



3D Infinite Runner Toolkit

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Video Tutorial:

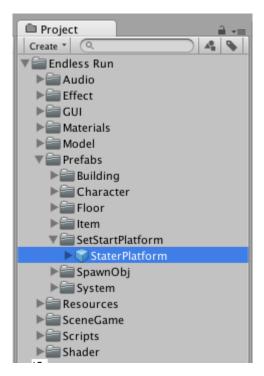
http://www.youtube.com/playlist?list=PL8eNKPhYLHW63cXk8Ko03RBF JiZx-aDP

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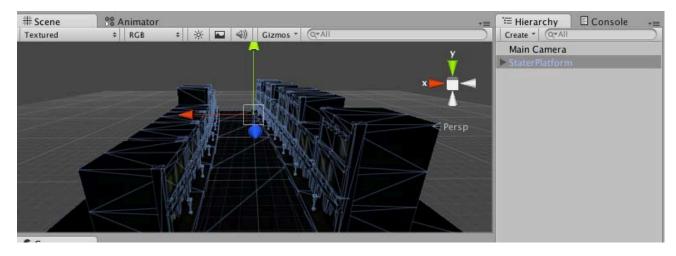
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# **Setting Starter Pattern**

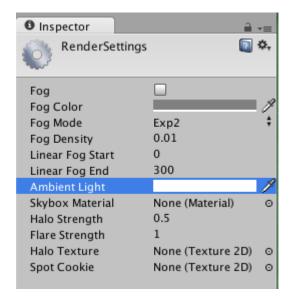
1. Go to Project > Prefabs > StarterPlatform



2. Drag "StarterPlatform" to hierarchy



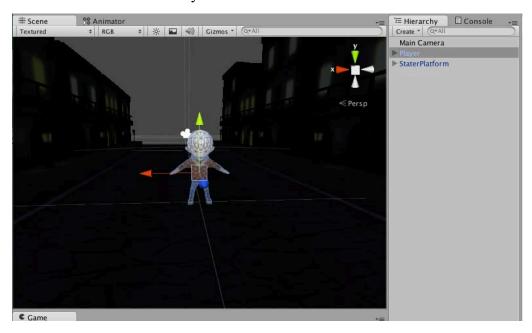
- 3. Go to Edit > Render Setting
- 4. Adjust "Ambient Light" to brightness up



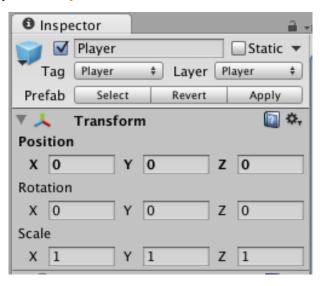
=====Complet Setting Starter Pattern======

# **Setting Character Controller**

1. Paste "Model" to hierarchy

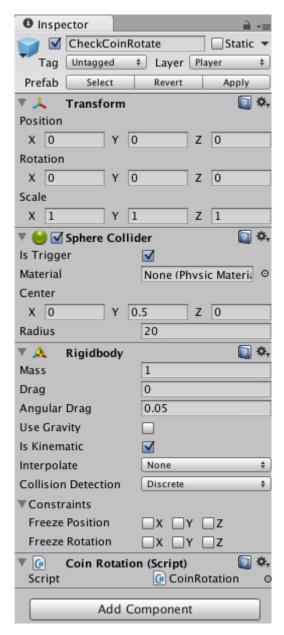


- 2. Rename this model to "Player" and add tag to "Player"
- 3. Setting this model layer to "Player"



4. Add script > Controller to this model

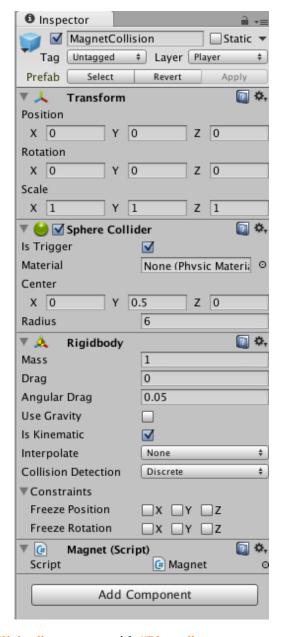
- 5. Create detection collision coin (use to detect coin)
  - 5.1. Go to GameObject -> Create Empty and rename it to "CheckCoinRotate"
  - 5.2. Add component "Sphere Collider", "Rigidbody", "CoinRotate(Script)" and setting follow a picture.



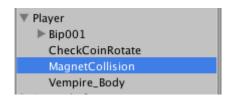
5.3 Drag "CheckCoinRotate" to parent with "Player"



- 6. Create magnet effect detection
  - 6.1 Go to GameObject -> Create Empty and rename it to "MagnetCollision"
  - 6.2 Add component "Sphere Collider", "Rigidbody", "Magnet(Script)" and setting follow a picture



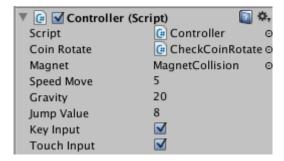
6.3 Drag "MagnetCollision" to parent with "Player"



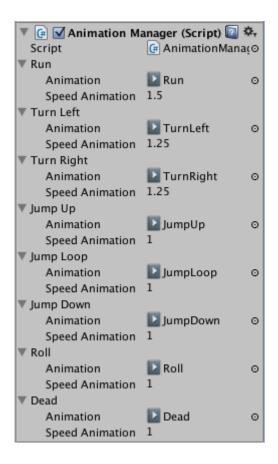
- 7. Go to "Controller(Script)" in inspector
- 8. Drag "MagnetCollision" put to "Magnet" and drag "CheckCoinRotate" put to "Coin

#### Rotate"

9. Setting attribute follow a picture.



- 10. Go to "Animation Manager(Script)" in inspector
- 11. Add animation
- 12. Adjust speed animation



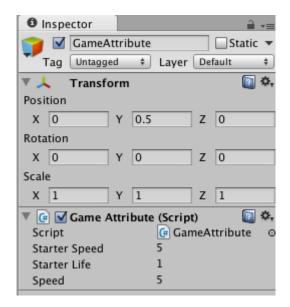
- 13. Go to "Character Controller" in inspector
- 14. Setting size of character controller to fit a model
- 15. Make model player to prefab
- 16. Delete model player in hierarchy



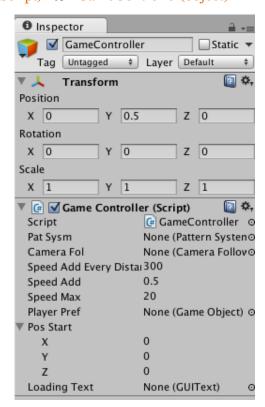
=====Complet Setting Character Controller======

### **Create GameController and GameAttribute**

- 1. Go to GameObject -> Create Empty and rename it to "GameAttribute"
- 2. Add "GameAttribute (Script)" to "GameAttribute(object)"



- 3. Go to GameObject -> Create Empty and rename it to "GameController"
- 4. Add "GameController (Script)" to "GameController(object)"

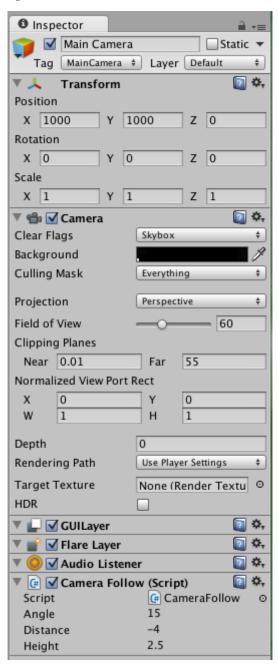


=====Complete Create GameController & Game Atrribute======

#### **Create Camera**

- 1. In hierarchy select "Main Camera"
- 2. Add "Camera Follow(Script)" to main camera

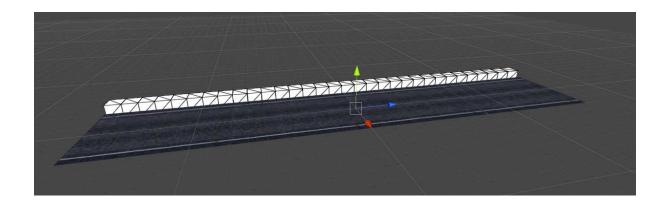
3. Setting attribute follow a picture

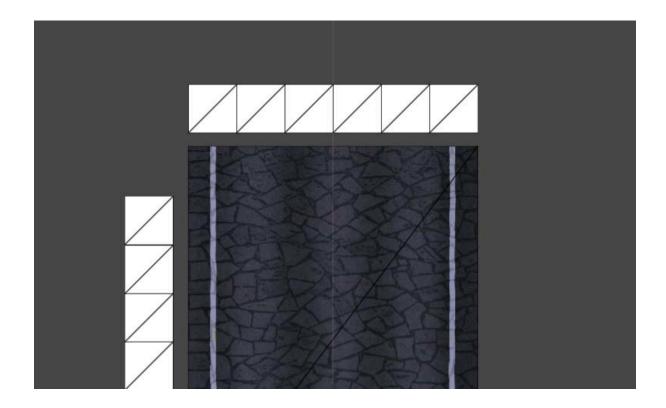


=====Complete Create Camera=======

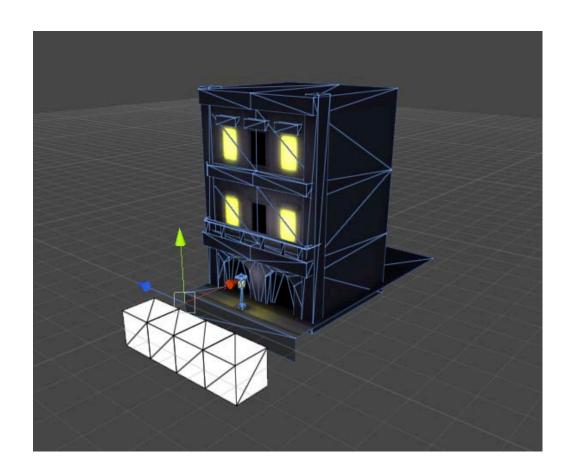
## How to setting building model

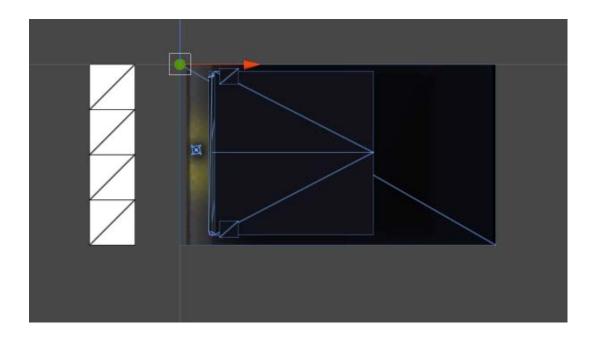
1. Floor width 6 meter depth 32 meter, you can measure in unity by create cube and arrange for count, cube is 1 \* 1 meter and adjust pivot to center





2. Model building in side road must size : width Axis Z 4 meter, Axis X (height) is unlimited

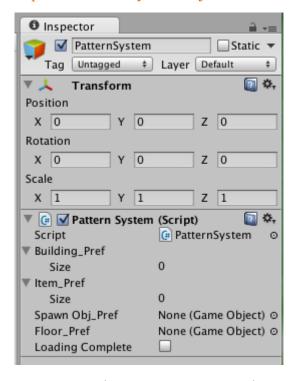




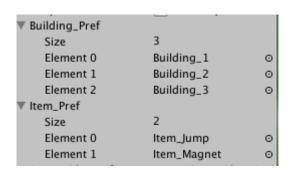
| 3.All item in game : Width x axis should not exceed 1.7 meters. Axis y is unlimited, But will |
|---|
| affect the arrangement Pattern.   |
|   |
| Note* Item should measure the size for use when Setting Pattern.                              |
| =====Complete Setup Building======  |

### **Create PatternSystem**

- 1. Go to GameObject -> Create Empty and rename it to "PatternSystem"
- 2. Add "PatternSystem (Script)" to "PatternSystem (object)"



- 3. Building\_Pref is a prefab of building (use to show in wayside), Adjust size of building according to use
- 4. Drag prefab from Folder Prefabs > Building to array of Building\_Pref
- 5. Item\_Pref is prefab of item (use to spawn on the road) Adjust size of item according to use
- 6. Drag prefab form Folder Prefab > Item to array of Item Pref



- 7. Spawn Obj\_Pref Drag prefab from Folder Prefab > SpawnObj to it
- 8. Floor\_Pref Drag prefab from Folder Prefab > Floor to it

| Spawn Obj_Pref | SpawnObj | 0 |
|----------------|----------|---|
| Floor_Pref     | Floor    | 0 |

=====Complete Create Pattern System=======

### **Setting GameController**

- 1. Select "GameController" in hierarchy to setting
- 2. Pat Sysm Drag "PatternSystem" from hierarchy to it
- 3. Camera Fol Drag "Main Camera" to it
- 4. PlayerPref Drag prefab "Player" to it

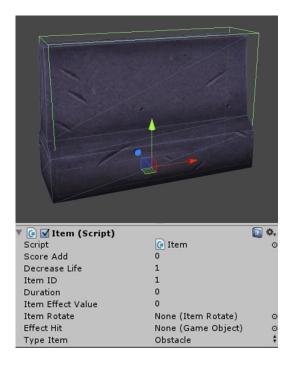


=====Complete Setting GameController=======

### **Setting Item**

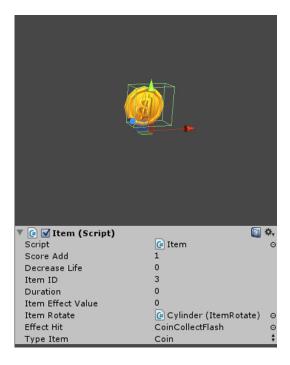
#### All item is in Prefabs > Item

#### 1. Barrier



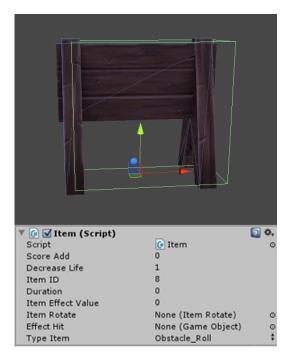
- Score Add it mean a coin, set 0 because this item is obstacle
- Decrease Life when character hit this object it will decrease a character hp , you can
   set more than 1 if you character have a life more than 1
- Item ID
- Duration it mean duration item effect, set 0 because this is not item effect
- Item Effect Value it use only ItemSprint and ItemMultiply, set 0 because this is not itemSprint or itemMultiply
- Item Rotate it use only Coin (coin is always rotate around), set null because this object don't need a rotate
- Effect Hit it will spawn particle effect when character hit this object, set null because this object don't need a effect
- Type Item this item is type "Obstacle"

#### 2. Coin



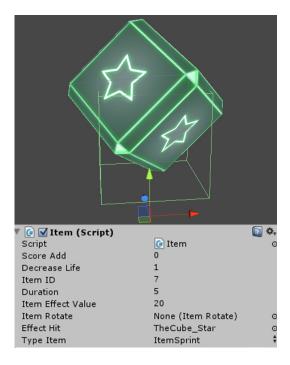
- Score Add it mean a coin, set 1 because when character hit this it will increase a coin (can set more than 1)
- Decrease Life when character hit this object it will decrease a character hp, set 0
   because this item is coin
- Item ID
- Duration it mean duration item effect, set 0 because this is not item effect
- Item Effect Value it use only ItemSprint and ItemMultiply, set 0 because this is not itemSprint or itemMultiply
- Item Rotate set script ItemRotate because this object need a rotate
- Effect Hit it will spawn particle effect when character hit this object
- Type Item this item is type "Coin"

#### 3. Obstacle Roll



- Score Add it mean a coin, set 0 because this item is obstacle
- Decrease Life when character hit this object it will decrease a character hp , you can
   set more than 1 if you character have a life more than 1
- Item ID
- Duration it mean duration item effect, set 0 because this is not item effect
- Item Effect Value it use only ItemSprint and ItemMultiply, set 0 because this is not itemSprint or itemMultiply
- Item Rotate it use only Coin (coin is always rotate around), set null because this
  object don't need a rotate
- Effect Hit it will spawn particle effect when character hit this object, set null because this object don't need a effect
- Type Item this item is type "Obstacle Roll" because this item is can dodge by roll

#### 4. Item Sprint

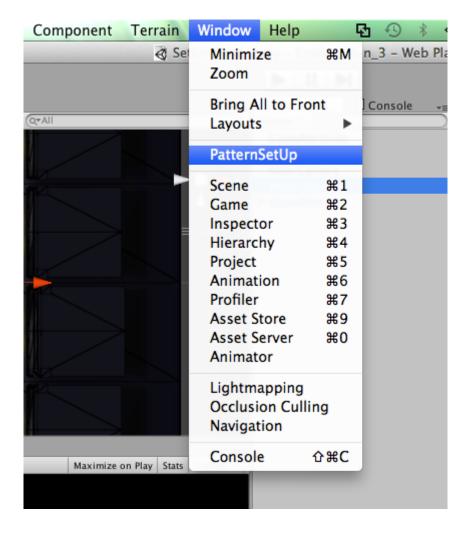


- Score Add it mean a coin, set 0 because this item isn't coin
- Decrease Life when character hit this object it will decrease a character hp, set 0
   because this item is item effect
- Item ID
- Duration it mean duration item effect, set 5 (seconds)
- Item Effect Value it use only ItemSprint and ItemMultiply, set 20, when hit this item speed character is change to 20 and character is invincible
   (if you set item effect value on ItemMultiply example set 2 = x2 Coin, set 3 = x3 Coin)
- Item Rotate it use only Coin (coin is always rotate around), set null because this
  object don't need a rotate
- Effect Hit it will spawn particle effect when character hit this object
- Type Item this item is type "ItemSprint"

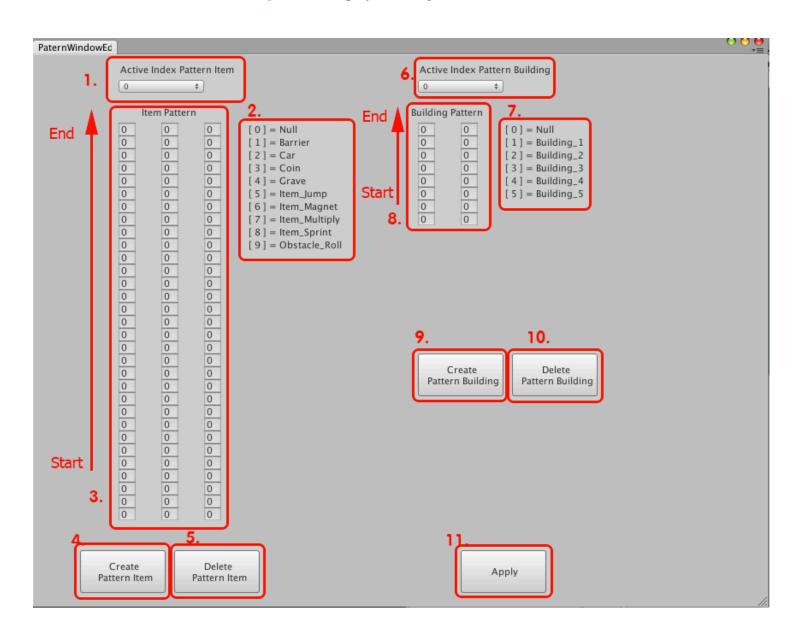
### **Setting Pattern**

- 1. Select "PatternSystem" in hierarchy for setting
- 2. Go to Window > PatternSetUp

Note\* Don't unselect PatternSystem in hierarchy



3. After click "PatternSetUp" it will display a Setting Pattern Window



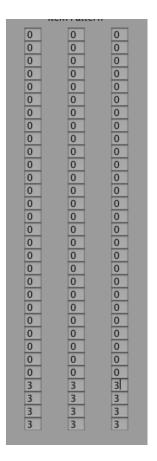
- 1. Active Index Pattern is a now selected index
- 2. Item List
- 3. Item Pattern is a slot of item in 1 Pattern (31 block(1block = 1\*1 meter) each 1 lane)
- 4. Create Pattern Item Add a new Pattern Item, can change index at "Active Index Pattern Item"

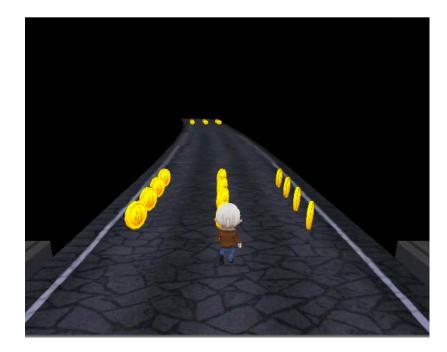
- 5. Delete Pattern Item Delete current Pattern Item
- 6. Active Index Pattern Building is a now selected index
- 7. Building List
- 8. Building Pattern is slot of building in 1 Pattern
- 9. Create Pattern Building Add a new Pattern Building, can change index at "Active Index Pattern Building"
- 10. Delete Pattern Building Delete current Pattern Building
- 11. Apply Press it if want to save a pattern (Should press every time before Run Game)

Note\* when Pattern index have more than 1, system will be random pattern when play

Note2\* Item pattern - The distance between the lane Axis X length 1.8 meter and the distance each axis z 1 meter ,Item must place calculate View Item width of the piece as well.

#### Example





- Example coin setup

### Example 2

| Item Pattern                          |   |
|---------------------------------------|---|
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0 |



- This picture is false setup because Item Car is too long. Both front and rear about it need a spaced. Item is in the next one to leave a slot by slot.

# Example 3

| Item Pattern                          |   |
|---------------------------------------|---|
| 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | [ 0 ] = Null [ 1 ] = Barrier [ 2 ] = Car [ 3 ] = Coin [ 4 ] = Grave [ 5 ] = Item_Jump [ 6 ] = Item_Magnet [ 7 ] = Item_Multiply [ 8 ] = Item_Sprint [ 9 ] = Obstacle_Roll |



- This picture is **correct** setup

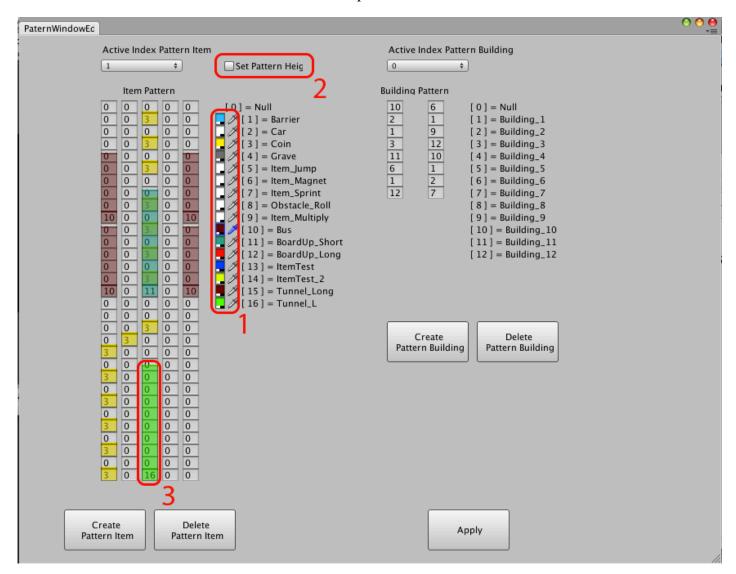
\_\_\_\_\_

# **New Version 1.3**

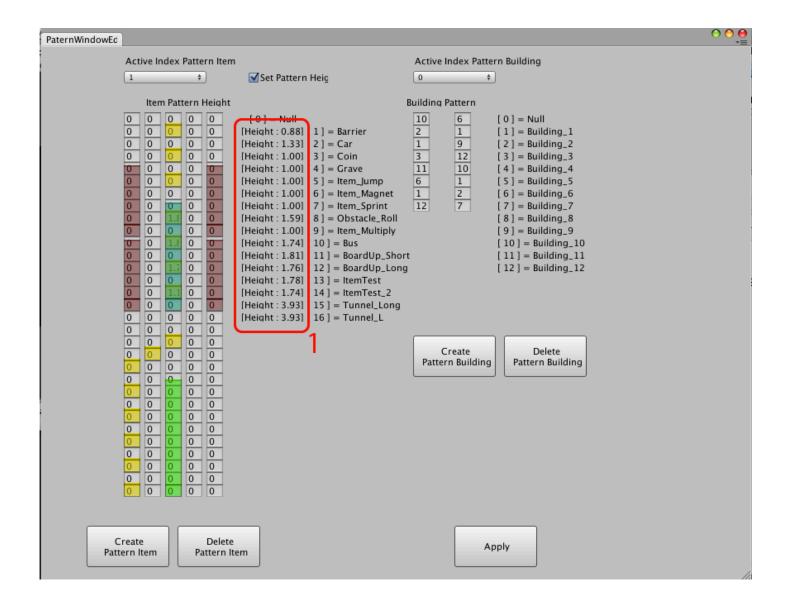
- Shop system
- Auto save money
- New pattern setting (Can set a height object, Can add coin between lane)
- Moving object (Ex. Car)
- Add new character

### [New] Setting Pattern (Version 1.3)

- Select PatternSystemManager on hierarchy.
- Go to Menu > Window > Pattern Setup



- Color palette to show set of item. (Ex. Set green color to item[16] Tunnel L when use input item[16] Tunnel L to "Item Pattern", It will show as green color)
- 2. A button to switch mode to "Set Pattern Height"
- 3. A slot for set item, It will show a length of item (Ex. Item[16] Tunnel L in pic is use Length 9 slot ,don't add any item to 2-9 slot because item is overlap.

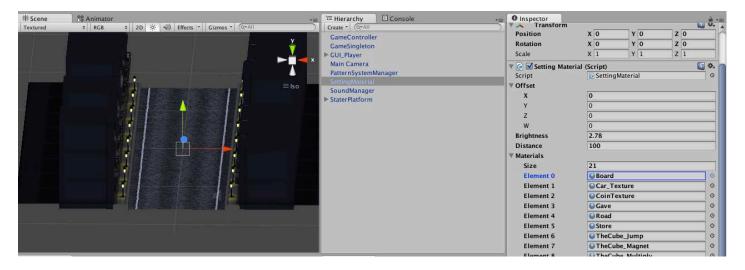


1. A Height of this item (Ex. Item[10] Bus is Height 1.74, If you want to add coin on bus you must set coin height more than 1.74)

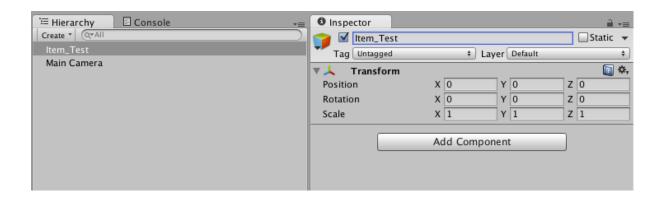
### [New] Setup Item (Version 1.3)

- When you import new model to "Project Panel", you should drag Material to "Setting

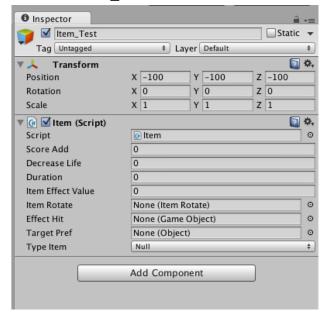
Material" in "Hierarchy" on "Inspector"



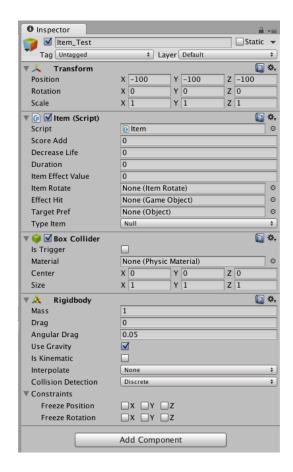
- Create empty game object on your scene and rename to Item\_XXX



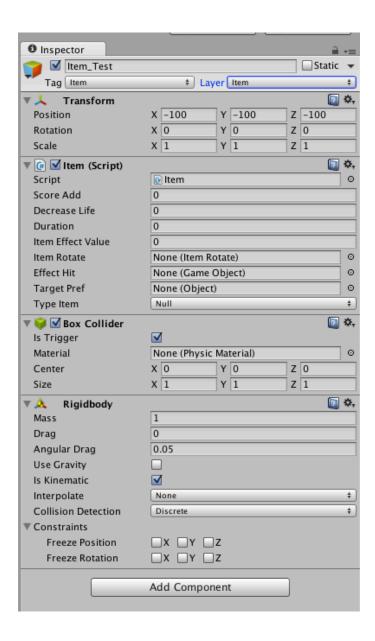
- Add component "Item" to Item\_XXX



- Add component "Box Collider" and "RigidBody" to Item\_XXX



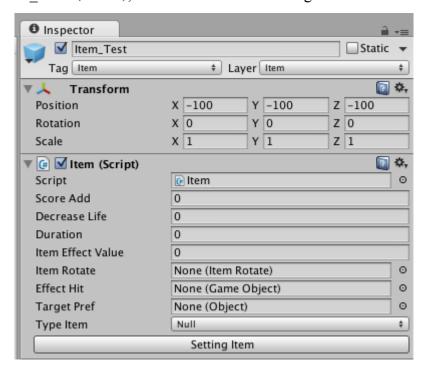
- Setting Tag, Layer, Component follow a picture



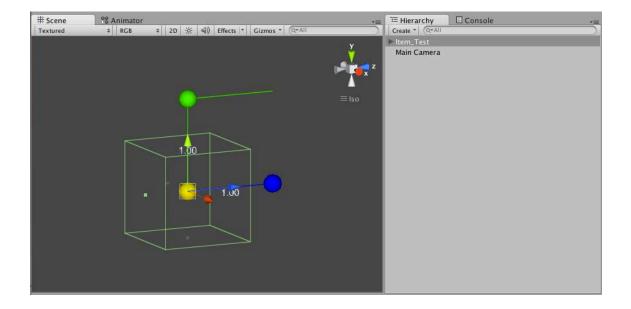
- Drag Item\_XXX to "Project Panel" (Convert to prefab)



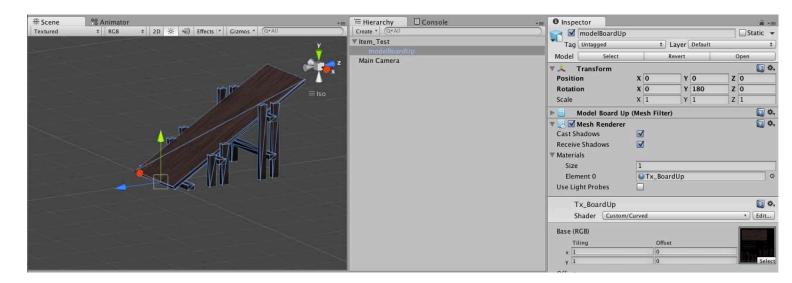
- Choose Item XXX (Prefab), It will show button "Setting Item" click it.



When you click "Setting Item" button it will start as new scene then double click
 Item\_XXX in Hierarchy to focus object.

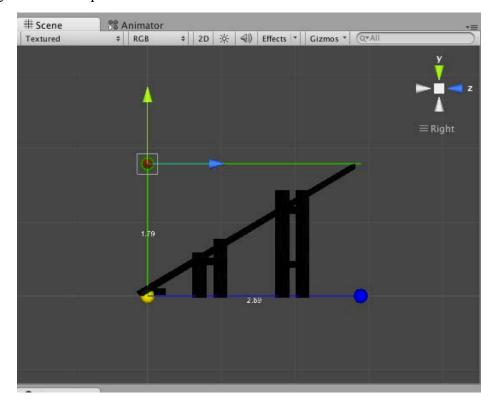


- Drag a model to parent with Item\_XXX and set Rotation to 180



### Part 1: If you item is effect or obstacle

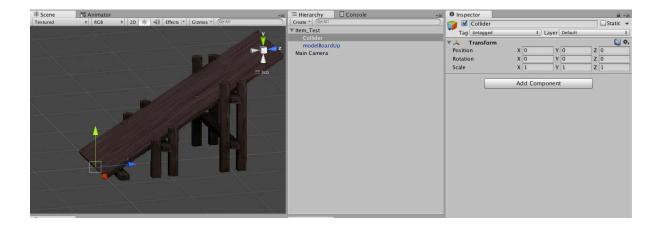
- Select Item\_XXX
- In SceneView: Click at a blue ball and set a length to equal a model and set height in green ball to equal to model



- Select Item XXX and set Center and Size "Box Collider" for fit item
- Go to Item(script) in Inspector and set variable to this item (Page 18 Topic Setting Item)
- After complete then click "Apply"

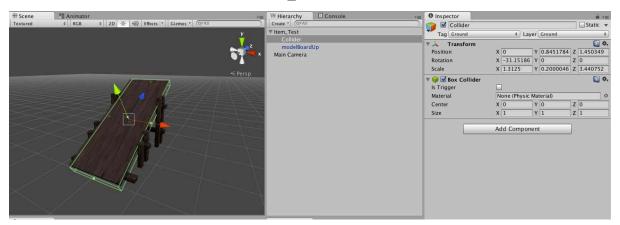
# Part 2: If you item is a bridge

- Select Item\_XXX
- Delete BoxCollider and RigidBody
- Then create empty game object and rename to "Collider"
- Drag "Collider" to parent wit Item\_XXX and Reset Transform



- Add Component "BoxCollider" to Collider and set Tag and Layer to "Ground"

- Set size BoxCollider to fit with Item\_XXX



- After complete select Item\_XXX then click "Apply"

 Select Pattern Manager in Hierarchy then drag your prefab item add to Item\_Pref in Inspector

