

# PlacementManager

The **PlacementManager.cs** holds the logic for:

**Currency:** Buying and Spending

**Building:** Placing and Demolishing

**Grid:** Grid Placement

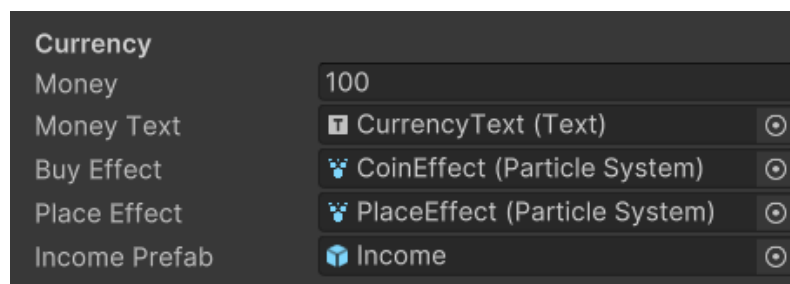
## Currency:

**Money** is the current the player has.

**MoneyText** is a UI element that displays **Money** as a string.

**BuyEffect** and **PlaceEffect** are particle systems that get played whenever the player places or demolishes a building.

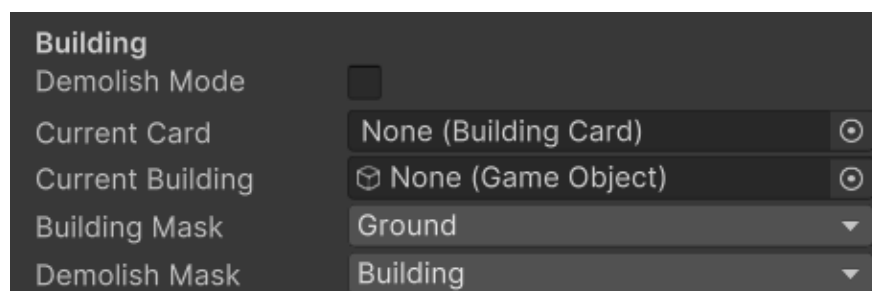
**IncomePrefab** is a World Canvas with a Text field that displays how much money has been spent on placing the building.



## Building:

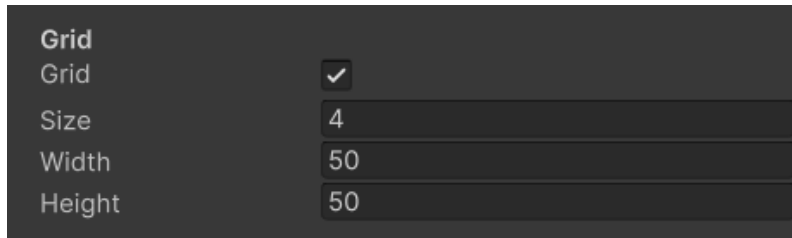
**DemolishMode** indicates whether the player is in building **placement** or **demolish mode**.

**CurrentCard** is the current **BuildingCard** that is selected. Similarly, **CurrentBuilding** is the Building that the **BuildingCard** will build when the player clicks on an object with a layer "Ground". Any buildable area in your game should be layered as ground so a Building can be built there. When in **DemolishMode** any object layered as "Building" will get demolished and half the **Building Cost** will be added to **GameManager Money**. Every Building in your game should be layered as "Building" to indicate it can be demolished.



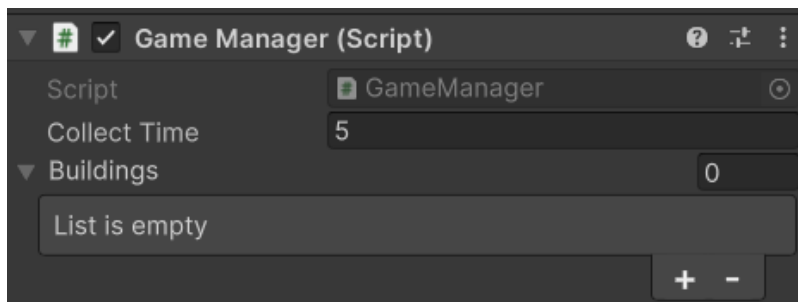
## Grid

The **Grid** bool indicates whether the buildings will tolerate the Grid when being placed. This can be turned on/off either in the inspector or by pressing Keyboard T when in Play Mode. The **Size** of the grid indicates how big each grid square is. The Grid is virtually infinite, the **Width** and **Height** are used for debugging purposes only. Currently the code in OnDrawGizmos of **PlacementManager.cs** is commented, but in case you want to visualize the **Grid**, you can uncomment that code.



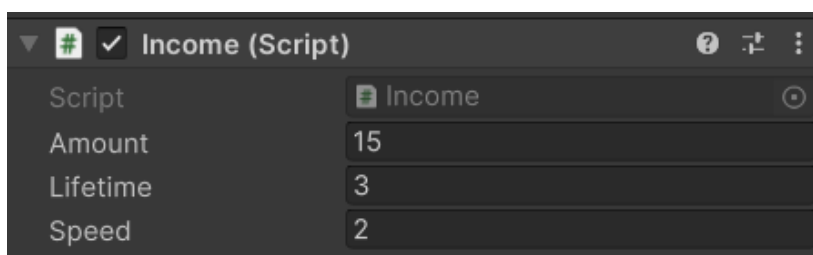
## GameManager

The **GameManager** is responsible for collecting the income from **Buildings** that have **production** above 0. When a building is placed, it gets added to/removed from the **Bulidings List**. Every building in the Buildings List will be checked for **Income**, every **CollectTime** seconds.



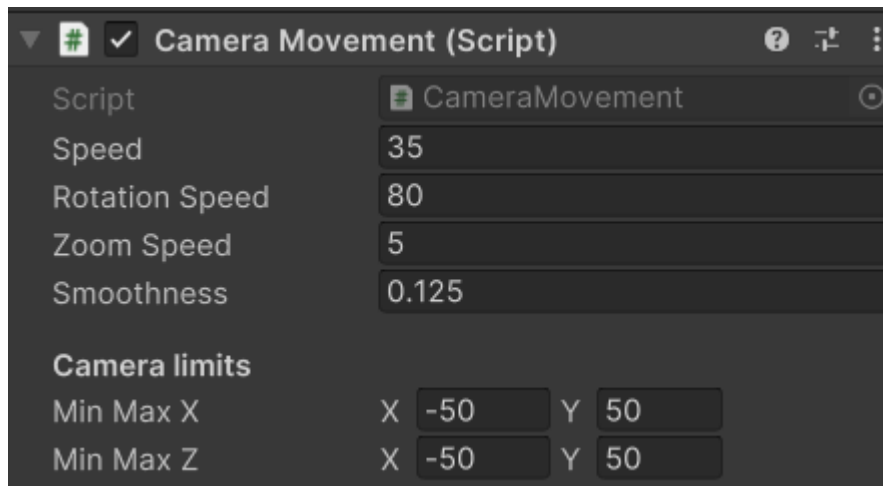
## Income

The **Income script** is attached to the **Income Prefab**. The prefab is a **World Canvas** with text field that displays any income within the game. Based on the **Amount** the text color will be either red (if below zero) and green (if above zero). The lifetime is how long the Income Prefab will exist before getting destroyed. The **speed** refers to the speed of the **World Canvas** floating up.



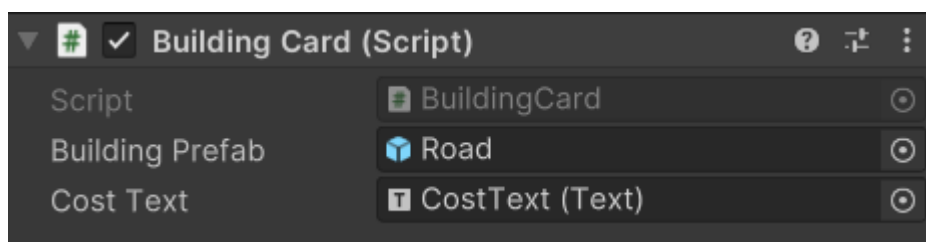
## CameraManager

The CameraManager is attached to the Main Camera. It has parameters for **movement**, **rotation and zoom speed**, as well as **smoothness**. Feel free to adjust these to understand better how they work. The camera also has a **MinMaxX** and **MinMaxY** Vector2s. These are the boundaries on the X and Z axis. If you don't want your camera to be bound this space make the range from -99999 to 99999.



## Building Card

The **BuildingCard** script is attached to the UI card and has 2 references: one for the **Building Prefab** that this card is responsible for building, and one for the price text field, that gets updated based on the cost of the Building Prefab at the start of the game.



## Building

The **Building.cs** is attached to the Building Prefabs. It holds important information such as the **cost** of the building, the **production** which is the amount of money a building will produce every **GameManager Collect Time**, and the **Plot Size**. The Plot Size is relative to the **Grid** – if the building takes one **Grid** square the size should be 1, if it takes two squares the size should be 2 and so on.

