair of small tweezers on hand. You'll find yourself using them often to pull odd strands of plastic off the model, getting small bits of plastic out of the printer, etc.

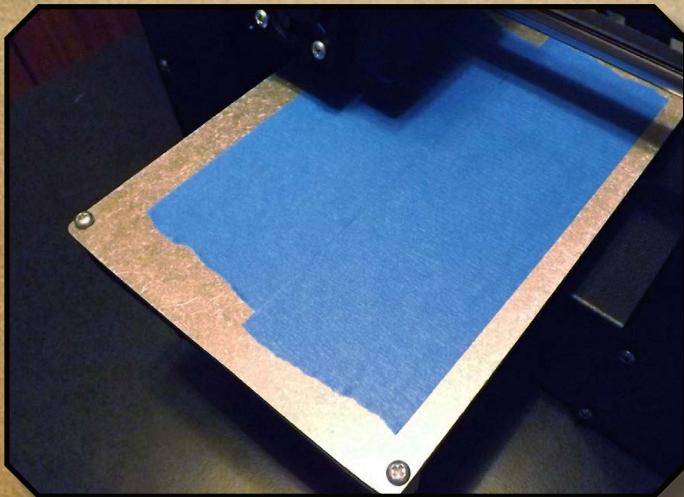
DRAGONLOCK



Absolutely essential is a small metal spatula to help remove models from your build plate. We've found that ones like this from art supply aisles at craft stores work great and should only cost you a few dollars.



When printing PLA on a non-heated build plate, applying blue painter tape to your build-plate works great to help the plastic adhere.



To make your print stick as well as possible, you can wipe off newly applied tape with a paper towel that has a little rubbing alcohol on it (the tape has a wax coating on the back that sometimes inhibits the plastic from properly sticking to it).

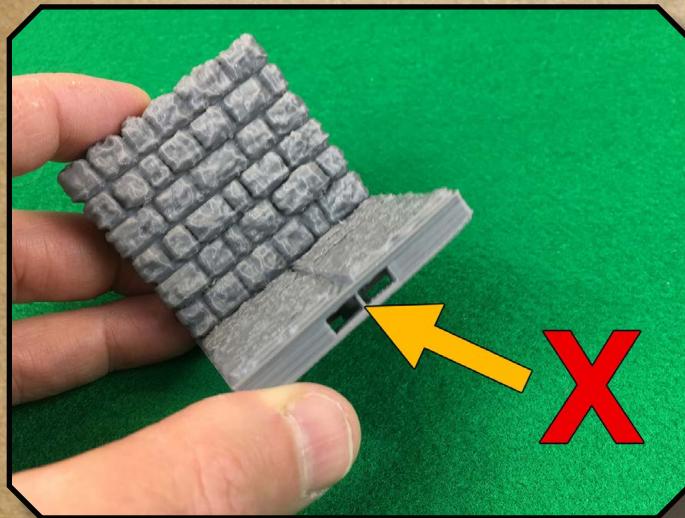


General printing tips for DRAGONLOCK: Ultimate™ models

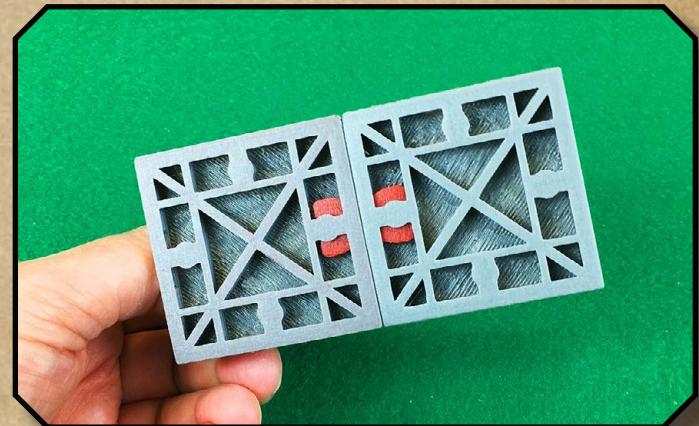
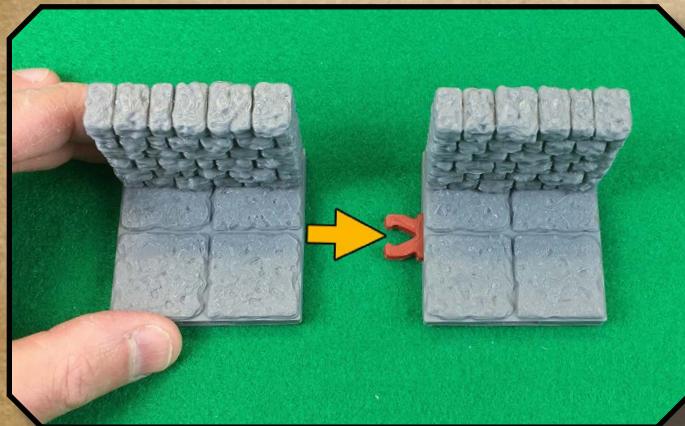
With the wide variety of printers and filaments on the market, it isn't possible for us to list printer settings that will work with multiple machines. Please visit the Fat Dragon Games forums for printer-specific tips and information:

<http://fatdragongames.proboards.com/board/21/3d-printing-dragonlock-terrain>

Using the DRAGONBITE™ clips



Before inserting a Dragonbite™ clip, you must first remove the printing support present in each slot on all four sides of every model. We recommend using needle-nose pliers to gently twist the support out of place (always wear eye protection when using tools.) Clips should be printed with 15-20% infill (but can be printed with 0%.)



To connect DRAGONLOCK™ Ultimate models together, simply insert a Dragonbite™ clip into the slot of one model, then slide the adjoining model into the opposite side. In addition to the standard v2.0 clip, there is an optional looser clip included.

DRAGONLOCK

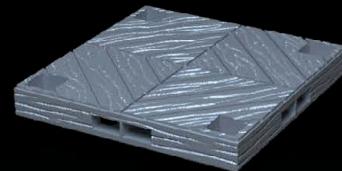
Floor 4x4



Window



Floor 2x2



Window Closed
Shutter



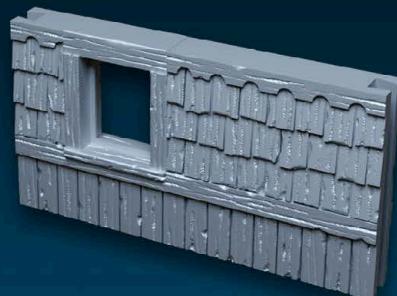
Window Open
Shutter



Wall A, Interior



Wall D



Wall D, 1 Window

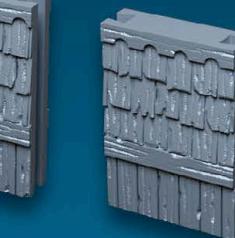


Wall C, 1 Window



Slot Plug

Wall B, Exterior



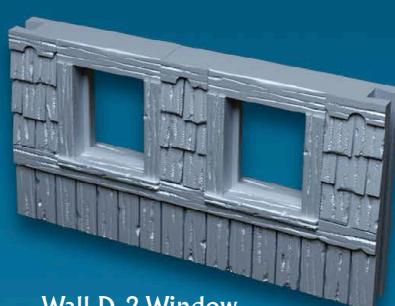
Wall C, Exterior



Wall A, Exterior



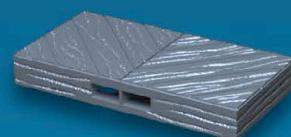
Wall B, Interior



Wall D, 2 Window

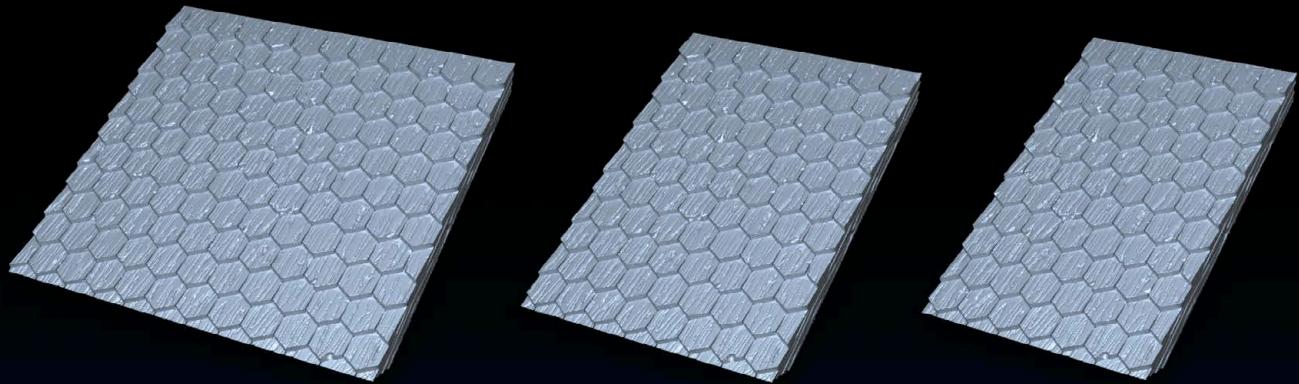


Wall C, Interior



Floor 1x2

DRAGONLOCK



Roof 3O (3" plus overhang)

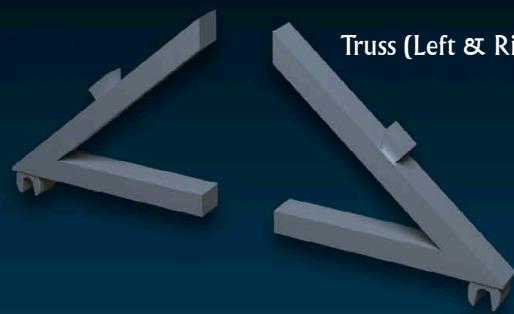
Roof 2O (2" plus overhang)

Roof 2 (2" no overhang)



Gable (Left & Right)*

Frame Only



Truss (Left & Right)

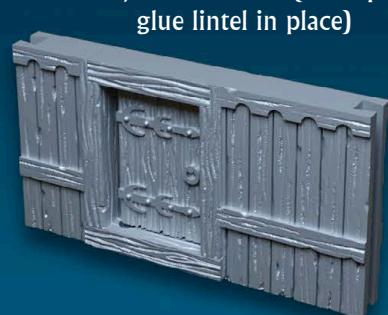
*Note: Gable rear face must be glued in place



Wall C, Door
(three pieces, glue lintel in place)



Wall D, Exterior Door (three pieces,
glue lintel in place)



Wall D, Interior Door (three pieces,
glue lintel in place)

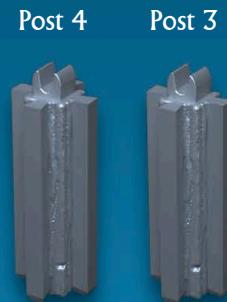


Floor 2x2 Opening



Floor Hole Plug

Post 4



Post 3



Post 2 'L'



Post 2



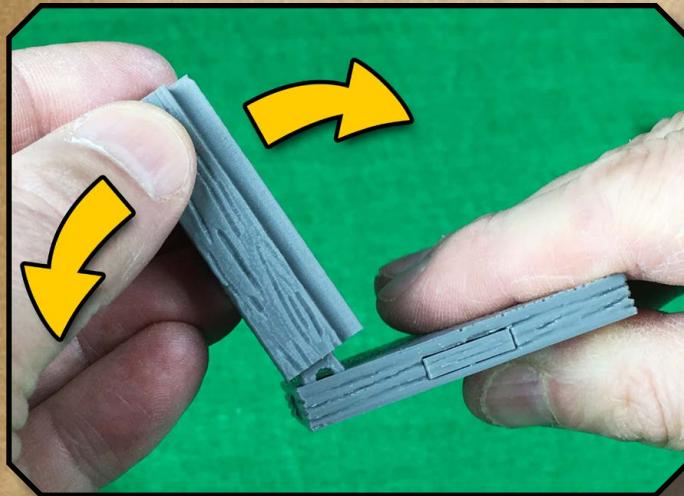
Post 1



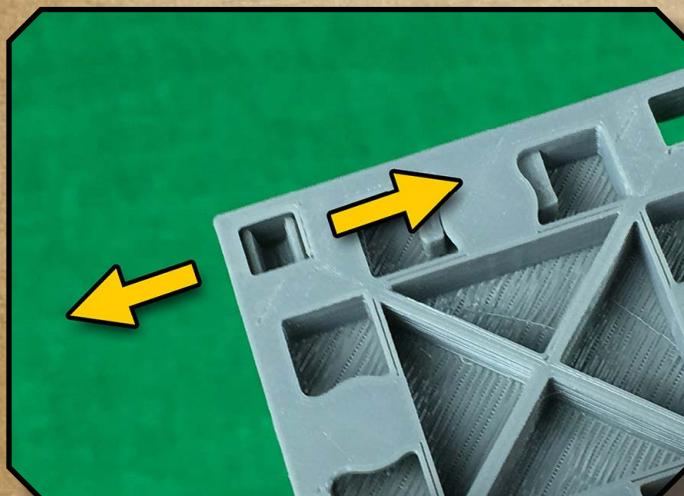
Post 0



DRAGONLOCK



When inserting or removing posts, it helps to gently rock them back and forth along the axis of the grip-claw on the bottom (never rock against the claw as this will break it off.)



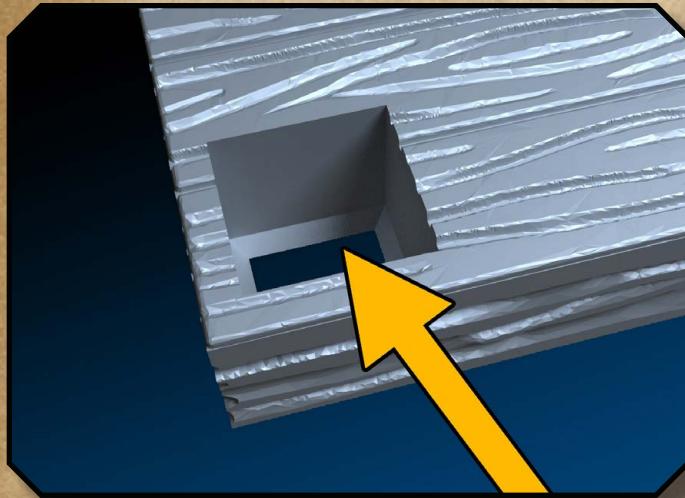
You can easily tell which way to rock the post when it is inserted in a tile by looking at the bottom. Rock in the direction of the claws.



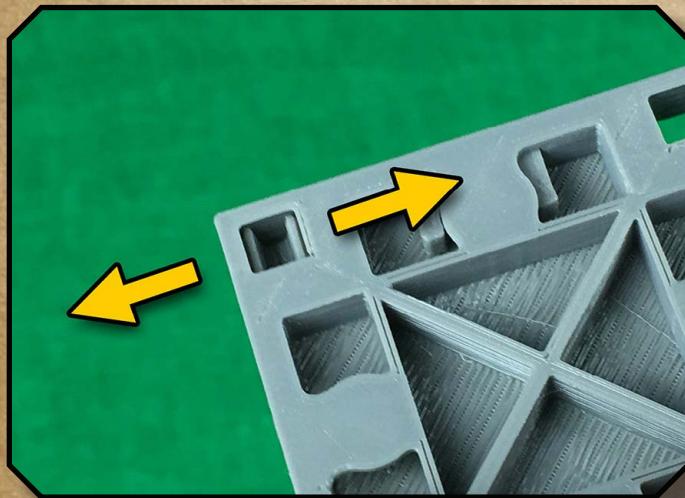
If your posts fit too tight, use sandpaper or a file to gently remove a small amount of plastic on the outer edges of the 'claw' as shown in red.

If your posts are too loose, simply place a drop of gel type super glue on the outer edges of the 'claw' as shown in red.

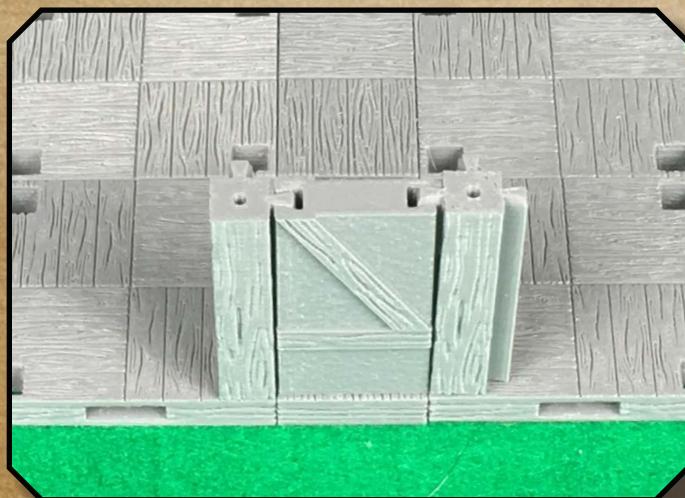
DRAGONLOCK



Be sure the post holes are clear of any stringing or excess plastic from the printing process, as even a small amount will hinder the posts fitting properly.

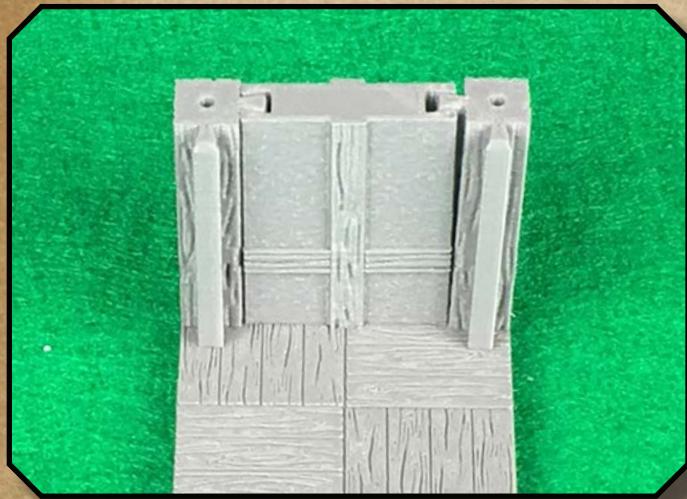


You can easily tell which way to rock the post when it is inserted in a tile by looking at the bottom. Rock in the direction of the claws.

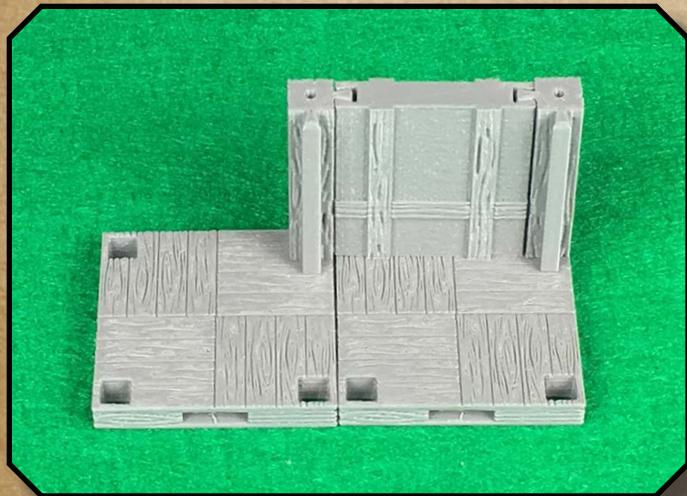


There are four sizes of walls included in this set. The shortest is type 'A'. Wall A is exactly 1" wide, and is paired with the 2x1 floor extension pieces.

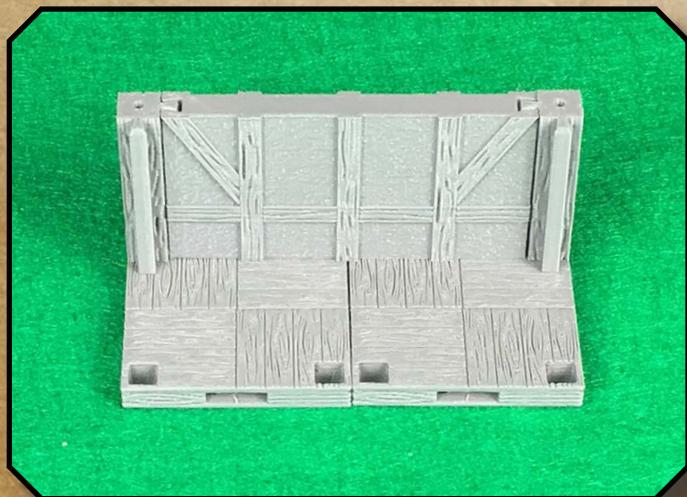
DRAGONLOCK



Type 'B' walls are the next largest after type 'A', and are fit between two posts on the same tile (i.e., posts inserted into the corners of a single 2x2 tile.)

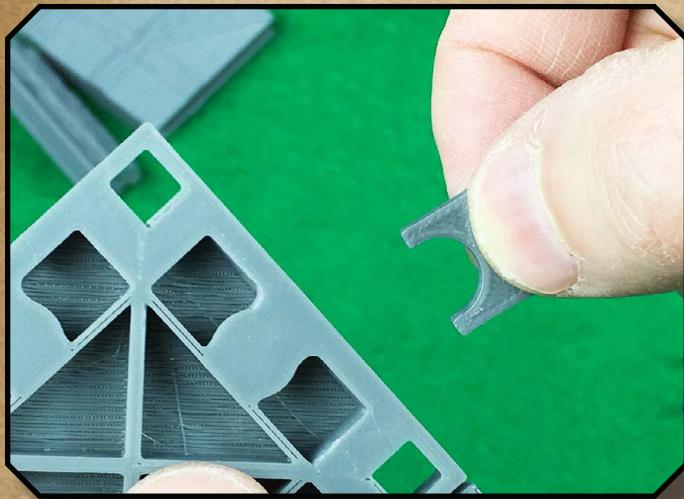


Type 'C' walls are larger than 'A' or 'B' walls, and fit between posts inserted into corresponding corners of adjoining tiles as shown in this image.

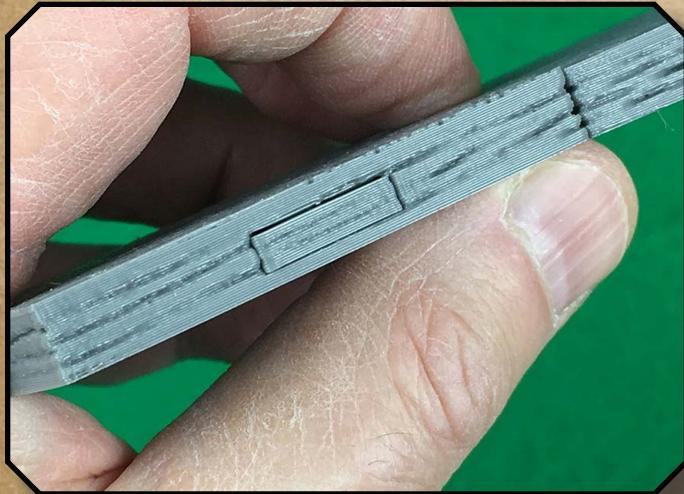


Type 'D' walls are the longest, and fit between two posts at opposite ends of two tiles.

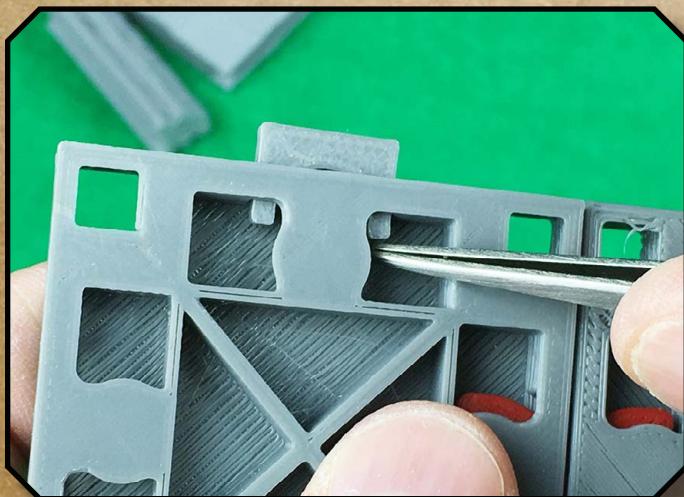
DRAGONLOCK



The clip slots on the sides of tiles can be filled with a plug when not in use. Simply insert the plug as shown.

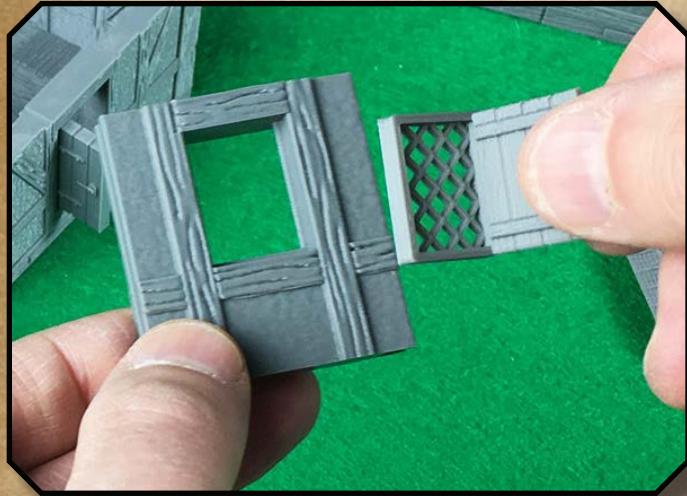


The plugs come in both smooth and woodgrain versions.

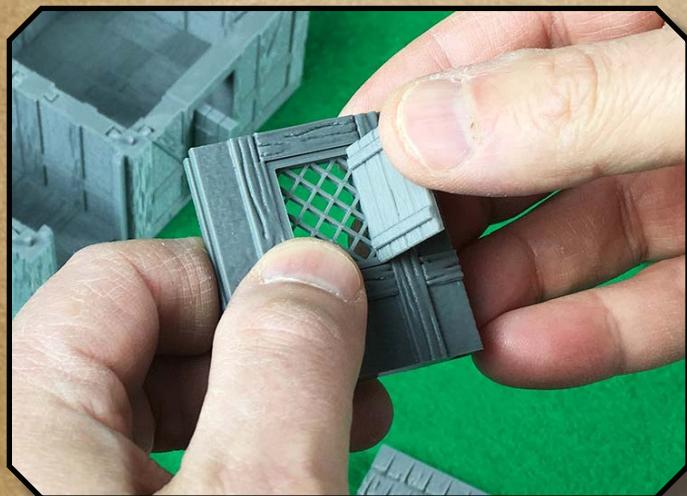


To remove a plug, insert a thin tool (like tweezers) behind it and gently push forward.

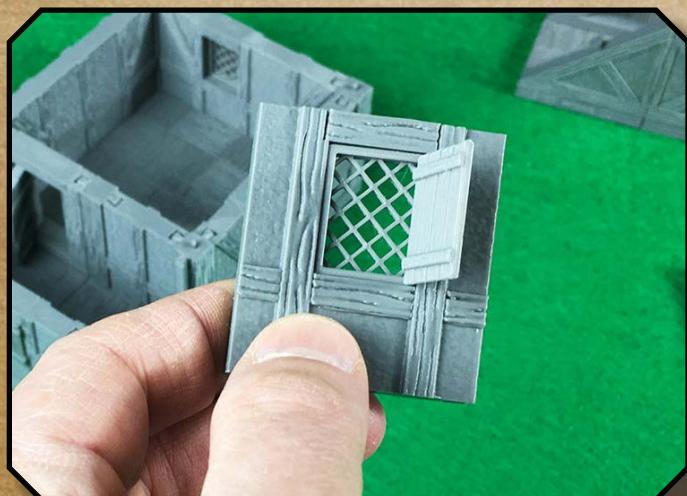
DRAGONLOCK



Windows are designed to pressure fit in place, and be swapped out as desired.

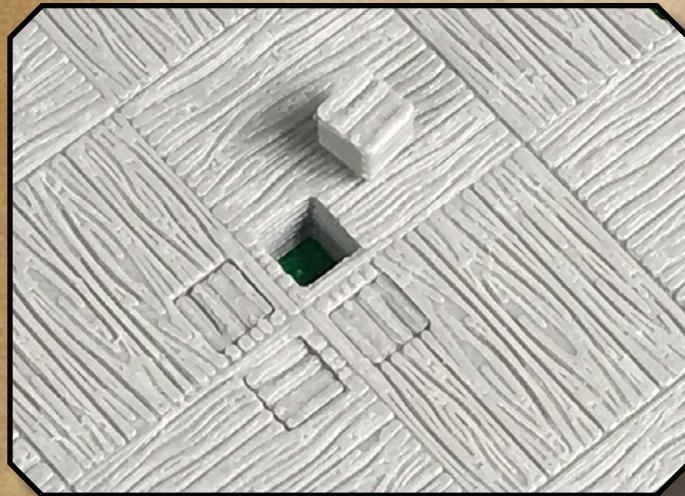


Press all four corners into the frame opening as far as they will go. The window should be tight enough not to fall out.

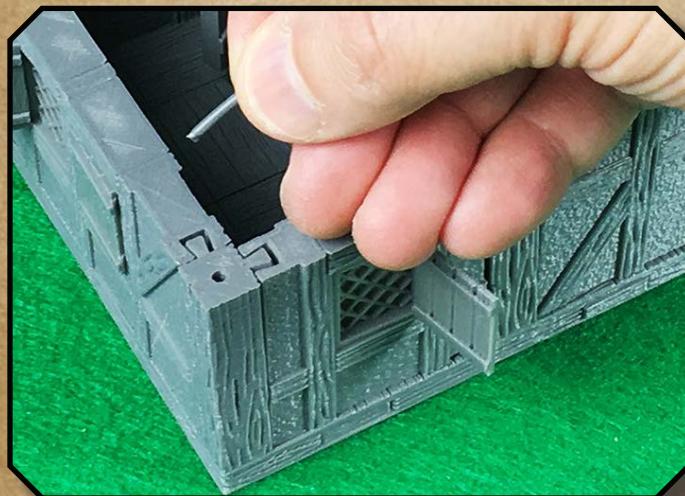


The window in place.

DRAGONLOCK



Unused floor holes can be filled with plugs to make them unobtrusive during play.



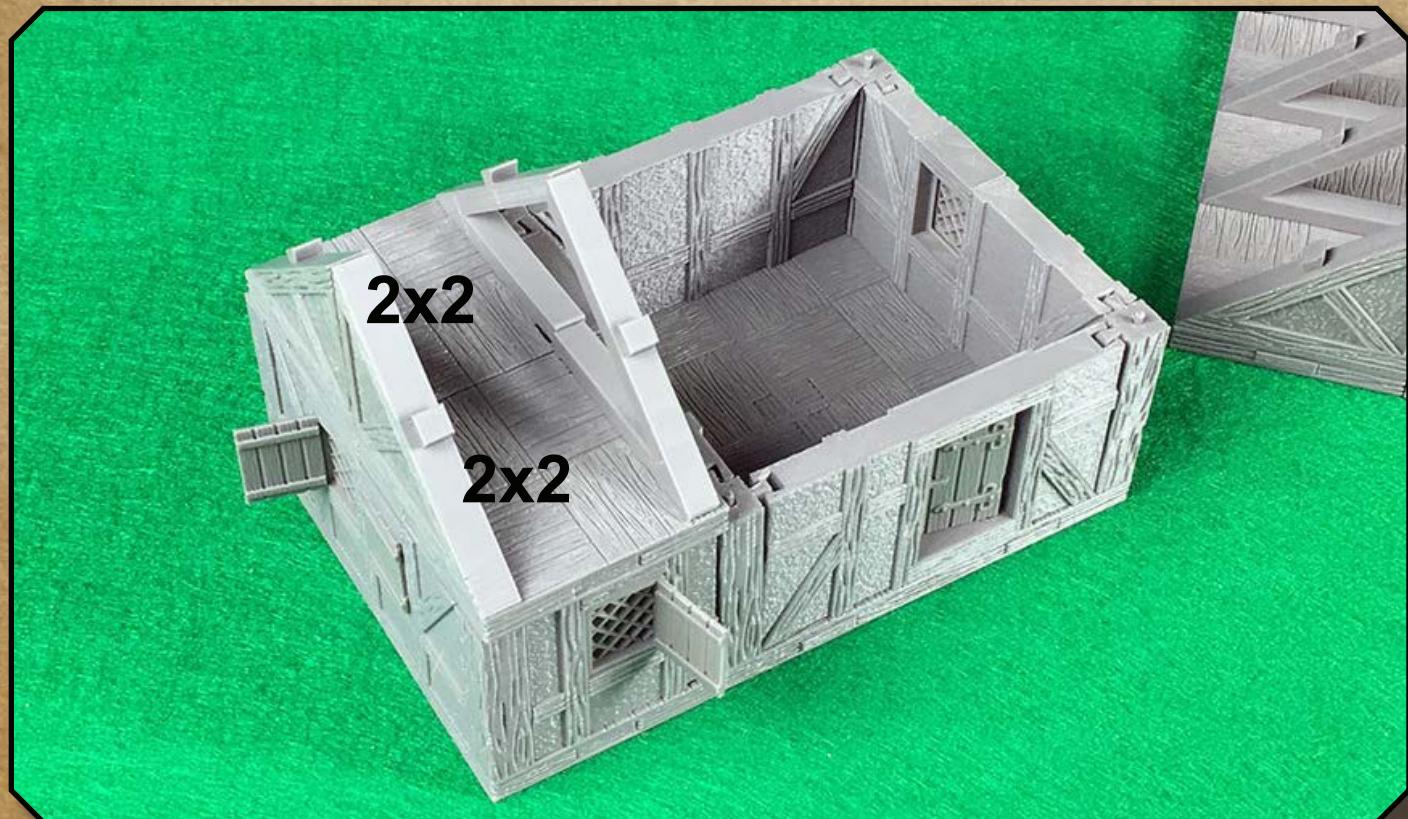
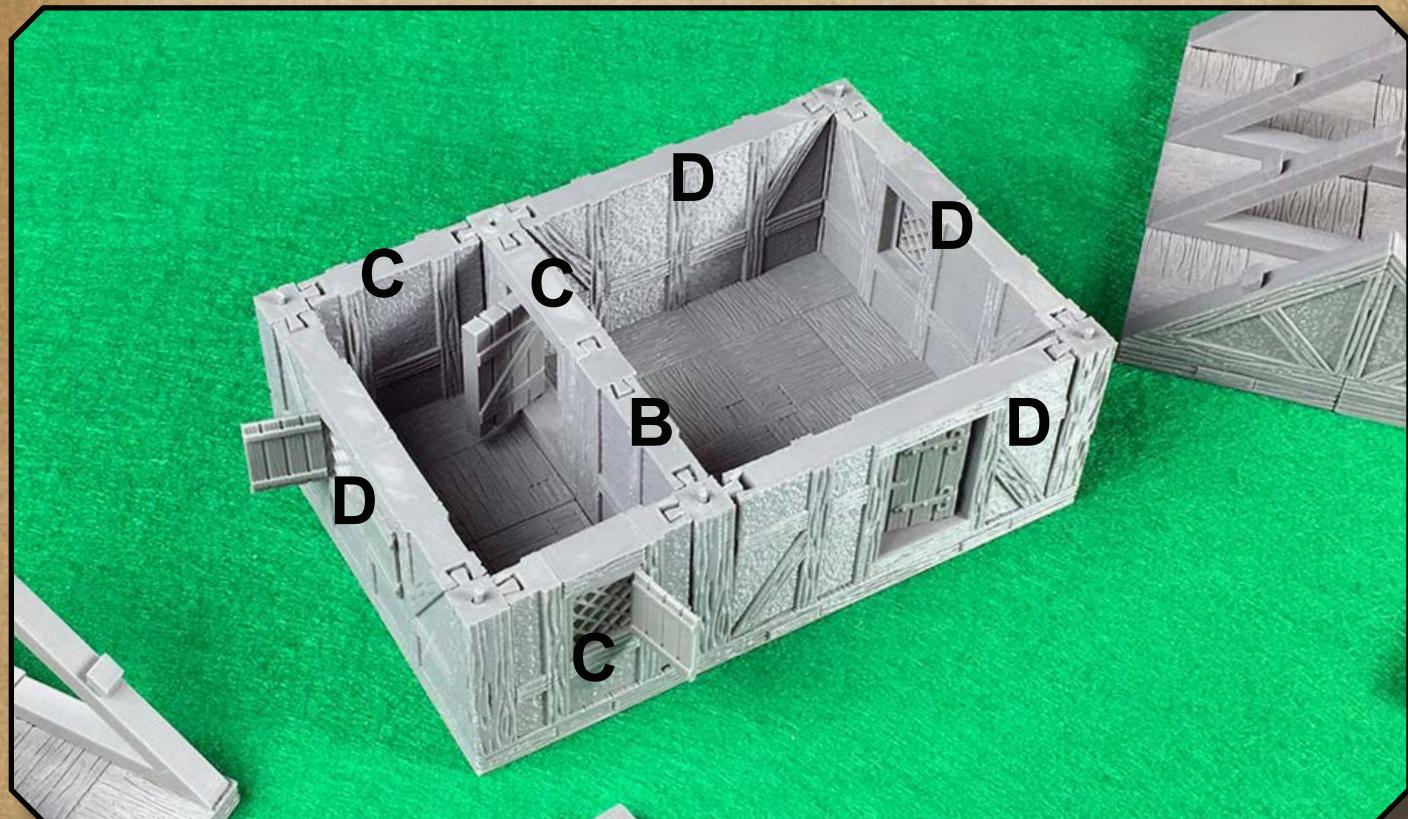
To keep building levels from shifting, insert small pieces of filament (1.75mm diameter), or thin pieces of aluminum or plastic rod, into the holes on top of posts.



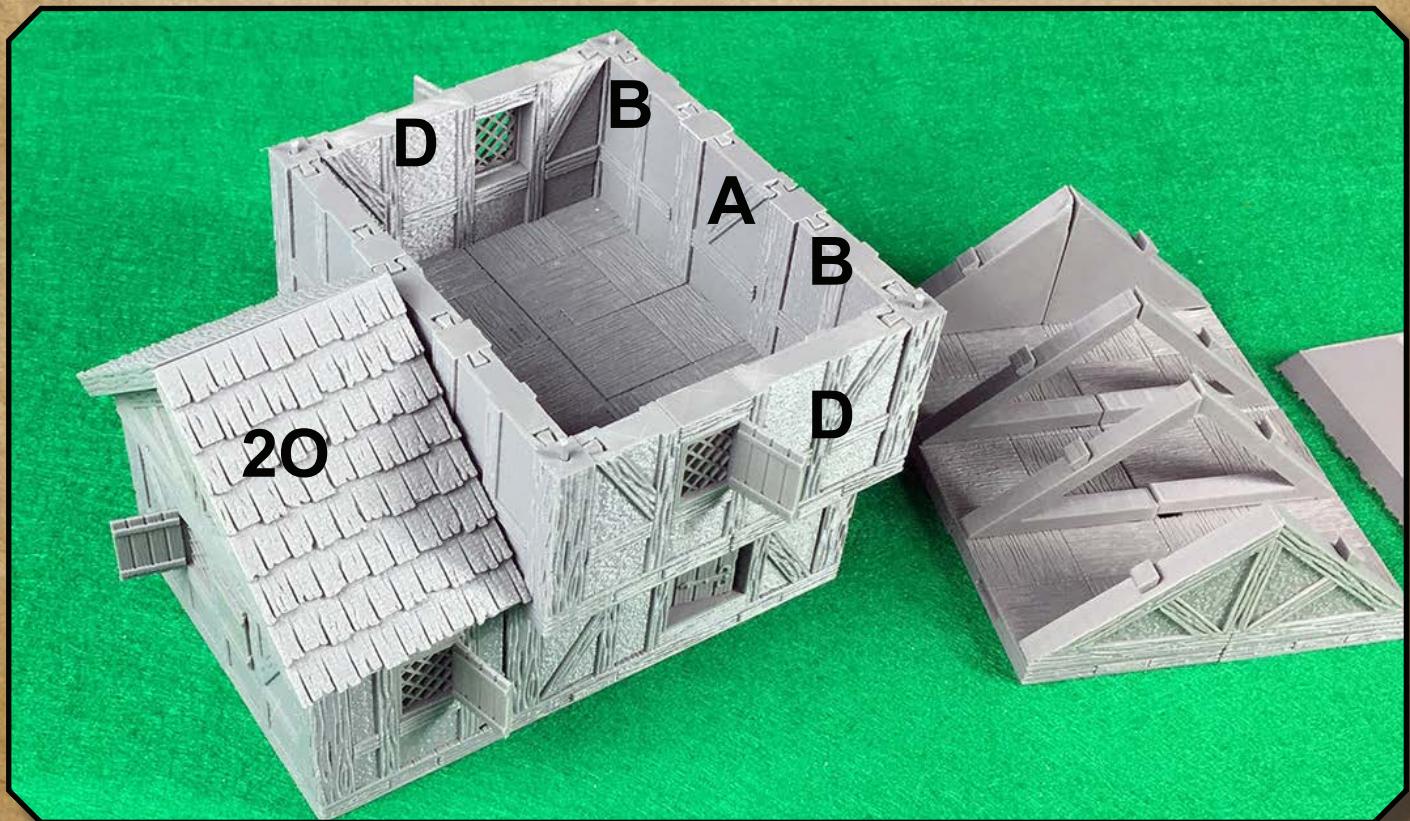
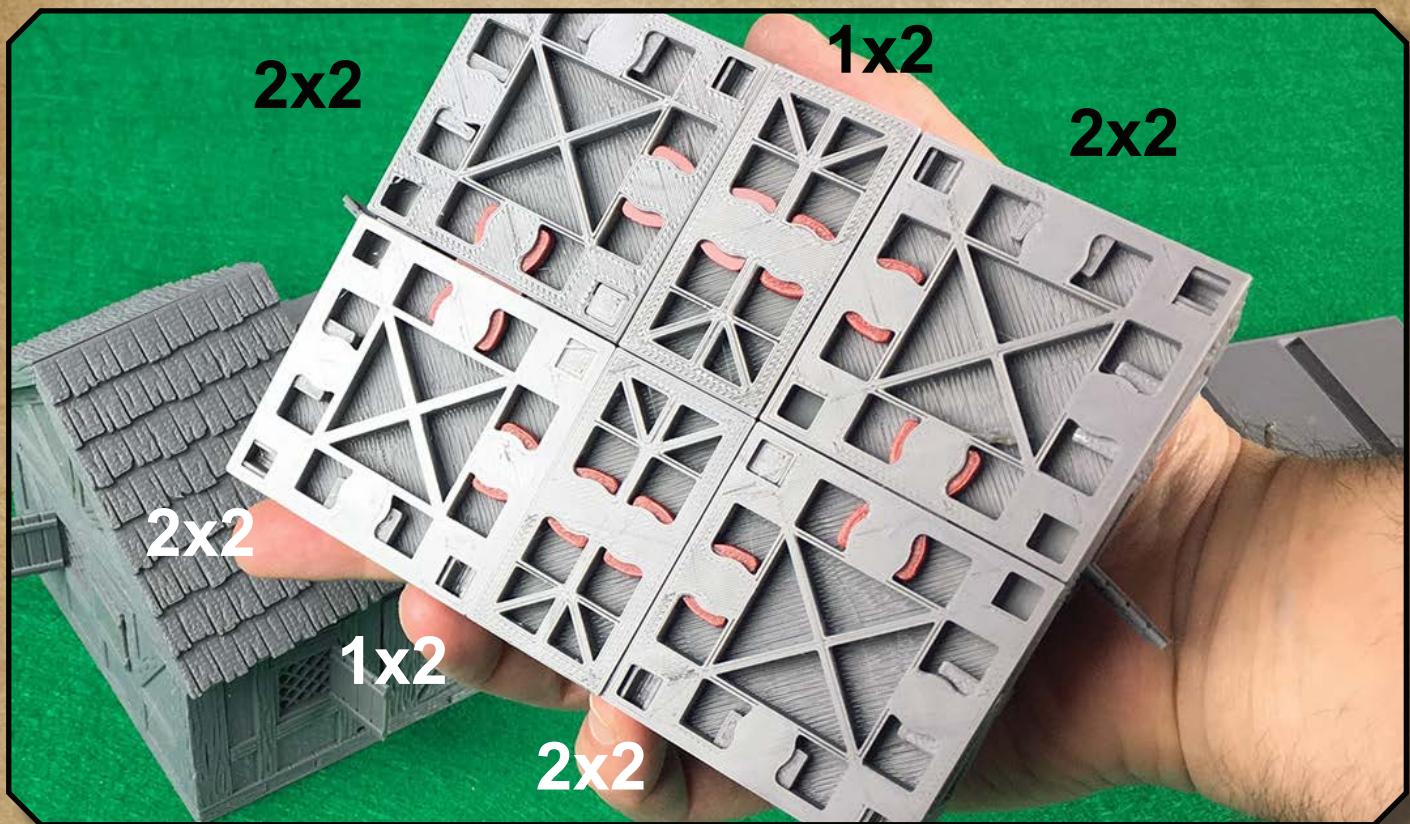
Just a very small amount protruding from the hole in each corner post will keep upper levels in place during play.

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Below are photos showing a sample house design, with key components identified.



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Three roof widths are provided, a 2" (2), 2" with end overhang (2O), and a 3" with end overhang (3O). Overhang pieces are ones that go on the ends of buildings, so the roof properly juts out from the wall side. The 2" wall is a filler piece, used only for sections that are not on the ends of buildings.



Printing info:

Filament:

- We recommend using PLA (we use Protoparadigm and Hatchbox in the FDG office)

Layer Height:

- All clips and wall models: 150 micron/.15mm recommended (200 micron/.2mm works great as well)

Top/Bottom layers:

- 6 layers or .9mm

Side layers/shells:

- 2 shells (.8mm with a .4mm nozzle)

Infill:

Walls, floors: 0%

Roofs, gables, and trusses: 15%

Posts: 40-50% infill

Rafts & Brim:

4x4 Floor: if your printer has issues with curling, then use a raft for this.

Posts: These print best with a small brim to ensure they do not tip over and break free during printing.
All other models, no brim or raft required.