



Catan + Cities & Knight + Seafarers



MioPrint

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Summary

The amazing Catan together with pieces for expansions for Cities & Knight and Seafarers!

[Toys & Games](#) > [Board Games](#)

Tags: [hexagon](#) [miniature](#) [tabletop](#) [hex](#) [boardgame](#)
[catan](#) [strategy](#) [expansion](#)



Catan is one of my favorite board games of all time, and even though there are already plenty of versions of 3D printed Catans out there, I really wanted to make my own. I found a lot of inspiration and I have remixed a lot of designs that I found online, but at the same time I designed a large portion of models, so I will try to provide as much references as possible in this description.

My main goal with this design was to rely on **color change** command (M600, but I prefer to use `M600 {if layer_height<100}Z100{endif}`, since it gives you 100mm of Z offset while you are changing filament so that you can clean the nozzle more easily etc.). I found a lot of nice designs online, but almost all of them relied on you printing models in white and then painting them with the colors you like.

I have also designed all parts to have 0.3mm fit offset so that you don't have to use XY Size Compensation in order to make things fit. Most models do not require any supports. I used [SuperSlicer](#) for most of the prints since it is based on PrusaSlicer and it has a lot of nice features that are still not available on PrusaSlicer. I also wanted to try out non-planar printing technique on some models, so I used this [Slicer](#) for those models (more on this below). In case anyone is interested I could also provide .3mf files for SuperSlicer prints.

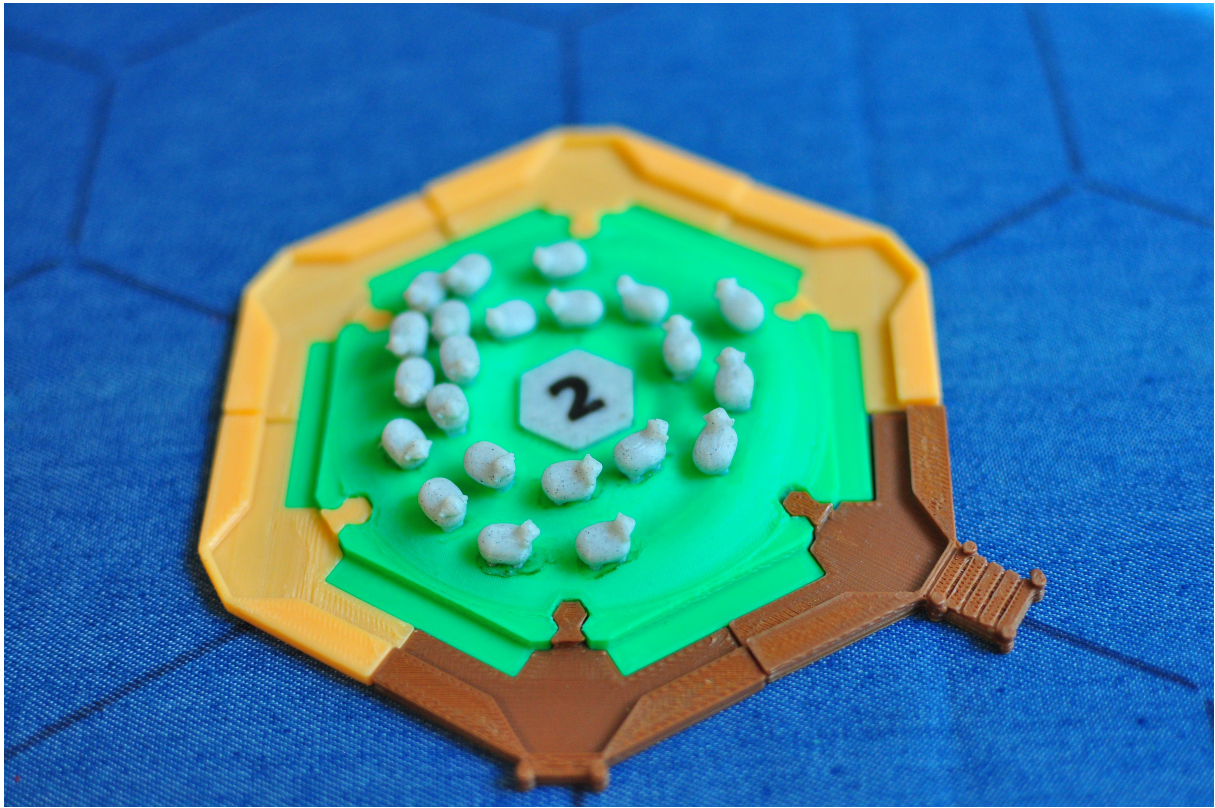
Let's get to the models!

Desert and Sheep

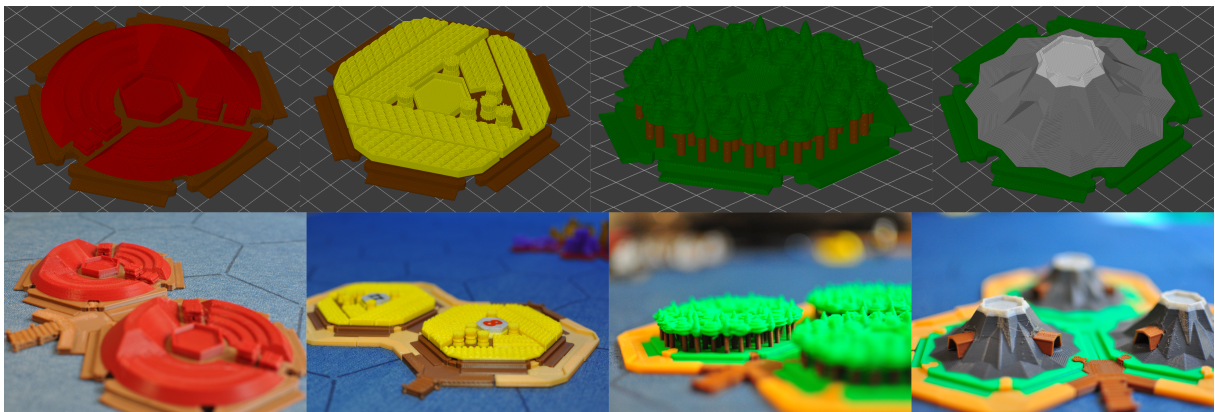
Lets talk about non-planar slicing. I really find this the most exciting way to 3D print, so I wanted to try it out on my desert model. I set up this [Slicer](#) on my ubuntu machine and the results were phenomenal. There are plenty of instructions online on how to do this, and if anyone is interested I would also be willing to help them out with some problems that I managed to overcome. I have also tried to integrate the non-planar functionality into the SuperSlicer and PrusaSlicer, but this work is not finished yet.



For sheep fields, I printed the sheep pieces separately (~15 per field), applied some heat to the field with an soldering hot end and fused the sheep to the field.



Bricks, Wheat, Woods and Ore - These are fairly straight forward for printing. They are designed for an easy color change as you can see bellow:

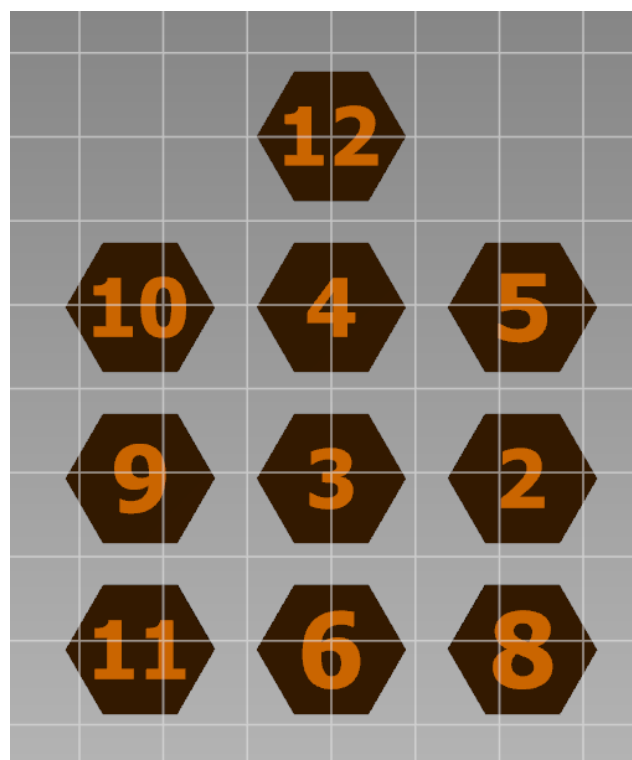


	Classic		C & K		Seafarers		Total
	3-4	5-6	3-4	5-6	3-4	5-6	
Desert	1	+1			+2	+1	5
Brick	3	+2			+2		7

Sheep	4	+2			+1		7
Ore	3	+2			+2		7
Wheat	4	+2			+1		7
Wood	4	+2			+1		7
Joints	36	+28					64

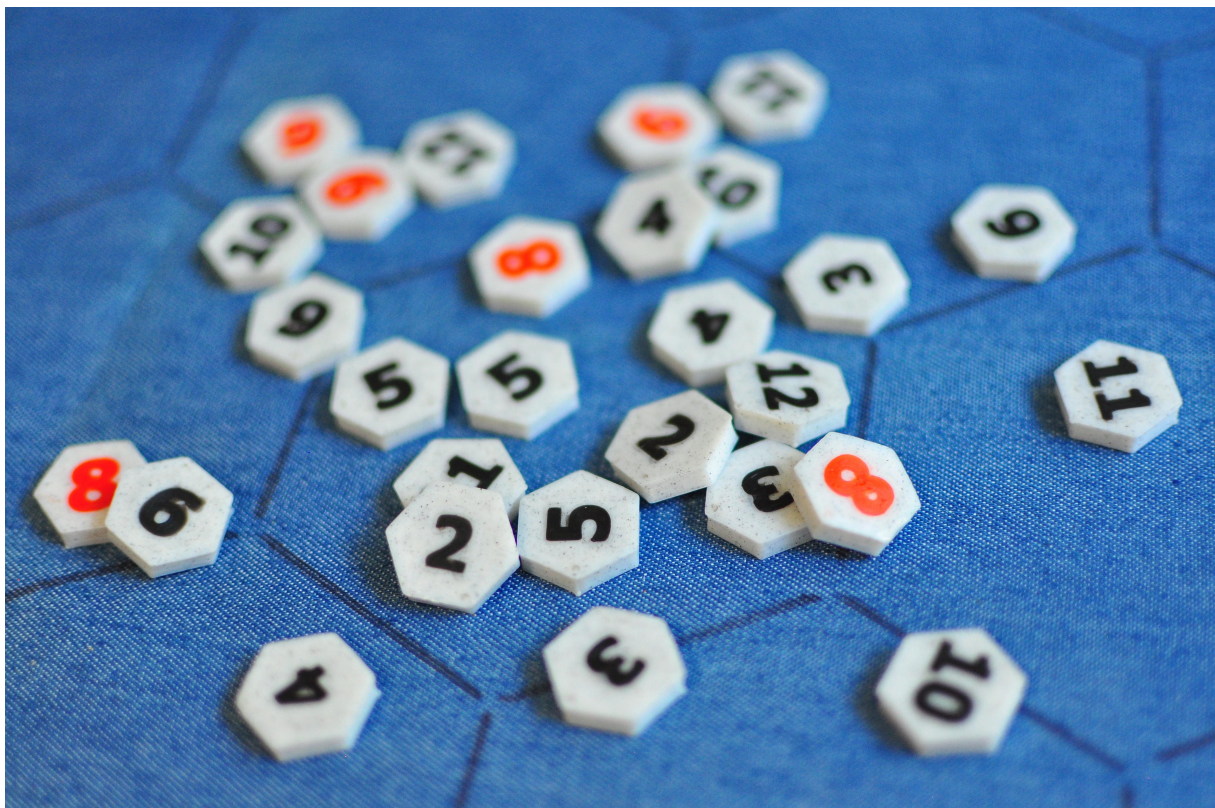
Number tokens for dice results

In order to print these simply load the model in your PrusaSlicer, position it where you like, click on: Split to Objects (it should make 2 objects) and deactivate the main body (should be the first object, do not delete it!). The other object is the number. You should be able to see something like this when looking at the plate from underneath:



You can go ahead and print this in a filament color you like at a first layer height of 0.2mm. Make sure that you don't **turn off the heat-bed** at the end of printing and don't remove letters from the heat-bed! Once this first print has finished, change the filament to a different color, and in slicer, deactivate the number object and activate the main body object. Keep the

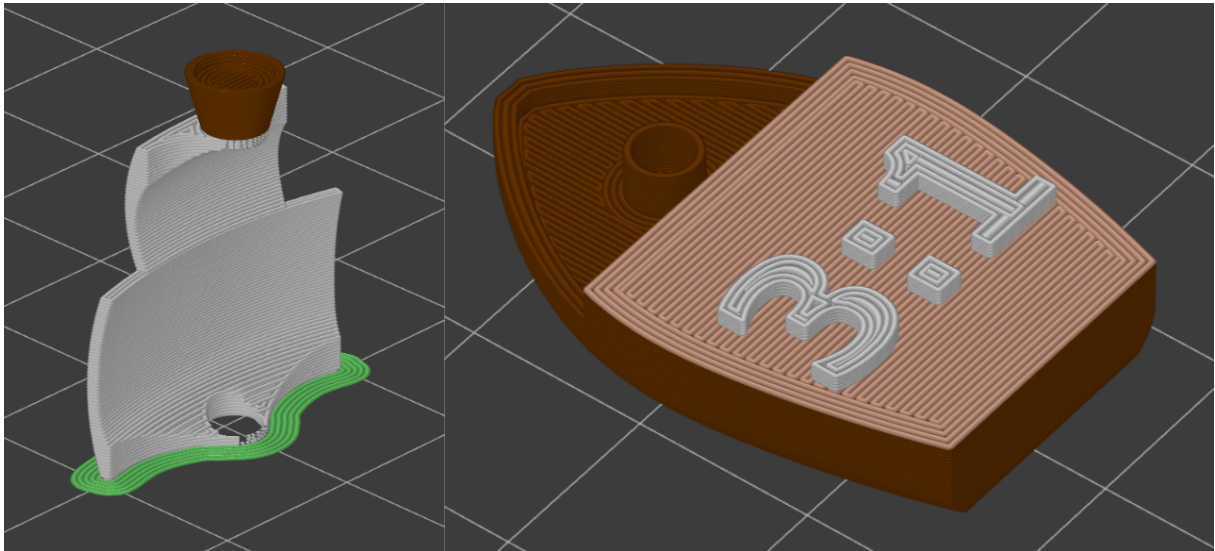
first layer height at 0.2mm and print the main body. The following is the result:



	Classic		C & K		Seafarers		Total
	3-4	5-6	3-4	5-6	3-4	5-6	
Numbers	18	+10			+10		38

Boats and Port markers

These boats are another example of how color changes can be very cool. I also introduced a single layer of a relatively transparent material in order to make a distinction between brown colors. Print sails for boats with brim since they are very fragile at the base:



I also like to print the mast horizontally for strength. The final results look like this:



	Classic		C & K		Seafarers		Total
	3-4	5-6	3-4	5-6	3-4	5-6	
Port In	6	+8			+some	+some	14+

Port Out	12	+12			+some	+some	24+
Beach In	6	+8			+some	+some	14+
Beach Out	6	+6			+a lot	+some	12+
Boats	9	+2			+some	+some	10+

Player Pieces

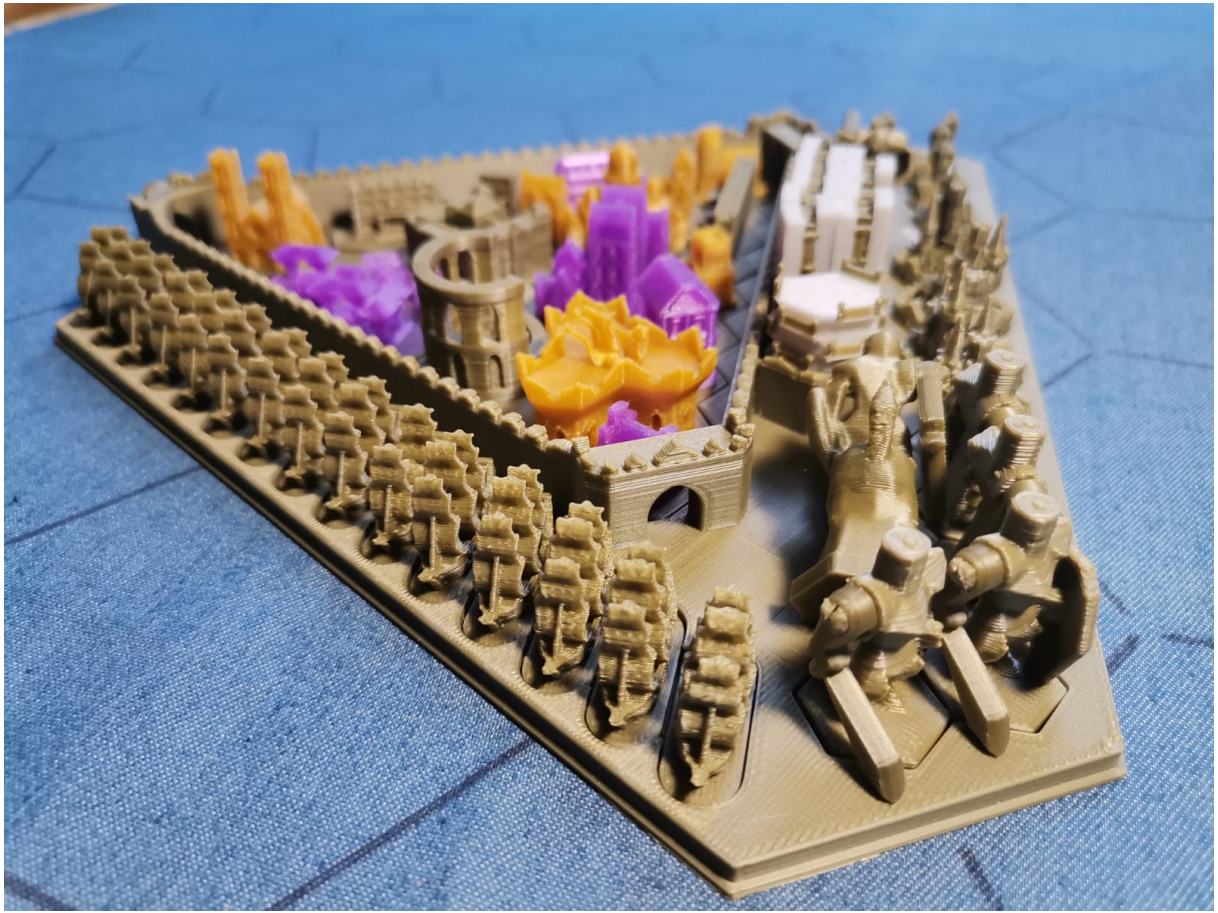
These are simple to print, and with the exception of Knight, you wont need any supports for these.



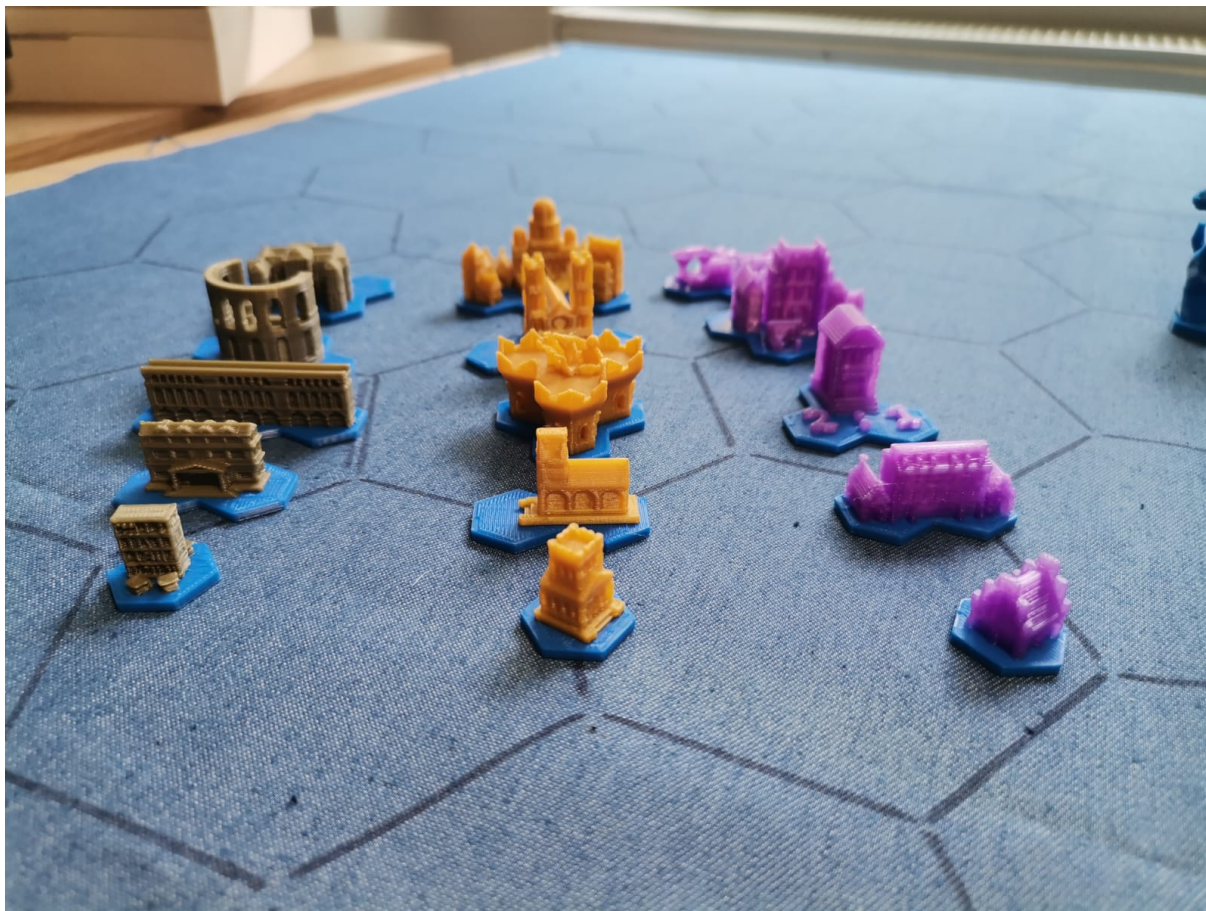
Knights have been designed so that the sword position indicates weather they are active in the game. These are the only pieces that need supports.



I have also design a holder for all pieces together with a box.



City Development pieces indicate how far you have progressed in the development of your city in Science, Politics and Economy. Add them inside the walls on the holder in order to mark that you bought them:

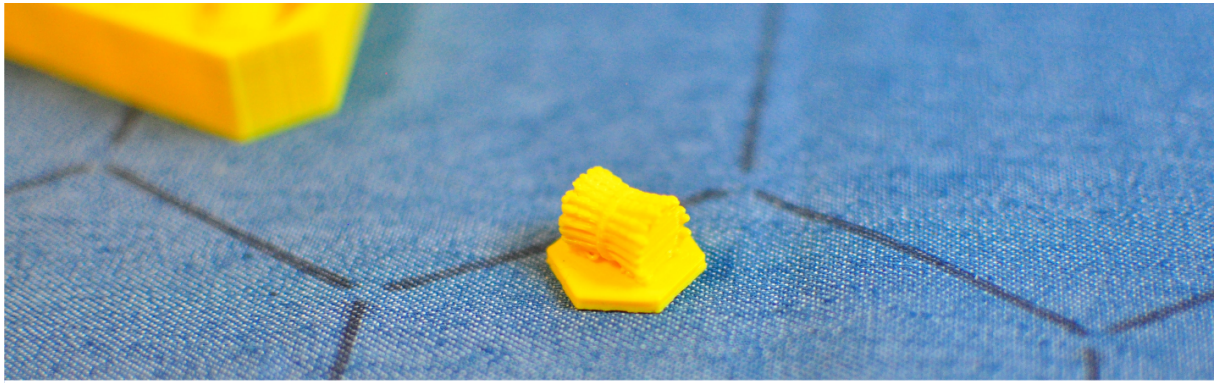
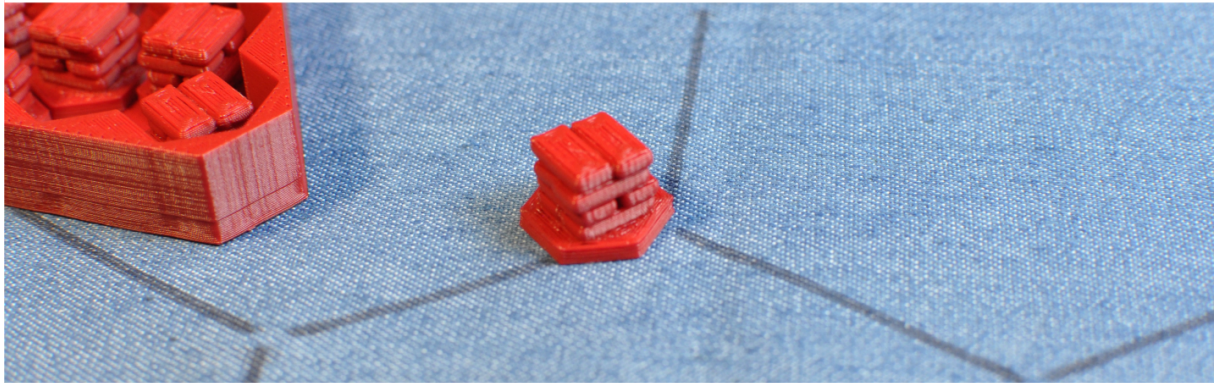
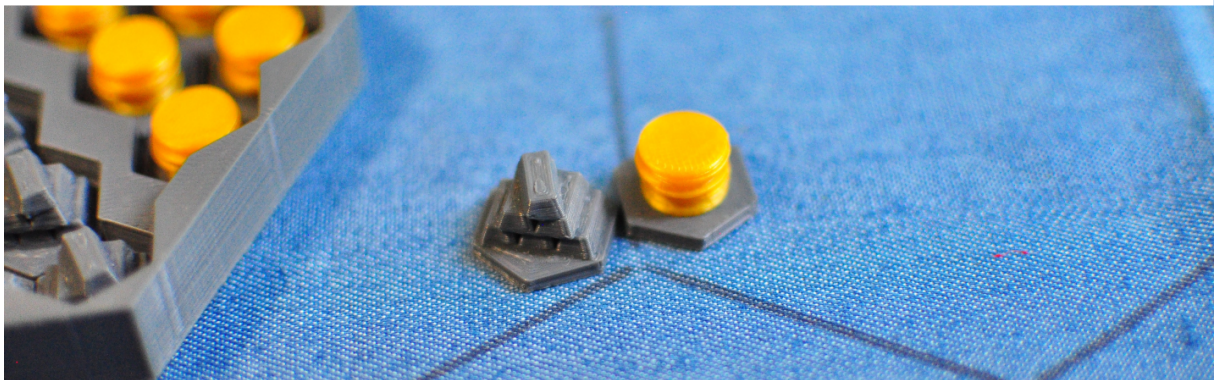
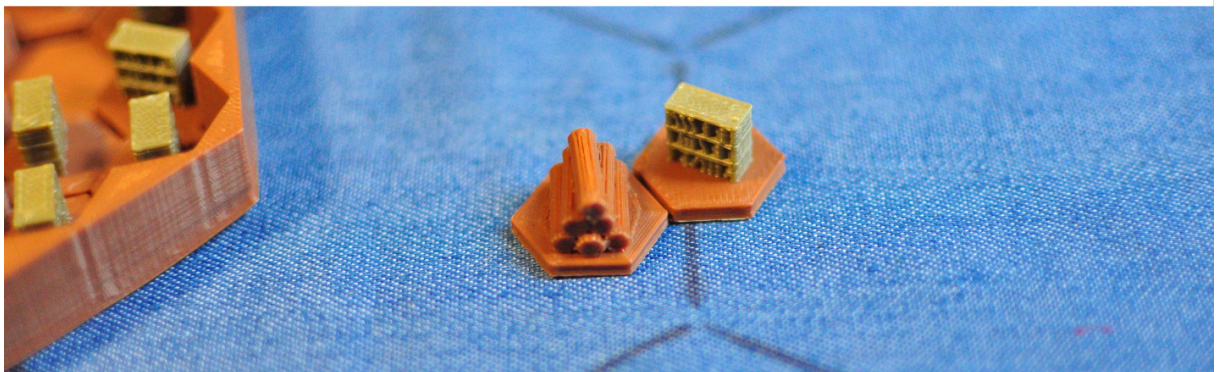


(per player)	Classic		C & K		Seafarers		Total
	3-4	5-6	3-4	5-6	3-4	5-6	
Village	5						5
City	4						4
Road	15						15
Crossroads	7+						7+
Walls			3				3

Knights			6 (2 each level)				6
City Improvements			1 of each				15
Boats				15			15

Resource Tokens

Again, simple pieces to print and with a box:

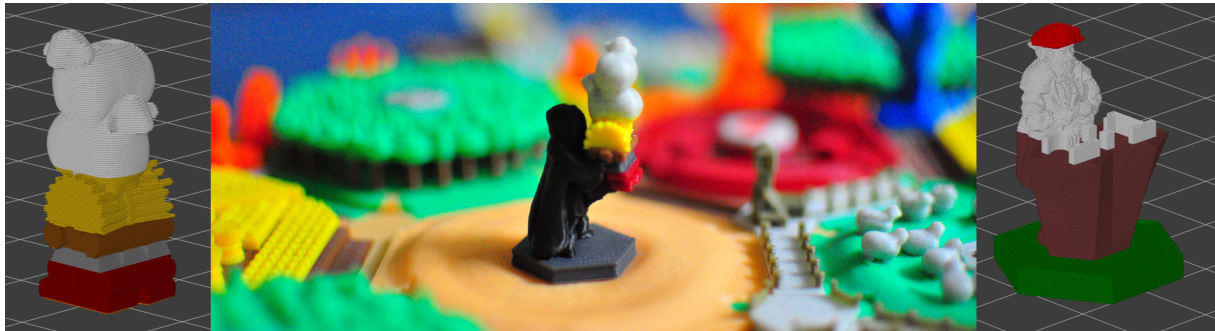




	Classic		C & K		Seafarers		Total
	3-4	5-6	3-4	5-6	3-4	5-6	
Brick	20	+5					25
Sheep	20	+5					25
Ore	20	+5					25
Wheat	20	+5					25
Wood	20	+5					25
Books			12	3			18
Coin			12	3			18
Cloth			12	3			18

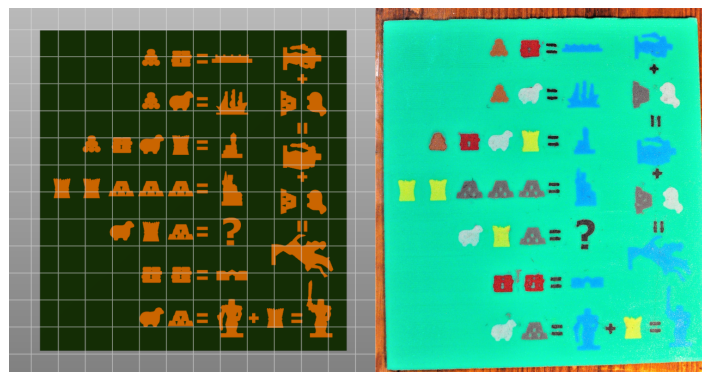
Bandit and Merchant

Bandit is printed with 2 parts, so that you can play with even more layer changes (Merchant too :))



Price List

Just an indicator of how much each thing costs in Catan. Print it in the same way as number tokens but with even more colors :)



I look forward to adding more to this design including more detailed descriptions on how to print!

Thanks a lot for checking out my design and I hope you have fun printing it and playing it with your friends :)

Model files



Fields

9 files



desert.stl

☐ original



wood.stl

☐ original



brick.stl

☐ original remix of <https://www.thingiverse.com/thing:646001>



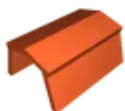
wheet.stl

☐ original remix of <https://www.thingiverse.com/thing:646001>



ore-mountain.stl

☐ original



ore-mine.stl

☐ original



sheep-field.stl

☐ original



sheep-piece.stl

☐ original here <https://www.thingiverse.com/thing:474526>



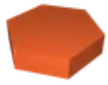
joint.stl

☐ original



Dice Numbers Marker

10 files



2.stl

☐ original



3.stl

☐ original



4.stl

☐ original



5.stl

☐ original



6.stl

☐ original



8.stl

☐ original



9.stl

☐ original



10.stl

☐ original



11.stl

☐ original



12.stl

☐ original



Coastline and Harbors

16 files



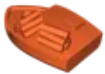
sail.stl

☐ original



ore-boat.stl

☐ original / remix of <https://www.thingiverse.com/thing:646001>



wood-boat.stl

☐ original / remix of <https://www.thingiverse.com/thing:646001>



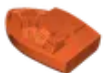
brick-boat.stl

☐ original / remix of <https://www.thingiverse.com/thing:646001>



sheep-boat.stl

☐ original / remix of <https://www.thingiverse.com/thing:474526>



wheat-boat.stl

☐ original / remix of <https://www.thingiverse.com/thing:646001>



3-to-1-boat.stl

☐ original



mast.stl

☐ original



sea-connector-b2b.stl

☐ original



beach-out.stl

☐ original



sea-connector-b2p.stl

☐ original



port-out-long.stl

☐ original



beach-in.stl

☐ original



port-in.stl

☐ original



sea-connector-p2p.stl

☐ original



port-out-short.stl

☐ original



Player Pieces

27 files



village.stl

☐ remix of <https://www.thingiverse.com/thing:1238980/files>



city.stl

☐ remix of <https://www.thingiverse.com/thing:1238980/files>



road.stl

☐ original



crossroads.stl

☐ original



boat.stl

☐ original here: <https://www.thingiverse.com/thing:1008456>



walls.stl

☐ original



knight-lvl1.stl

☐ remix of <https://www.thingiverse.com/thing:1244599>



knight-lvl2.stl

☐ remix of <https://www.thingiverse.com/thing:1244599>



knight-lvl3.stl

☐ remix of <https://www.thingiverse.com/thing:1779128>



sword-for-knights.stl

☐ original



science-lvl1-library.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



science-lvl2-school.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



science-lvl3-aqueduct.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



science-lvl4-theater.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



science-lvl5-university.stl

☐ remix of: <https://www.thingiverse.com/thing:1639041>



politics-lvl1-town-hall.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



politics-lvl2-church.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



politics-lvl3-fortress.stl

☐ original / remix



politics-lvl4-cathedral.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



politics-lvl5-parlament.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



economy-lvl1-craftshop.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



economy-lvl2-guilds.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



economy-lvl3-bank.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



economy-lvl4-stock-market.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



economy-lvl5-grand-bazar.stl

☐ original / remix of many things



player-piece-holder.stl

☐ original



player-piece-holder-lid.stl

☐ original



Resource Tokens

12 files



sheep_token.stl

☐ remix of <https://www.thingiverse.com/thing:474526>



wood_token.stl

☐ remix of <https://www.thingiverse.com/thing:646001>



wheet_token.stl

☐ remix of <https://www.thingiverse.com/thing:646001>



brick_token.stl

☐ remix of <https://www.thingiverse.com/thing:646001>



ore_token.stl

☐ remix of <https://www.thingiverse.com/thing:646001>



coin.stl

☐ original



books.stl

☐ remix of <https://www.thingiverse.com/thing:1653105>



cloth.stl

☐ original



token_box_small.stl

☐ original



token_box_small_lid.stl

☐ original



token_box_large.stl

☐ original



token_box_large_lid.stl

☐ original



General

11 files



bandit.stl

☐ remix of <https://www.thingiverse.com/thing:2133681>



bandit-stack.stl

☐ remix of <https://www.thingiverse.com/thing:646001> and <https://www.thingiverse.com/thing:474526>



mechant.stl

☐ remix of <https://www.thingiverse.com/thing:4072173>



pirateship.stl

☐ original here <https://www.thingiverse.com/thing:1393862/files>



metropolis.stl

☐ original



price-list.stl

☐ original / remix of many things



cities-knights-dice-v1.stl

☐ original



cities-knights-dice-v2.stl

☐ original - can be separated into parts for multicolor printing + has supports



defender-of-catan-token.stl

☐ original



longest-road-token.stl

☐ original



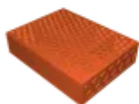
pirate-position-marker-ck.stl

☐ original



Boxes

10 files



player-pieces-box.stl

☐ original



fields-box-brick-wheat-sheep.stl

☐ original



fields-box-ore-wood.stl

☐ original



fields-box-middle-insert.stl

☐ original



fields-box-middle-insert-lid.stl

☐ original



ports-and-beaches-tray.stl

☐ original



ports-and-beaches-cover.stl

☐ original



resource-box-tray.stl

☐ original



resource-box.stl

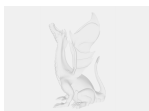
☐ original



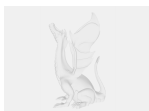
resource-box-cover.stl

☐ original

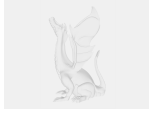
Other files



ck-cards-politics.pdf



ck-cards-economy.pdf



ck-cards-science.pdf



ck-cards-all-cards.pdf

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 - ✓ | Meets Open Definition