

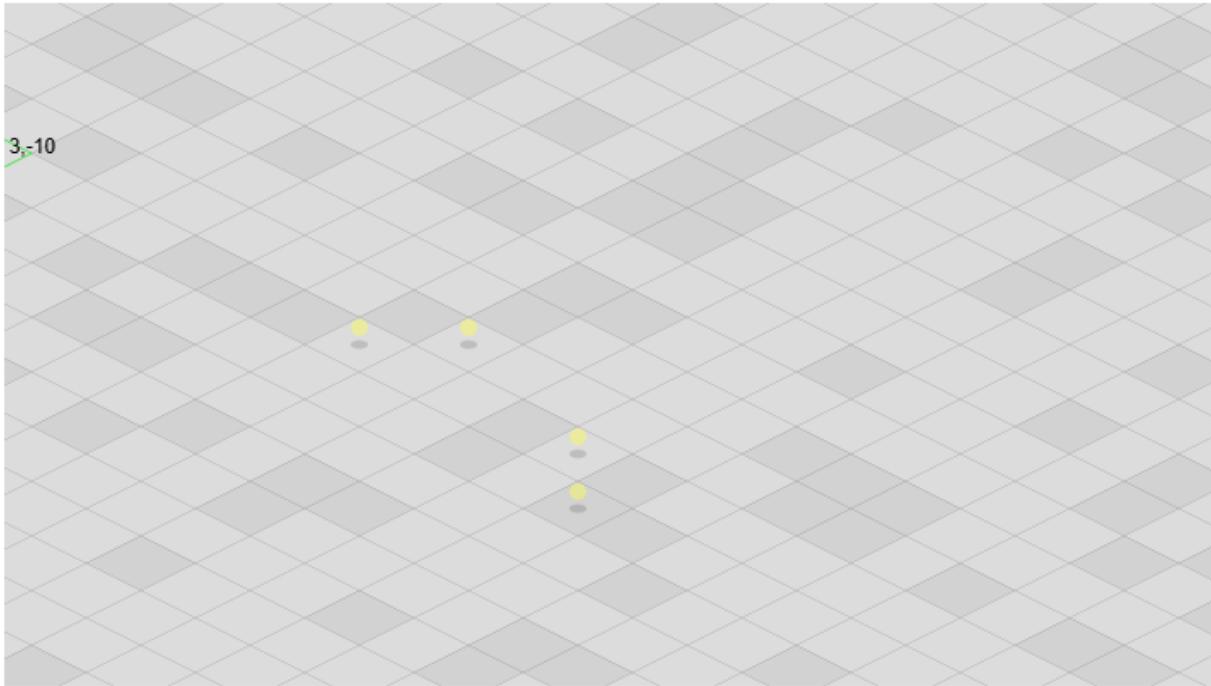
Experiment 4

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4/28/2025

Step 1: Imitate

I started off remixing this:



World key:

Arrow keys scroll. Clicking changes tiles.

Was pretty simple to remix, so that only took about a button press. Afterwards, I got inspired by these inspirations in the google slides:

Inspirations

Tiles are shifted up and down based on smoothly varying noise: It's a basic terrain, but tiles that would have a negative offset get rendered as water.

Tiles are drawn as pseudo-3D shapes of varying height: It's an infinite city. Do the lights blink? Are there cars on the roads?

A single strip of tiles extending out from the origin: It's map for an infinite runner game or an un-ending musical score.

95% of tiles are missing (not drawn), by the 5% that remain are exciting: It's a galaxy of stars, each one unique and surrounded by the emptiness of space.

Every tile is a monstrous eyeball, and they all stare at the audience's cursor (`mouseX, mouseY`).

There are no geometric tiles: Every location is instead occupied by floating text. You are trapped in an infinite space of bad jokes.

Clicking a tile plays a procedural sound: This piano has infinite keys, and no two are alike.

Now you're thinking with portals: Clicking a tile opens up a new webpage. Maybe the links to places in Google Maps?

Observing the system changes the system: the more times `p2_drawTile(i,j)` is called with the same arguments, the more tile `i,j` changes (gets used up somehow?). Good thing the world is infinite because you are consuming this world just by looking at it. »

Lonely creature: Something is crawling in your infinite world, moving from tile to tile (the tile draws a creature atop it when `i,j` matches the creature coordinates). The creature can't traverse all of the terrain until the audience edits it.

Spooky action at a distance: Drawing a tile impacts pixels far more than `tileWidth()` away. Maybe 1% of tiles include drawing roaming birds and bees that range several tiles away.

Advanced controls: Check `keyIsDown` in `p3_tileClicked` to decide what kind of action the audience is trying to apply to this tile. Can they plant several different species of vegetation on the terrain?

Off da railz: Edit engine.js to break out of the structure that was given to you.

Persistence of vision: Backup and restore audience edits to your world using `localStorage` so that their tweaked world persists even after closing the browser window and returning.

Specifically the shifted up and down based on noise, 3d shapes of varying height, and thinking with portals. I didn't initially plan on integrating all of them, the one that drew me first was portals, but then eventually I added all three for a fun flavor inspiration combination. I miiiight have gone a little overboard on the implementation this time around, only because this quarter's grading is extra harsh apparently. Time to turn stuff up to 110% I guess, getting tired of getting only 8.5 on these experiments >:C

That and prof Wes apparently says I sell myself short a lot in these lol. Time to hype it up. Anyways we're getting off tangent. I went ahead and gathered a bunch of fun looking isometric tiles for this project. I didn't end up using all of them, but I figured more wouldn't hurt! I made sure these were all free and didn't need credits... but I credit them here anyways cause they were awesome and super helpful.

[MRMO_BRIK by Mrmo Tarius](#)



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KENNEY Game assets

Sketch Town

This package includes isometric tiles to create landscapes and towns with a sketchy outline style.

Features:

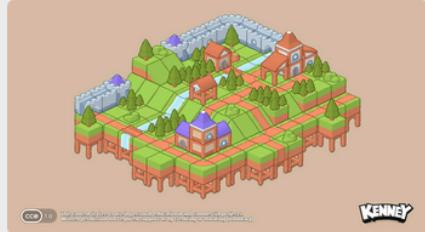
- Over 340 sprites
- Includes sample Tiled map

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[Pixel Isometric Tiles by Irgu](#)

Pixel Isometric Tiles

A simple pack of 32x32 pixel tileset, ready for commercial & non-commercial use.

Made with Aseprite using a color palette inspired by pico-8.

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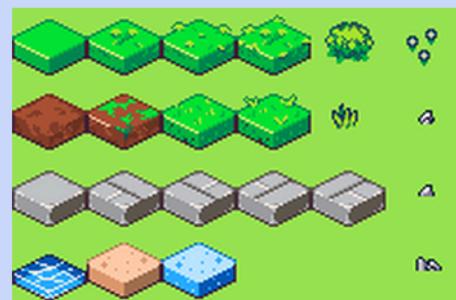
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[Enthusiast Guy](#) 313 days ago (1 edit)

Hey there! This is a very nice tileset. I made a demo for Continuum 93 using it:

[2D Isometric Portal by Mattz Art](#)



2D Isometric Portal

A Simple Pixel Art Portal.

- License -

- You can use this asset in any game project, personal or commercial.
- DO NOT resell or redistribute AS A GAME ASSET**, it has to be part of a project.
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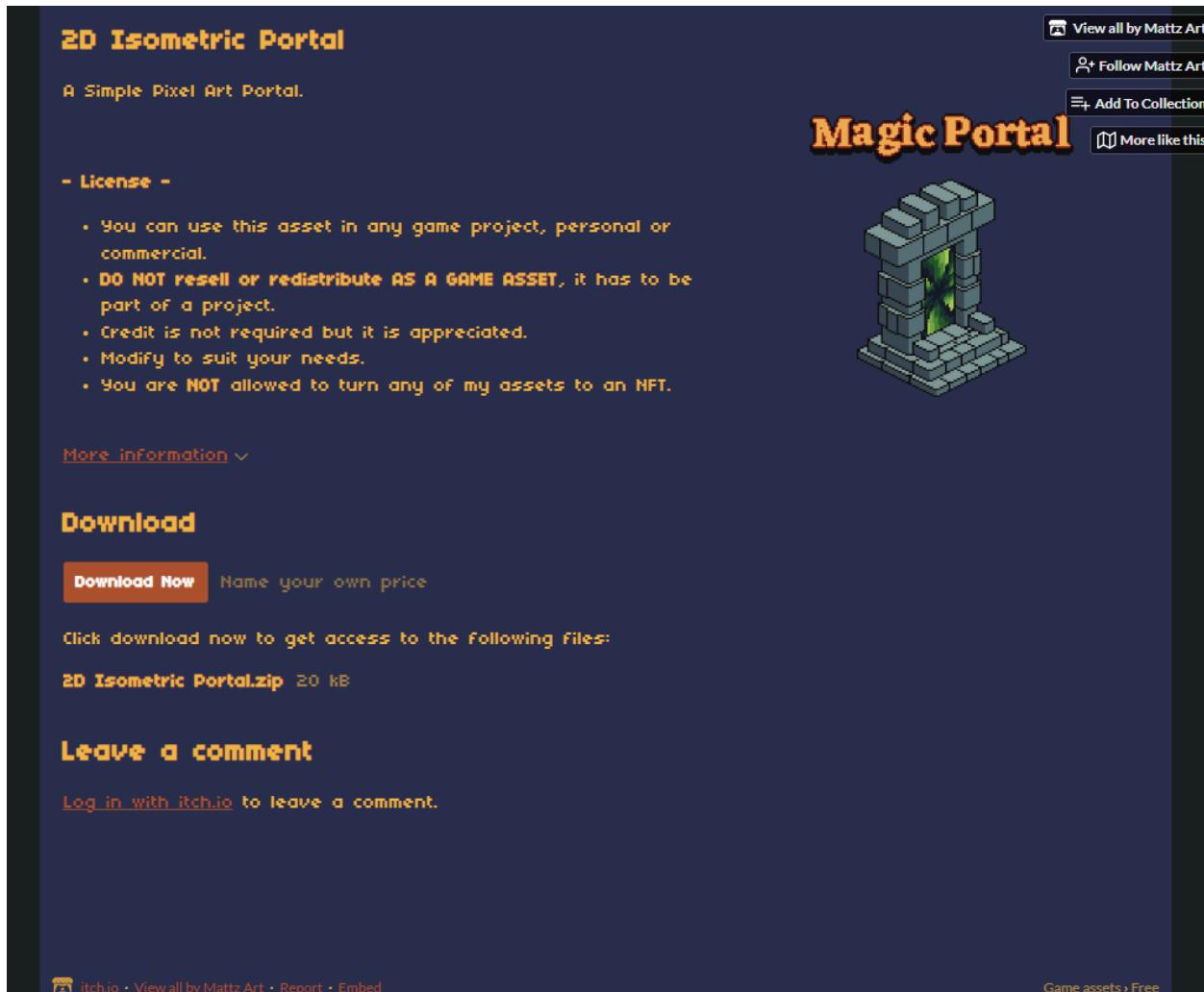
2D Isometric Portal.zip 20 KB

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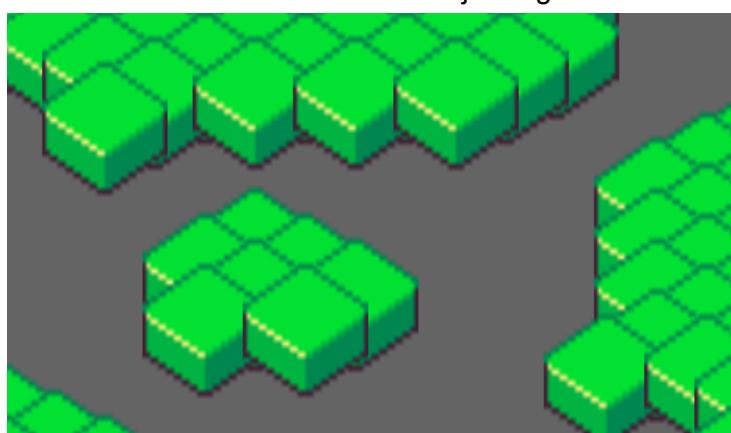
Game assets › Free



After gathering all the necessary supplies, it was time to integrate this into my project!

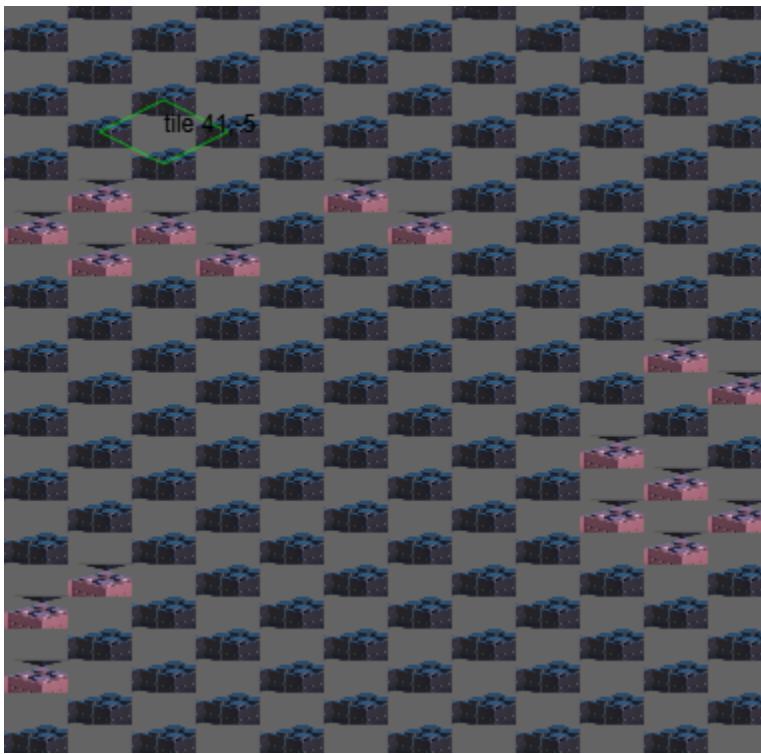
Step 2: Integrate

The initial attempt at integrating the tiles was... difficult. I forgot to take pictures of a lot of it buuuu... there were some of the major bugs.

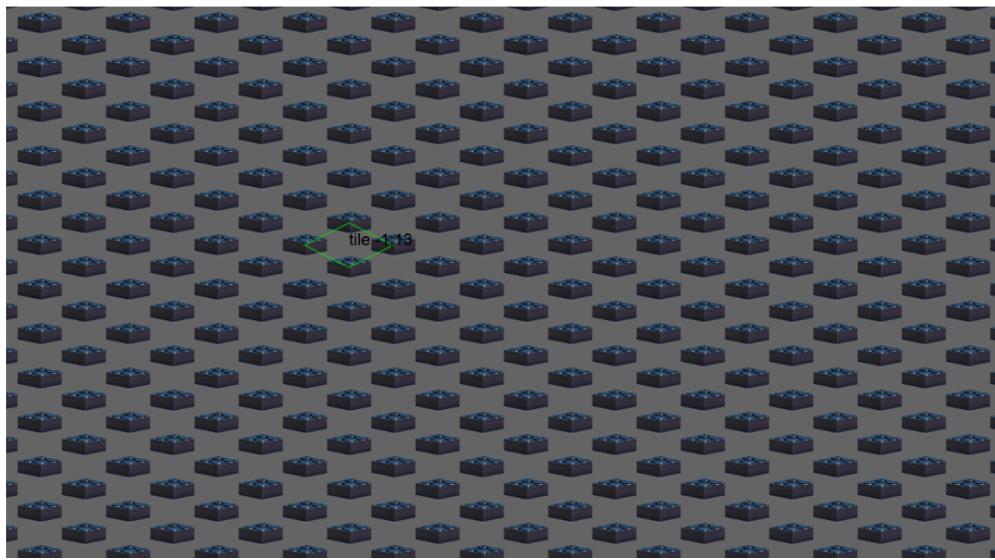


The draw tile was super finicky because every single tile I used was a different size from each other and also didn't match the initial implementation's isometric size at all.

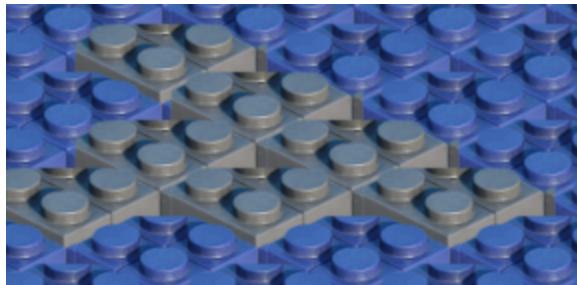
Here were some of the funny problems below.



These bricks that weren't cut properly in the spritesheet...



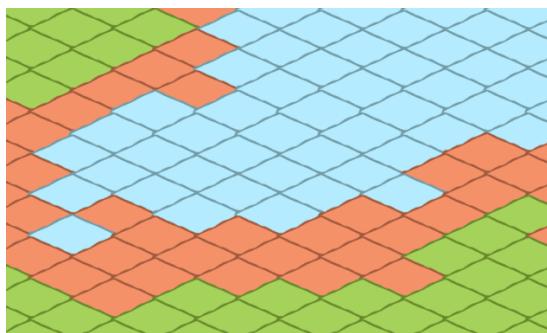
These bricks that were cut properly but didn't fit the tile selector...



These bricks that were missing corners...

There were a lot of issues, buuuuuut once I got all that stuff settled it was time to innovate. I had to make each world unique from each other outside of just doing simple palette swaps. So I went to work on the first one, time to innovate!

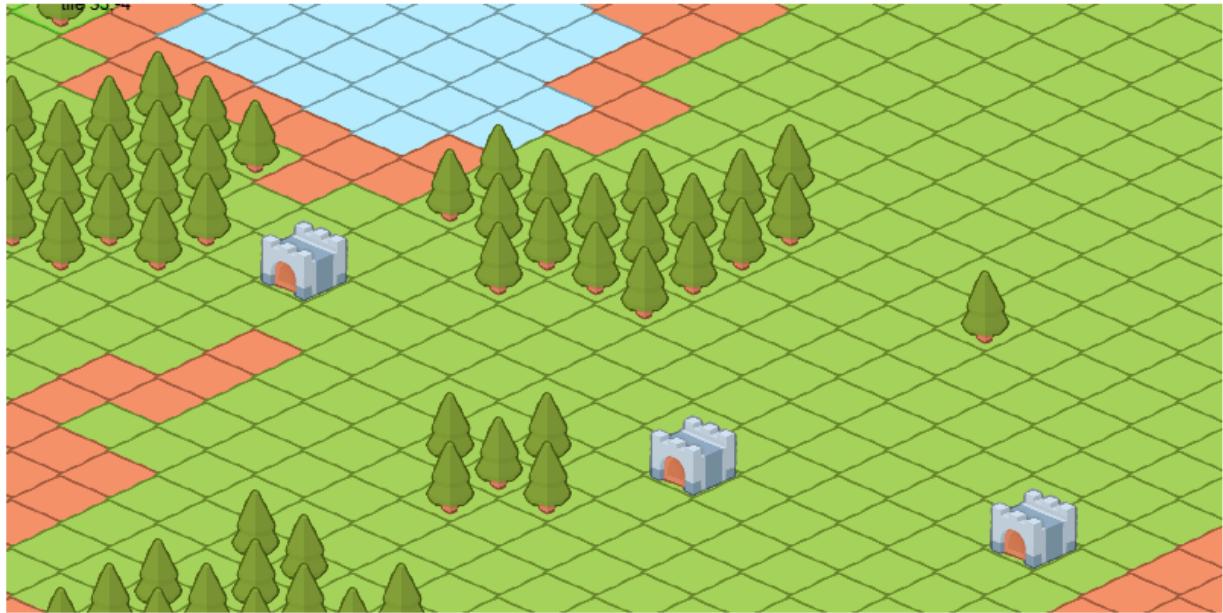
Step 3: Innovate



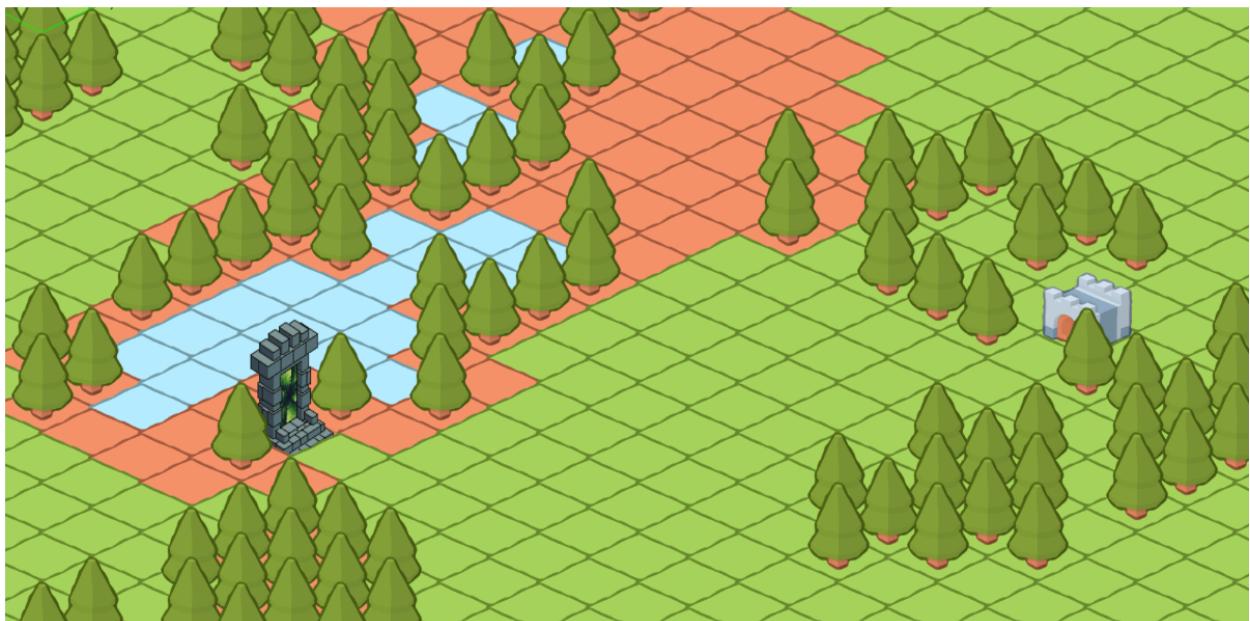
So the first thing I worked on was world 1, to make it better than just a flat square of tiles with the different colors I went to implementing fun decorations. It... didn't go as planned. Remember how I said earlier things were different sizes from each other? Yea that problem popped it's annoying head again. These iso tiles were all separate png files so there was some really annoying size variations between everything.



The first implementation looked like this, where the trees and castles were flattened or off center. Also needed to make it so the castles were not blocked by trees, and the trees spawned in more realistic patterns.



I did this with perlin noise, using perlin I placed the trees and castles in more realistic patterns, I made sure castles had a nice clearing around them as well so that trees don't completely block them in.



I then went and added a portal before moving on to the next world.
Luckily with the next world, the blocks were similar, so I started off with them again.

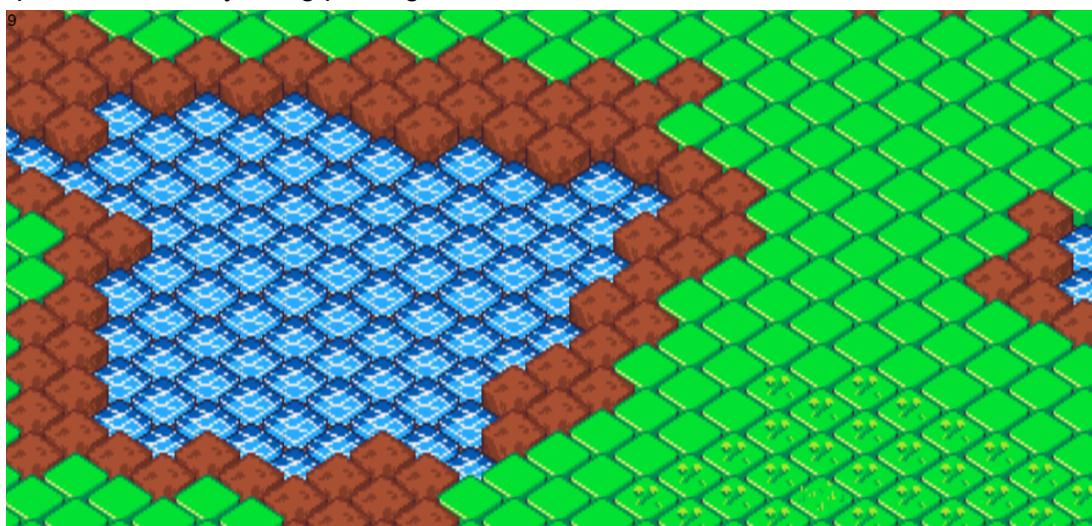


There was a slight issue with floating portals because of course these blocks were a different size than the first set.

After fixing that bug, I figured that the fun implementation would be to turn this into a sort of water/grass world vs the first world that had trees and castles.

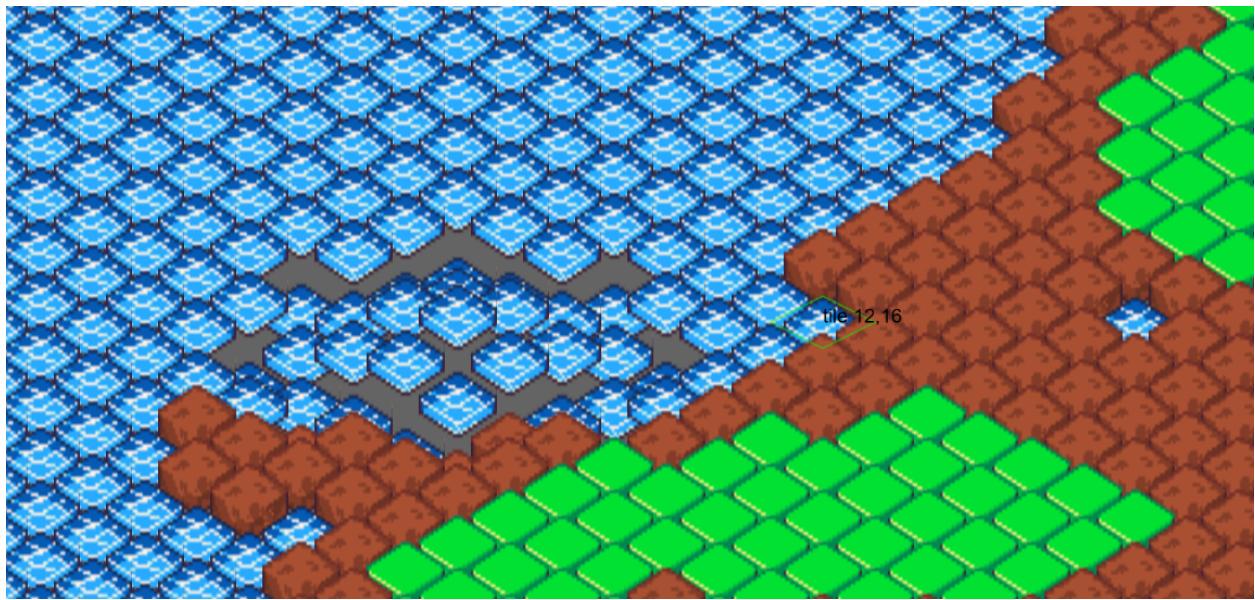


The grass tiles in this sprite sheet had a lot of fun variants to it, so I made it so that the grass spawned naturally using perlin gradients.



Instead of the flat single color blocks of the original world, these now have patches of grass that change in intensity. I also made the water tiles more prevalent in this one, allowing for bigger

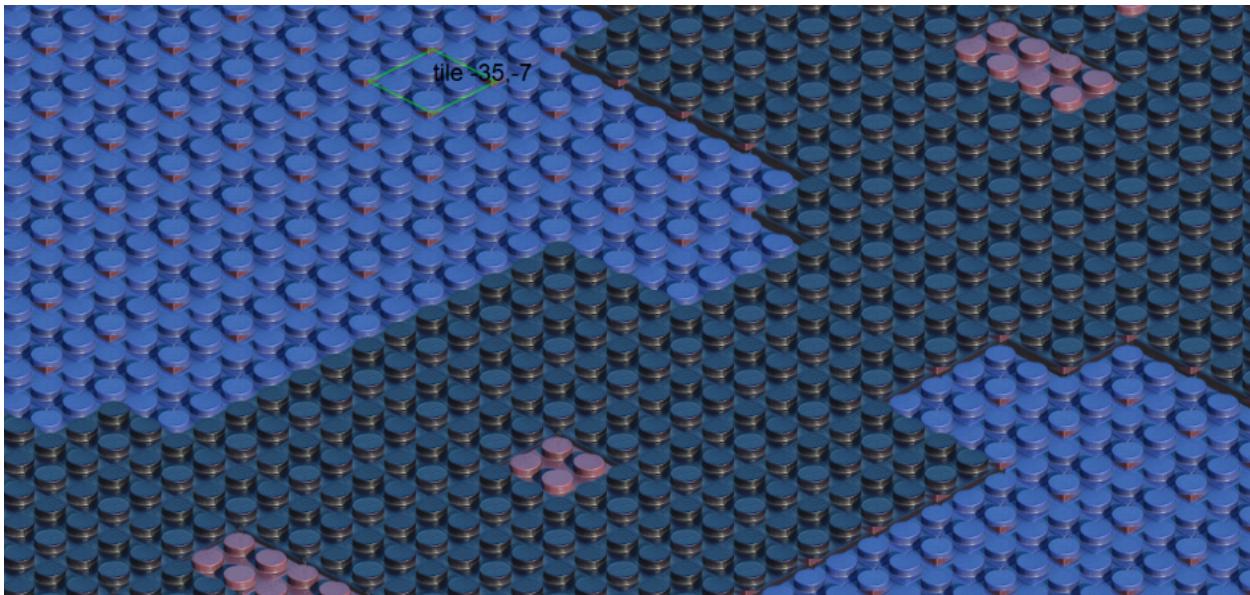
and larger ponds vs the smaller ponds of the original. This lead me to making the wavy inspiration, because it was looking a little flat. My initial implementation of the waves was... less than optimal.



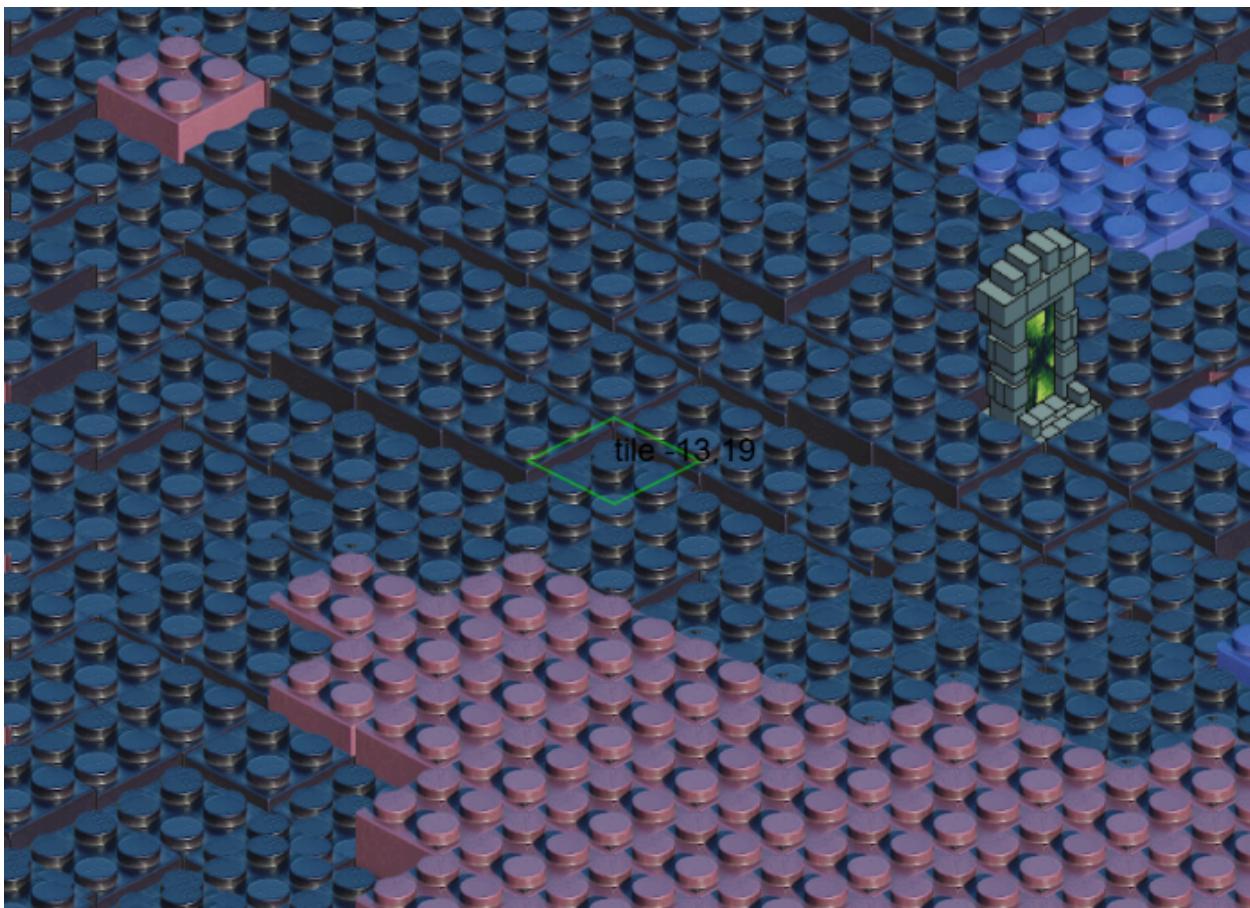
I uh, didn't really get the math right the first time around, and it jiggled just a small amount of blocks in the initial camera spawn. Luckily I fixed it with a more subtle overall wave that I ended up using for all 3 worlds... but it's so subtle it's hard to show on this document. After I was happy with the water world implementation I moved on to the trickiest of all three worlds, the lego land.. World... thing.



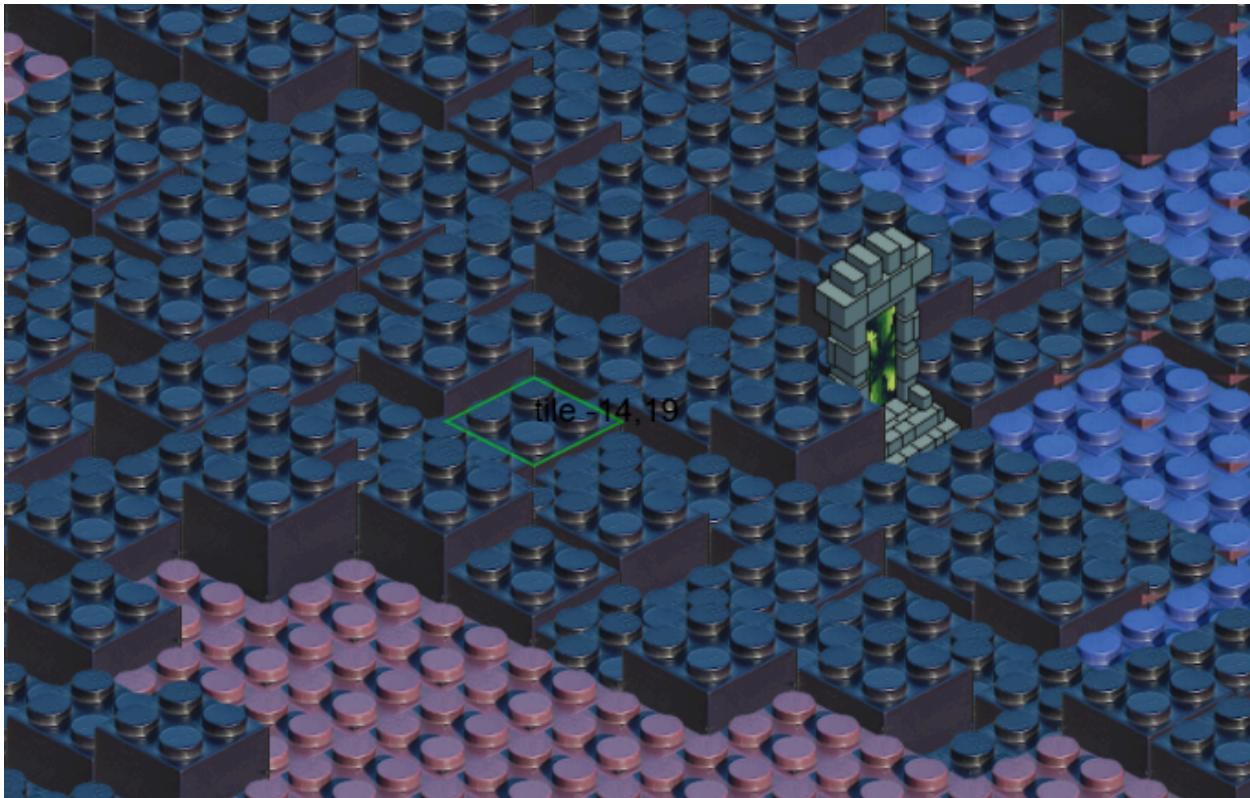
It started off like this after I fixed the weird sizing bugs mentioned earlier. Just a niiice flat ground to play with. I then implemented the water tiles and other various fun colors.



I then tried to think about what would make this interesting, which is where I ended up with the third inspiration, the pseudo 3D shapes of varying heights! My initial implementation was... about as bad as the water implementation.



Sine perlin was not really jagged enough to look mountainous and it just looked kind of bad. It looked more like rolling hills than mountains, so I tried some of the tricks that were shown on the video in class aaaand I ended up with this thing!



It didn't read off as a mountain, buuuut I liked it because it reminded me of when I was a kid and would make little lego dioramas for my lego figures, so I kept it like that. The variations were interesting looking, though the immense variations through the tiles made it uh, a little laggier than the rest of the worlds, but still playable! Fun fun! There were... a lot more issues in the height implementation than I would care to admit, and in my frustration busting my butt trying to fix it I forgot to screenshot most of the bug fixing process, so unfortunately I don't have those photos. However, with the implementation of mountain world, I finished the project! Just in the nick of time too, as I juuuust fixed the mountain issues at 10:49 the day it was due xD Gotta love the hyperfocus.

Self Evaluation Rubric

Did you complete the assignment and did you complete it on time?	Submitted on time	No clarification needed
Did you put in earnest effort and provide an articulate summary of your experience?	Excellent	I try to keep a detailed track of what I do throughout a project so that it's easy to see my workflow
Was the assignment complete, with minimal errors, correct output, and good style?	Excellent	I hope so
How much creativity and EXTRA effort did you put into the assignment?	Excellent	Finding out a way to make each world unique was super fun and also suuuuper annoying. But I'm glad I went with a different inspiration for each one. By the end of the project I managed to complete three more inspirations on that list than I initially planned so that was neat! I think I put a bunch of extra work into this one xD

Reflection

Overall, this project ended up being way more intense (and way more fun) than I initially planned. What started as just wanting to add a simple portal gimmick spiraled into uh.. Whatever this was. I think one of the biggest things I learned this time around is that when you're trying to mash together a bunch of free assets, you have to *really* double check your sizes and formats early on, or you'll be fighting a bunch of invisible bugs for hours.

I also realized how much more lively a world feels when you add even small natural-looking randomness with things like water movement and mountains. Even though some parts of the project (like the mountains and the janky water waves) gave me way more trouble than I expected, I'm really happy with how much experimentation I squeezed into this one.

If I were to do it again, I'd probably slow down a bit during integration to avoid a few of the painful mid-project refactors I had to make. But honestly, I'm glad I let myself go a little overboard this time, it made the final product way more satisfying, and I definitely felt more proud of this experiment than some of my earlier ones. I also would love to stop getting 8.5's, please comment what you're looking for in these experiments so I know what the heck i'm shooting for, *please and thank you*.

