USER MANUAL

World Generation

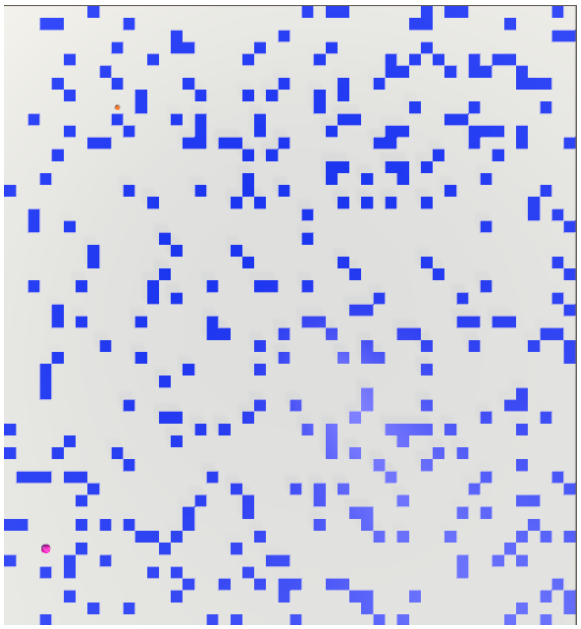
To create the world for this demonstration simply use the panel at the top left hand side of the screen.

The Rows and Columns sliders will determine the dimensions of the world.

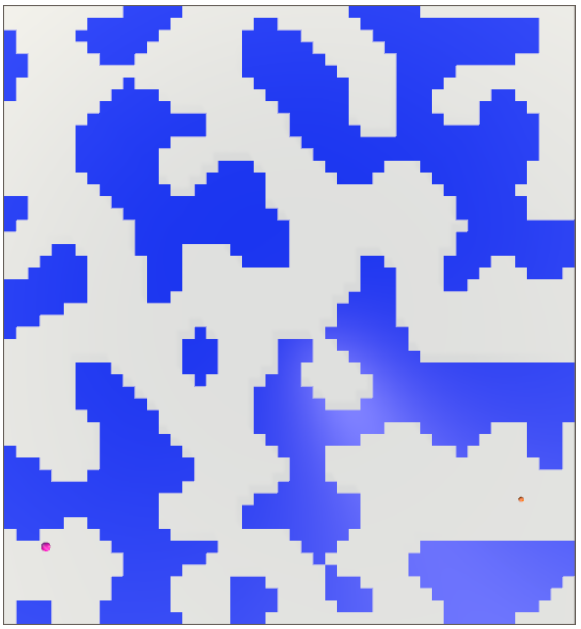
Block Density will determine how full of blocks the world will be.

The Use Perlin Noise check box will change the way the blocks are placed. (*See images below*)

Once you have chosen your desired variable, click Build World. This will automatically build your world and the navigation grid.



Without Perlin Noise



With Perlin Noise

Grid Generation

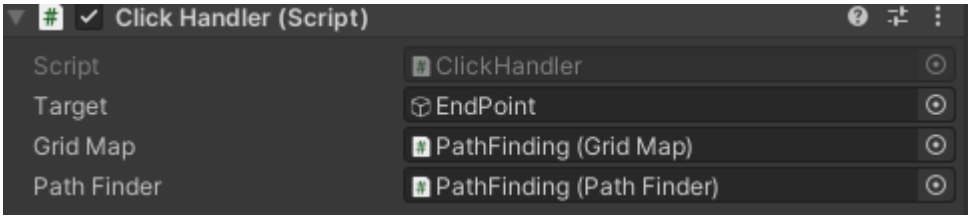
If you already have a world environment that you wish to use you only need to click Build Grid. Please note, the bottom left corner of your game environment must be at (0,0,0) to work.

You must click Build Grid after any change you make to the environment during runtime.

Path Finding

Currently, Clicking in the world with the left mouse button will start the path finding algorithm and build a path from your start point. This will automatically start moving the player towards the target position.

If you want your own player to follow the path, add the Player Movement and Click Handler script to your player game object and make sure it has a rigid body.



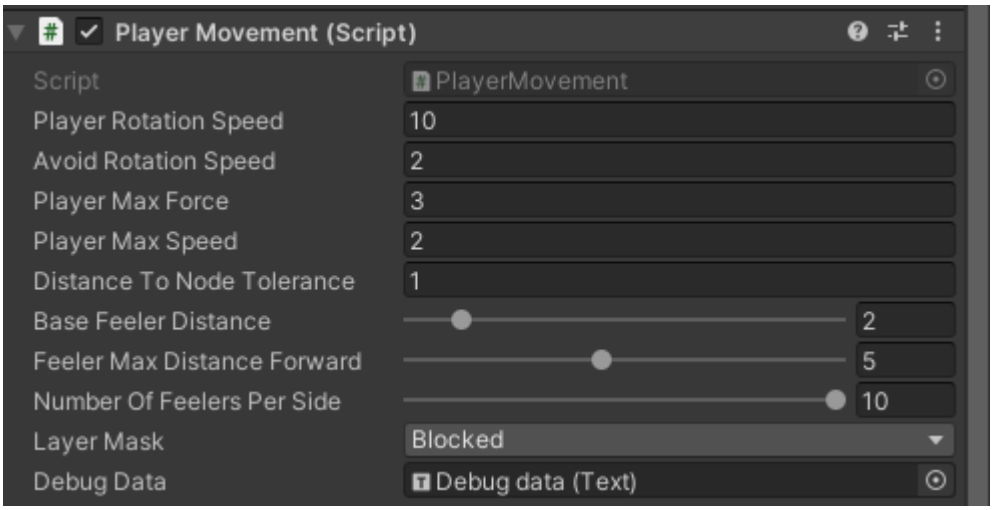
Drage the path finding game object into the Grid Map and Path Finder slots. The Target slot is merely for visualisation purposes. Drag the game object of your choice if you want a visual maker to appear when the target location is clicked in the game environment. Leave it blank if you do not want this to happen.

If you want to call the path finding function in your code, it is located in the PathFinder script.

GetPath(*[Vector3 Start Position]*, *[Vector3 Target]*); Parse through your Vector3 start and target positions.

Character Movement

The character movement script has the following variables that are able to be changed...



Player Rotation Speed

The rotational force at which the player rotates towards the path

Avoid Rotation Speed

The rotational force at which the player rotates away from the blocked environment. (this competes with Player Rotation Speed)

Player Max Force

The players acceleration

Player Max Speed

The top speed the player object is to be clamped to

Distance To Node Tolerance

This is the distance from the player to the next navigational point where the player will look for the next node in the path.

Feelers

Feelers are small whiskers that push away from blocked objects. They add a rotational force on the y axis in the opposite direction that they are situated. The closer the object is to the player object, the bigger the force that the feeler will produce.

Base Feeler Distance

The size of the smallest feeler.

Feeler Max Distance Forward

The higher the number, the more the final feeler is forward facing.

Number Of Feelers Per Side

The more feelers per side, the smoother the movement will get when pushing against a blocking object. Leave the number low for a more aggressive avoidance behavior.