3D Puzzle Platform Template for Unity

TABLE OF CONTENTS

template's content : 4

Prefabs list : 4

Button prefab 4

Camera for item preview prefab 4

Checkpoint prefab 5

GameController prefab 5

Door prefabs : 6

Inventory prefabs : 7

Insta kill zone prefab 8

Key prefab 8

Main camera prefab 9

Panel respawn prefab 9

Platform prefabs : 10

Player prefab 11

Materials and sprites list : 12

Lamp materials : 12

Button materials : 14

Door material 16

Insta kill zone material 17

Key material 18

Platform materials : 19

Ground material 22

Player material 23

Arrow sprite 24

Arrow left sprite 24

Square sprite 25

Scripts List : 25

Button scripts : 25

Camera script : 26

Door scripts : 27

Game Controller script : 27

Insta kill zone script : 28

Inventory page 28

Key script : 28

Platform scripts : 29

Platform_Resize 29
Player scripts : 30
Respawn panel script : 30
UI Inventory script : 31
Button prefab : 32
Description : 32
Use : 32
Features : 33
Camera for item preview prefab : 35
Description : 35
Use : 35
Features : 35
Main Camera prefab : 36
Description : 36
Use : 36
Features : 37
Checkpoint prefab : 40
Description : 40
Use : 40
Features : 40
Door prefab : 41
Description : 41
Use : 41
Features : 42
Door pivot prefab : 47
Description : 47
Use : 47
Features : 48
Game controller prefab : 53
Description : 53
Use : 53
Features : 53
Insta kill zone prefab : 54
Description : 54
Use : 54
Features : 54
Inventory page prefab : 55

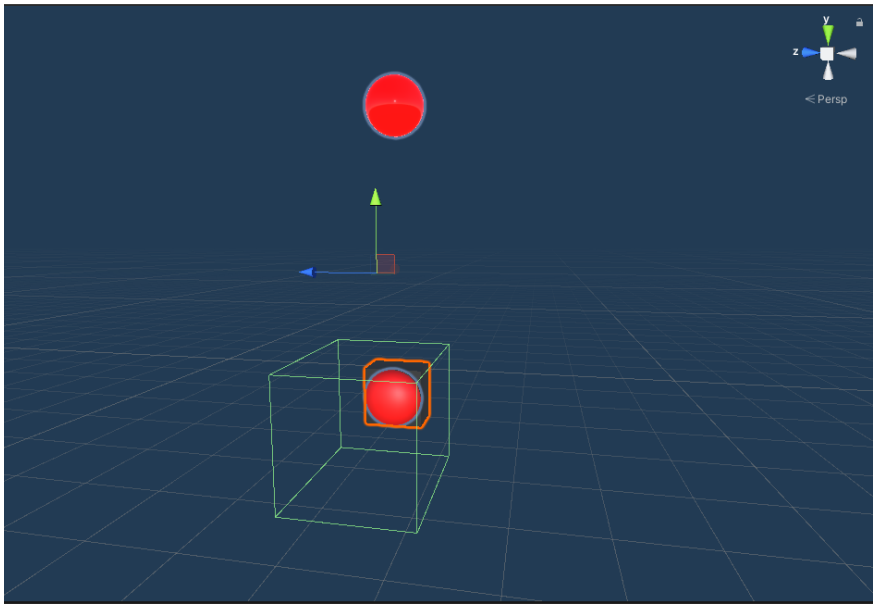
Description : 55
Use : 55
Features : 55
UI Inventory prefab : 56
Description : 56
Use : 56
Features : 57
Key prefab : 60
Description : 60
Use : 60
Features : 60
Platform prefab : 61
Description : 61
Use : 61
Features : 61
Platform Disappear prefab : 63
Description : 63
Use : 63
Features : 63
Platform Move prefab : 66
Description : 66
Use : 66
Features : 66
Player prefab : 69
Description : 69
Use : 69
Features : 70
Panel respawn prefab : 73
Description : 73
Use : 73
Features : 73

TEMPLATE'S CONTENT :

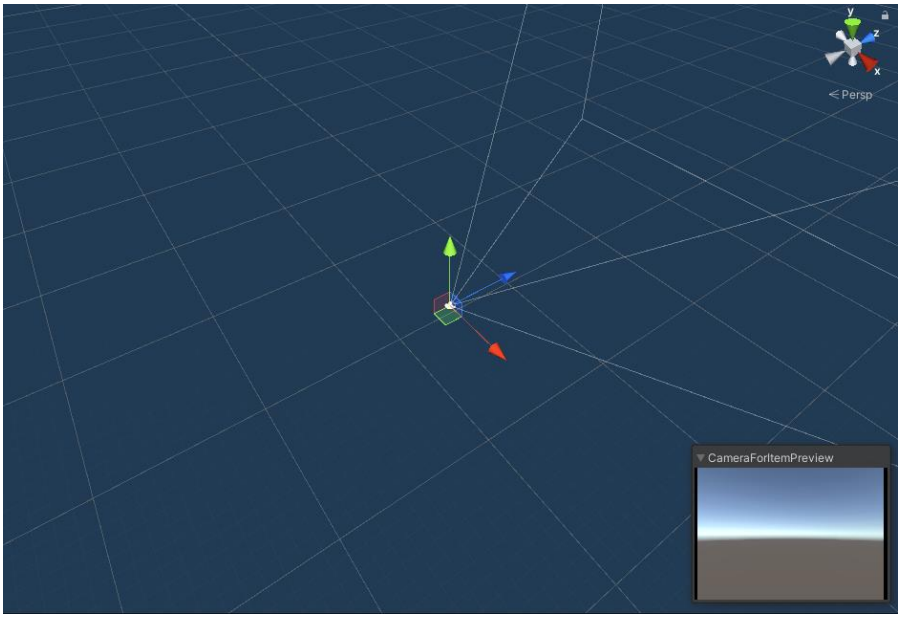
PREFABS LIST :

This template contains the following prefabs :

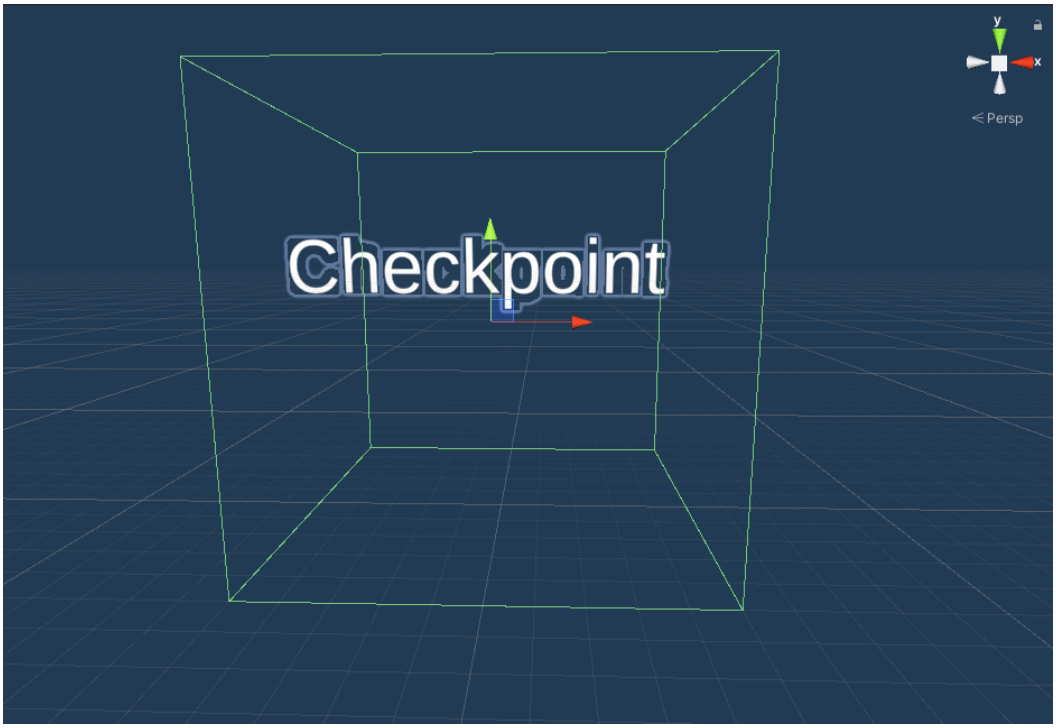
BUTTON PREFAB



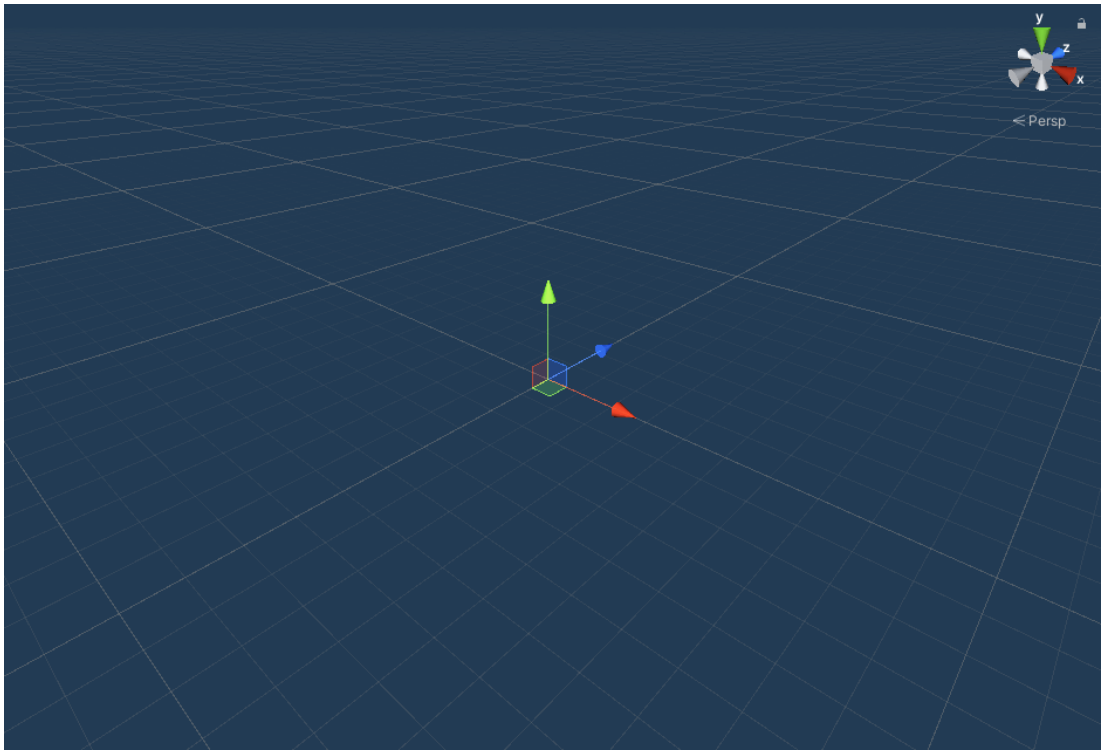
CAMERA FOR ITEM PREVIEW PREFAB



CHECKPOINT PREFAB

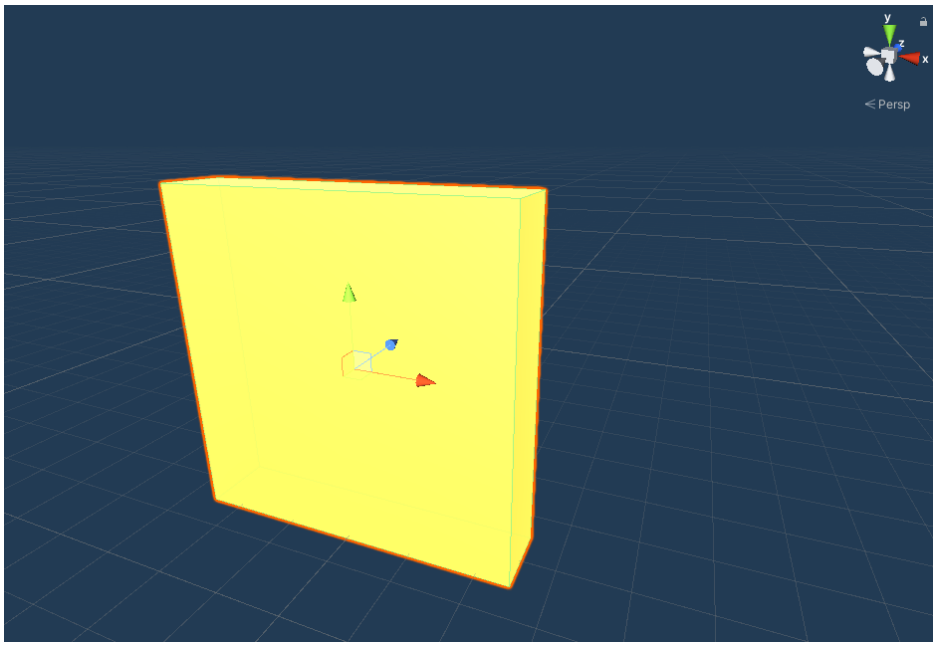


GAMECONTROLLER PREFAB

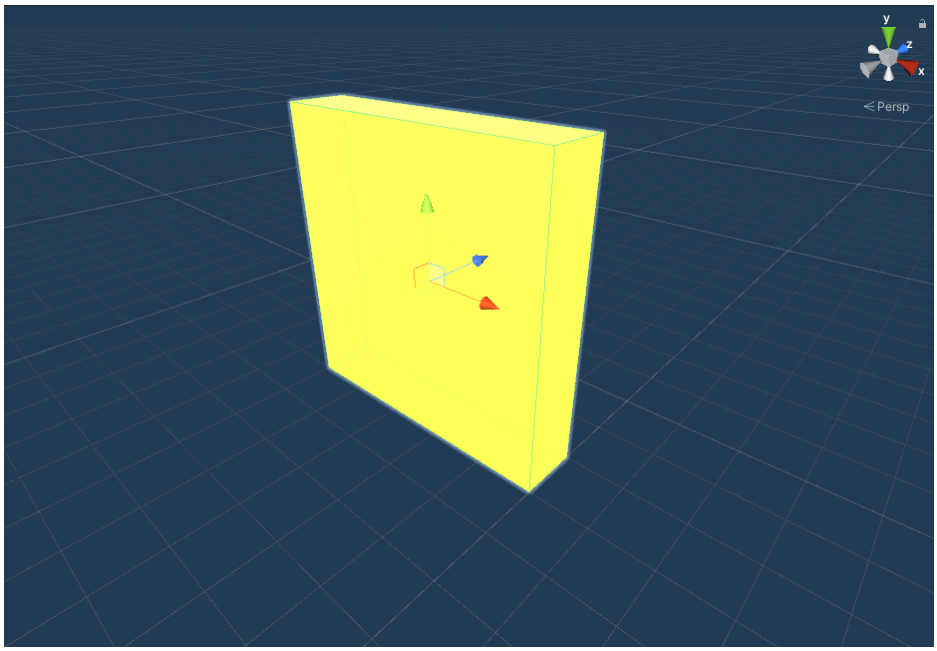


DOOR PREFABS :

DOOR

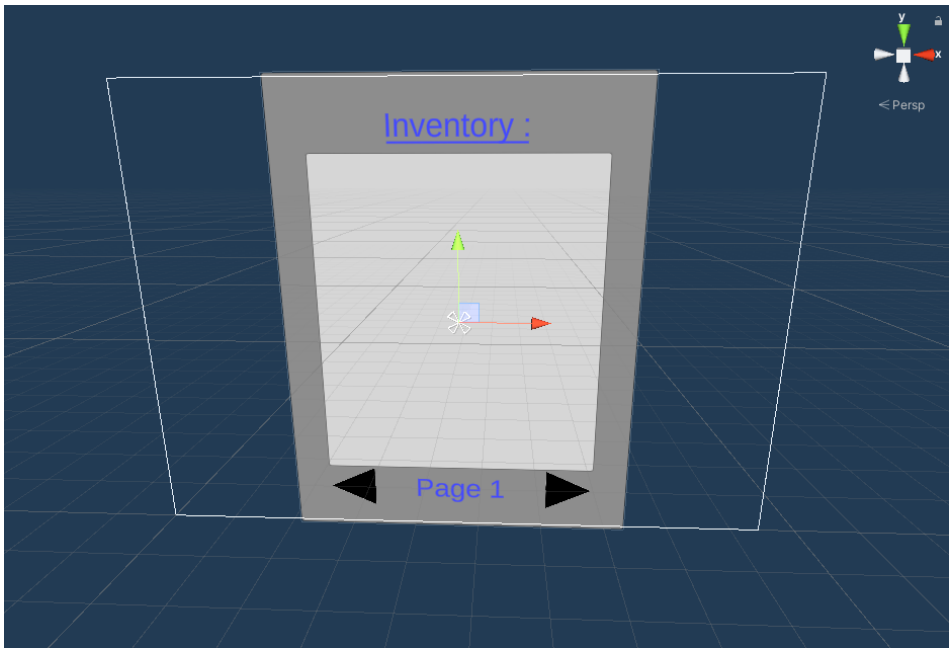


DOOR WITH PIVOT

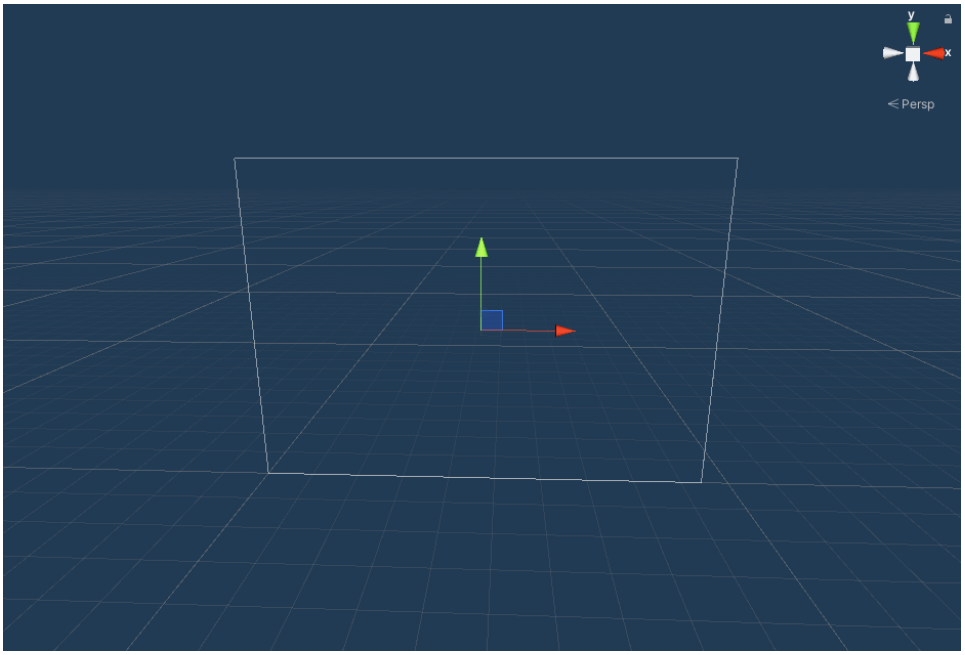


INVENTORY PREFABS :

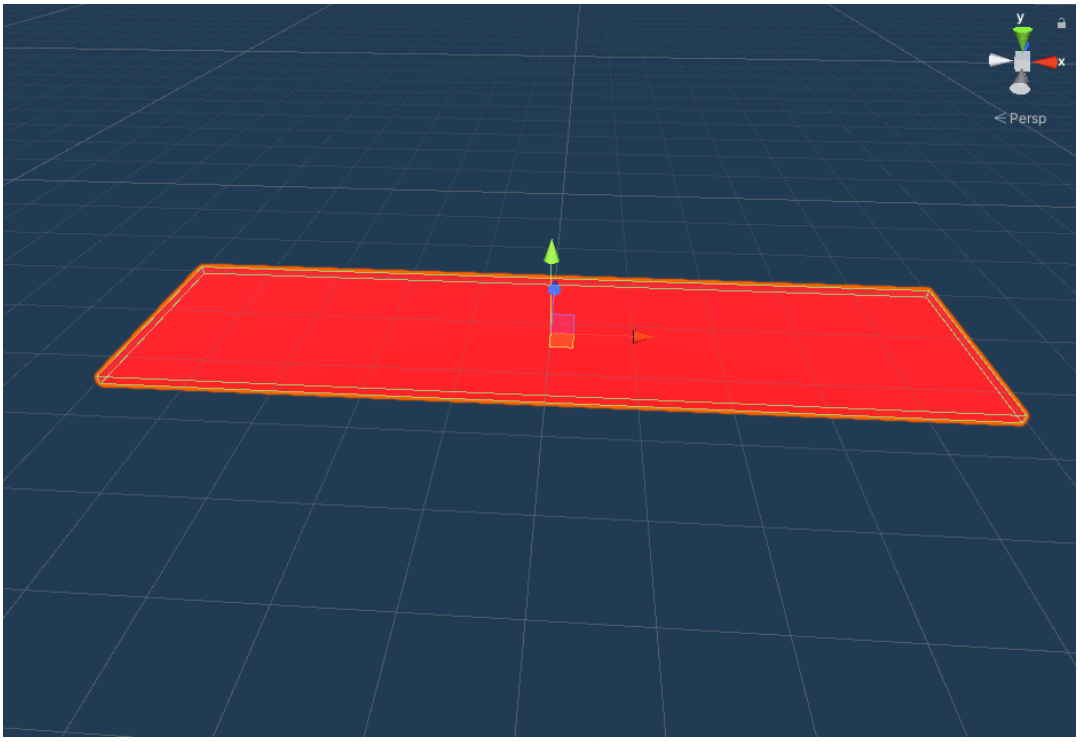
INVENTORY PAGE PREFAB



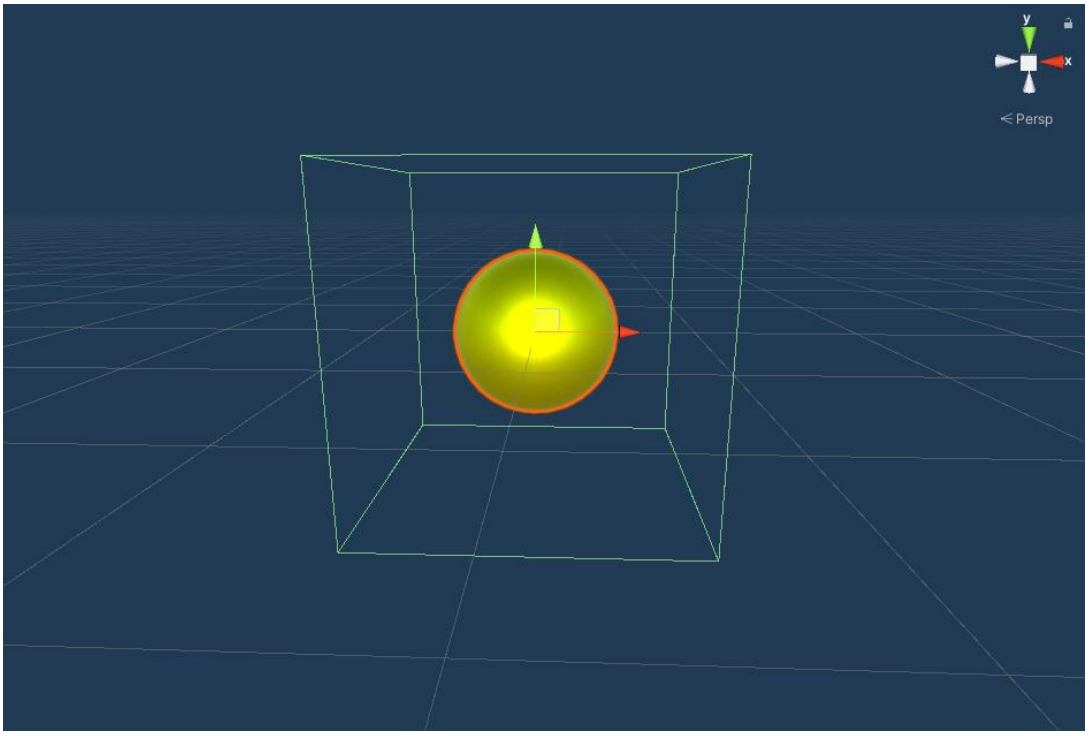
UI INVENTORY PREFAB



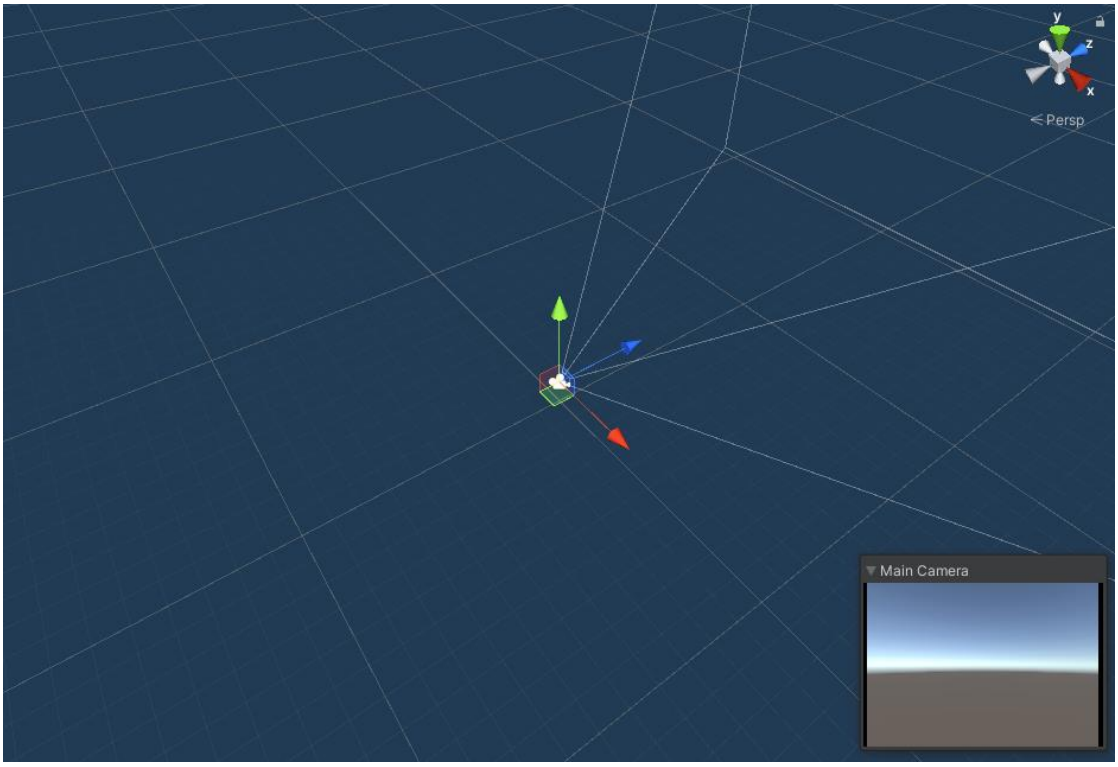
INSTA KILL ZONE PREFAB



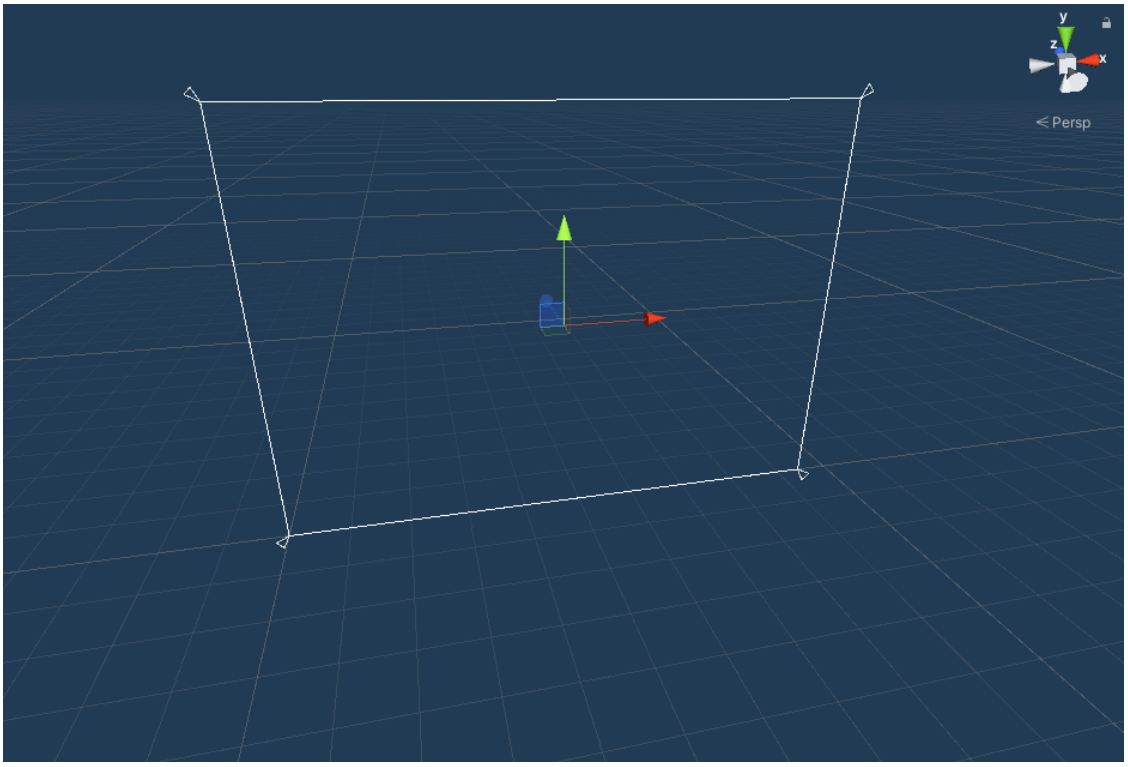
KEY PREFAB



MAIN CAMERA PREFAB

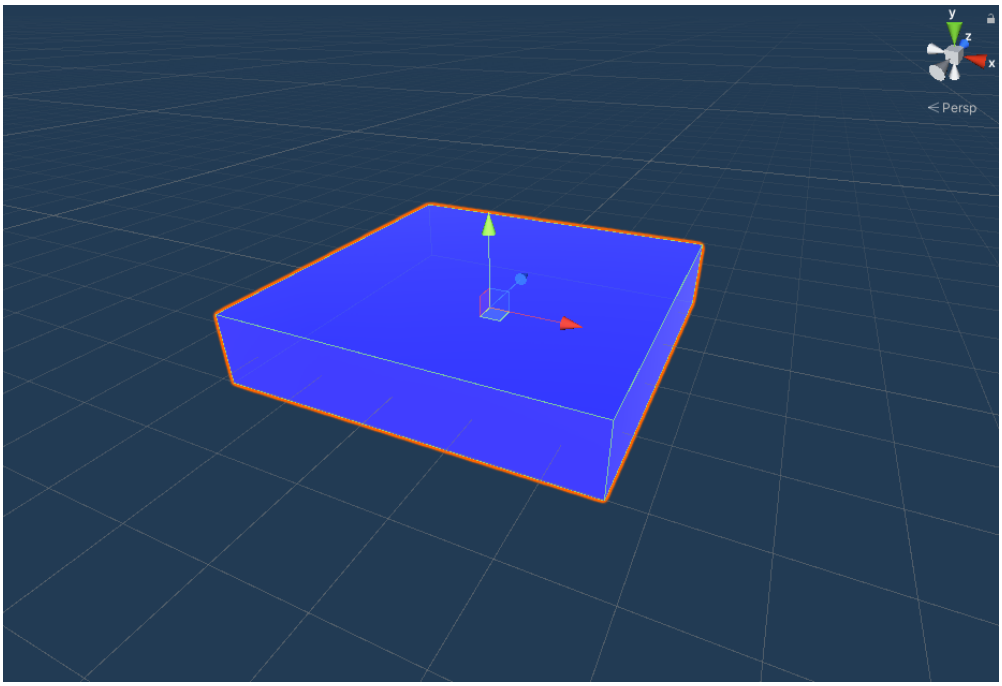


PANEL RESPAWN PREFAB

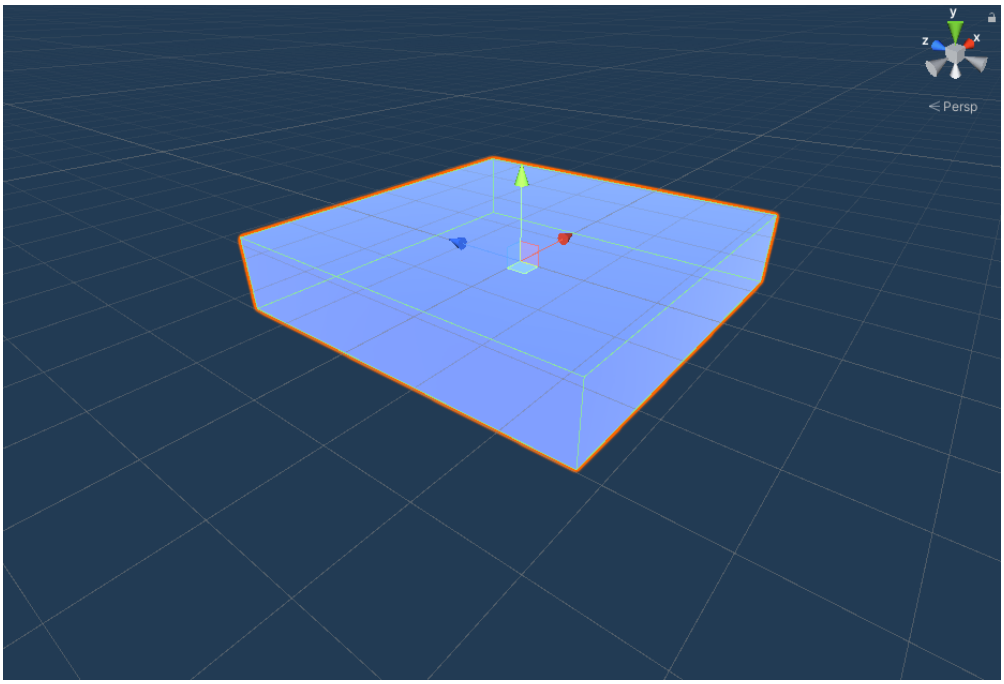


PLATFORM PREFABS :

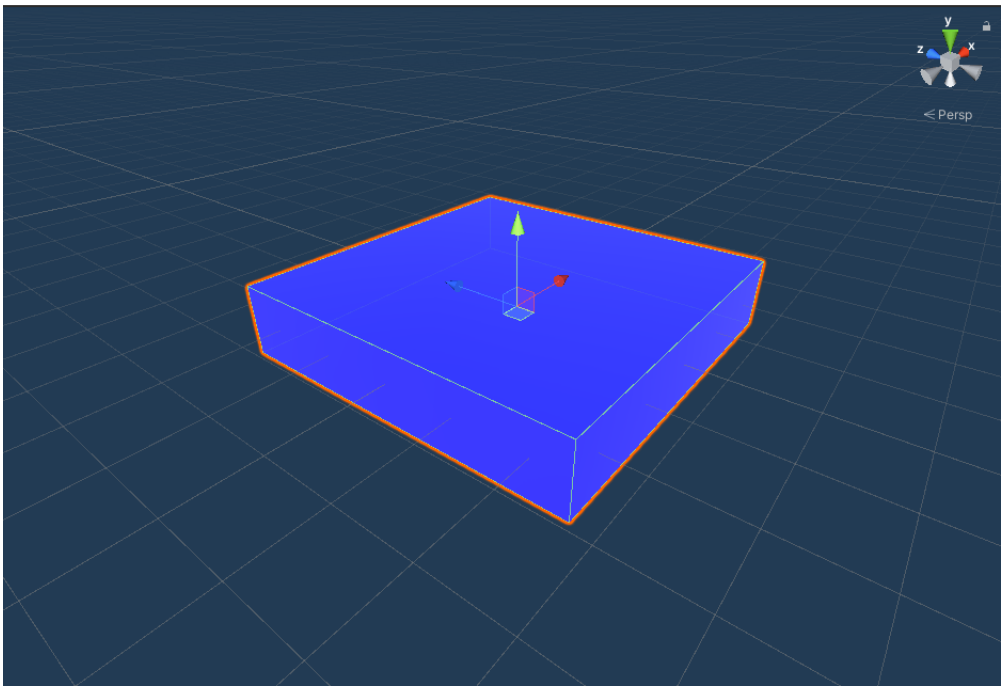
PLATFORM



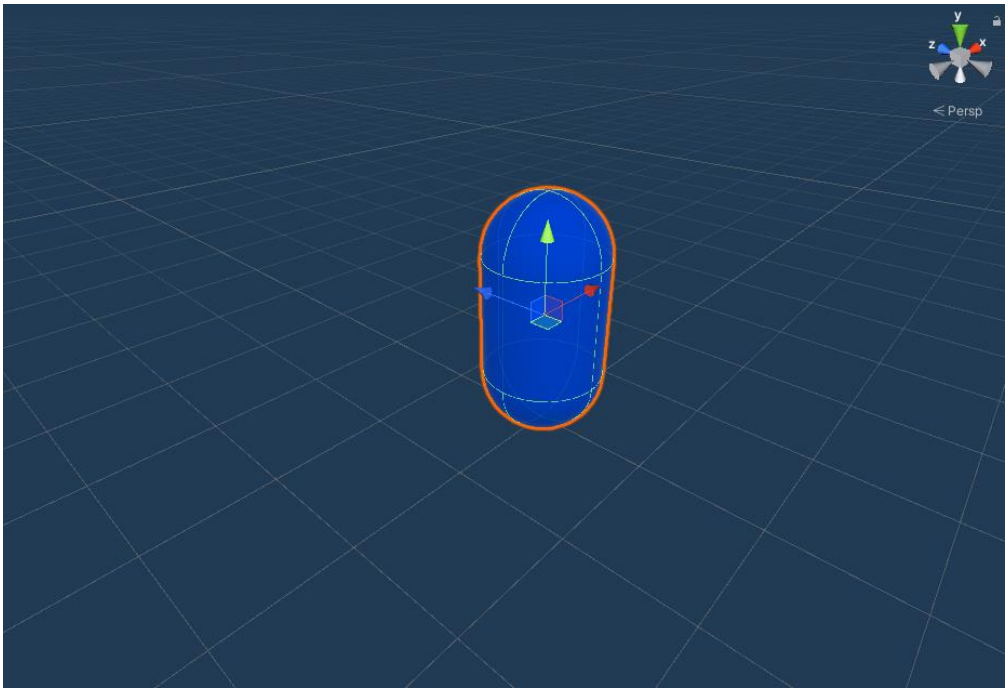
DISAPPEARING PLATFORM PREFAB



MOVING PLATFORM PREFAB



PLAYER PREFAB

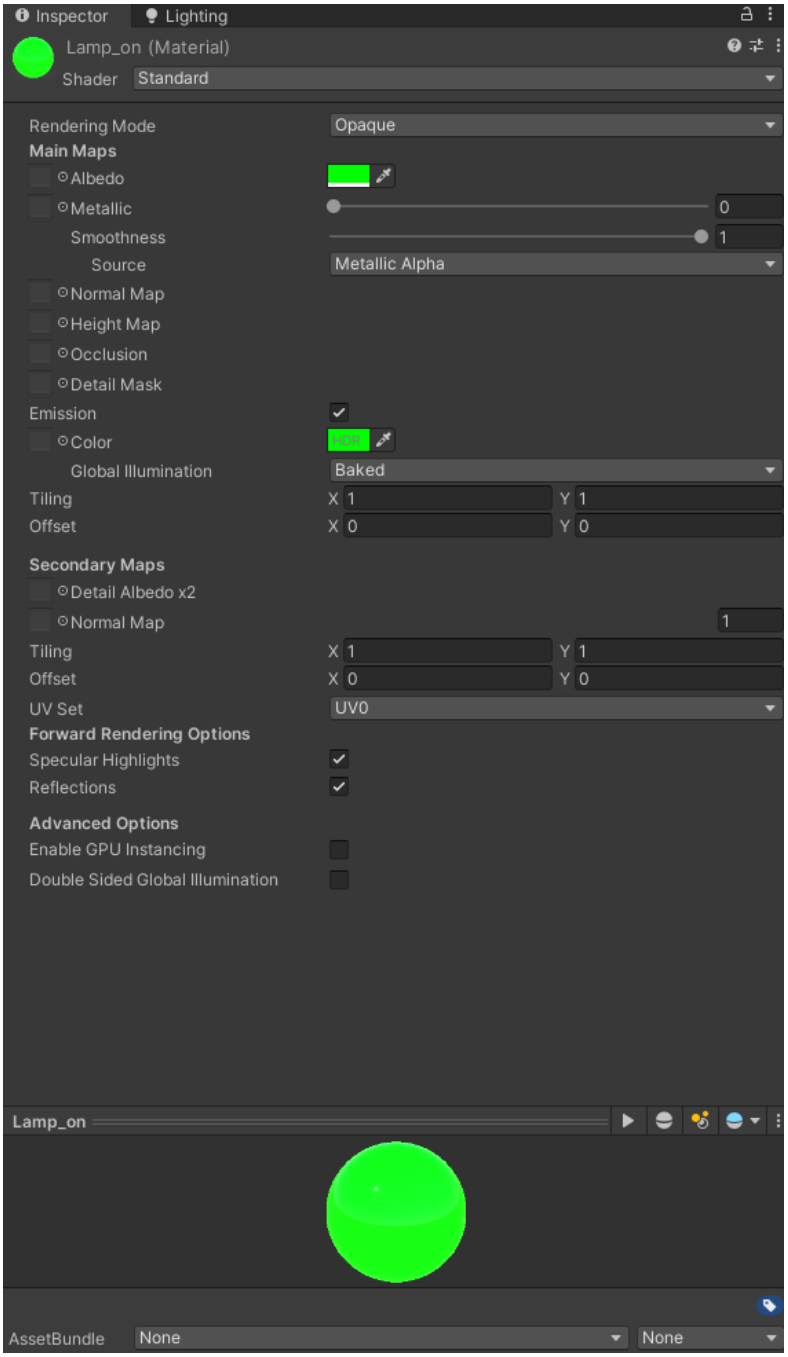


MATERIALS AND SPRITES LIST :

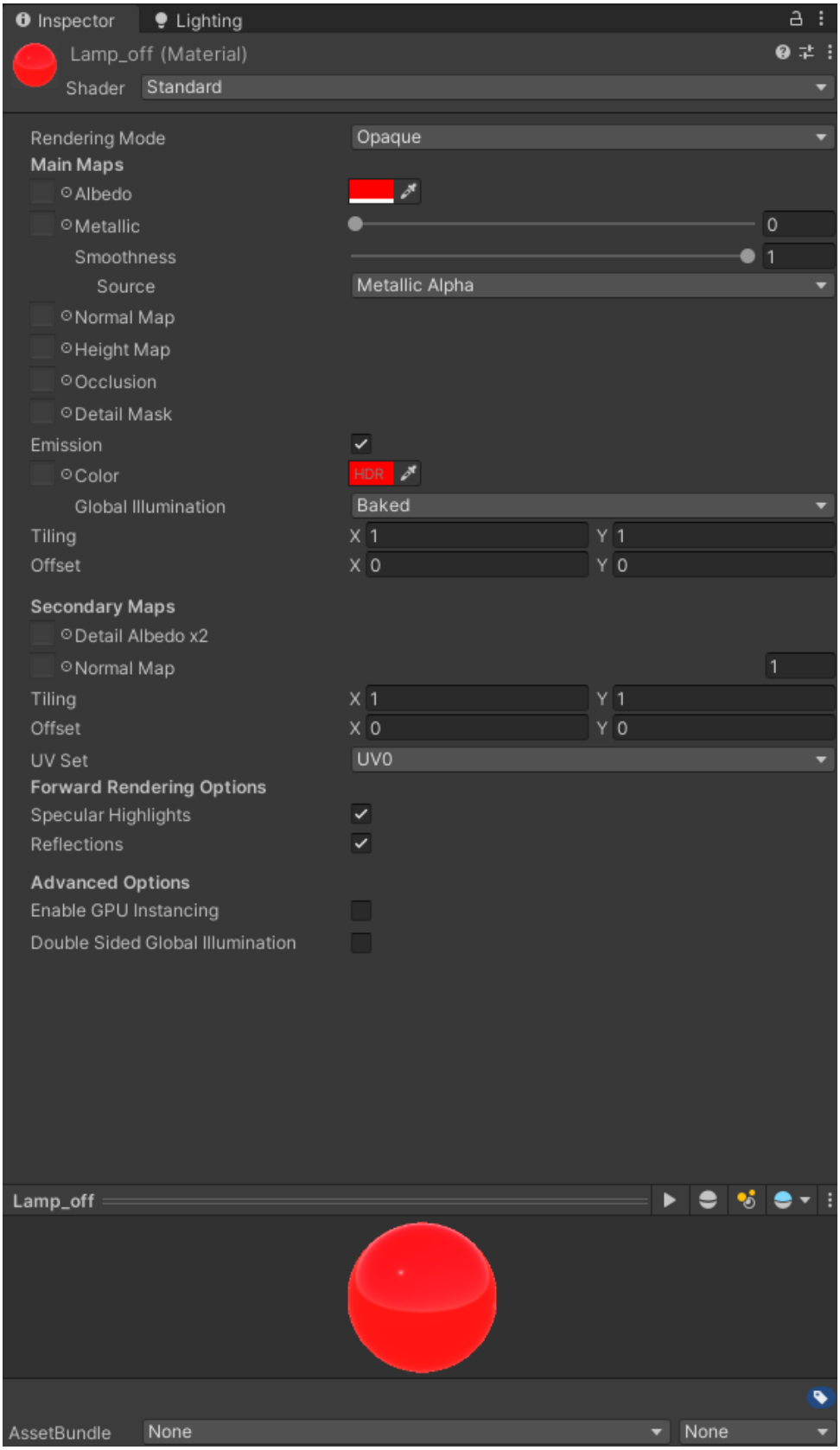
This template contains the followings materials and sprites :

LAMP MATERIALS :

LAMP ON

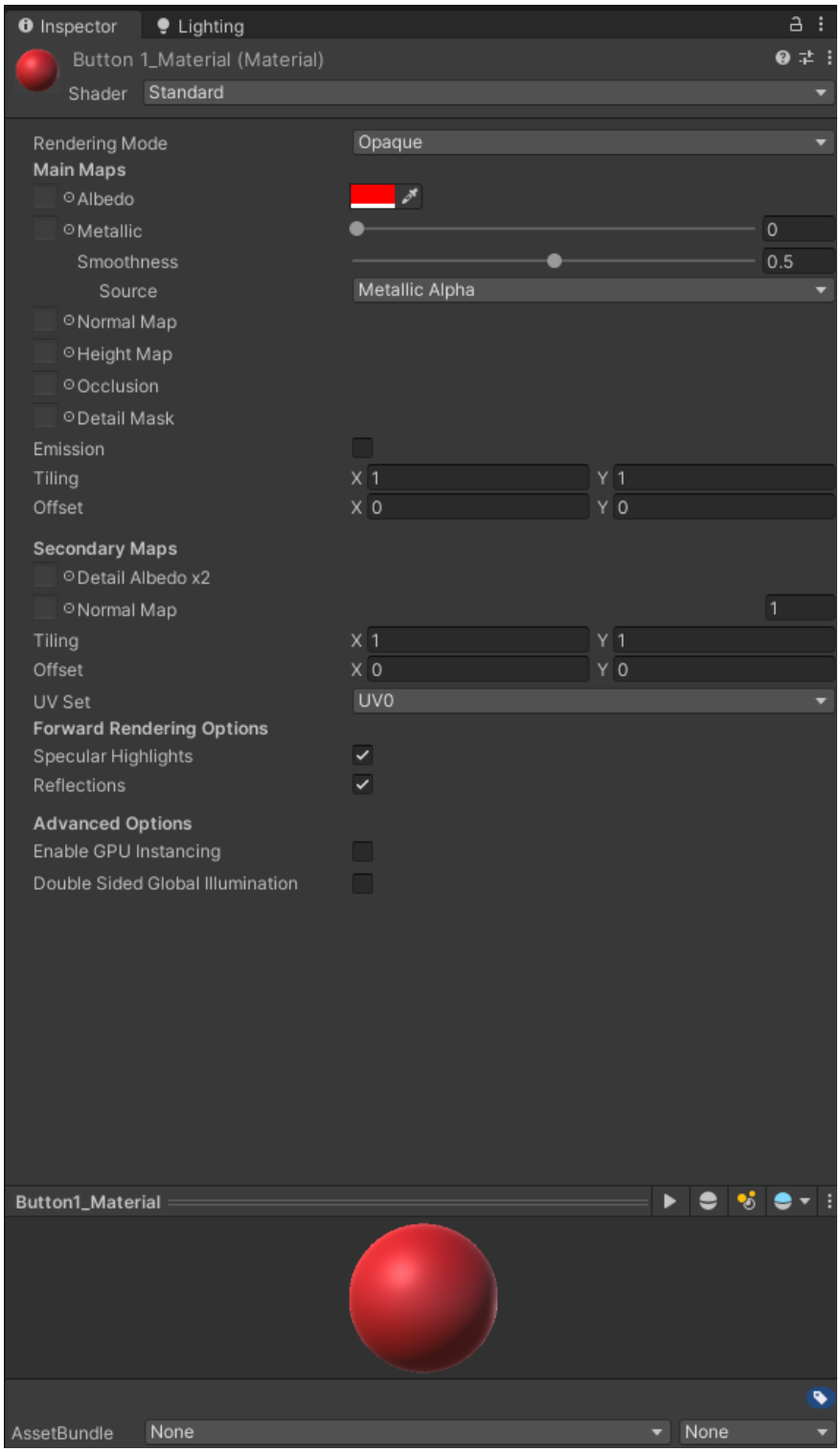


LAMP OFF

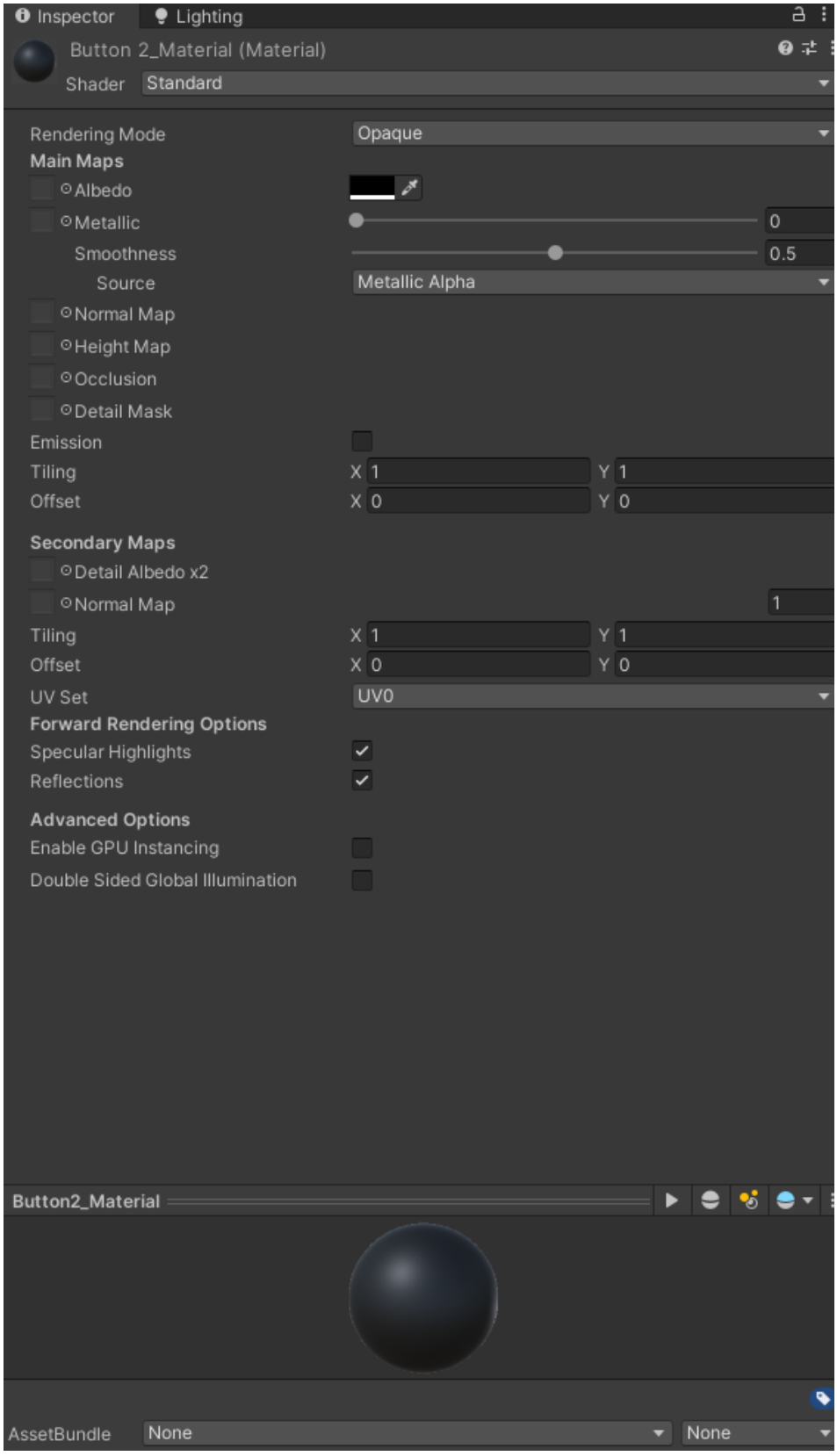

Inspector
Lighting
Lamp_off (Material)
Shader
Standard
Rendering Mode
Opaque
Main Maps
Albedo
Metallic
0
Smoothness
1
Source
Metallic Alpha
Normal Map
Height Map
Occlusion
Detail Mask
Emission
Color
HDR
Global Illumination
Baked
Tiling
X 1
Y 1
Offset
X 0
Y 0
Secondary Maps
Detail Albedo x2
Normal Map
1
Tiling
X 1
Y 1
Offset
X 0
Y 0
UV Set
UV0
Forward Rendering Options
Specular Highlights
Reflections
Advanced Options
Enable GPU Instancing
Double Sided Global Illumination
Lamp_off
AssetBundle
None
None

BUTTON MATERIALS :

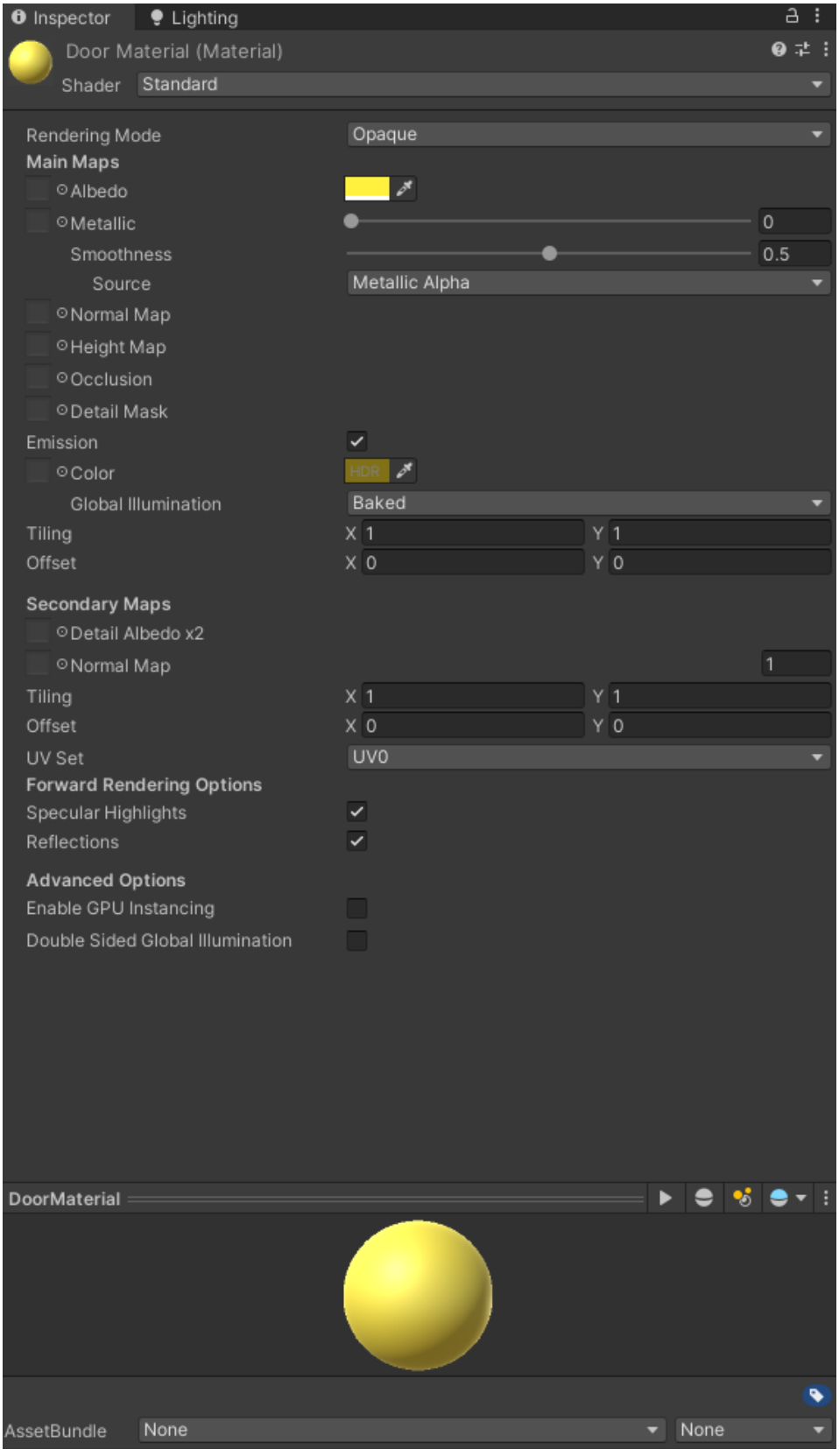
BUTTON MATERIAL 1



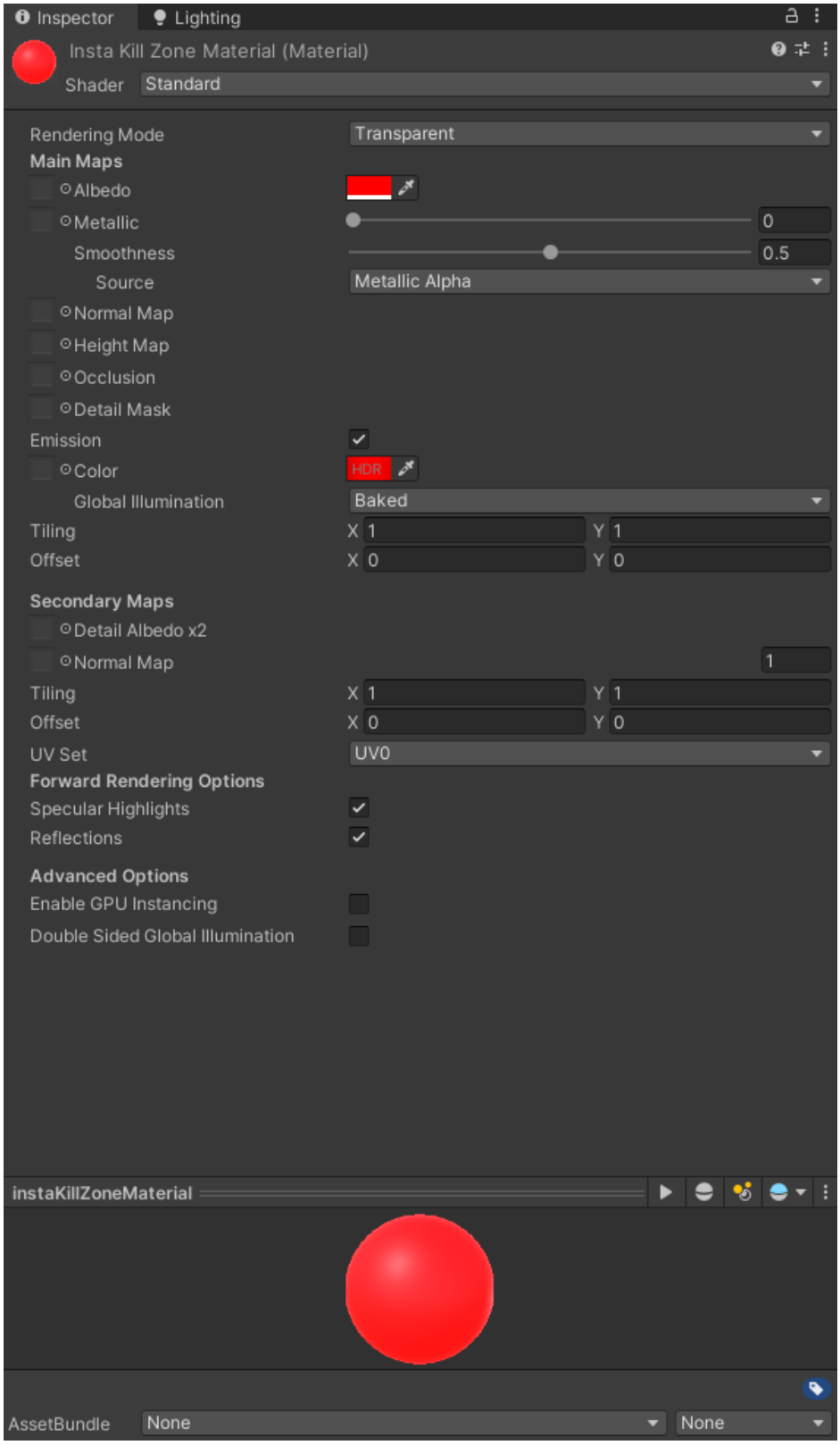
BUTTON MATERIAL 2



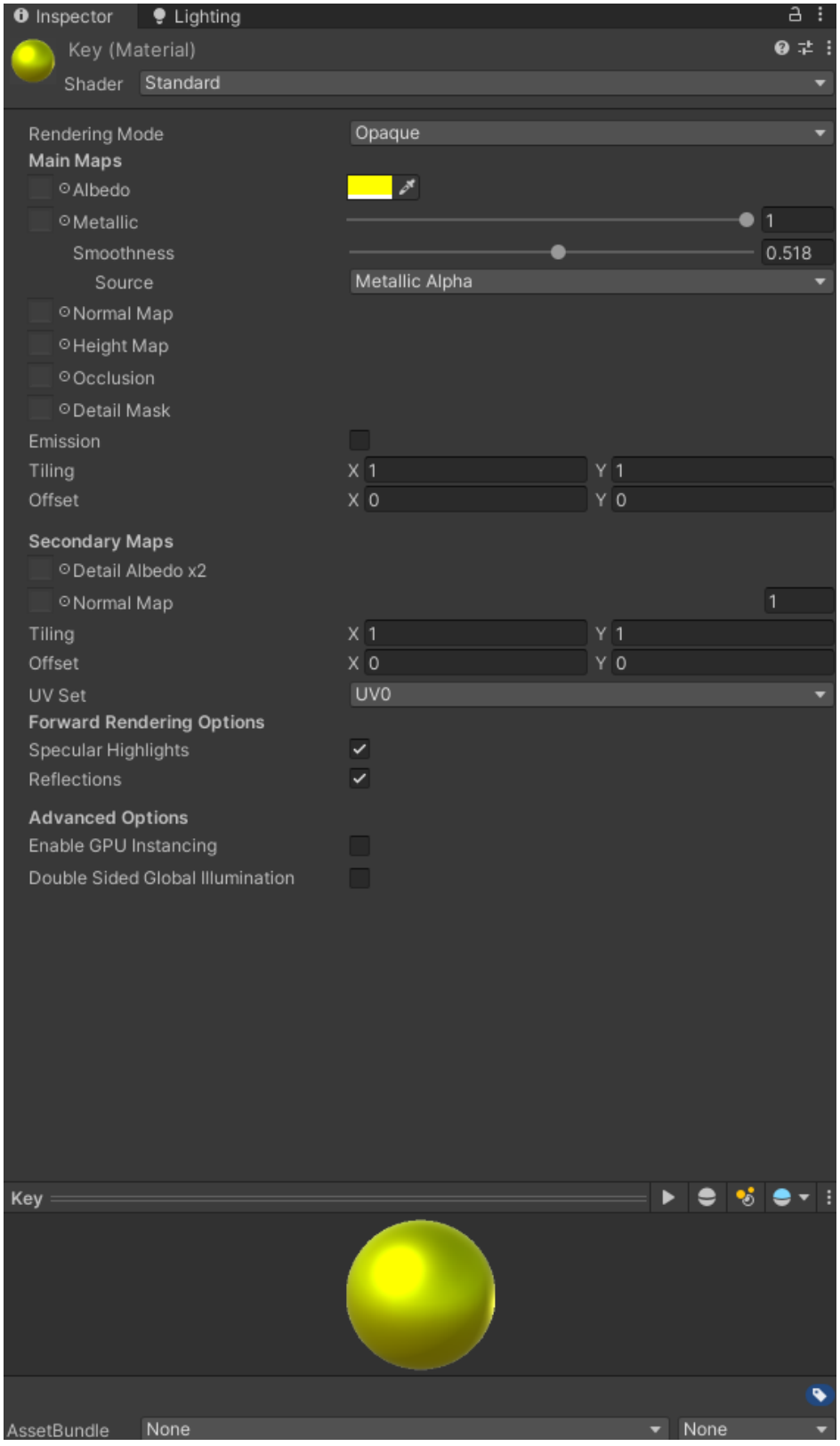
DOOR MATERIAL



INSTA KILL ZONE MATERIAL

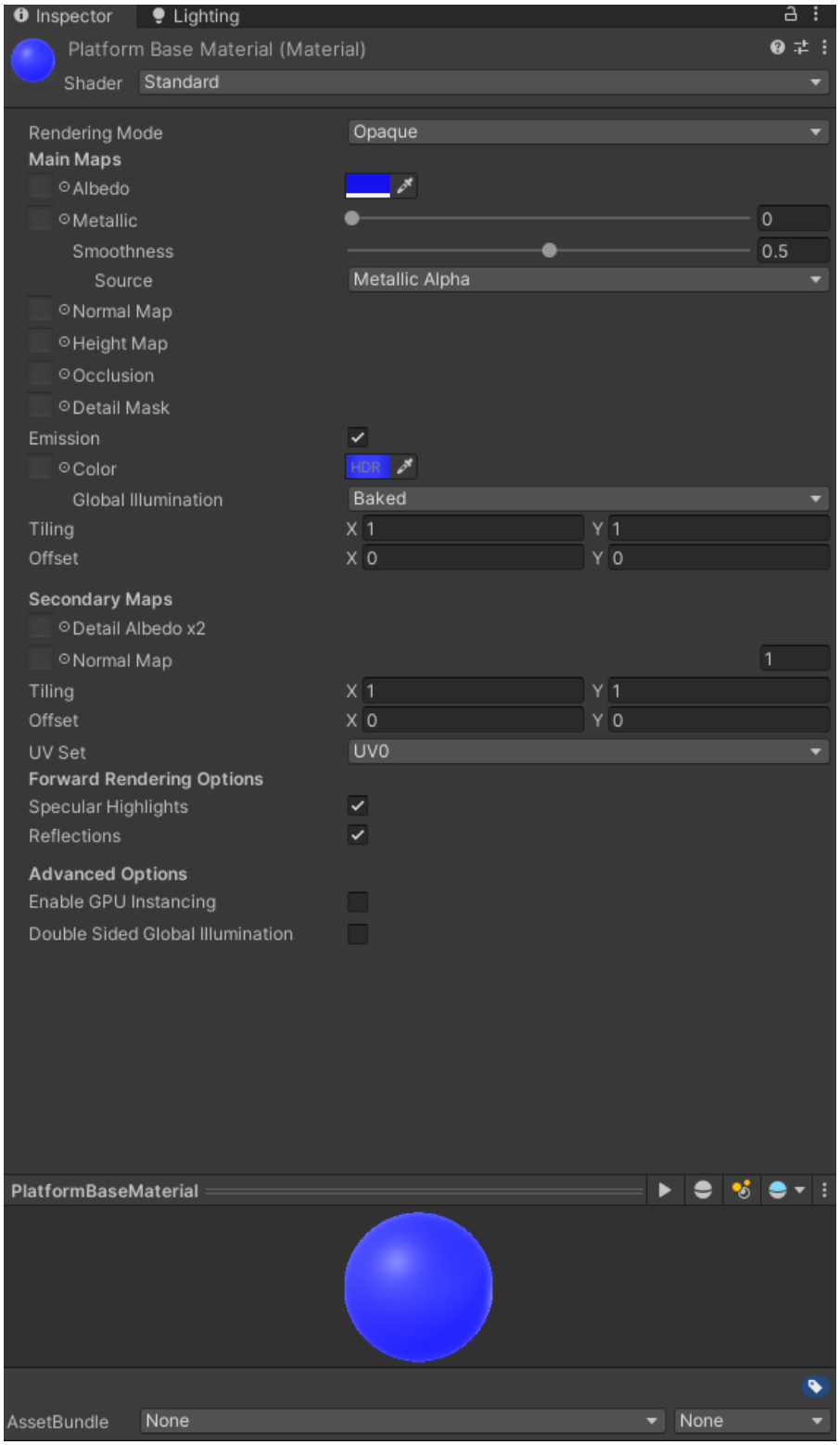


KEY MATERIAL

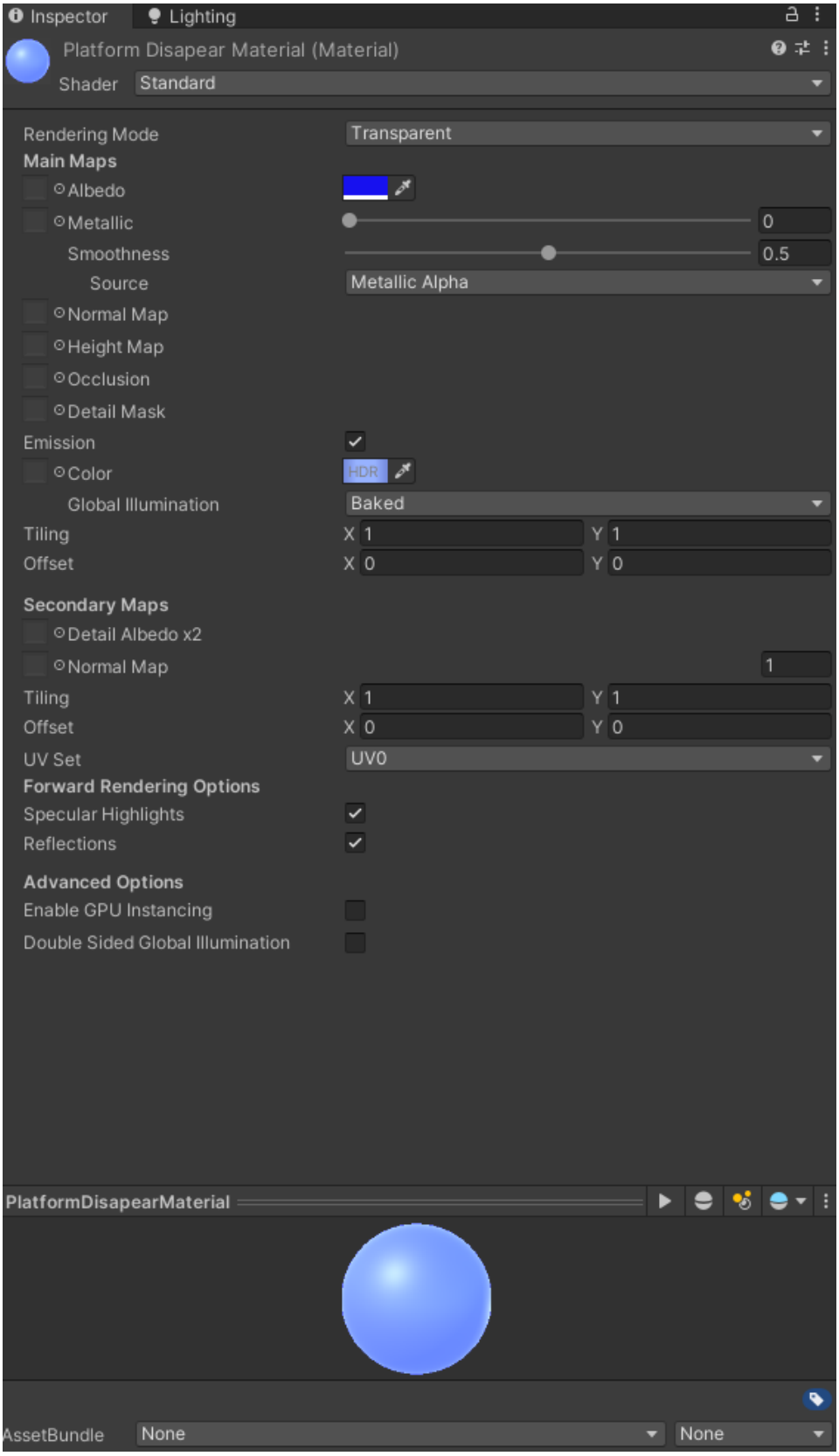


PLATFORM MATERIALS :

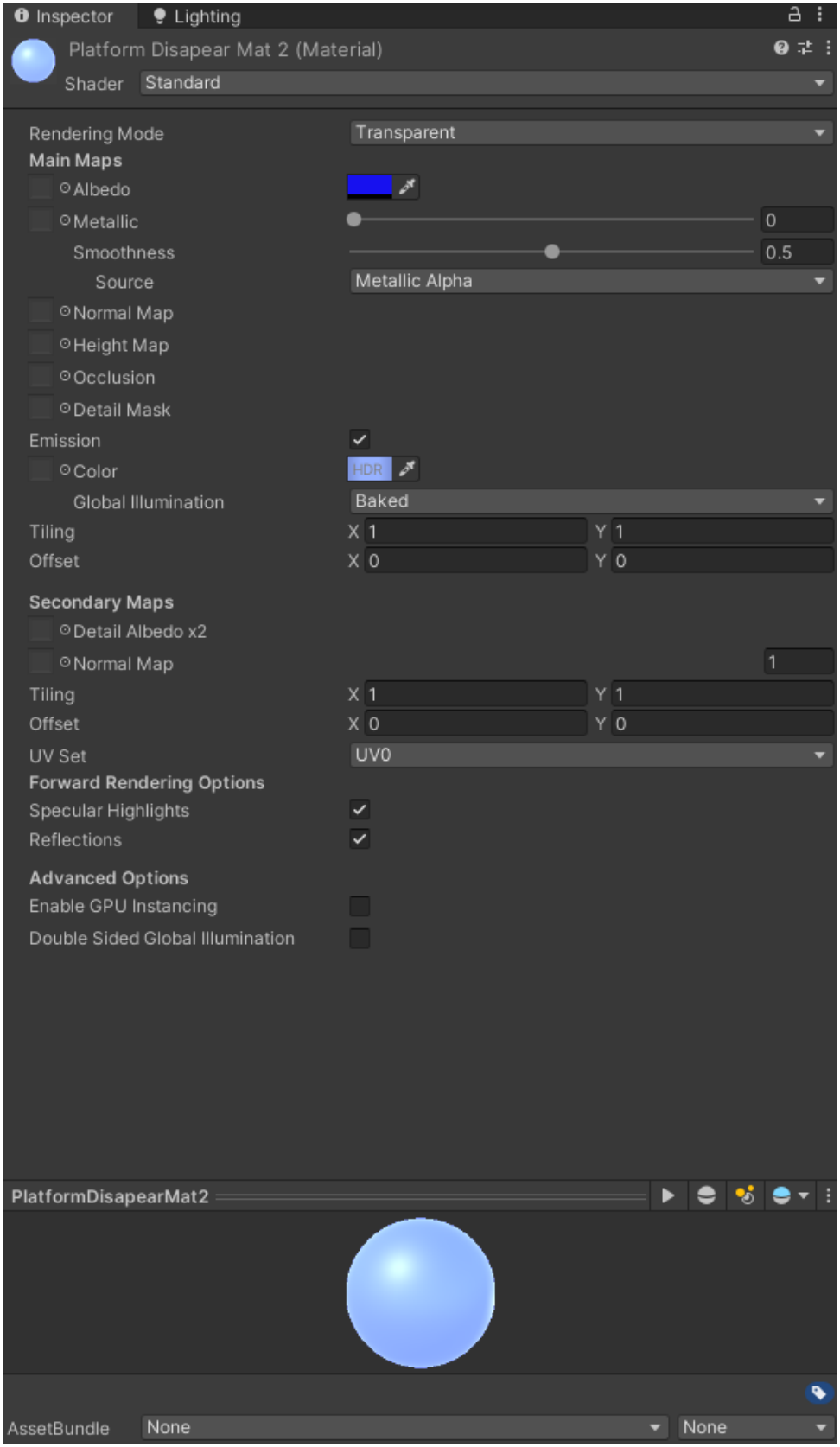
PLATFORM BASE MATERIAL



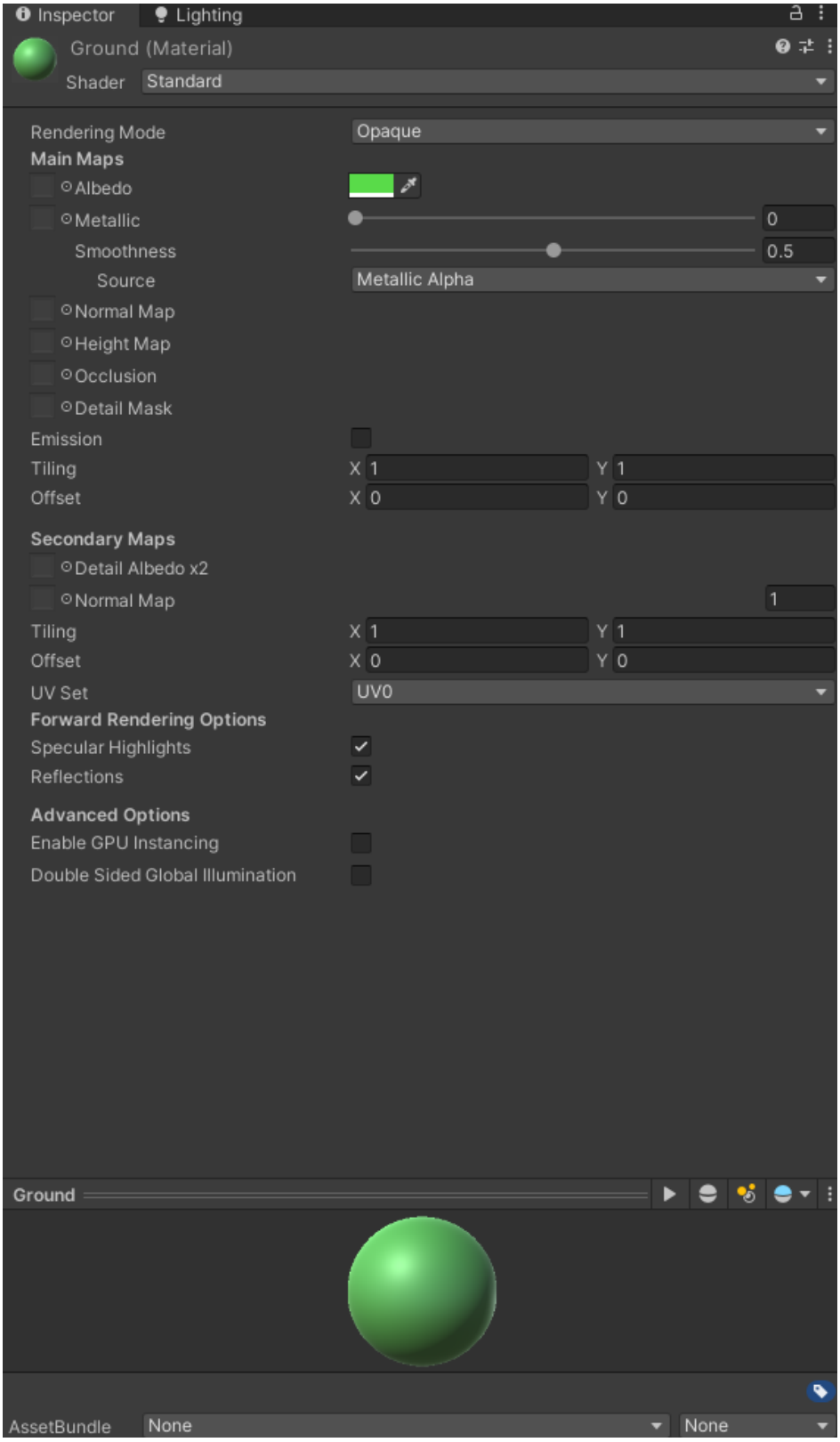
PLATFORM DISAPPEAR MATERIAL 1



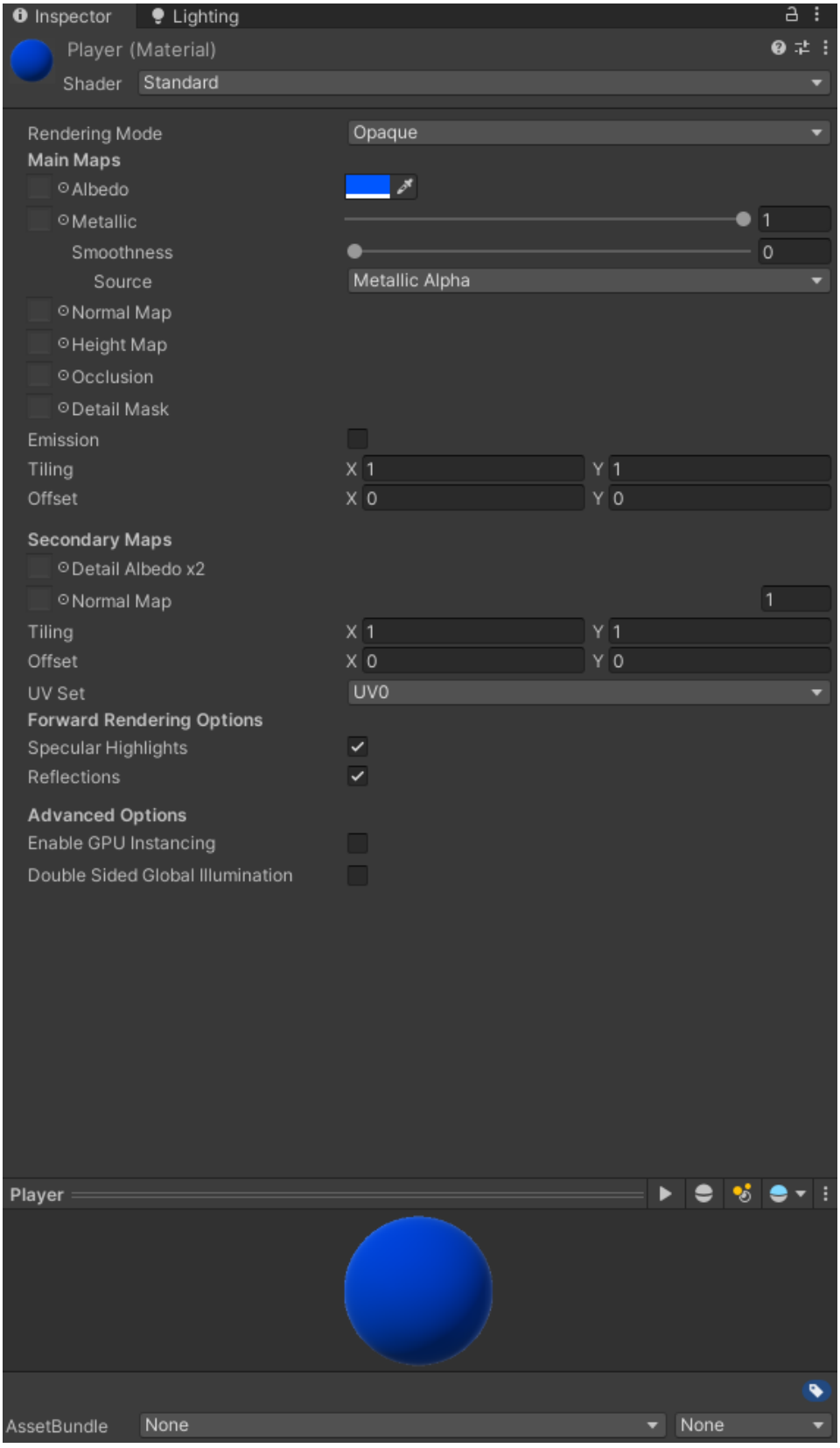
PLATFORM DISAPPEAR MATERIAL 2



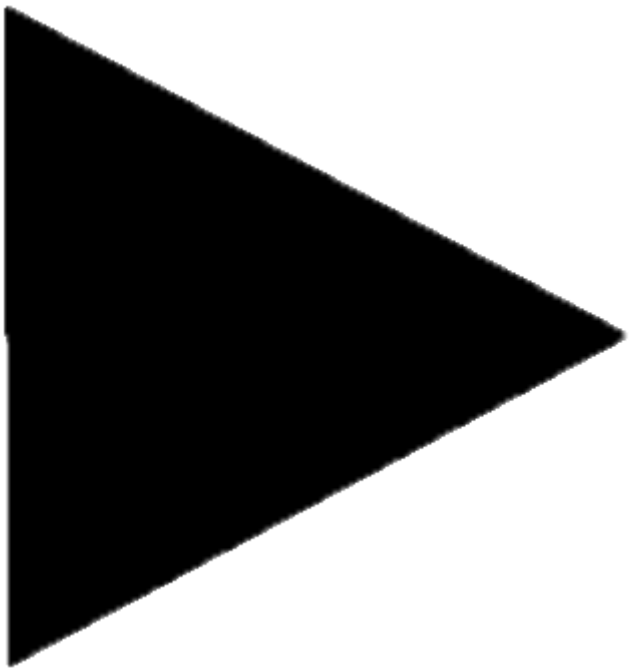
GROUND MATERIAL



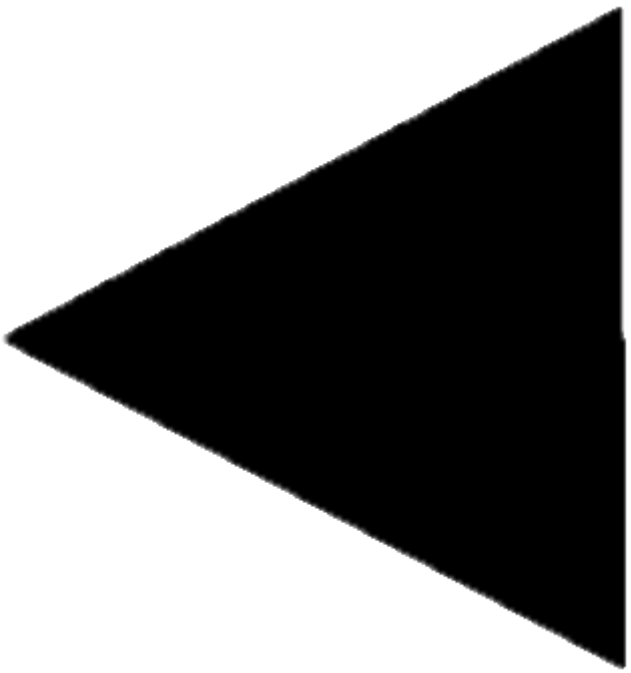
PLAYER MATERIAL



ARROW SPRITE



ARROW LEFT SPRITE



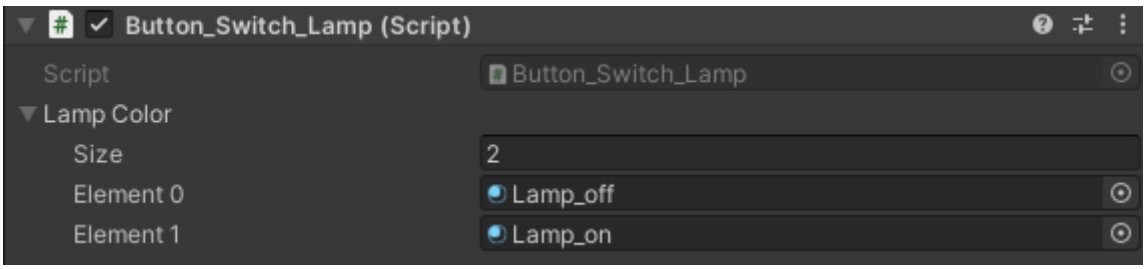
SQUARE SPRITE

SCRIPTS LIST :

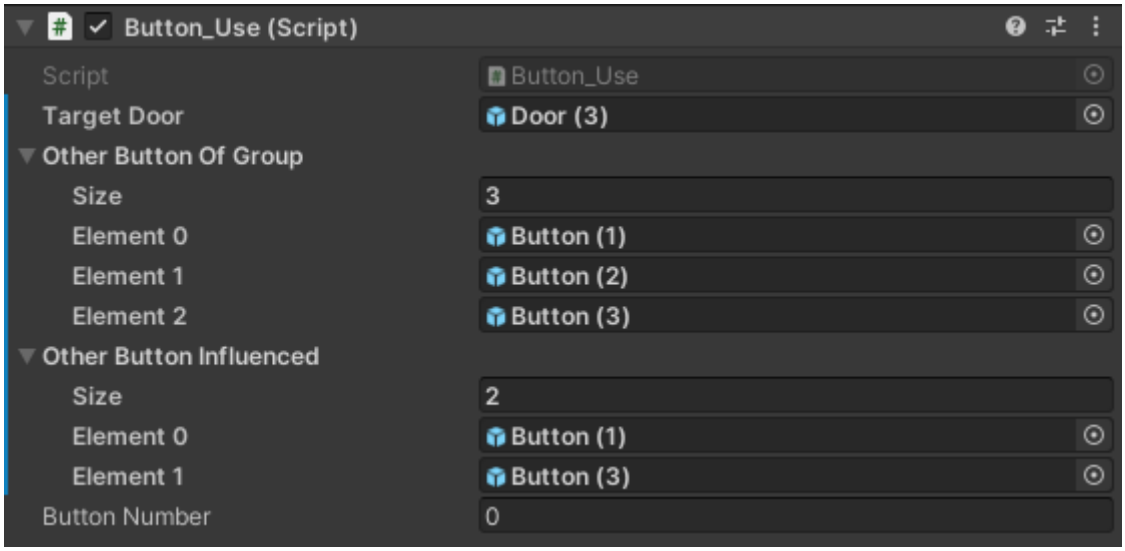
This template contains the followings scripts :

BUTTON SCRIPTS :

BUTTON_SWITCH_LAMP

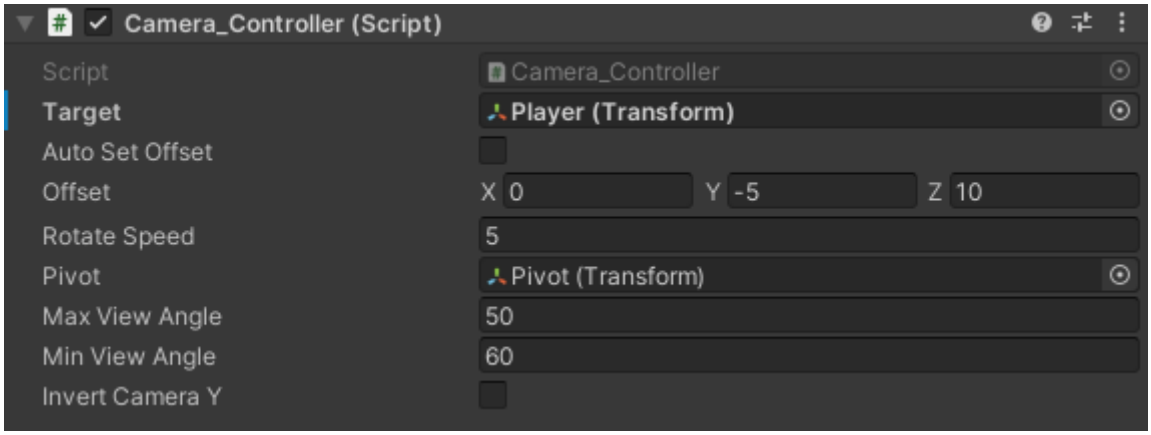


BUTTON_USE



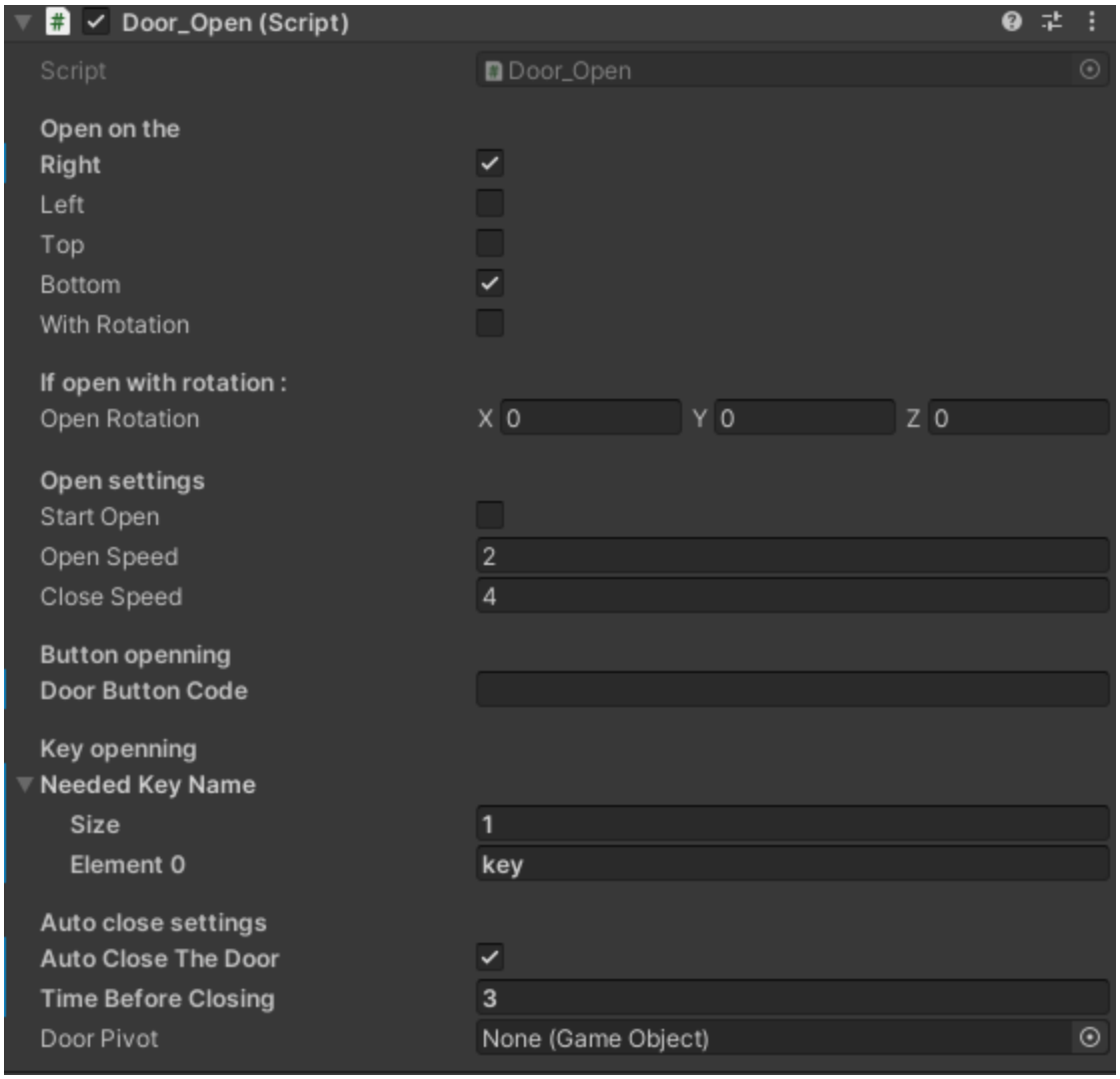
CAMERA SCRIPT :

CAMERA_CONTROLLER



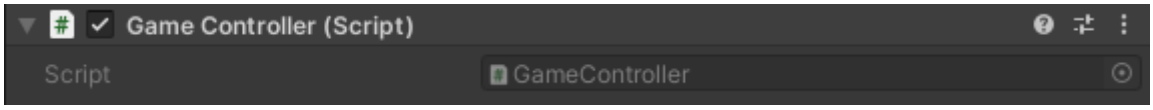
DOOR SCRIPTS :

DOOR_OPEN



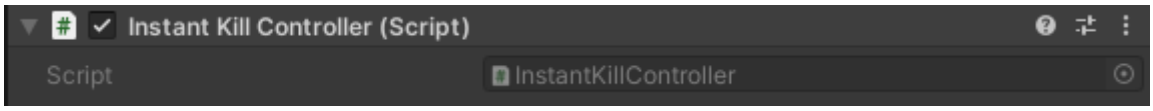
GAME CONTROLLER SCRIPT :

GAMECONTROLLER



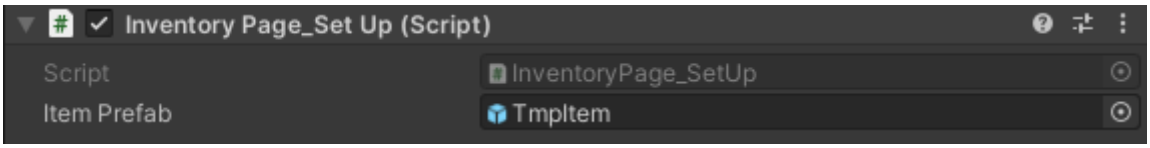
INSTA KILL ZONE SCRIPT :

INSTANTKILLCONTROLLER

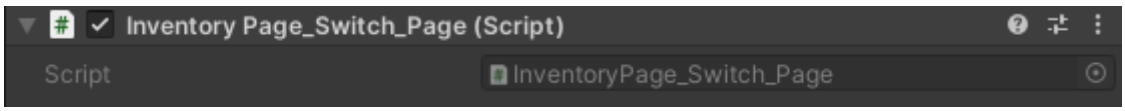


INVENTORY PAGE

INVENTORYPAGE_SETUP

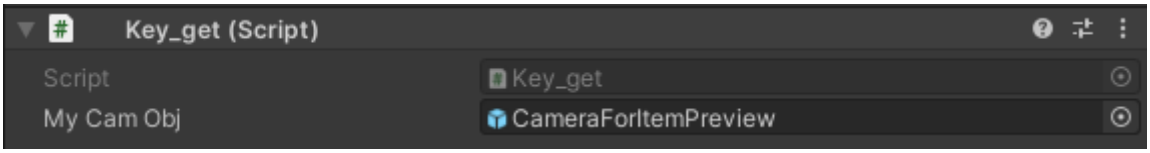


INVENTORYPAGE_SWITCHPAGE



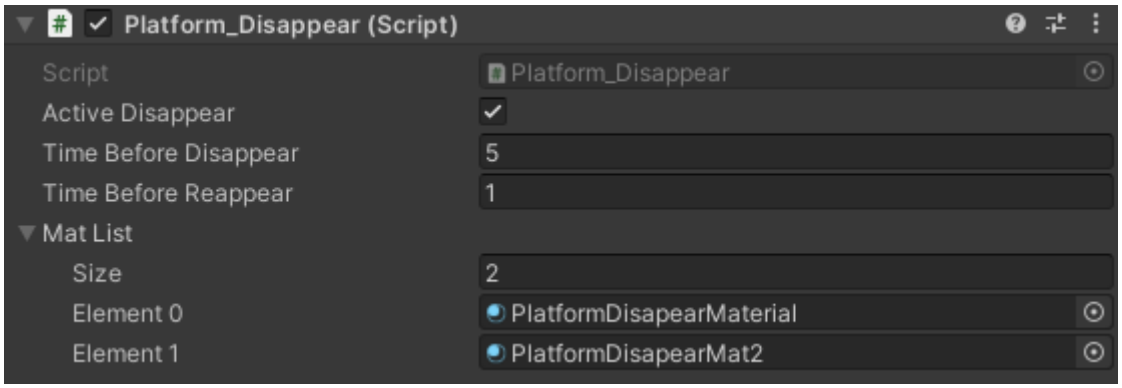
KEY SCRIPT :

KEY_GET

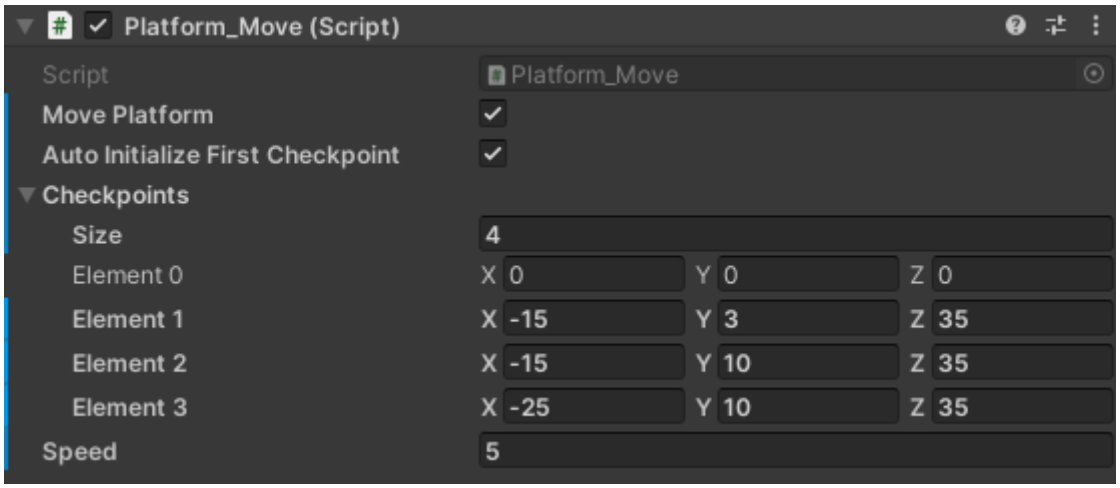


PLATFORM SCRIPTS :

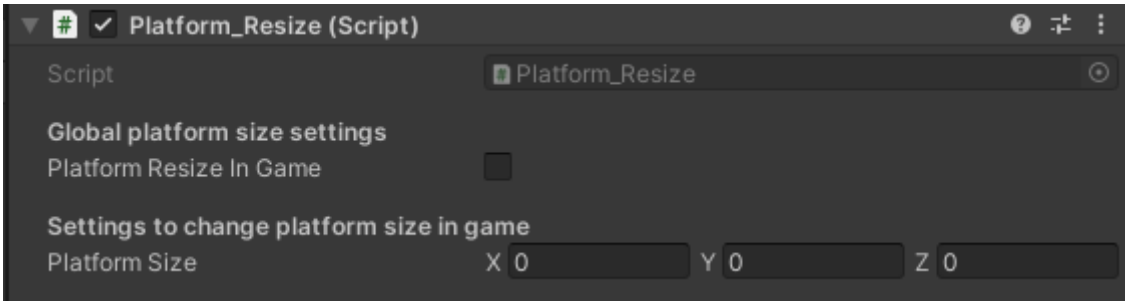
PLATFORM_DISAPPEAR



PLATFORM_MOVE

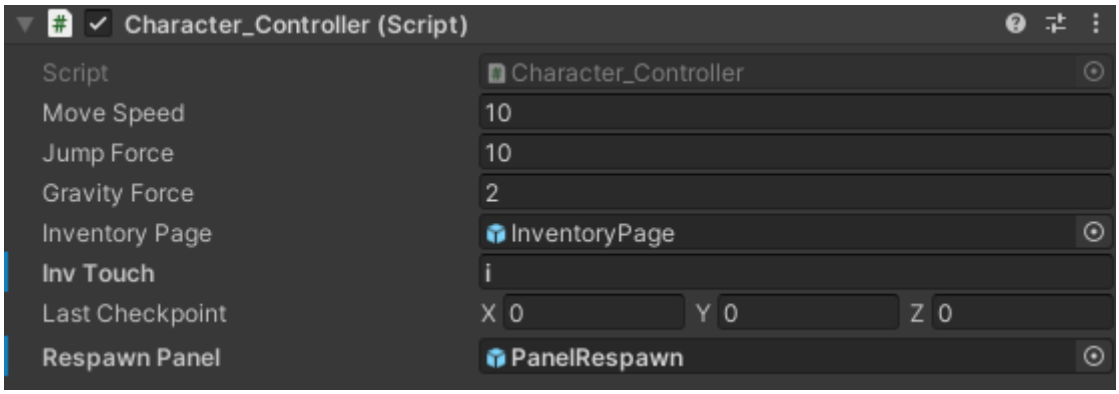


Platform_Resize

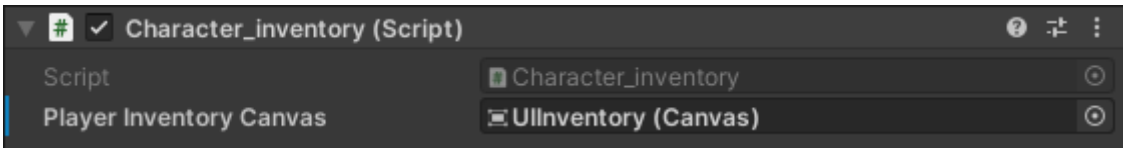


PLAYER SCRIPTS :

CHARACTER_CONTROLLER



CHARACTER_INVENTORY

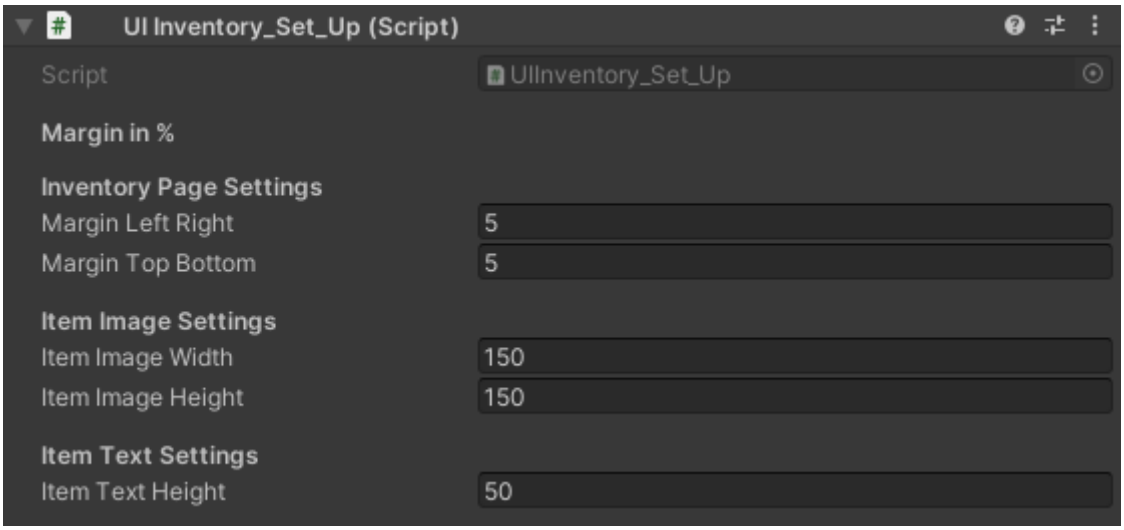


RESPAWN PANEL SCRIPT :

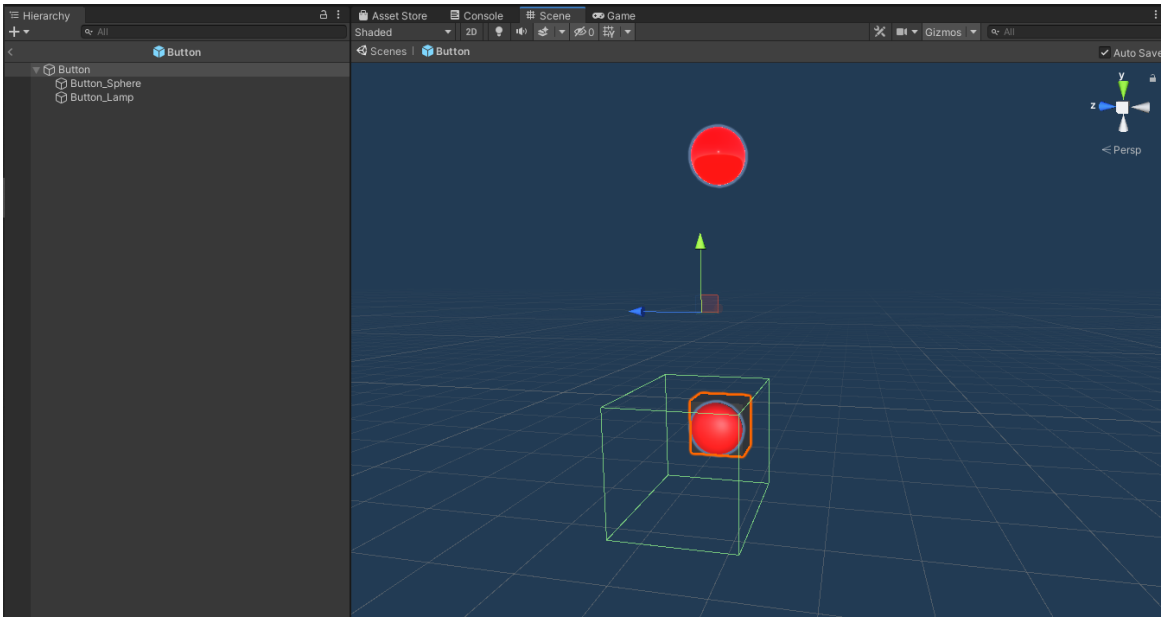
RESPAWNPANELSCRIPT

UI INVENTORY SCRIPT :

UIINVENTORY_SET_UP



BUTTON PREFAB :



DESCRIPTION :

This prefab contains 3 objects :

The parent Button and 2 child Button_Sphere and Button_Lamp. This is a basic button that can be use with other buttons to make a code that will open a door. When the button is activated the light on top of it is green when he is not activated the light on top of it is red.

A button can change the state of other buttons in his button group. You can make a code with as many buttons as you want.

USE :

Scripts :

-Button_Use

-Button_Switch_Lamp

Materials :

-Lamp_off

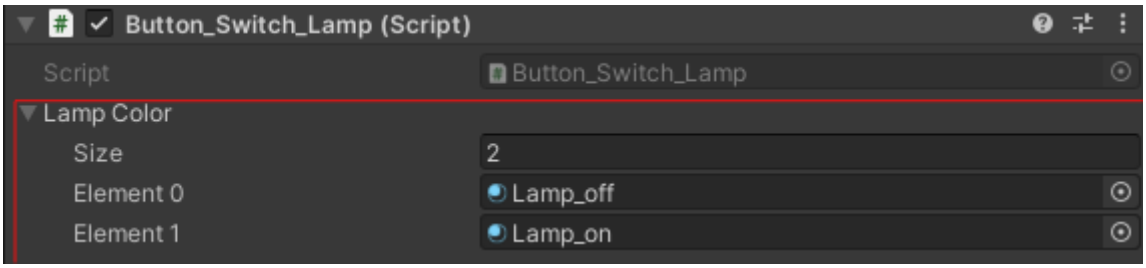
-Lamp_on

-Button 1

-Button 2

FEATURES :

The script Button_Switch_Lamp (on Button_Lamp) contains one variable which is the Lamp Color :

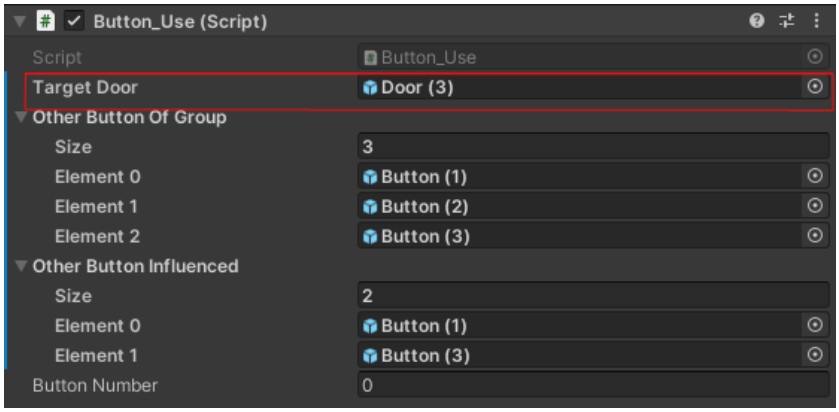


The Lamp Color is an array which contains 2 materials the first material is the material of the lamp when it is not activated, the second material is the material of the lamp when it is activated.

This script is use to change the color of the lamp depending on the state of the button.

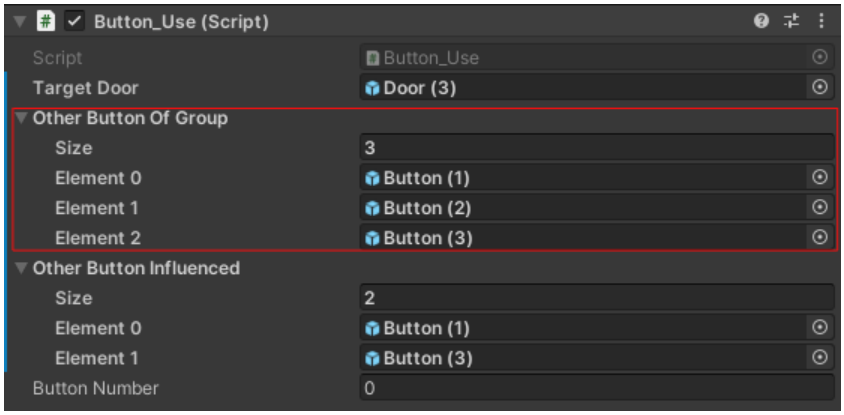
The script Button_Use (on Button) contains 4 variables :

- Target Door :



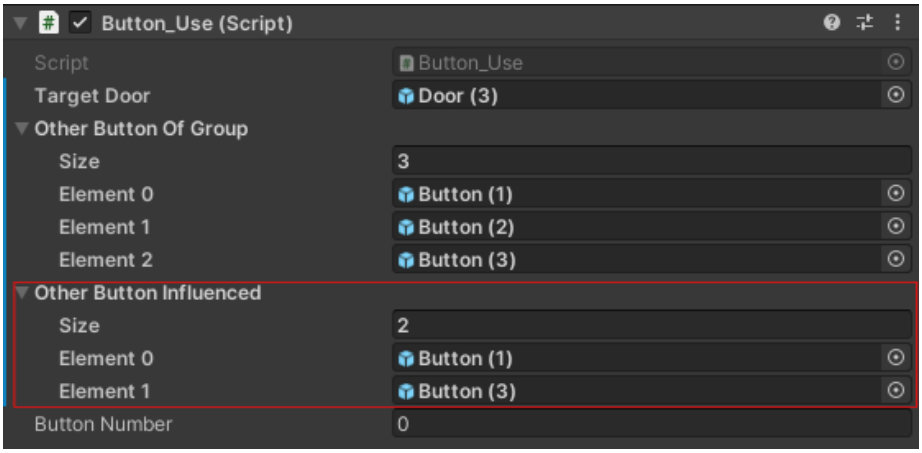
  Target Door is a GameObject and is the door targeted by this button, which mean the door that will open if the code that contain this button is correct.

- Other Button Of Group :



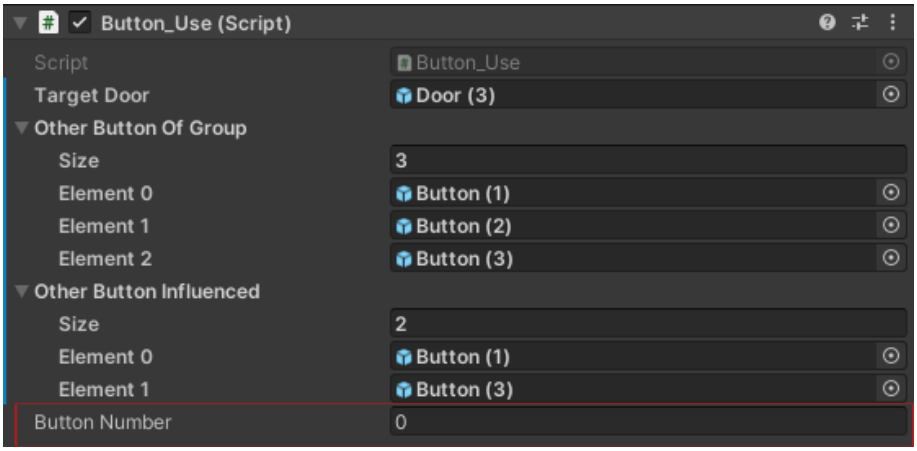
Other Button Of Group is an array of GameObjects that regroups all the other buttons use in the code of the Target Door (the array should not contain the button himself but only the other button of the code)

- Other Button Influenced



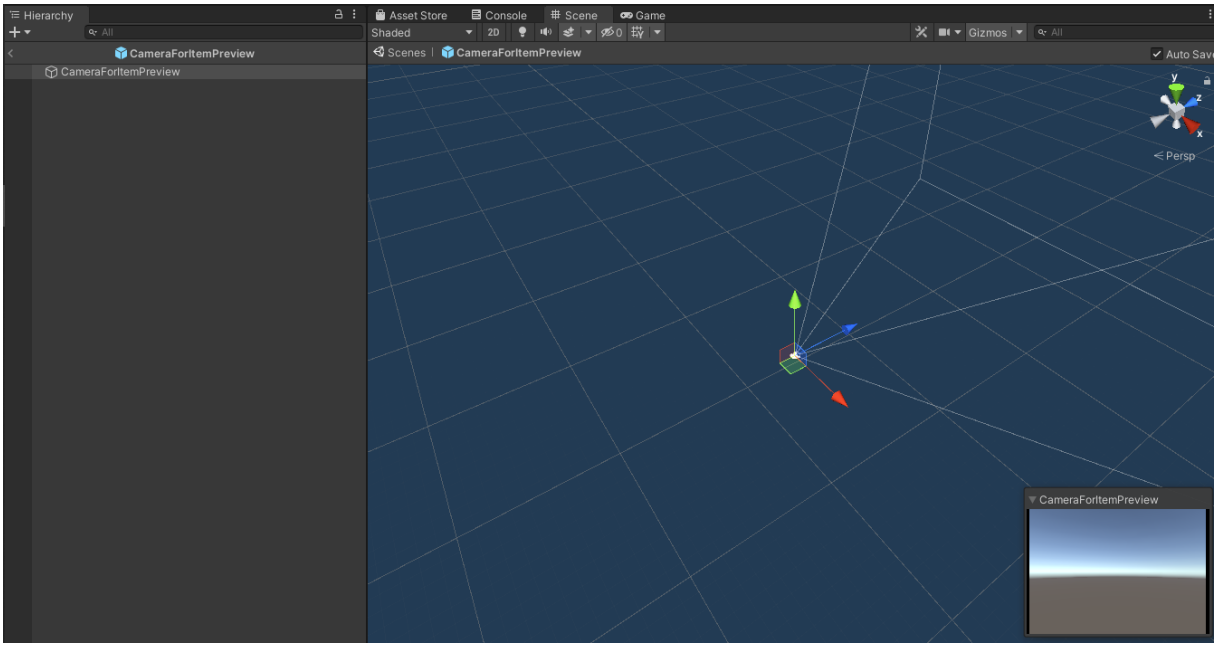
Other Button influenced is an array of GameObjects that regroups all the buttons that will change their state when the player use this button. For example, here if the player presses the button the Button (1) and the Button (3) will change their state if they were active, they will become inactive and vice versa.

- Button Number :



The Button Number is an integer. It is the number of the button in the code of the Target Door, it starts at 0 not 1 ! For example, here the Button Number is 0 so the button is the first one of the code of the Target Door.

CAMERA FOR ITEM PREVIEW PREFAB :



DESCRIPTION :

This prefab contains only one object the CameraForItemPreview. This prefab is use to create the preview of the objects that the player will collect for his inventory. You normally do not have to modify or use this prefab.

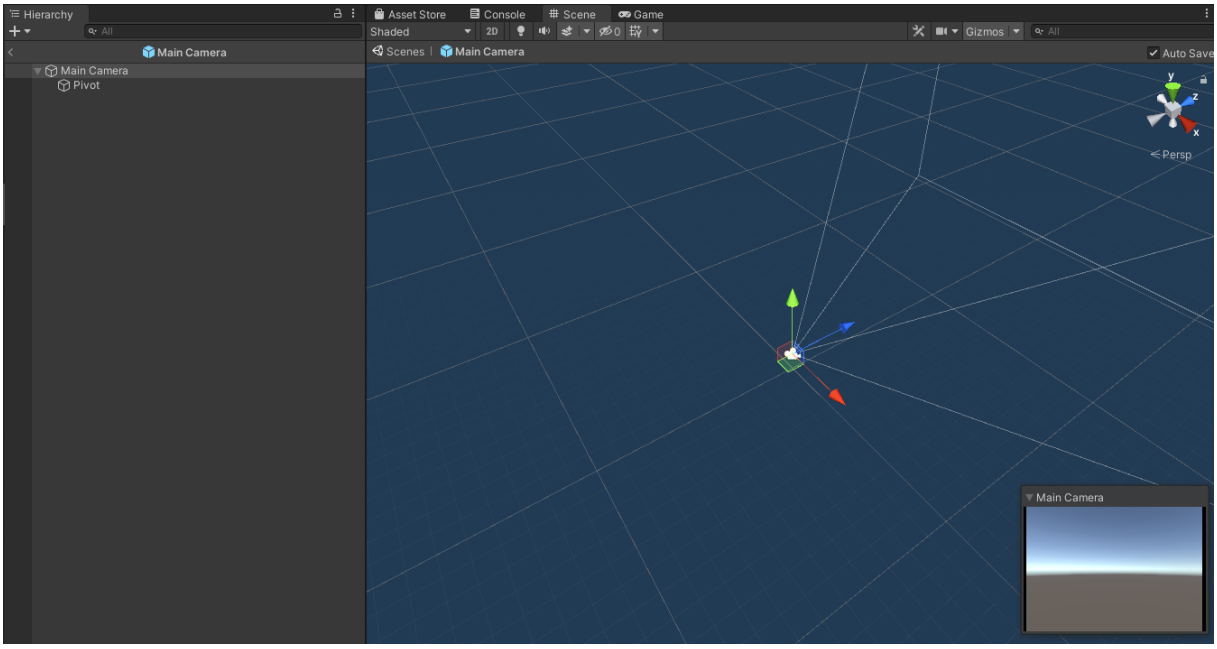
USE :

No scripts and no material.

FEATURES :

This prefab is only here to make the inventory work correctly so you should not use it normally in your scenes.

MAIN CAMERA PREFAB :



DESCRIPTION :

This prefab is the main camera use by the template and is require in a scene to make the player character work normally.

This prefab contains 2 objects :

Main Camera and his child Pivot.

USE :

Script :

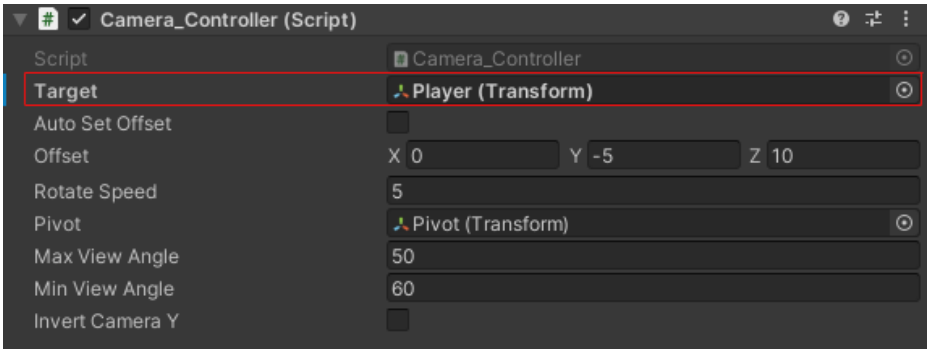
-Camera_Controller

No material.

FEATURES :

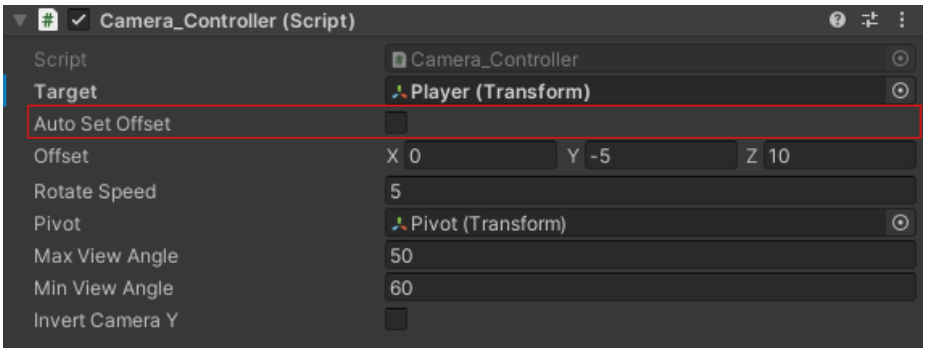
The script Camera_Controller (on Main Camera) contains 8 variables :

- Target :



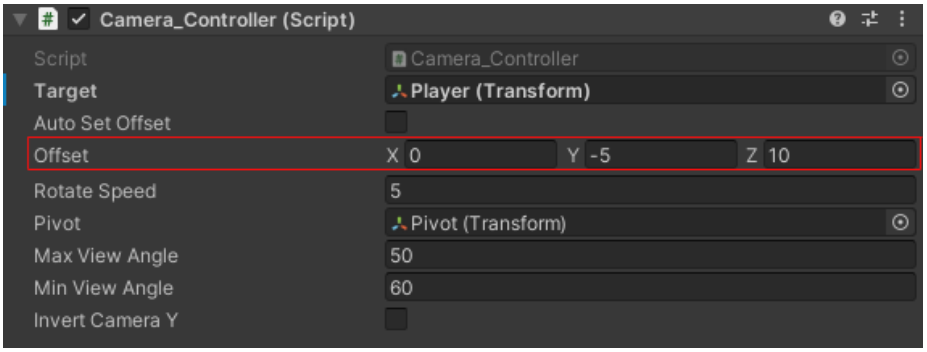
Target is a Tranform targeted by the camera, so it should normally be the transform of the player character.

- Auto Set Offset :



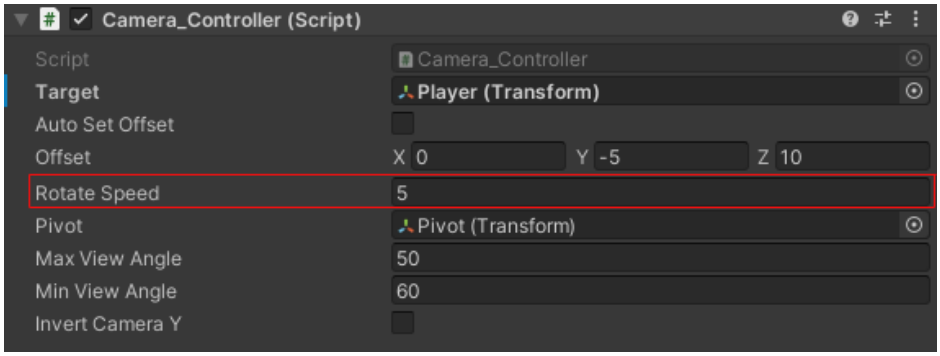
Auto Set Offset is a Boolean that use to toggle the automatic set of the camera offset, if this is true (checked) the Offset of the camera will be automatically set depending on the position of the main camera in the scene compared to the position of the Player in the scene in the editor.

- Offset :



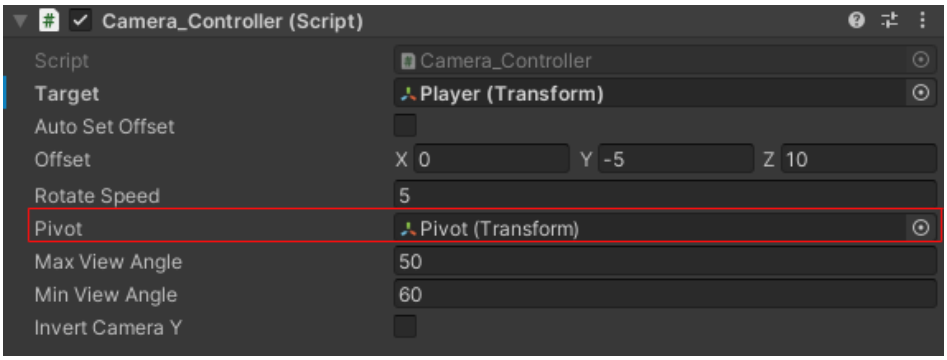
Offset is the Offset of the Main Camera compared to the Target. Offset is a Vector3. You do not have to pay attention to that variable if you use the Auto Set Offset.

- Rotate Speed :



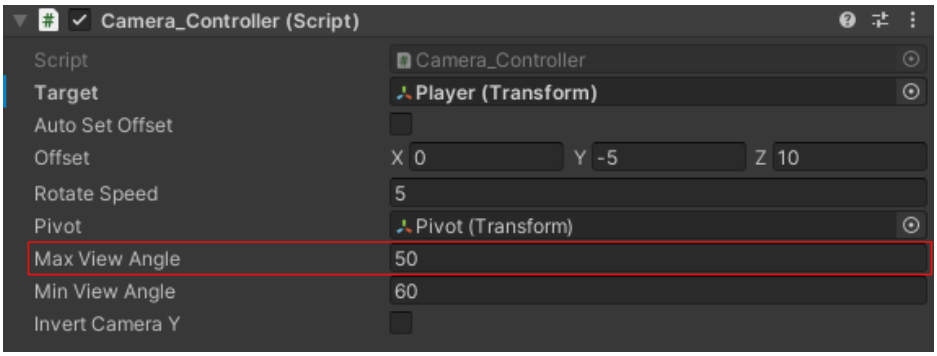
Rotate Speed is a float, it is the rotation speed of the camera around the Pivot.

- Pivot :



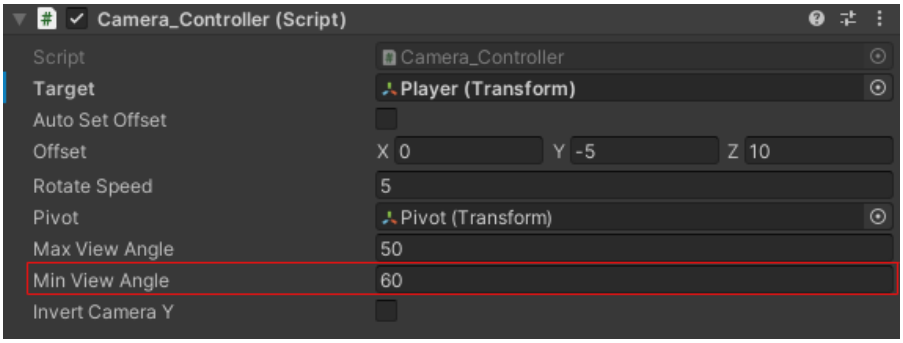
Pivot is the transform of the Pivot object of the prefab and should not be changed.

- Max View Angle :



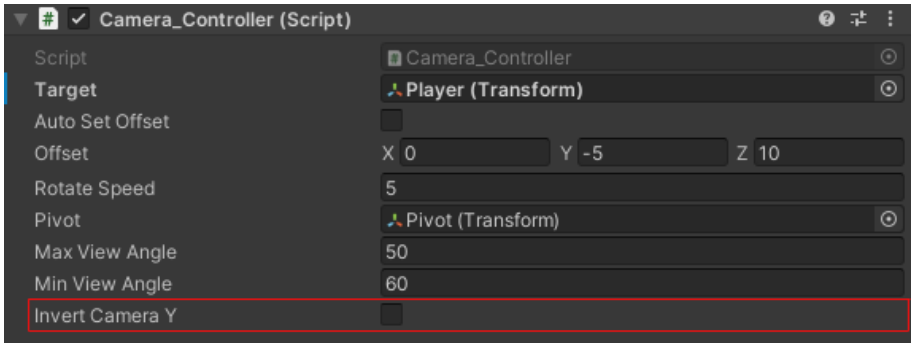
Max View Angle is a float. It is the maximum angle of the Main Camera.

- Min View Angle :



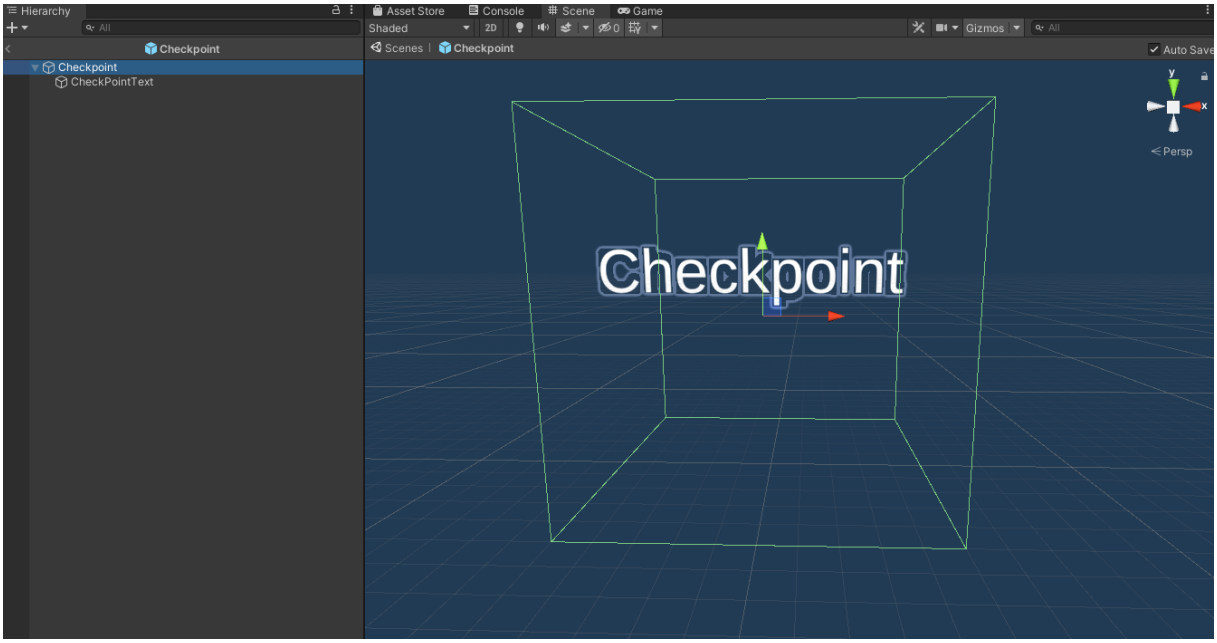
Min View Angle is a float. It is the minimum angle of the camera.

- Invert Camera Y :



Invert Camera Y is a Boolean it use to toggle the inversion of the Main Camera vertical movement.

CHECKPOINT PREFAB :



DESCRIPTION :

This prefab contains 2 objects :

Checkpoint and his child CheckpointText.

This prefab is a checkpoint that you can place where you want in your scene. When the player enter the Checkpoint's trigger, if he dies he will respawn at this Checkpoint.

USE :

Script :

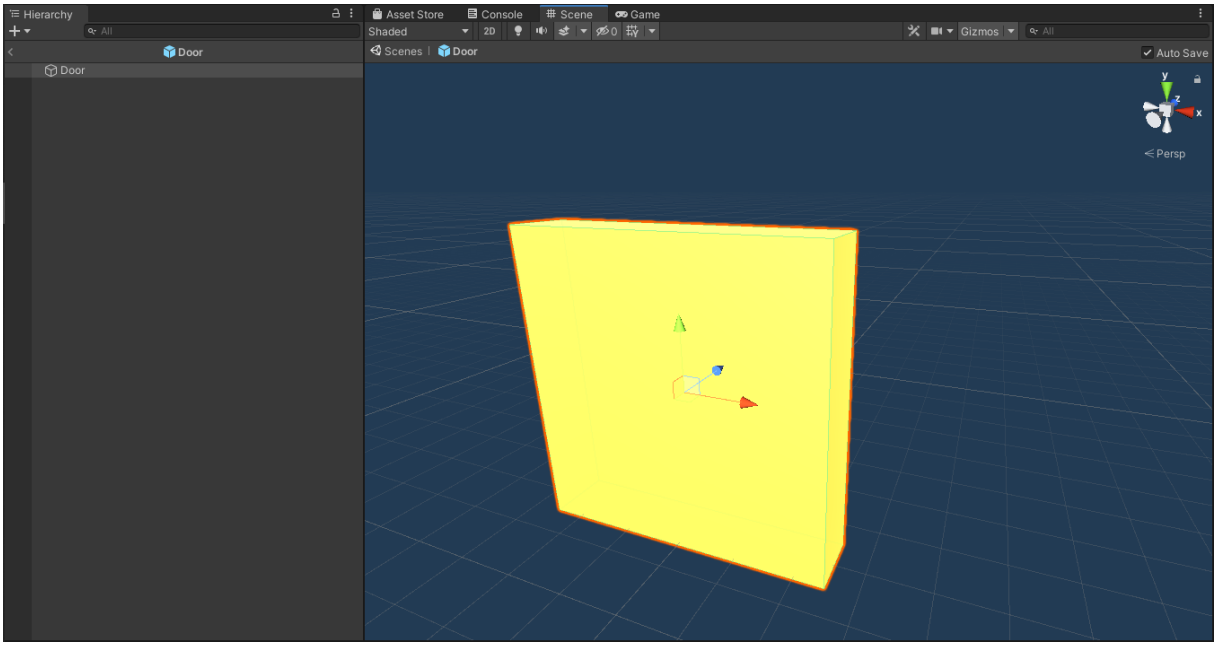
-Checkpoint

No material.

FEATURES :

The script Checkpoint (on Checkpoint) contains no variables to change. If you want to change the size of the Checkpoint you can do it with his scale or his box collider size.

DOOR PREFAB :



DESCRIPTION :

This prefab contains only one object Door.

This prefab is a door that you can place where you want in your scene. A Door can be open without anything, or with a button code or with one or many keys. To open the Door the player have to click on it with the right items or when the button code is correct.

USE :

Script :

-Door_Open

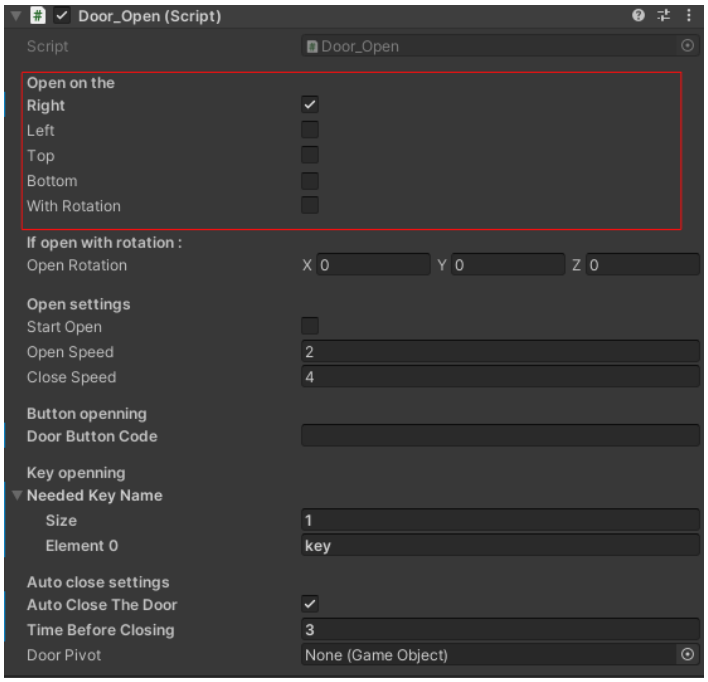
Material :

-Door Material

FEATURES :

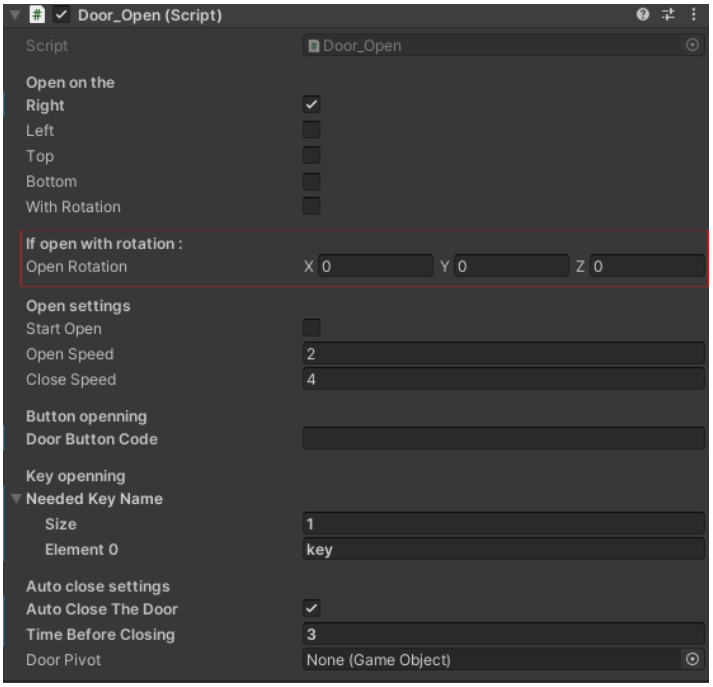
The script Door_Open (on Door) contains 14 variables :

- The 5 directions open Booleans :



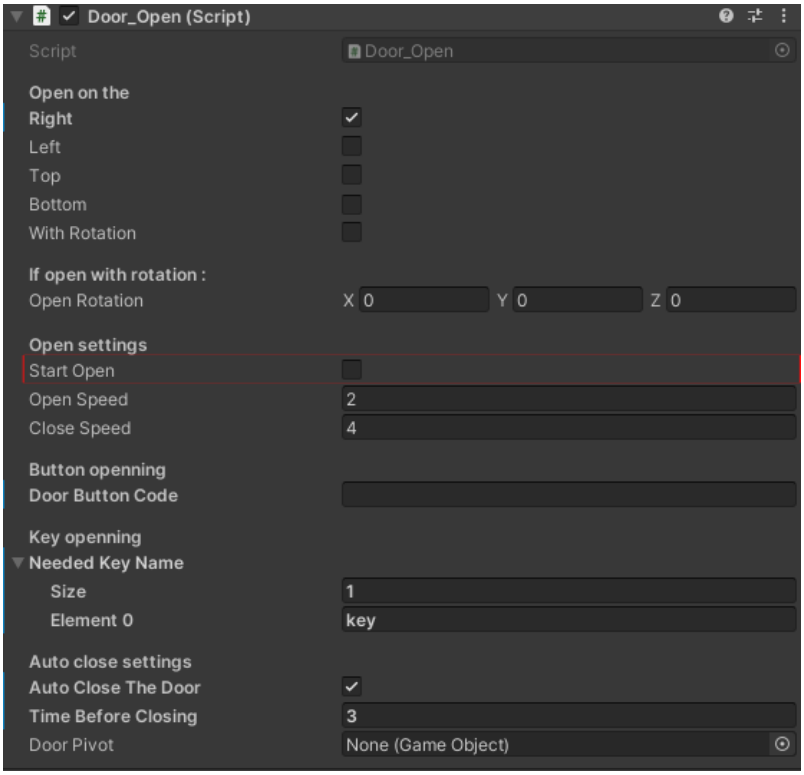
Those Booleans are use to chose the direction of the Door opening only one should be checked if you want to open the Door with a rotation you should use the Door Pivot prefab instead.

- Open Rotation :



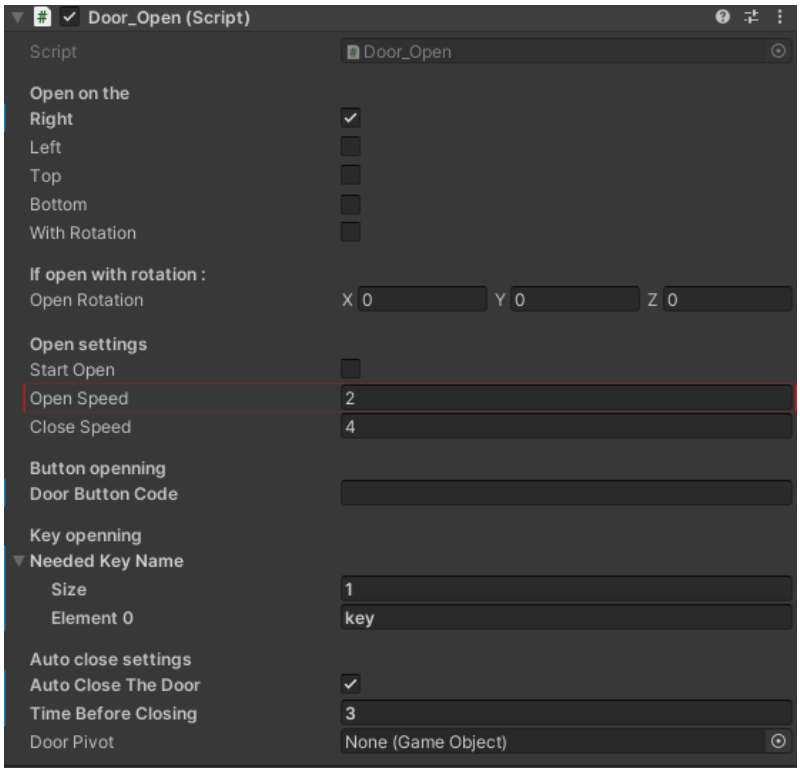
Open rotation is a Vecor3 that is not used for the normal Door prefab, if you want to open the Door with a rotation you should use the Door Pivot prefab instead.

- Start Open :



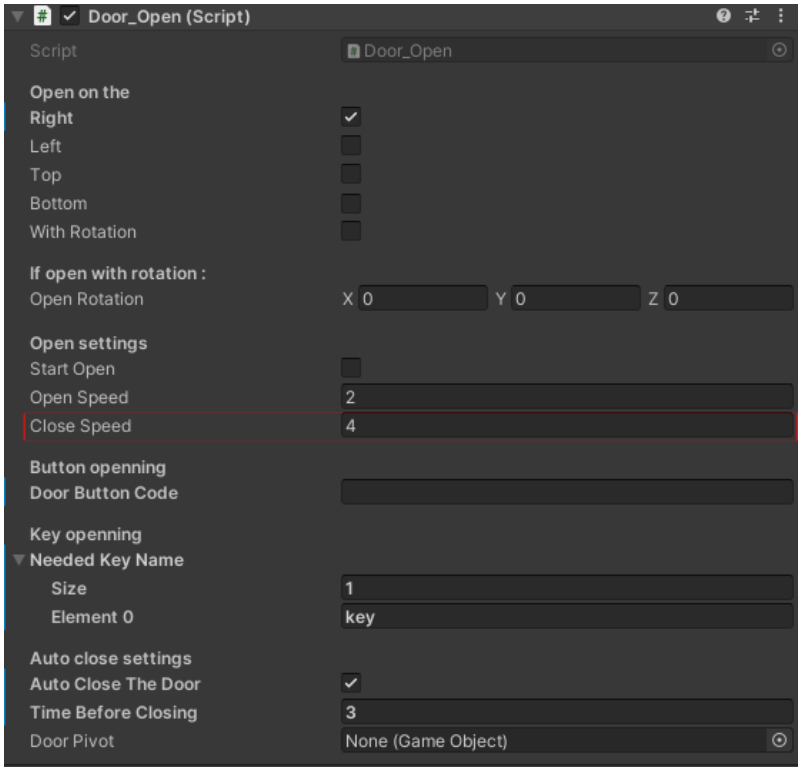
Start Open is a Boolean check it if you want the Door to start in open position in your game.

- Open Speed :



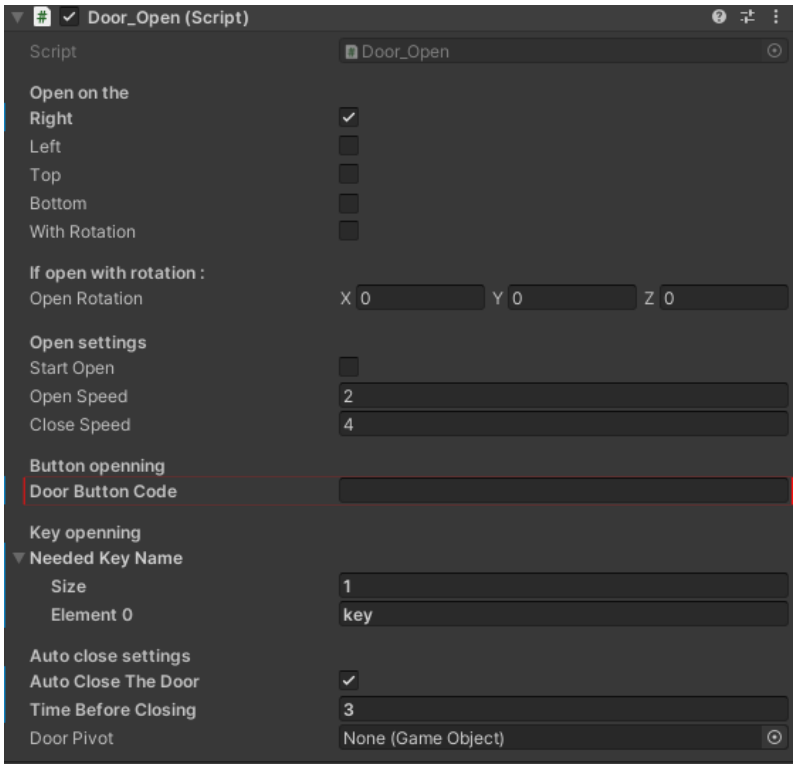
Open Speed is a float. It is the speed of the Door opening.

- Close Speed :



Close Speed is a float. It is the speed of the Door closing.

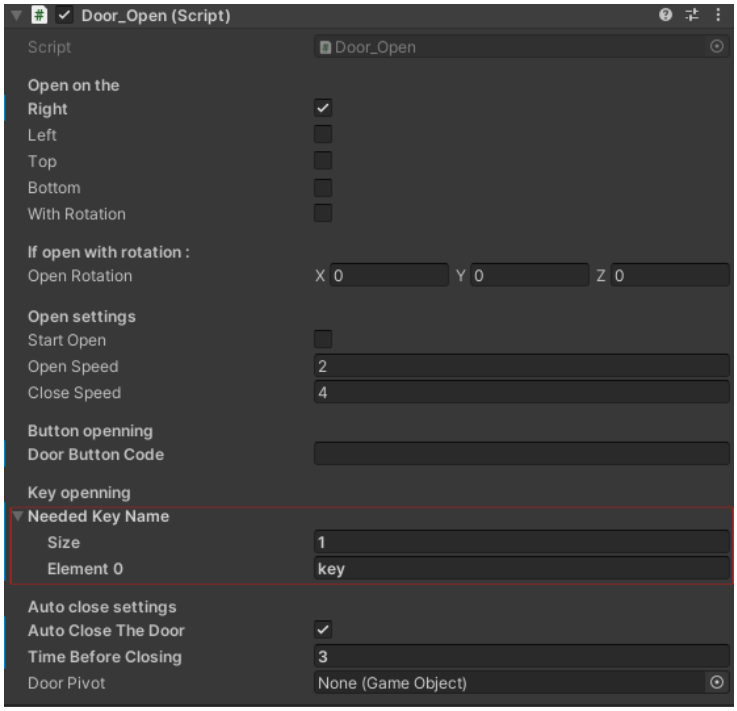
- Door Button Code :



Door Button Code is a string, use 0 to indicate that the button must be inactive to open the Door and 1 to indicate that the button must be active to open the Door. For example, 1010 mean that the Door is

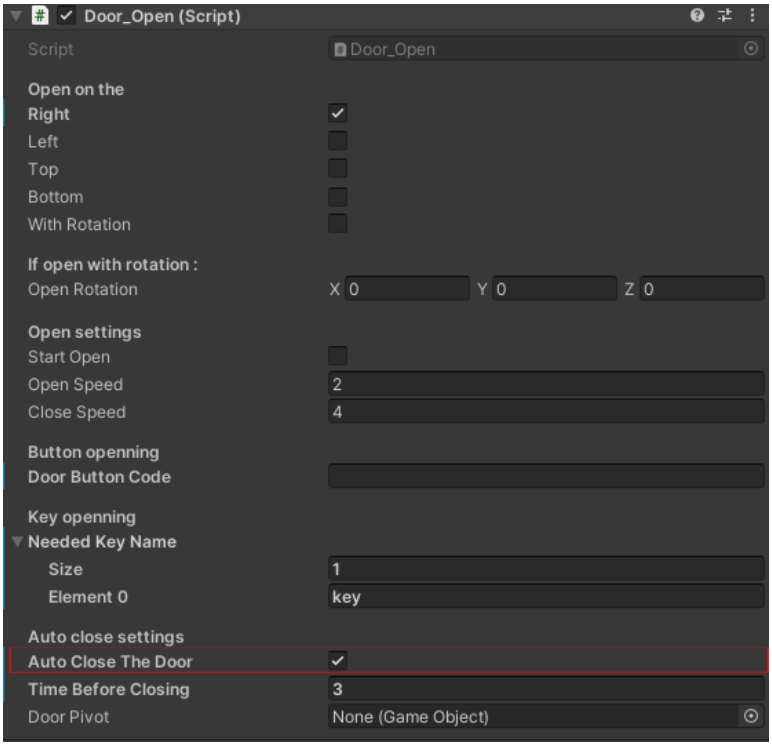
linked to a group of 4 buttons and that the button 0 and 2 must be activated and the button 1 and 3 must be inactivated to open the Door.

- Needed Key Name :



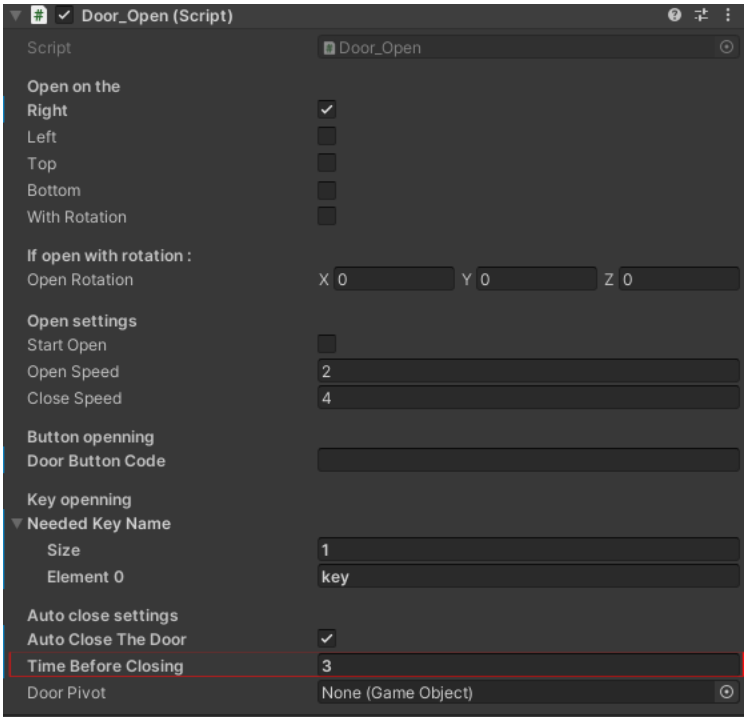
Needed Key Name is an array of strings that contains the **names** of the needed key to open that Door.

- Auto Close the Door :



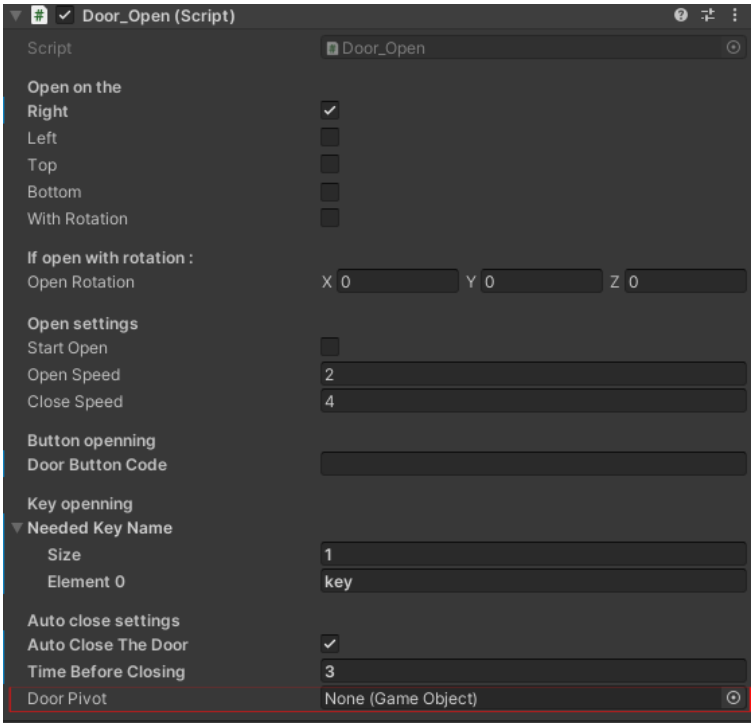
Auto Close The Door is a Boolean use to toggle the auto closing of the Door. If enabled the Door will close automatically after a certain amount of time.

- Time Before Closing :



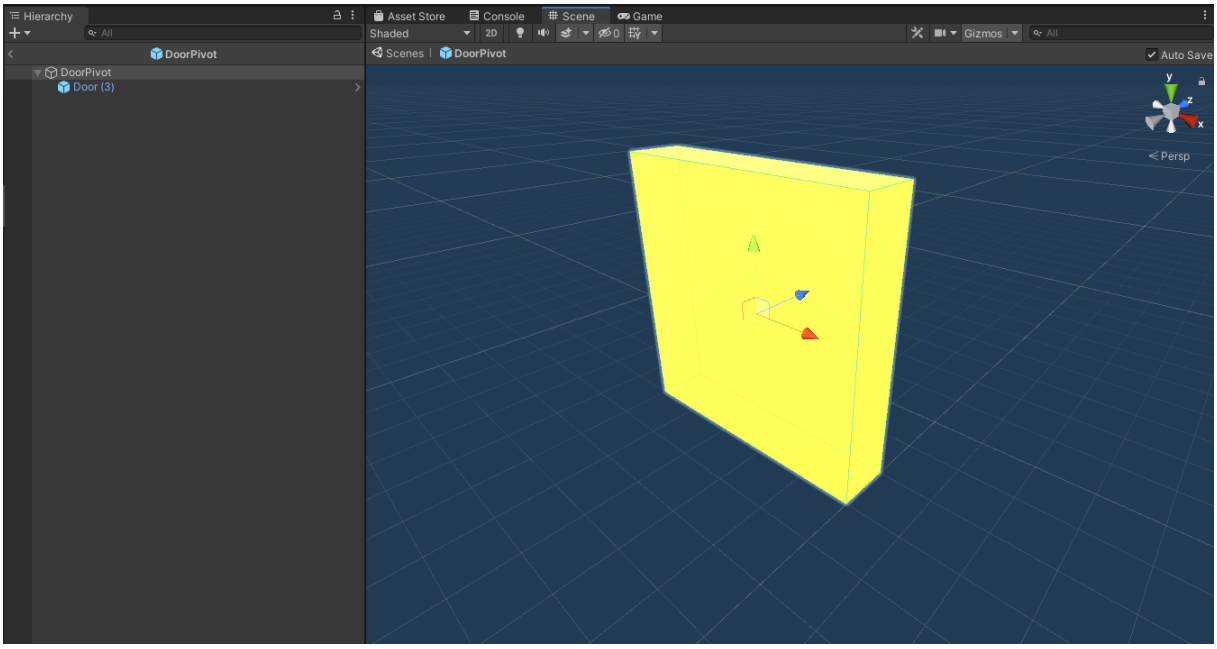
Time Before Closing is a float. It is the amount of time before the Door close if the auto closing is activated.

- Door Pivot :



Door Pivot is a GameObject that should not be use for normal Door, it is only use in Door Pivot prefab.

DOOR PIVOT PREFAB :



DESCRIPTION :

This prefab contains only 2 objects DoorPivot and his child Door (which is a prefab Door).

This prefab is a door that you can place where you want in your scene. A Door can be open without anything, or with a button code or with one or many keys. To open the Door the player have to click on it with the right items or when the button code is correct. This Door can be open with a rotation unlike the normal Door prefab.

USE :

Script :

-Door_Open

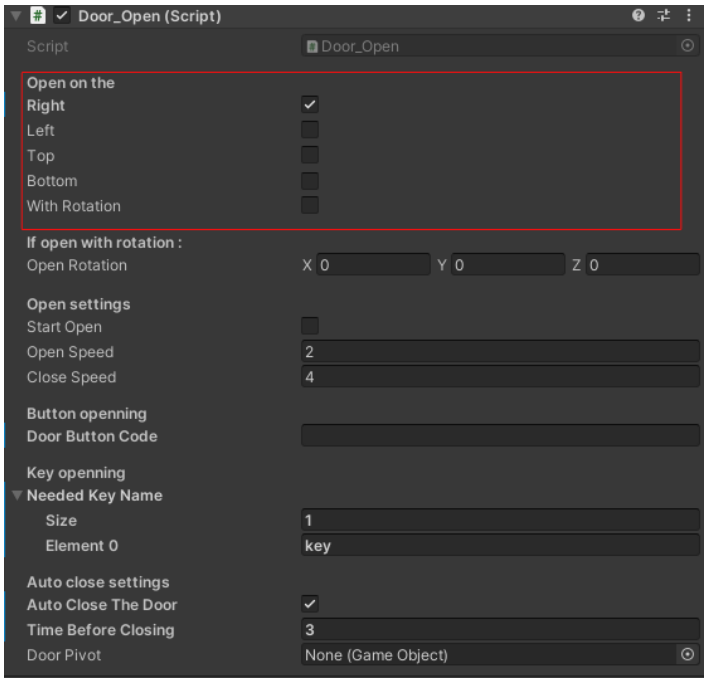
Material :

-Door Material

FEATURES :

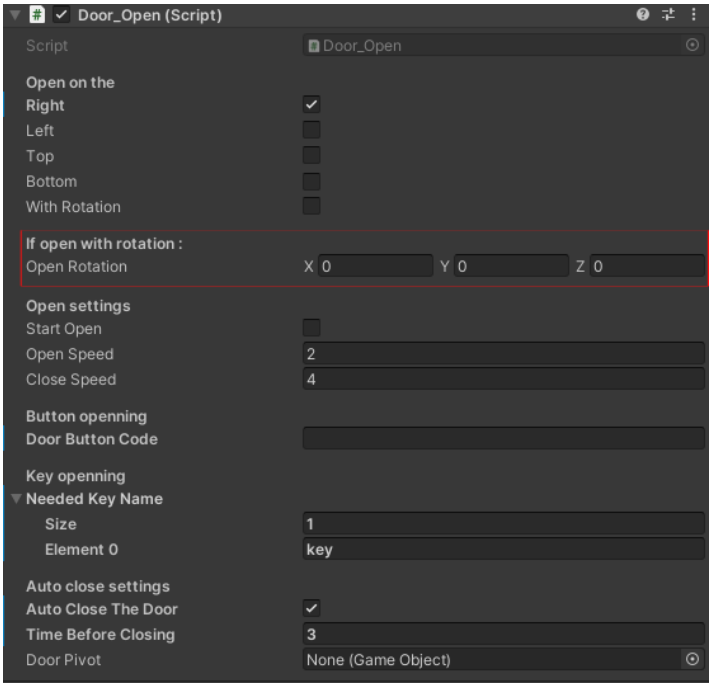
The script Door_Open (on Door) contains 14 variables :

- The 5 directions open Booleans :



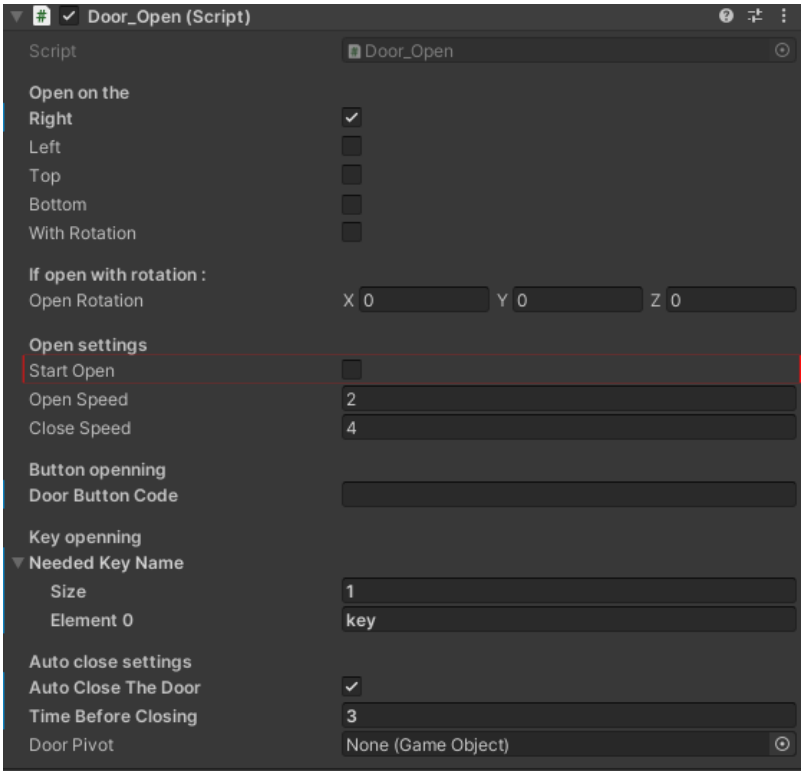
Those Booleans are use to chose the direction of the Door opening only one should be checked.

- Open Rotation :



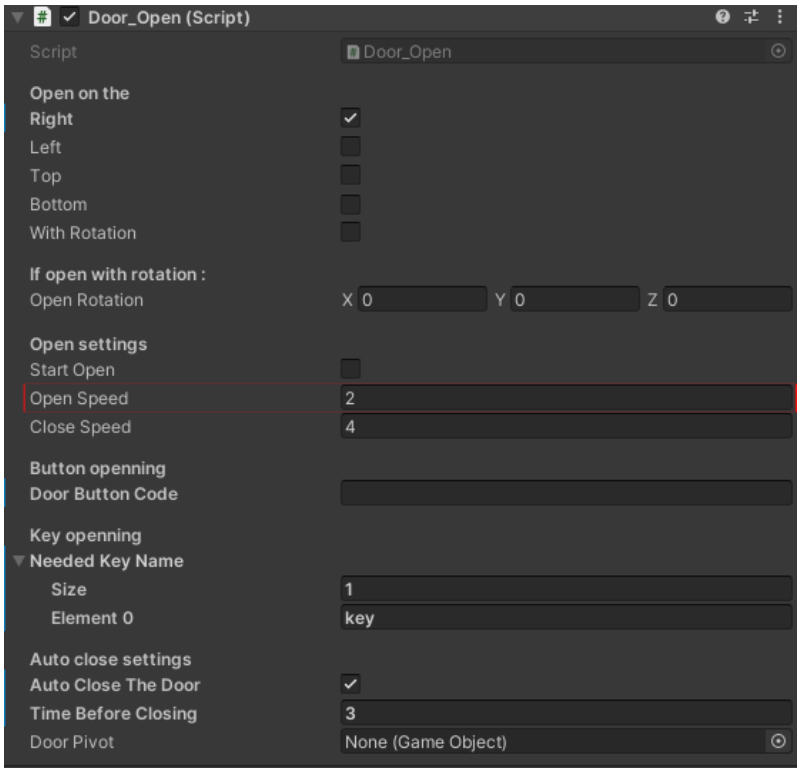
Open rotation is a Vecor3 this is the rotation at the end of the Door opening.

- Start Open :



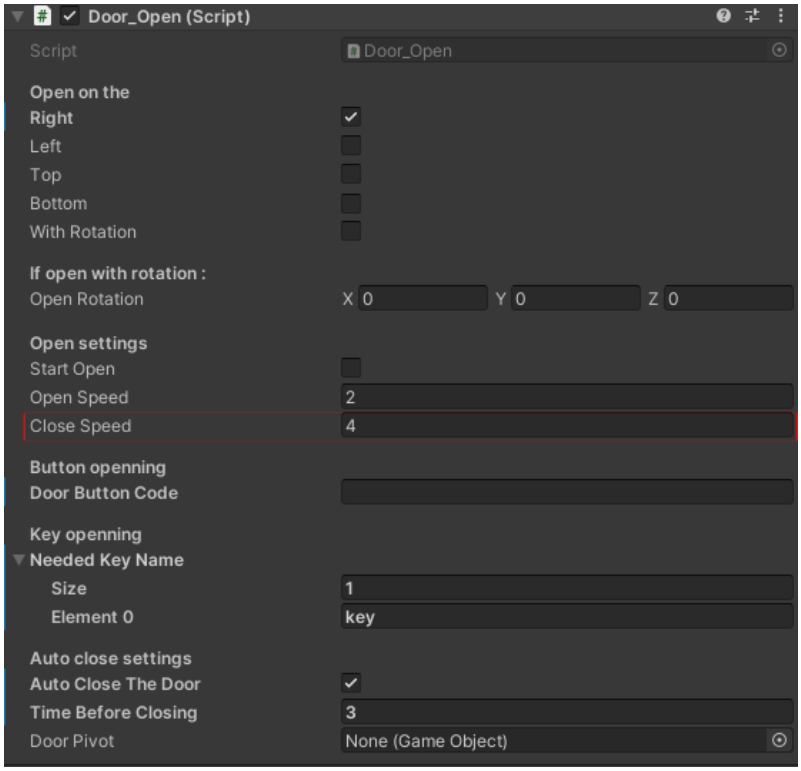
Start Open is a Boolean check it if you want the Door to start in open position in your game.

- Open Speed :



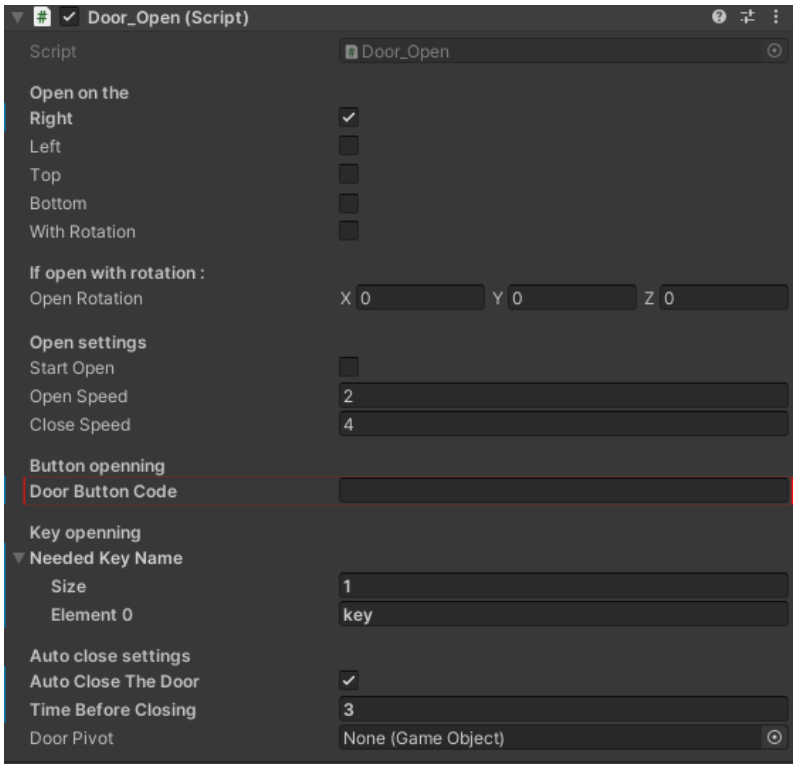
Open Speed is a float. It is the speed of the Door opening.

- Close Speed :



Close Speed is a float. It is the speed of the Door closing.

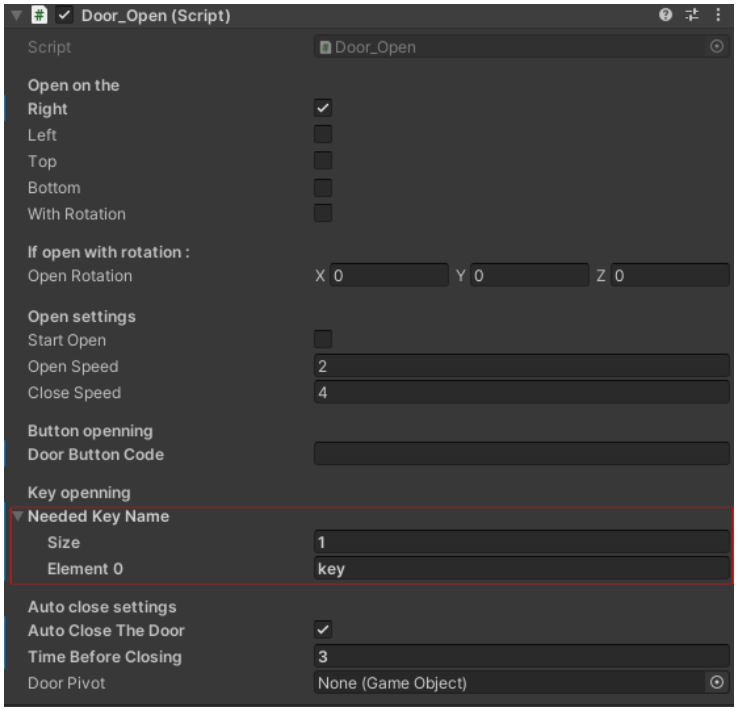
- Door Button Code :



Door Button Code is a string, use 0 to indicate that the button must be inactive to open the Door and 1 to indicate that the button must be active to open the Door. For example, 1010 mean that the Door is

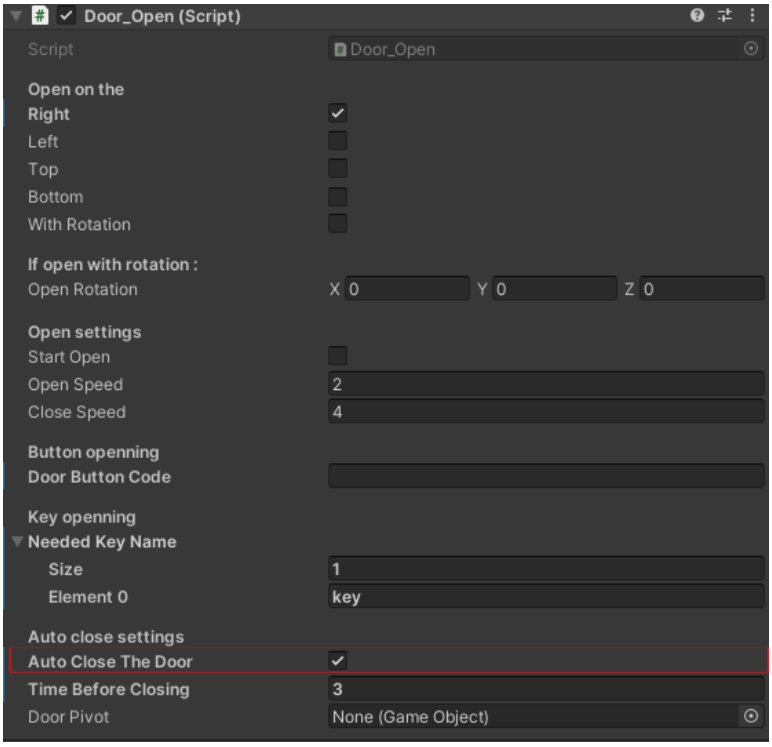
linked to a group of 4 buttons and that the button 0 and 2 must be activated and the button 1 and 3 must be inactivated to open the Door.

- Needed Key Name :



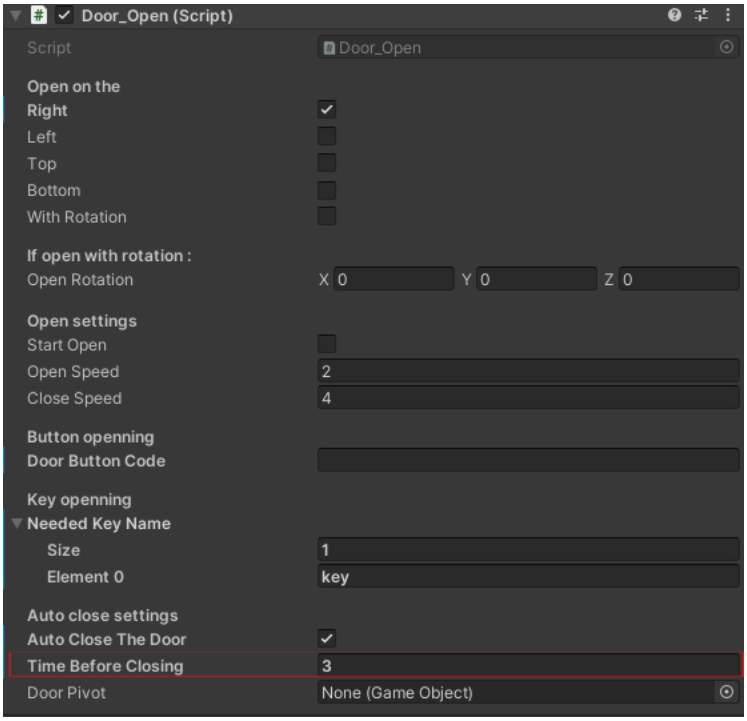
Needed Key Name is an array of strings that contains the **names** of the needed key to open that Door.

- Auto Close the Door :



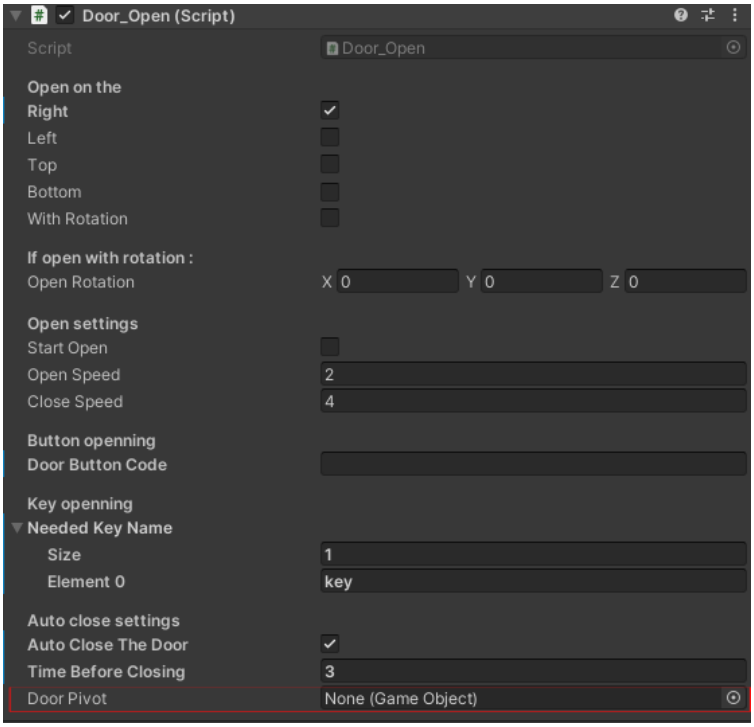
Auto Close The Door is a Boolean use to toggle the auto closing of the Door. If enabled the Door will close automatically after a certain amount of time.

- Time Before Closing :



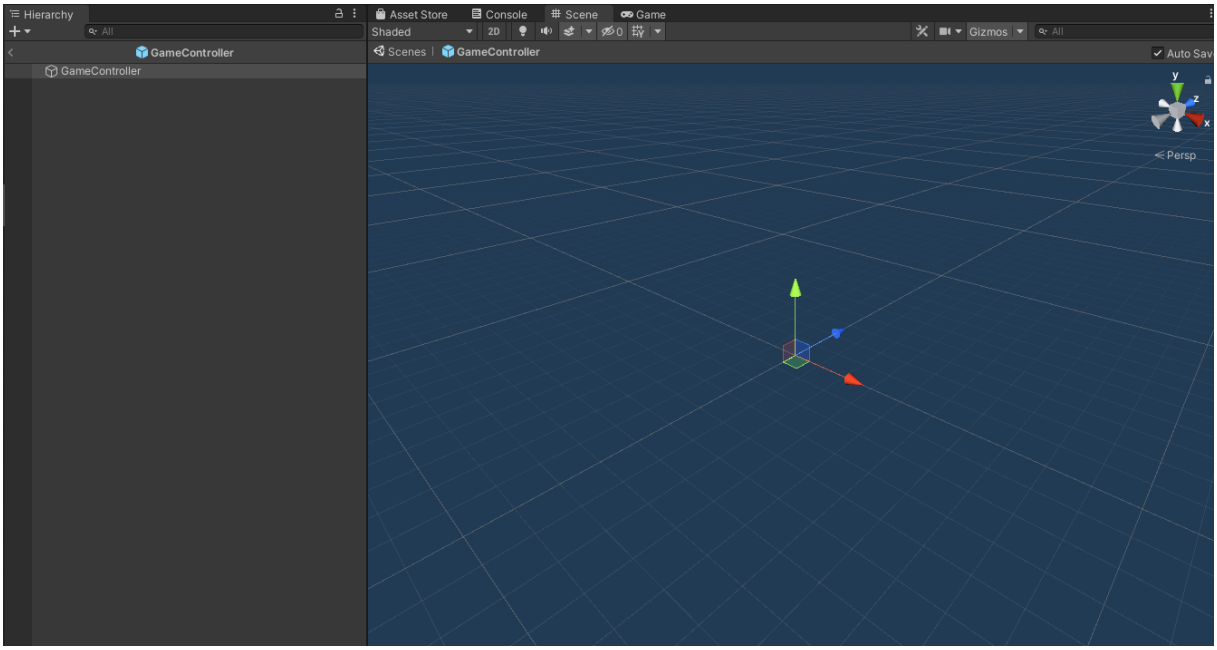
Time Before Closing is a float. It is the amount of time before the Door close if the auto closing is activated.

- Door Pivot :



Door Pivot is a GameObject this is the DoorPivot object and it should not be changed.

GAME CONTROLLER PREFAB :



DESCRIPTION :

USE :

Script :

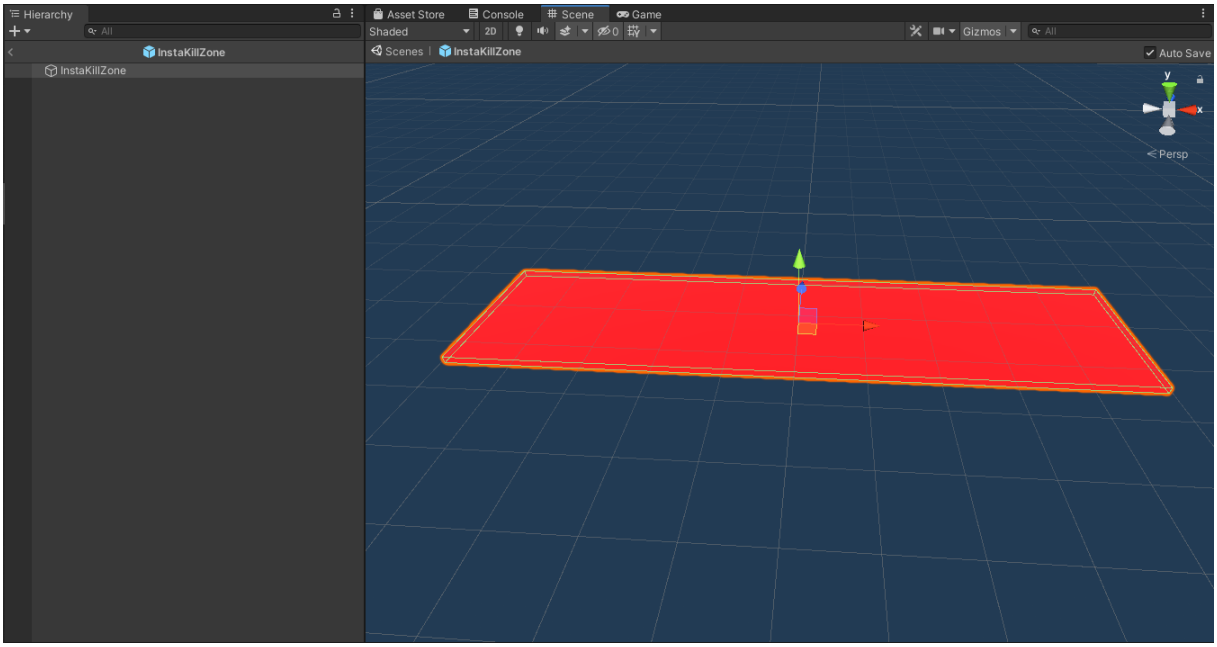
-GameController

No material.

FEATURES :

The script GameController contains no variables to change.

INSTA KILL ZONE PREFAB :



DESCRIPTION :

USE :

Script :

-InstantKillController

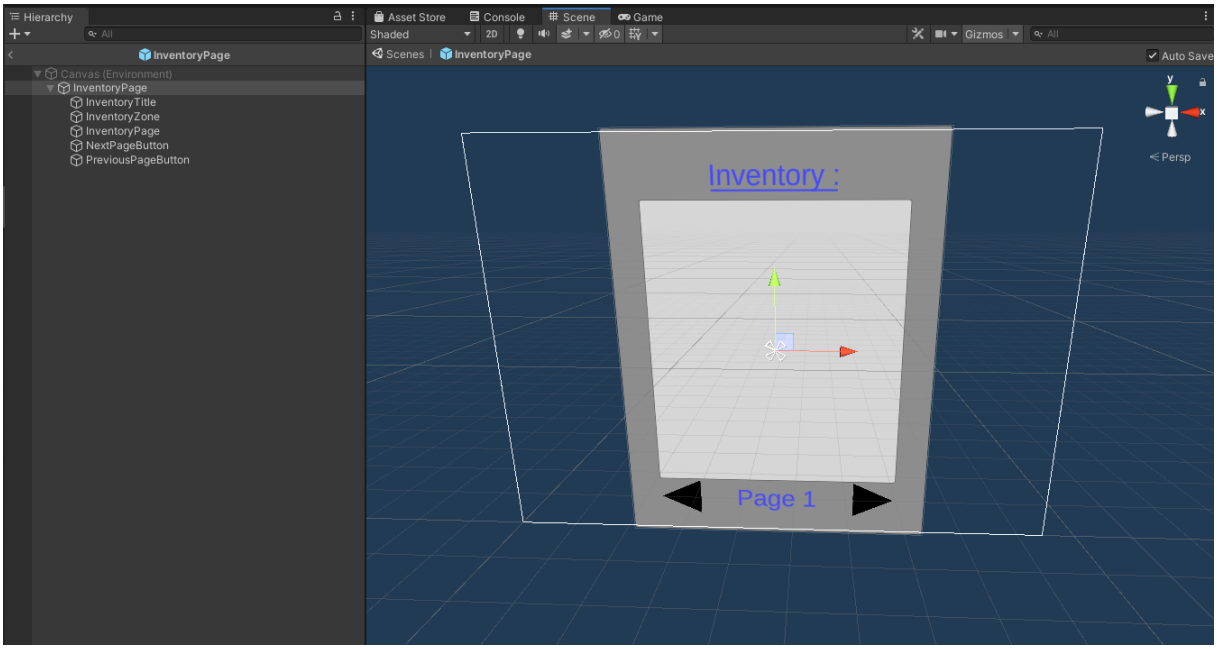
Material :

-Insta Kill Zone Material

FEATURES :

The script InstantKillController contains no variables to change.

INVENTORY PAGE PREFAB :



DESCRIPTION :

USE :

Script :

-InventoryPage_SetUp

-InventoryPage_Switch_Page

Sprite :

-Arrow

-Left arrow

FEATURES :

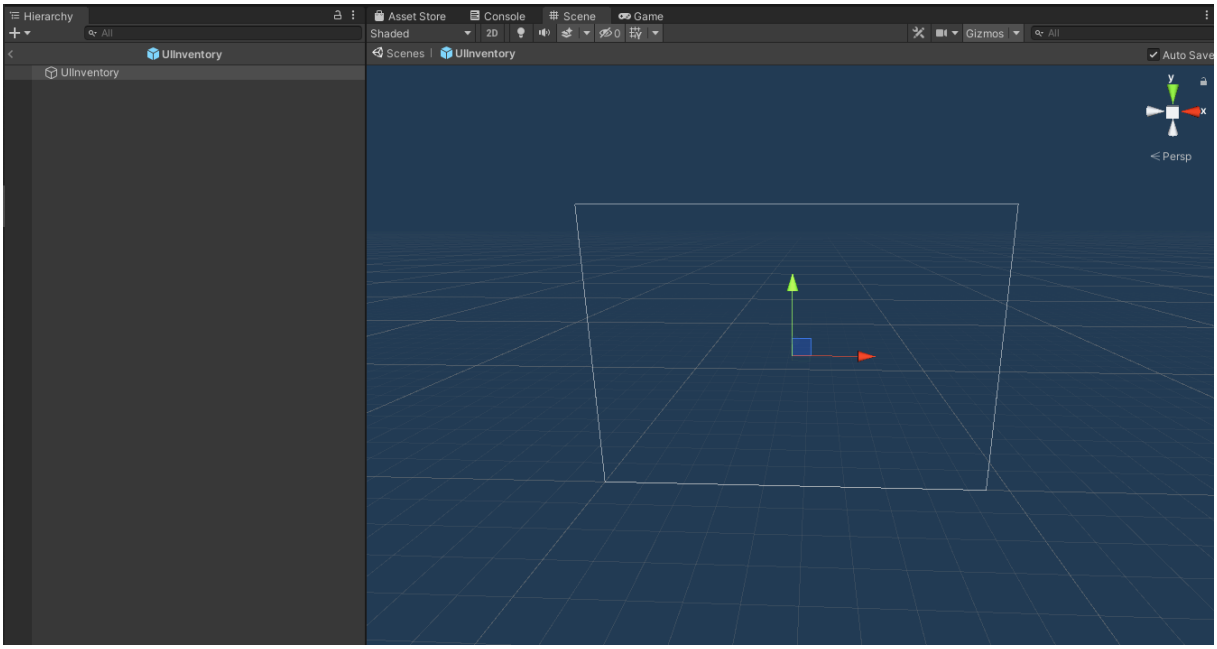
The script InventoryPage_Set_Up contains 1 variable :

-item prefab :

ItemPrefab is the prefab that will be use to display items in the inventory, the actual prefab is a premade prefab that display the name of the item and a small picture of it.

The scrip InventoryPage_Switch_Page contains no variables to change.

UI INVENTORY PREFAB :



DESCRIPTION :

USE :

Script :

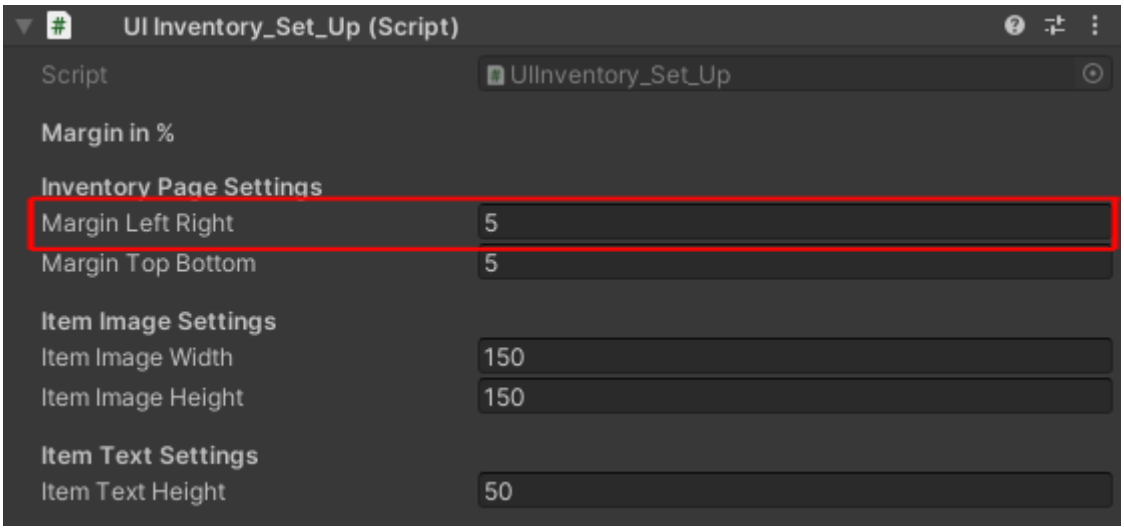
-UIInventory_Set_Up

No material.

FEATURES :

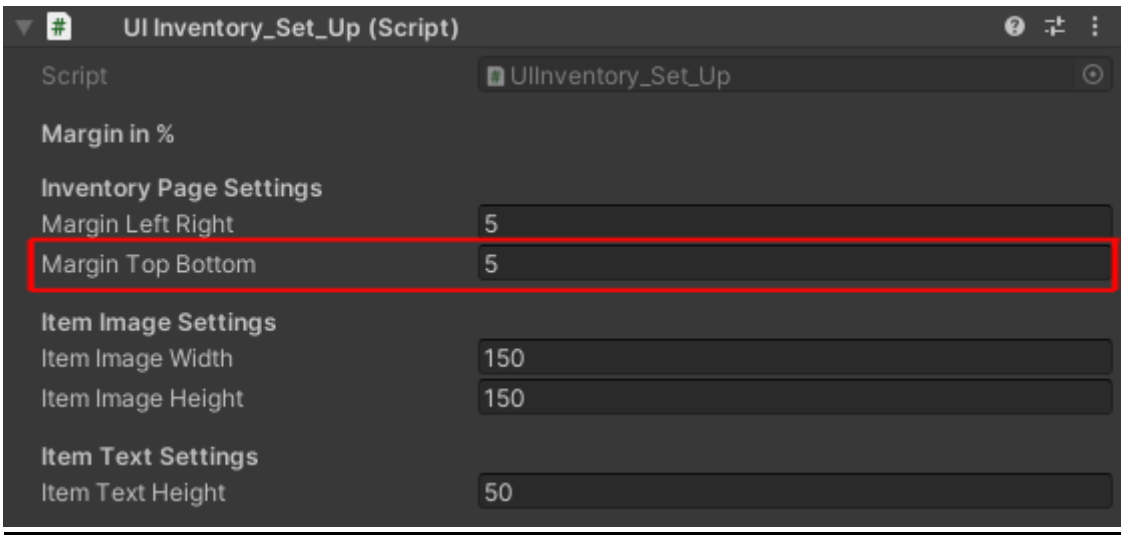
The script UIInventory_Set_Up contains 5 variables :

-MarginLeftRight :



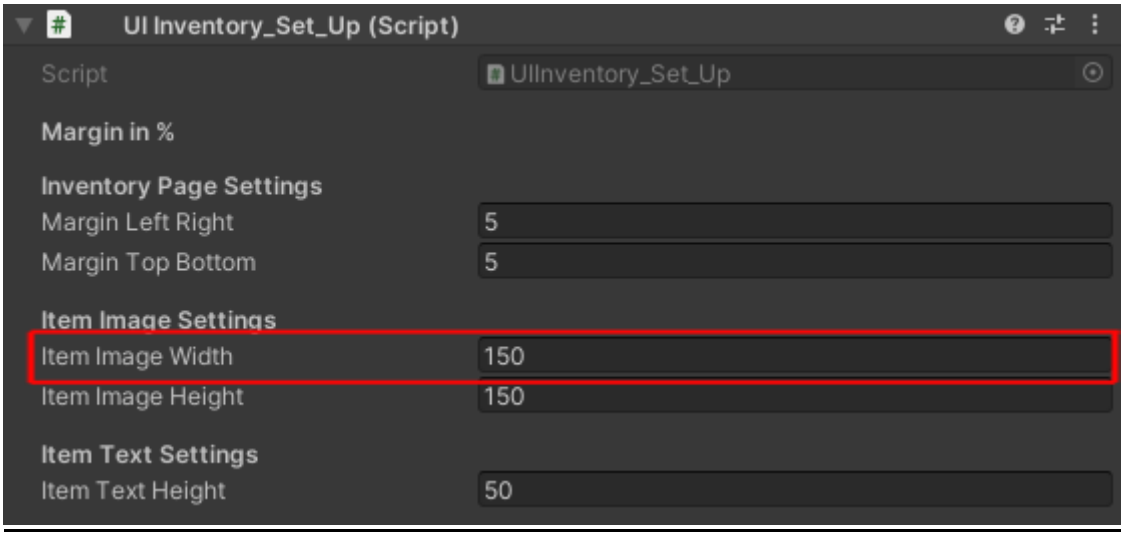
MarginLefRight is the margin of the inventory for the left and the right in % of the screen.

-MarginTopBottom :



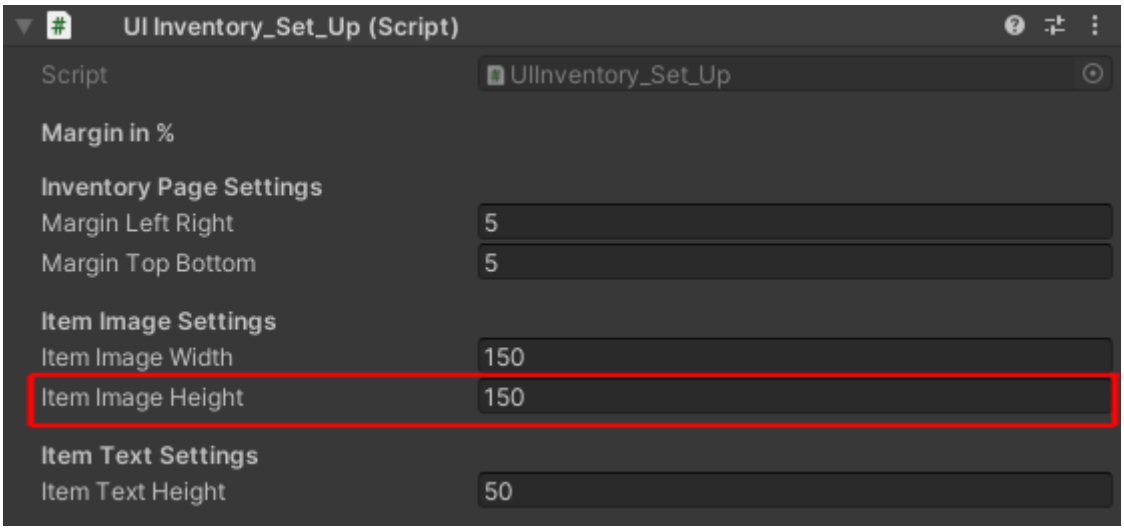
MarginTopBottom is the margin of the inventory for the top and the bottom in % of the screen.

-ItemImageWidth :



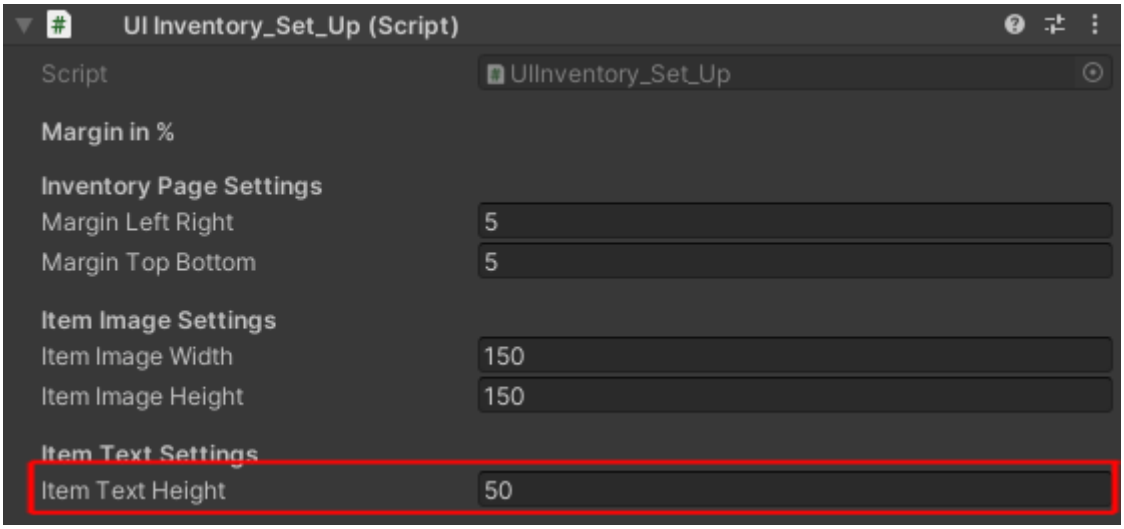
ItemImageWidth is the width of the display image of items in the inventory.

-ItemImageHeight :



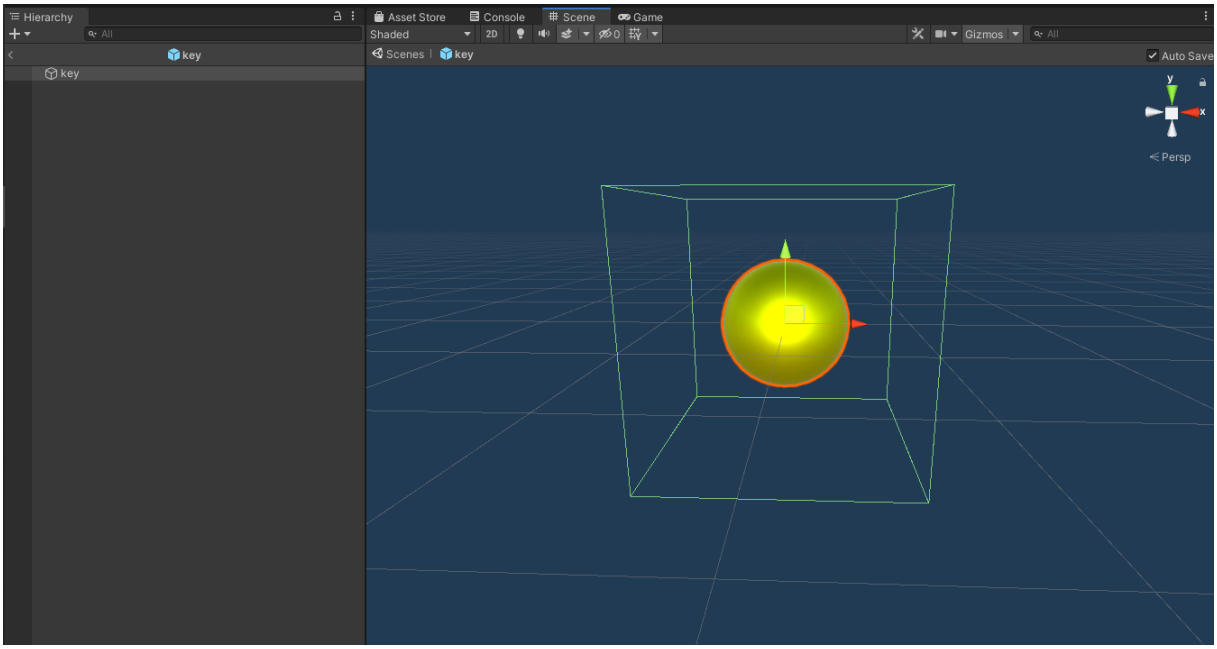
ItemImageHeight is the height of the display image of items in the inventory.

-ItemTextHeight :



ItemTextHeight is the height of the name of the items in the inventory.

KEY PREFAB :



DESCRIPTION :

USE :

Script :

-Key_get

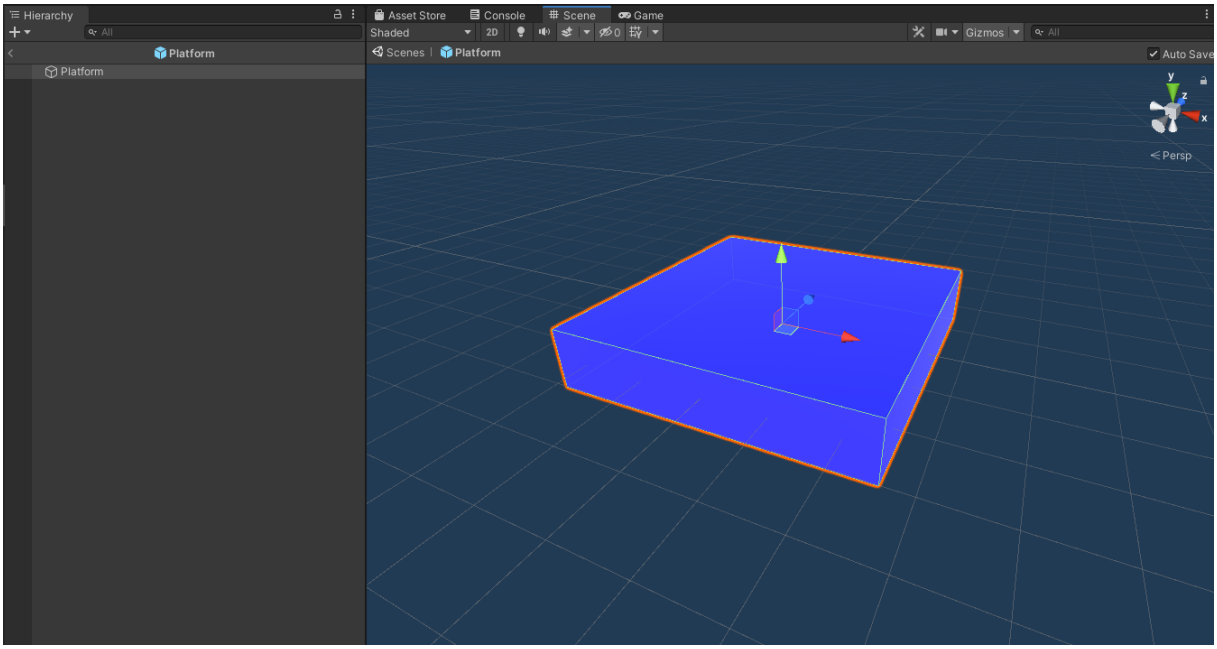
Material :

-Key

FEATURES :

The scrip Key_get contains no variables to change. The variable MyCamObj is the camera used to make the item preview for the inventory and is not supposed to be changed.

PLATFORM PREFAB :



DESCRIPTION :

USE :

Script :

-Platform_Resize

Material :

-Platform Base Material

FEATURES :

The script Platform_Resize contains 2 variables :

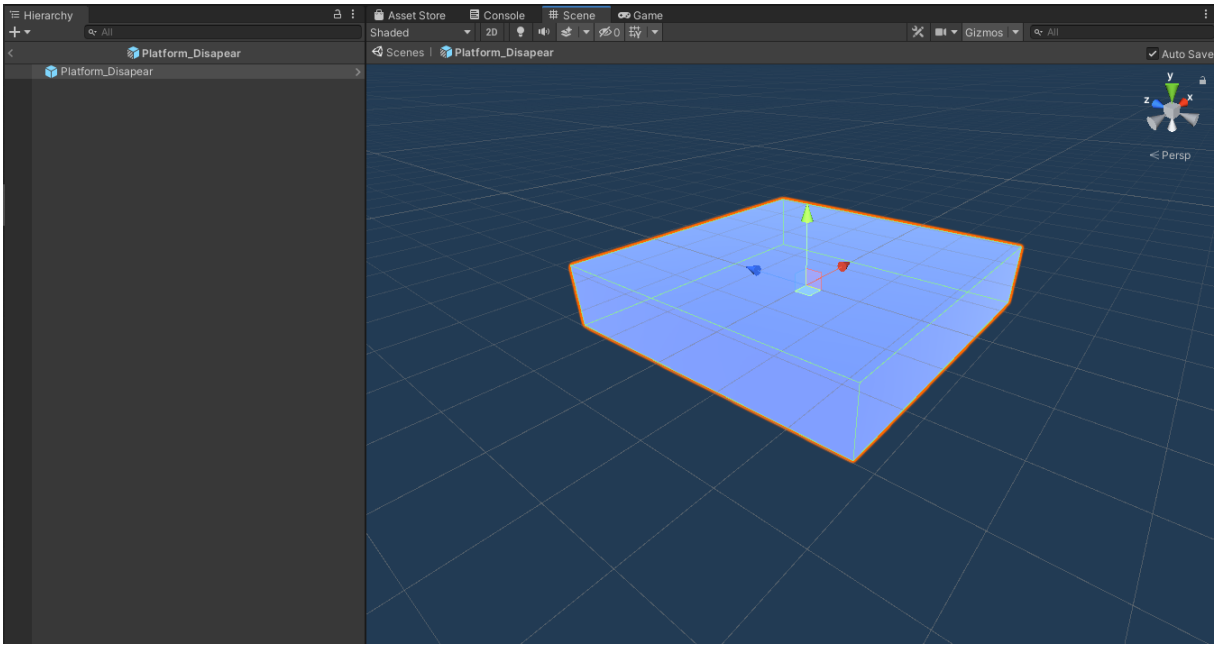
-PlatformResizeInGame :

PlatformResizeInGame is use to know if the script have to resize the platform.

-PlatformSize

PlatformSize is the willed size of the platform.

PLATFORM DISAPPEAR PREFAB :



DESCRIPTION :

USE :

Scripts :

-Platform_Resize

-Platform_Disappear

Materials :

-Platform Disappear Material

-Platform Disappear Mat2

FEATURES :

The script Platform_Resize contains 2 variables :

-PlatformResizeInGame :

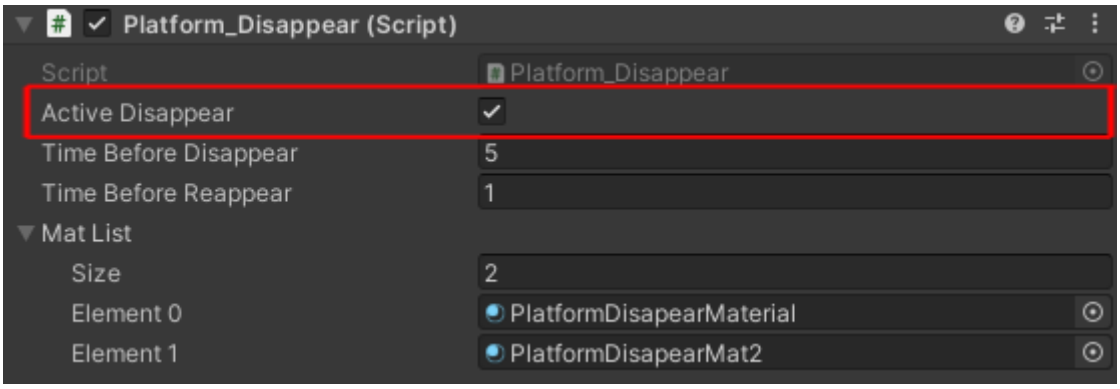
PlatformResizeInGame is use to know if the script have to resize the platform.

-PlatformSize

PlatformSize is the willed size of the platform.

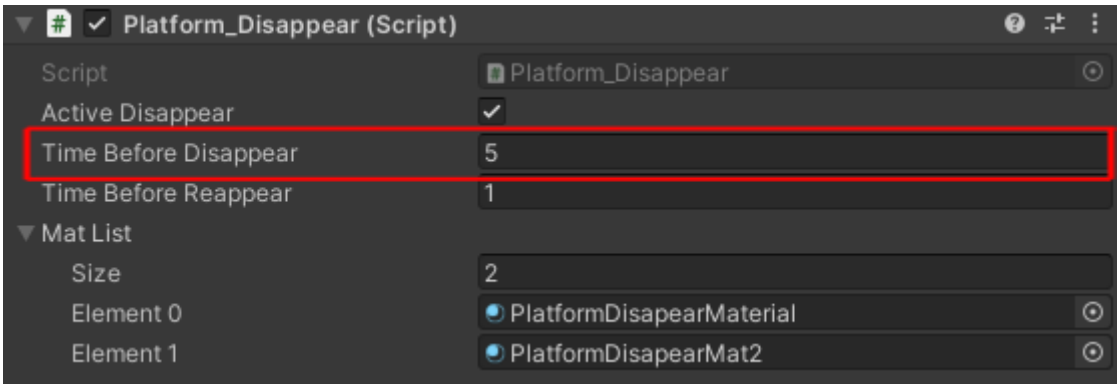
The script Platform_Disappear contains 4 variables :

-ActiveDisappear



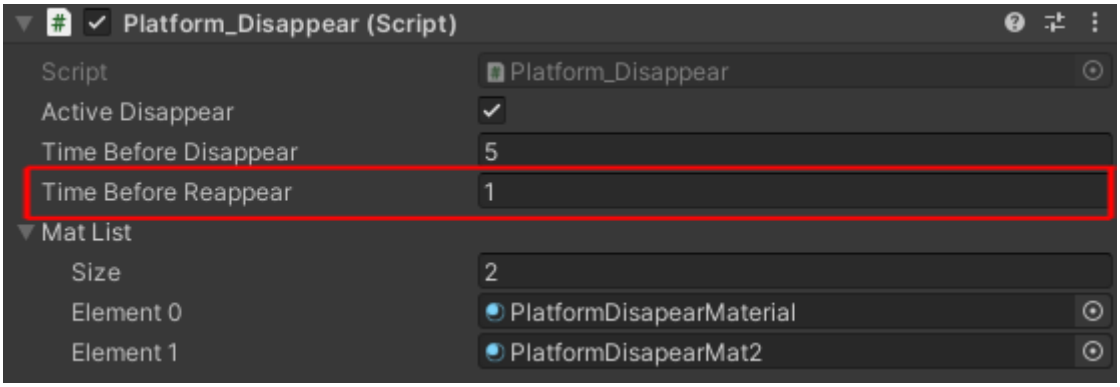
Active disappear is use to activate the disappearing option on the platform.

-TimeBeforeDisappear :



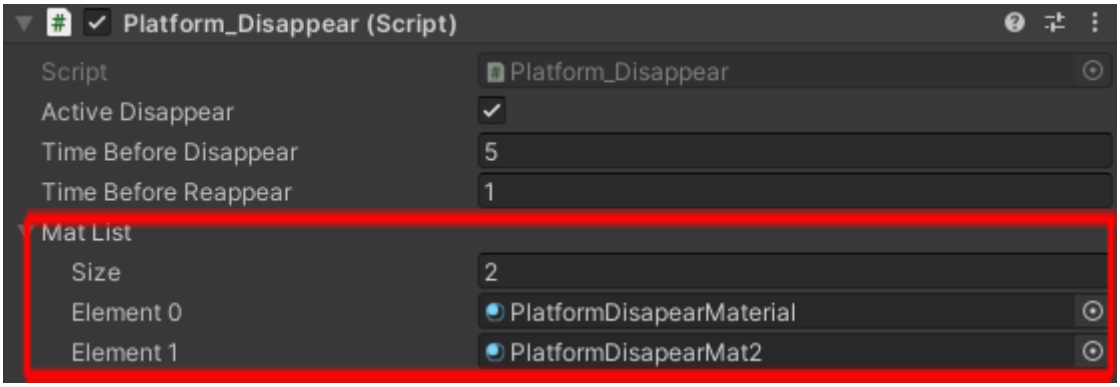
TimeBeforeDisappear is the number of seconds before the platform disappear once the player touch it.

-TimeBeforeReappear :



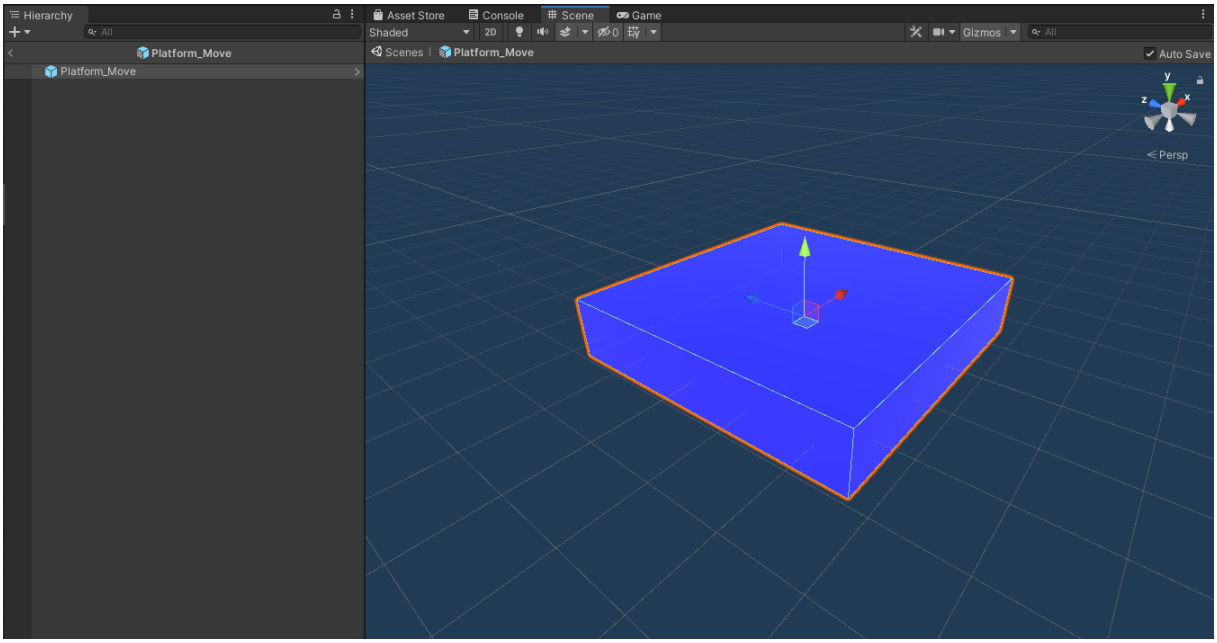
TimeBeforeReappear is the number of seconds before the platform reappear once she has disappeared.

-MatList :



MatList is the list of materials of the platform, the first material is the current material of the platform, the second material is the target material when the platform starts to disappear.

PLATFORM MOVE PREFAB :



DESCRIPTION :

USE :

Scripts :

-Platform_Resize

-Platform_Move

Material :

-Platform Base Material

FEATURES :

The script Platform_Resize contains 2 variables :

-PlatformResizeInGame :

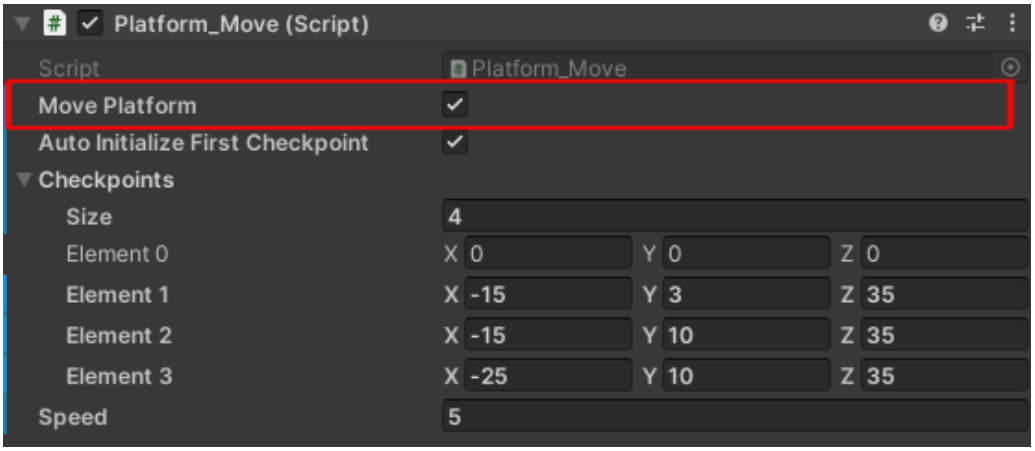
PlatformResizeInGame is use to know if the script have to resize the platform.

-PlatformSize

PlatformSize is the willed size of the platform.

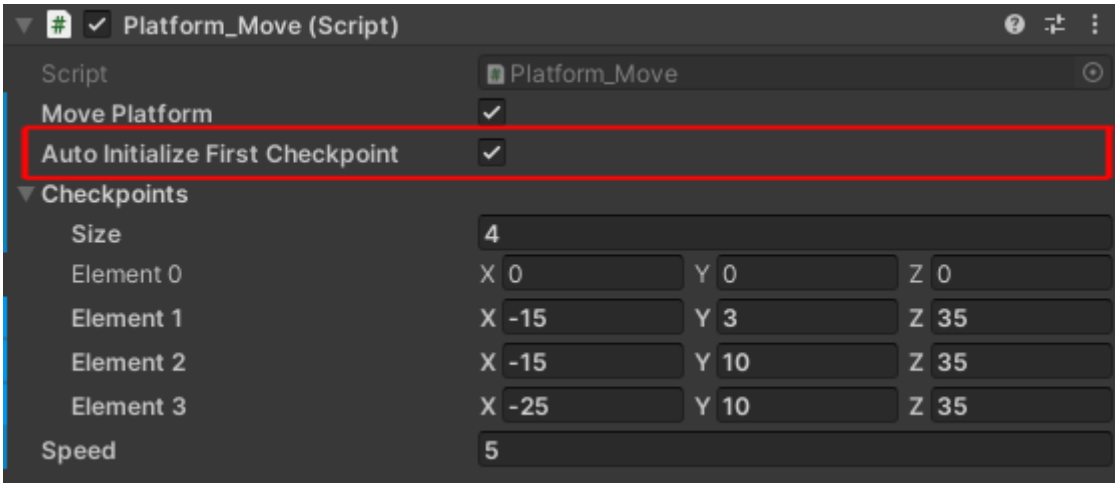
The script Platform_Move contains 4 variables :

-MovePlatform :



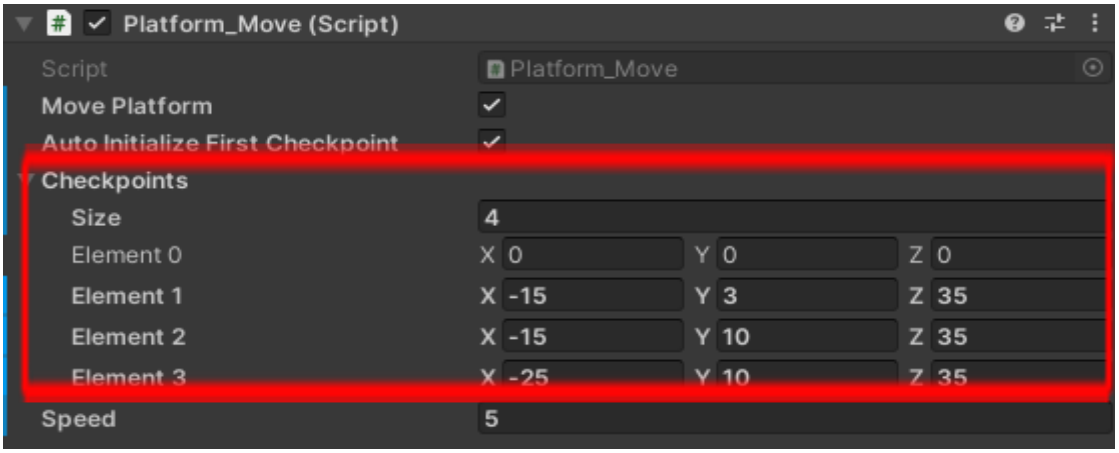
MovePlatform is used to know if the platform have to move.

-AutoInitializeFirstCheckpoint :



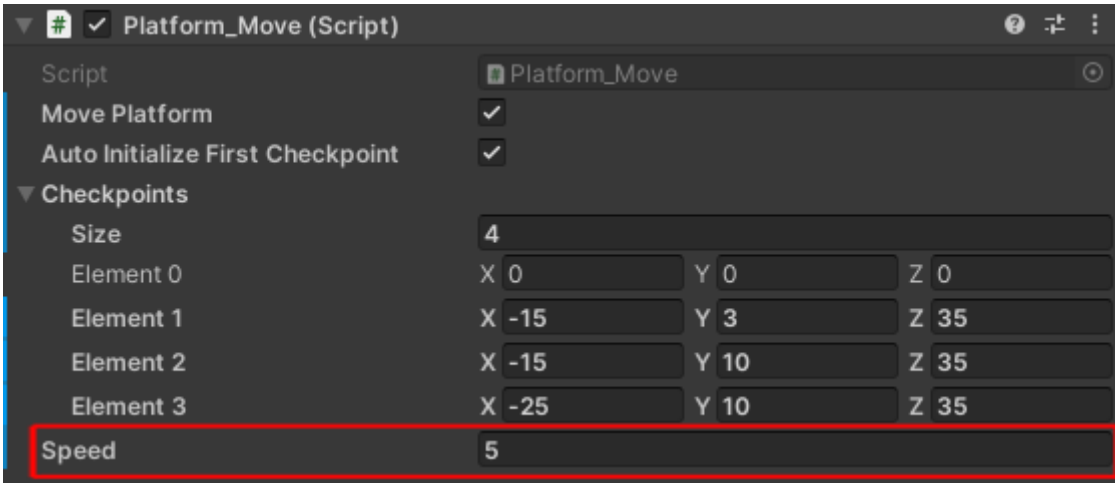
Use it if you want to auto initialize the first checkpoint of the platform in the array.

-checkpoints :



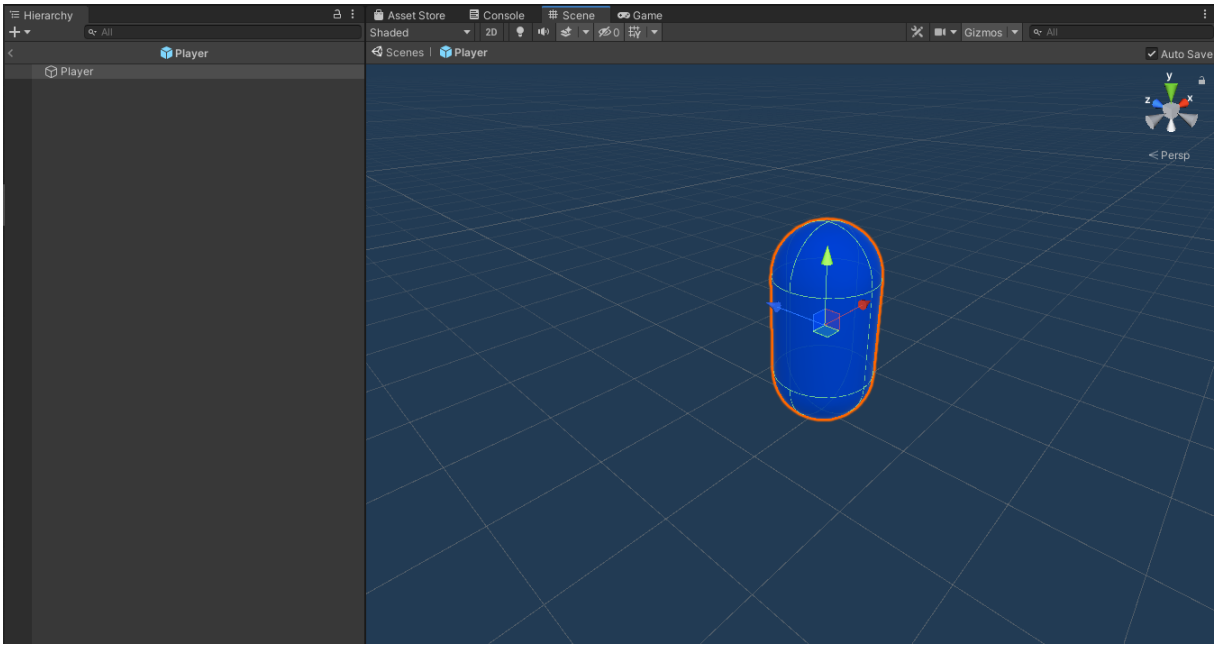
Checkpoints is an array that contains each checkpoints of the platform in the correct order.

-Speed :



Speed is the speed of the moving platform.

PLAYER PREFAB :



DESCRIPTION :

USE :

Scripts :

-Character_Controller

-Character_inventory

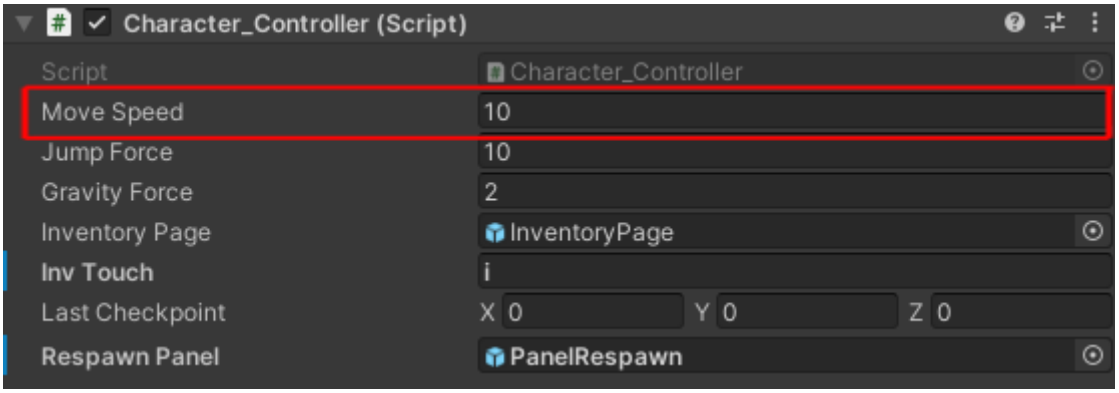
Material :

-Player

FEATURES :

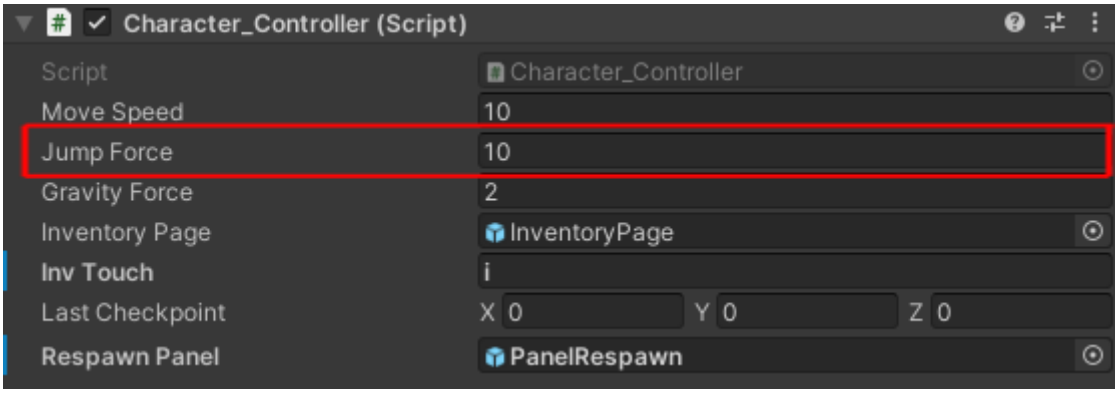
The script Character_Controller contains 6 variables :

-MoveSpeed :



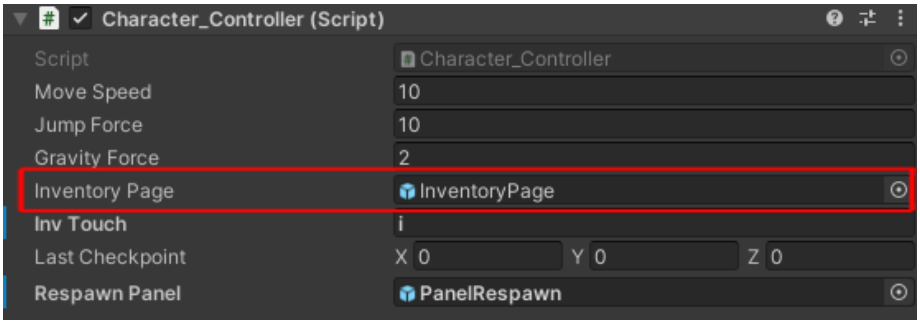
MoveSpeed is the movement speed of the character.

-JumpForce :



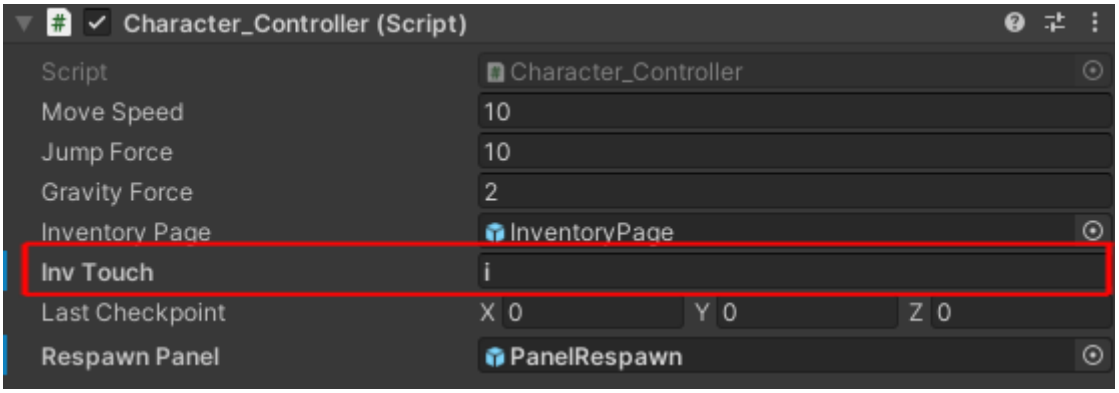
JumpForce is the jumping force of the character.

-InventoryPage :



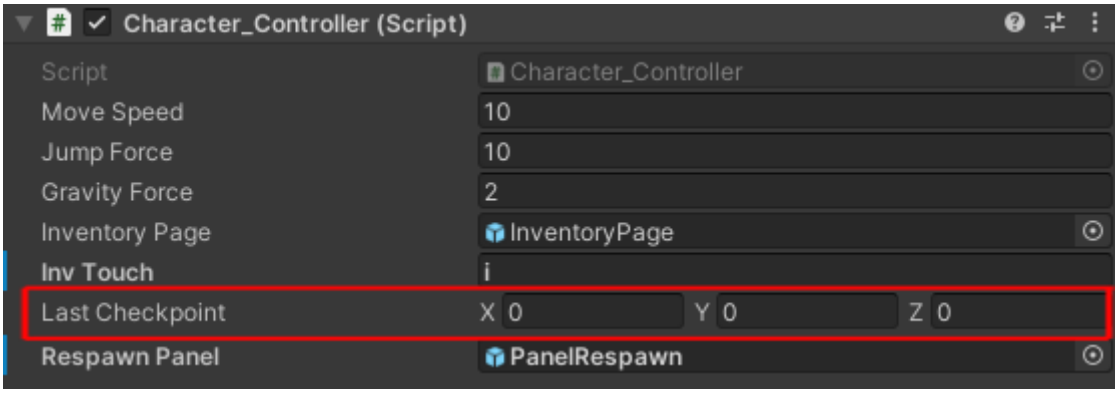
InventoryPage is the prefab of an inventory page.

-InvTouch :



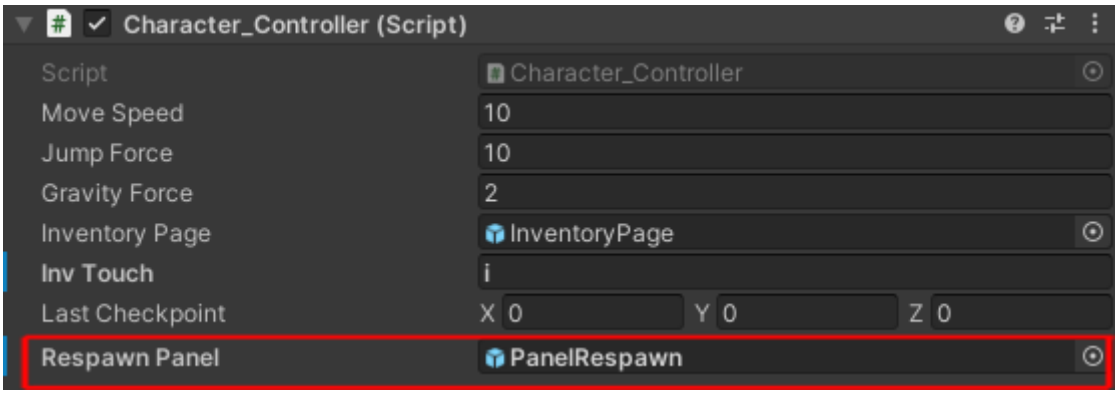
InvTouch is the key to press to open and close the inventory.

-LastCheckpoint :



LastCheckpoint is the position of the last checkpoint of the character.

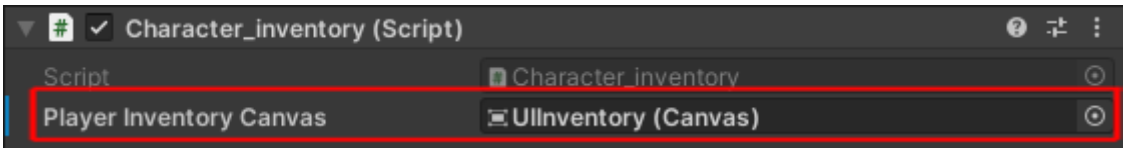
-PanelRespawn :



PanelRespawn is the panel use during the respawn.

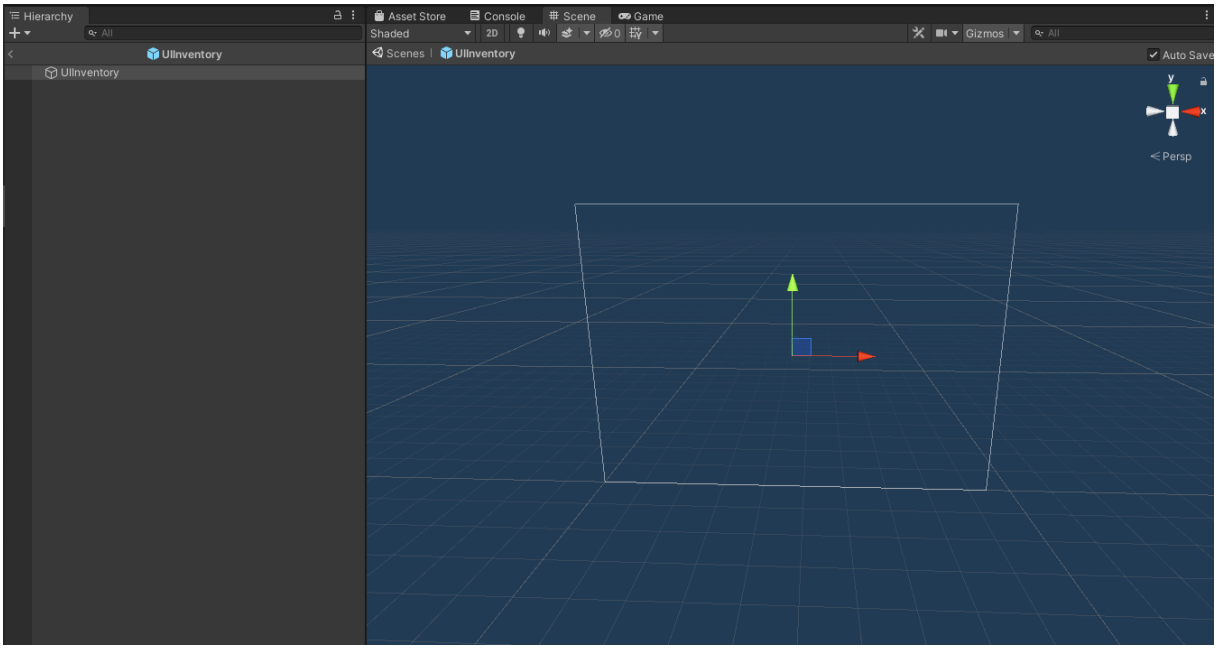
The script Character_inventory contains 1 variable :

-PlayerInventoryCanvas



PlayerInventoryCanvas is the canvas of the character’s inventory.

PANEL RESPAWN PREFAB :



DESCRIPTION :

USE :

Script :

-RespawnPanelScript

No material

FEATURES :

The script RespawnPanelScript contains no variables to change.