# Prototype Evaluation:

Part 1: Movement

My first idea of how to tackle this game was to have the player move right and fall with gravity, only being pushed up when the player taps.

However when I added a scrolling background for the illusion of moving forward along the city, I realised that the best approach may be to not actually move the player at all in the x axis but have the obstacles move past the player instead. This approach means that the players X coordinates won't change meaning no overflow.

In this case the pipes (which I remodelled as simple chimneys to match the background a little more) move at a speed set by the spawners 'Universal Pipe Speed' float and spawn based on the delay in the same script. If you wanted to increase the speed at which these

pipes spawn, you could lower the delay, and to make them move past the player faster you would increase the UPS.
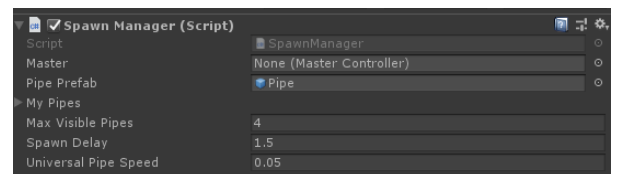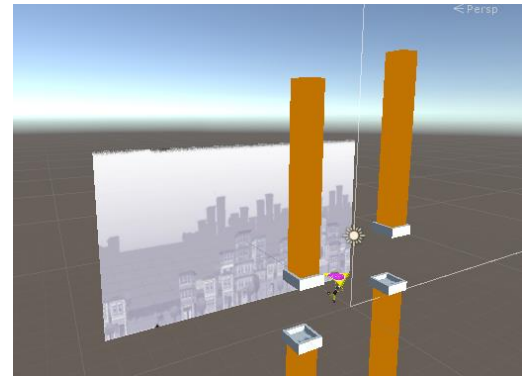
Part 2: Spawning

Initially I was going to spawn two pipes each round of spawning and have each of them decide on their own y position, but after watching some gameplay of flappy bird I realised that the gap was constant between the two pipes and so for the sake of simplicity I made a prefab with both top and bottom pipes which would select a single y position for where the gap would be.

This could easily be changed by having the obstacle decide the y position of both its children when it is re-enabled.

While testing in the editor the spawn delay at 1.5 was perfect for all screen sizes however after testing it on android I found that the pipes spawned too closely together, at first I believed this to be caused by the resolution of the screen however I later found out that it was due to the timer being incremented according to the framerate. Changing Time.deltatime, to Time.fixedDeltaTime fixed this issue.

Part 3: Scoring

I decided to have the scoring handled by the pipes this made it simple to just check if the player had gone past a certain pipe and give points based on position. Having a separate Scoreboard Manager helped make this simpler.

Part 4: Sound

For the sound effects I used sounds found in the Universal Sound FX Pack.