

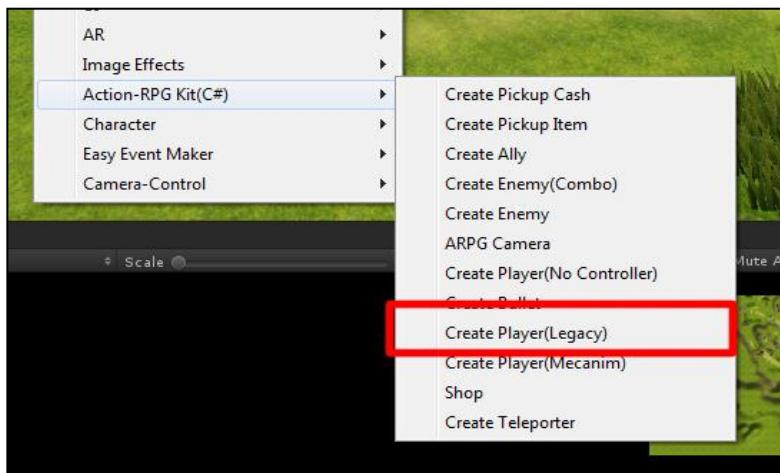
# Action-RPG Starter Kit



# How to Create a Player Character

After importing your characters to your project, if you're using Legacy animation.

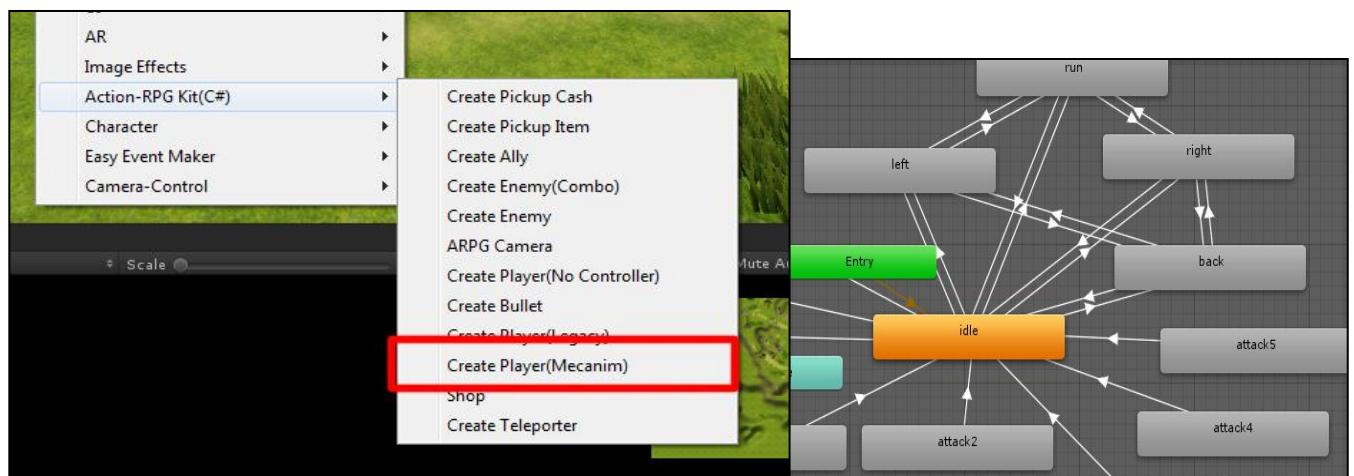
Go to “Component / Action-RPG Kit / Create Player(Legacy)”



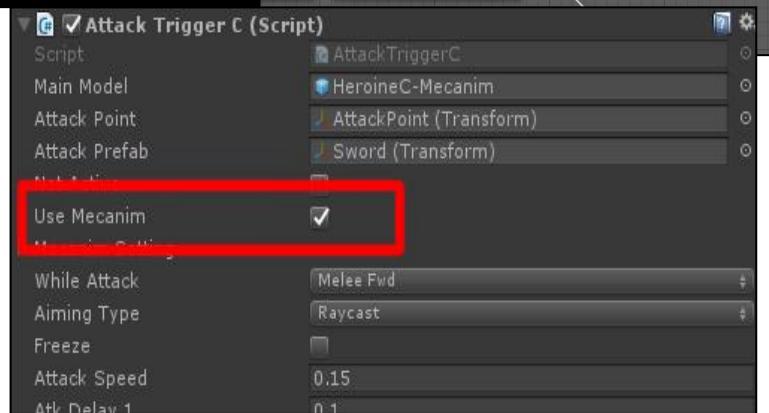
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If you're using Mecanim Animation.

Go to “Component / Action-RPG Kit / Create Player(Mecanim)”

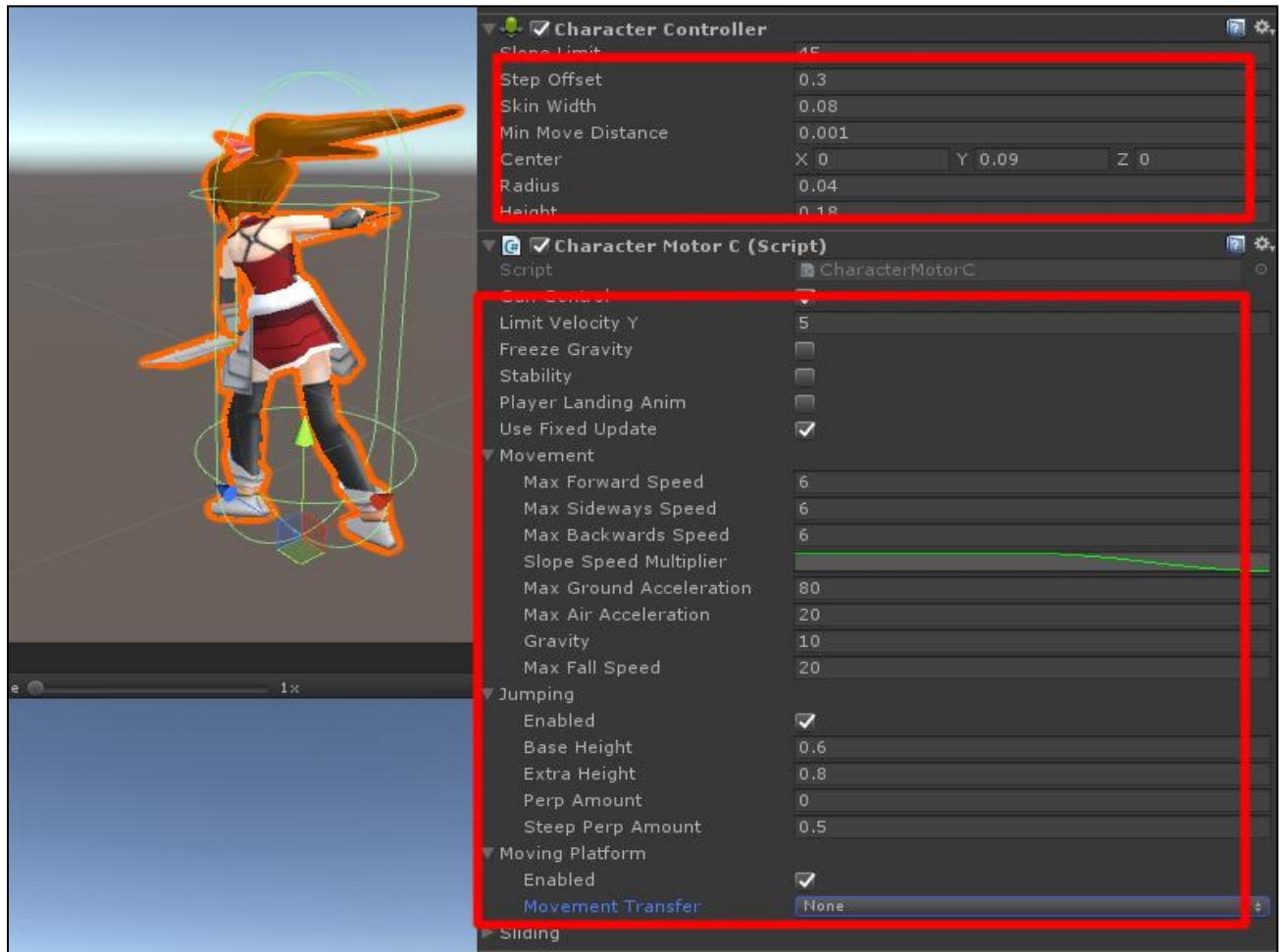


Mark the “Use Mecanim” in  
“AttackTrigger” If you us’re using  
Mecanim



Set your player's collider by editing Radius, Height and Center to fit your player character's model in “CharacterController” component.

Set your player's movement and Gravity in “Character Motor” component.



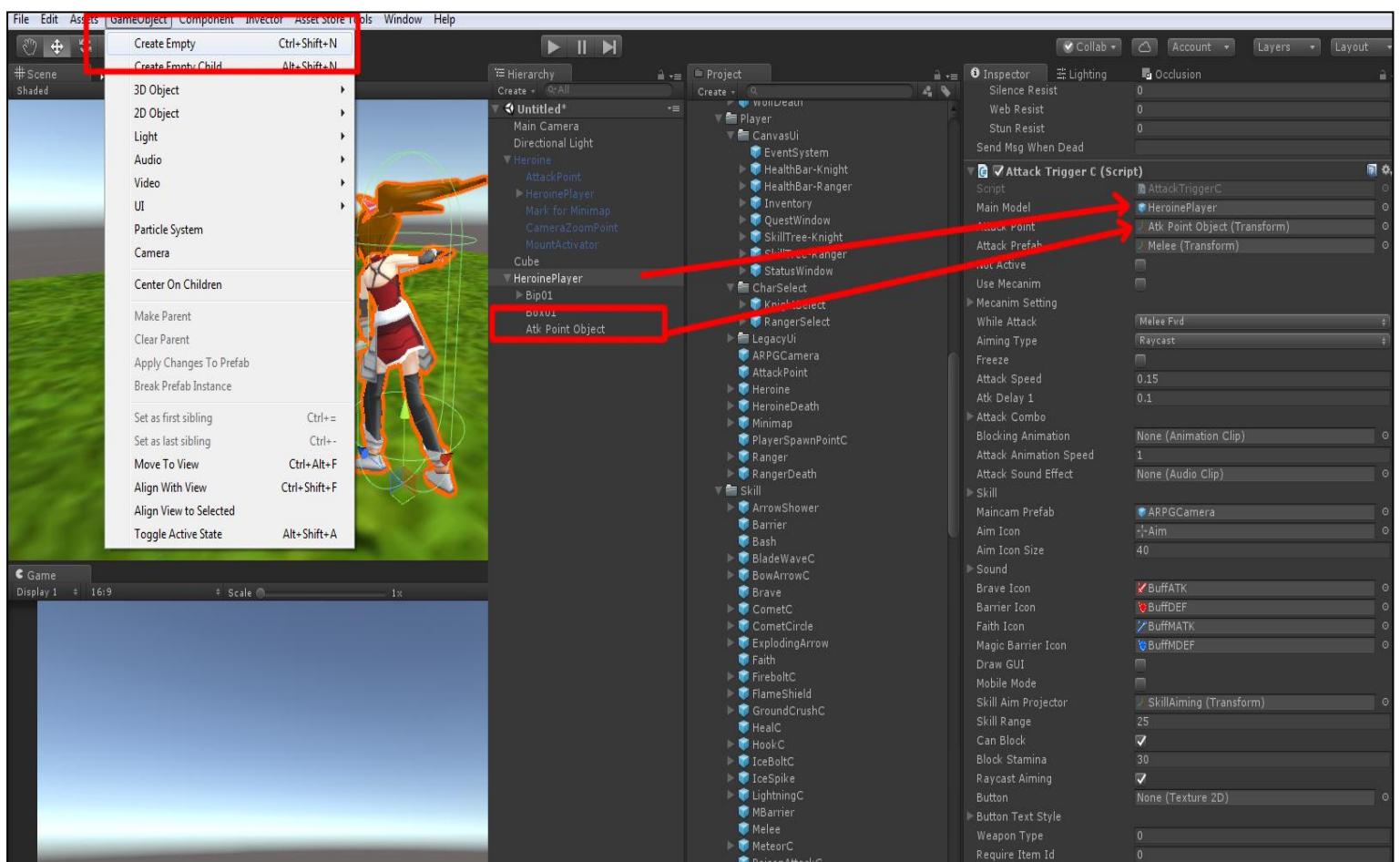
Create “Empty GameObject” and rename it to AttackPoint and then parent it to your player and set its position as you wish.

## What is it for?

- AttackPoint is used a reference position for spawning your attack or skill prefab. If you set its position to your player’s head when you’re attacking or using skill. Your attack prefab will spawn from player’s head

After that, go to “AttackTrigger” component and assign your player model to “Main Model” variable (Main Model used for playing player’s animation)

And then assign AttackPoint object to the “Attack Point” variable.



Now if you press the play button., your character can now run around the scene!

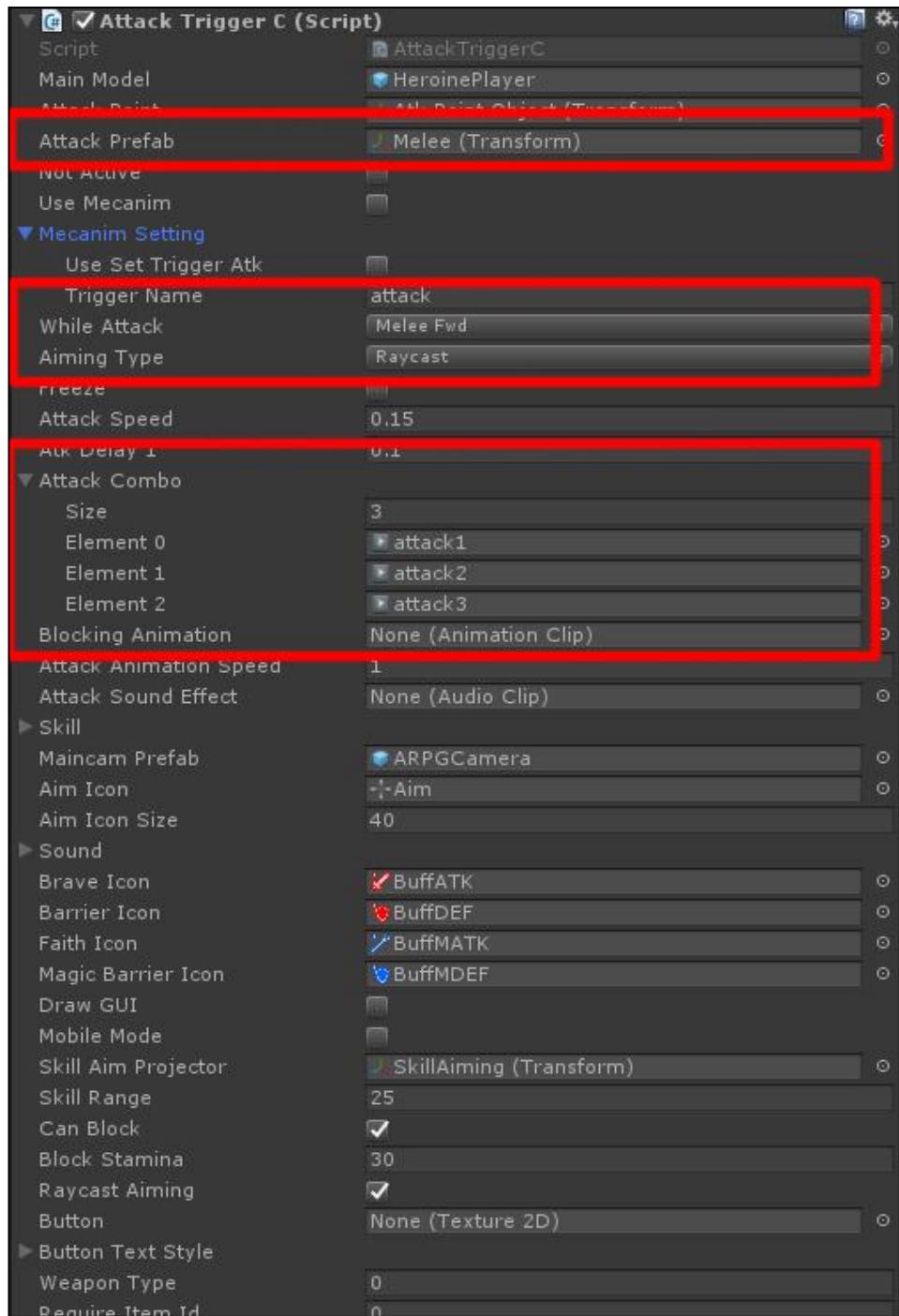
In “Attack Trigger” component, you can assign your attack animation to “Attack Combo” variable. You can increase your maximum combo to any number you wish (Max Combo depends on the size of Attack Combo variable)

\*\*If you use “Mecanim”, there will be 2 options for playing Attack animation

1. Play animation from Attack animation’s name in Attack Combo variable
2. Play by Set Trigger name if you selected “Use Set Trigger Atk”

In the “Attack Prefab” variable, you can assign your attack prefab here.

For example, if you assign Fireball prefab, when you attack it will spawn a Fireball



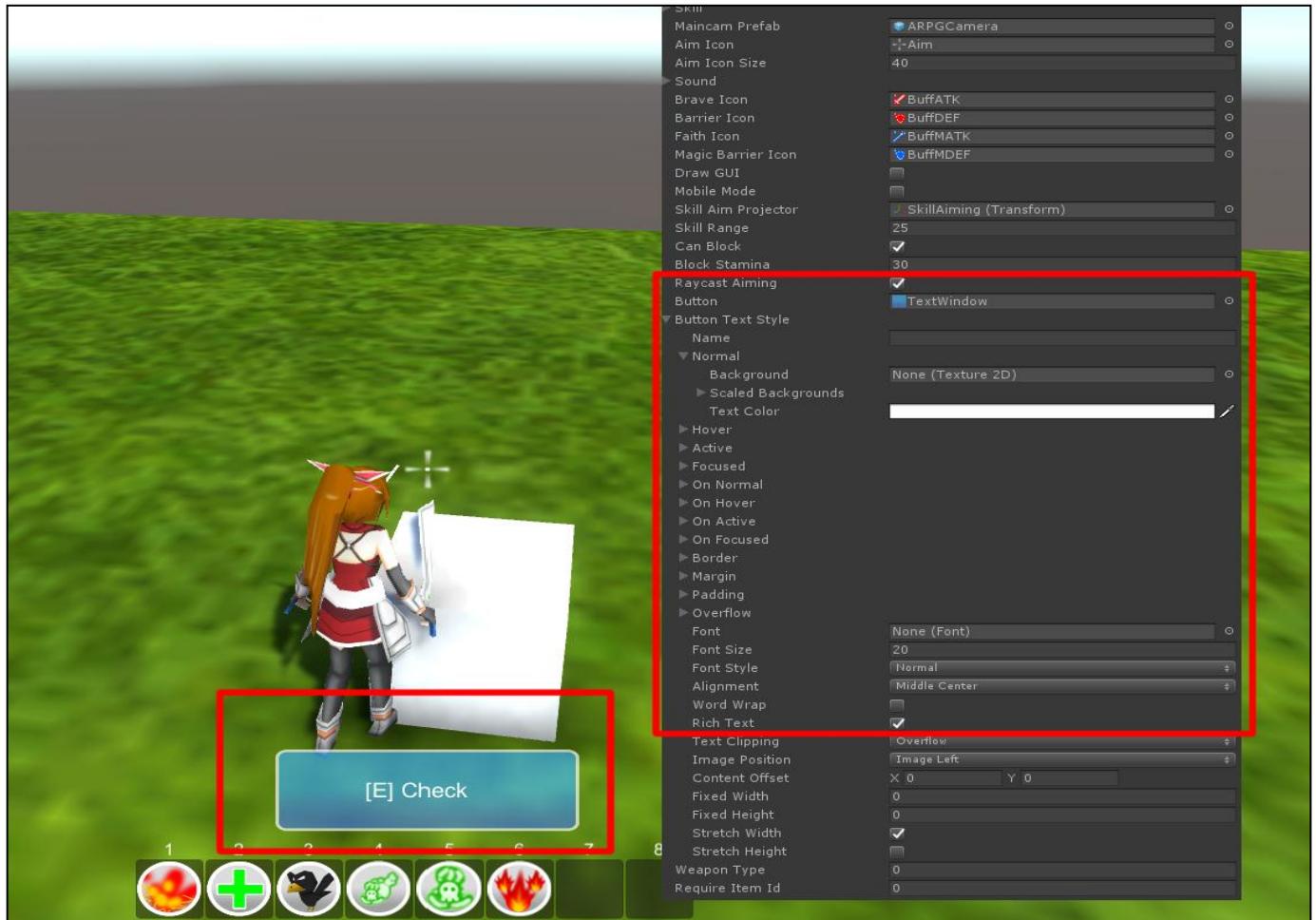
“While Attack” variable use for set your player’s movement when attack

- Melee Fwd = Move forward a little when attacking
- Immobile = Can’t move while attacking
- Walk Free = Can walk freely while attacking

“Aiming Type”

- Raycast = Player will aim towards the middle of the screen
- Normal = Player will aim to in front of the player’s object

You can assign Check Button background and edit the font in “Button” and “Button Text Style” variable. This button is used for by the player to interact with objects.

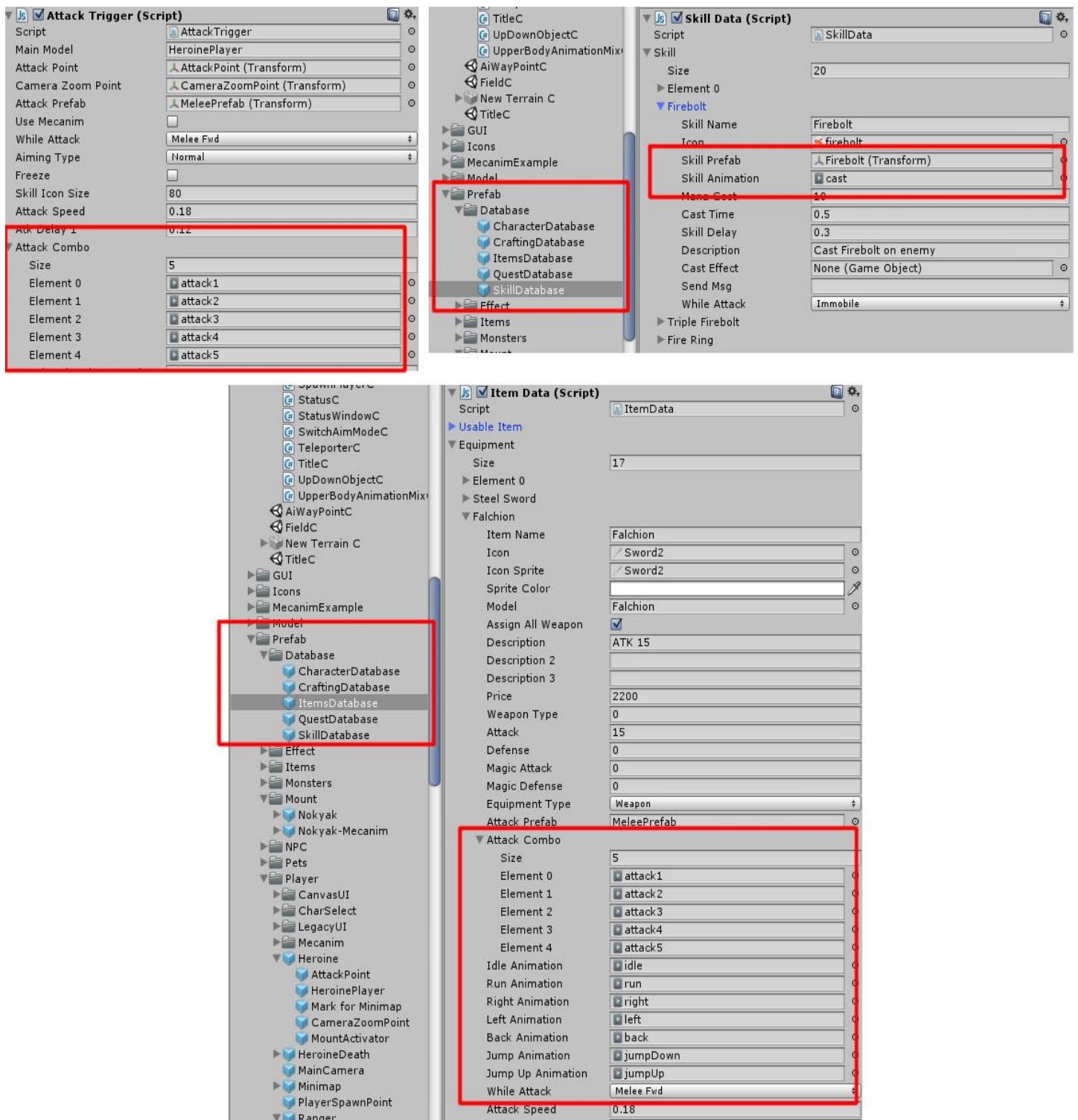


# Q&A

**Q:** I got a **Null Reference GetRef** error when my character attacks or use skills what does that mean?

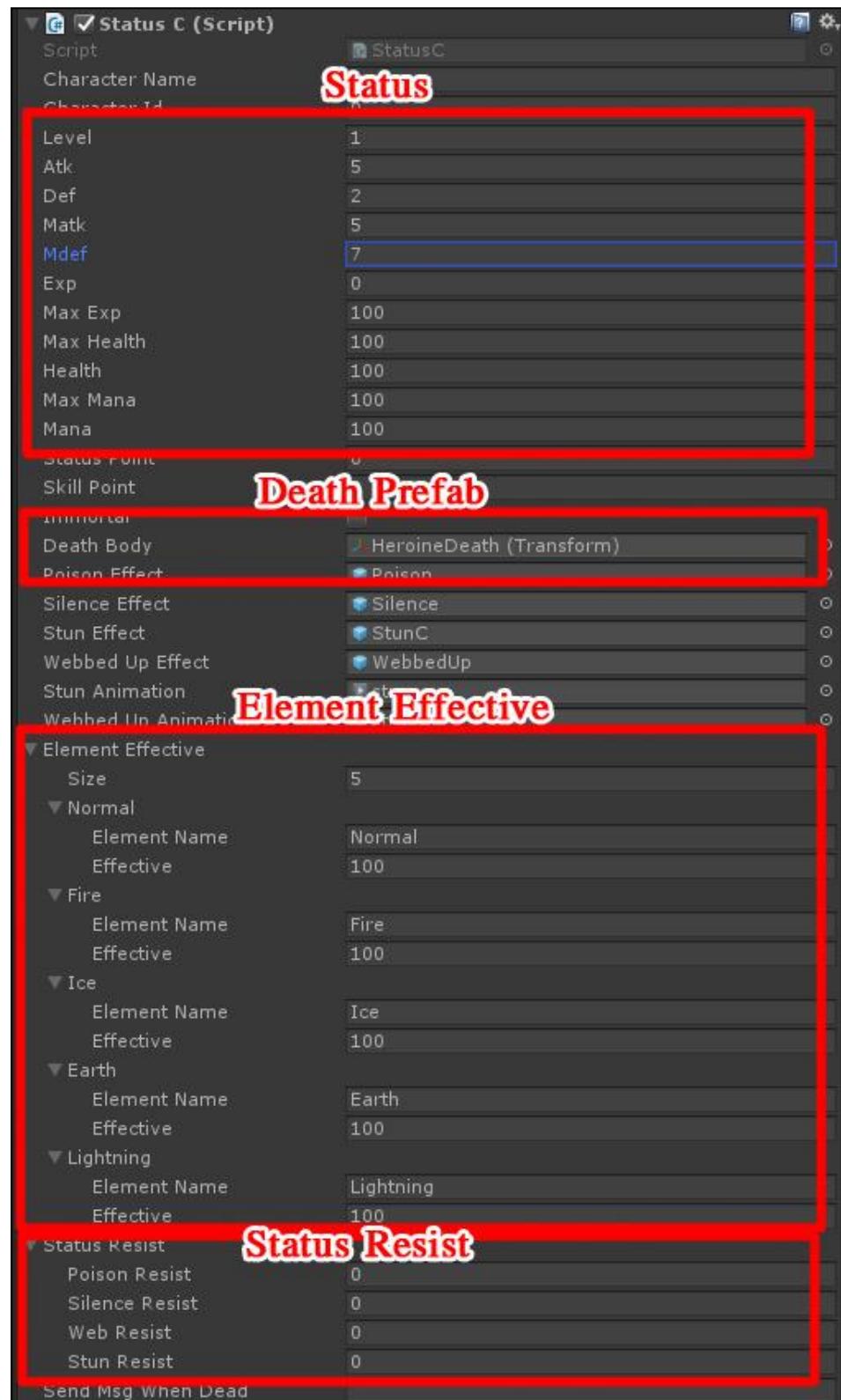
**A:** This error means that your character's model didn't have an animation clip to play when attacking or using skill. You can easily fix it by assigning your animation to "AttackTrigger" component on your character.

In “SkillDatabase” and “ItemDatabase” (in Prefab/Database Folder)



You can assign Death Prefab in the “Death Prefab” variable.

When a character is dead, the system will spawn this prefab. So, you have to create a prefab that shows your character’s death pose and put in the death body variable.



Poison Effect, Silence Effect and Stun Effect is the prefab

These will be used when the character suffers from those status ailments.

- Elemental's Effective is a value used to determine the effectiveness of a certain element, the more the value, the more damage you will take from that element.

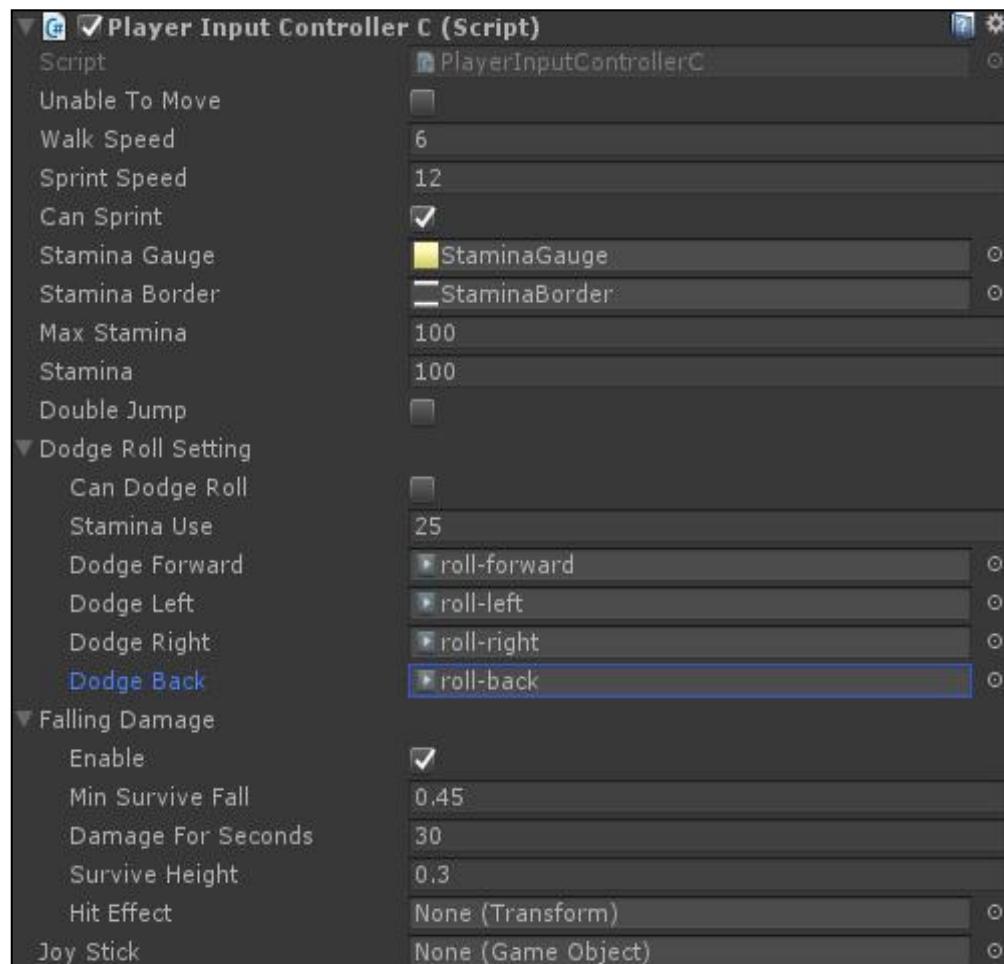
- Status Resist is the resistance of such status ailment.

Send Msg When Dead - Will send the message to a character to call some functions when that character is dead. However, you can leave it null if you don't want it to call any function when a character is dead.

# Player Input Controller

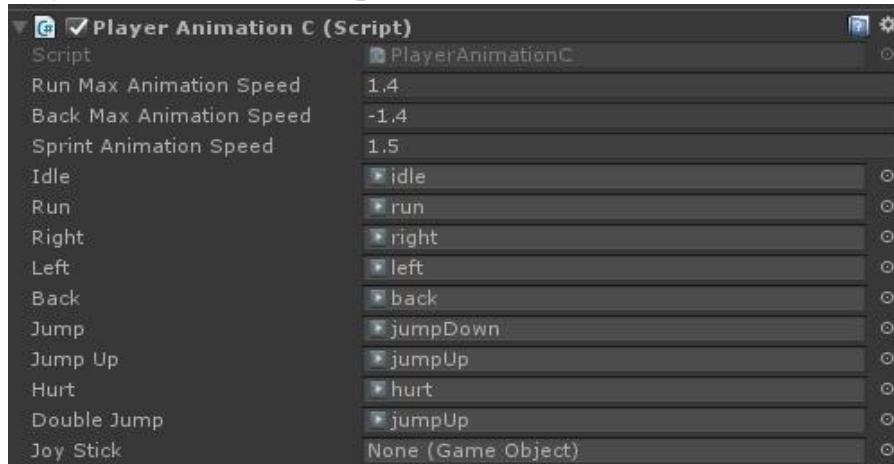
You can set your player's movement speed, enable Dodge Roll setting and falling damage in “Player Input Controller” component.

You can also assign Joy Stick object for Mobile too.



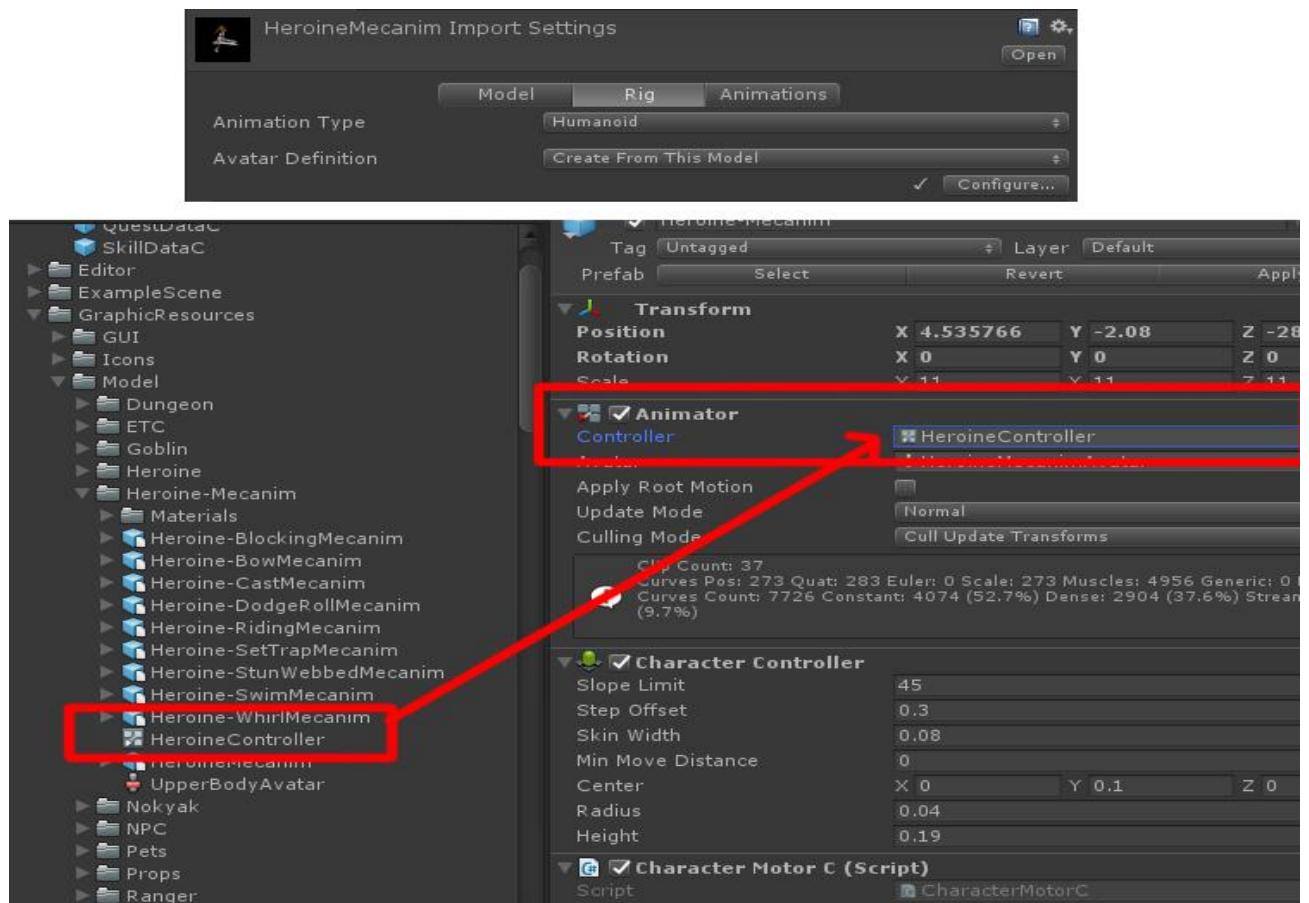
# Player Animation (Legacy)

You can assign player's movement animation and set animation speed in “Player Animation” component



# Player Animation (Mecanim)

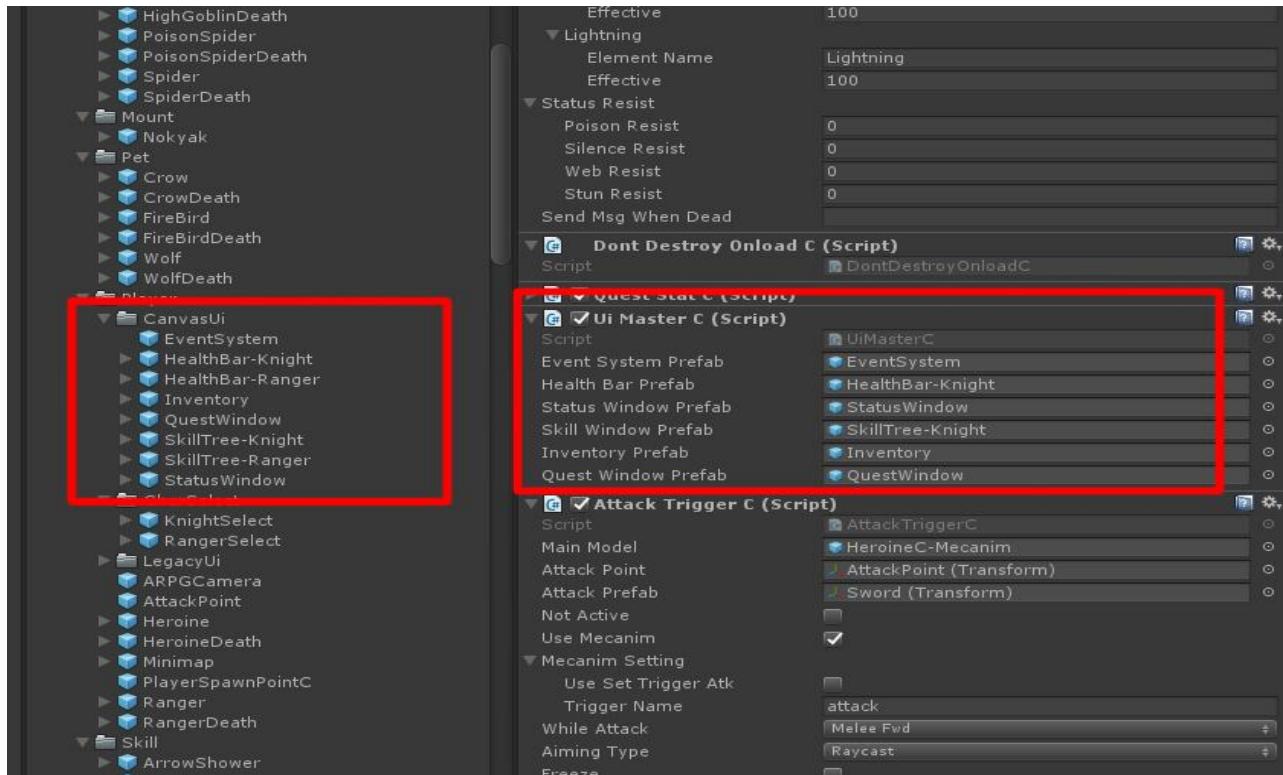
If you use Mecanim (Humanoid Rig) You can use example Animator Controller by assign “HeroineController”( ActionRPGKit / GraphicResources/ Model / Heroine-Mecanim) to Controller in “Animator” component



# Player UI

The player's UI example prefab is in the “ActionRPGKit/Prefab/Player/CanvasUI” folder. You can duplicate and create

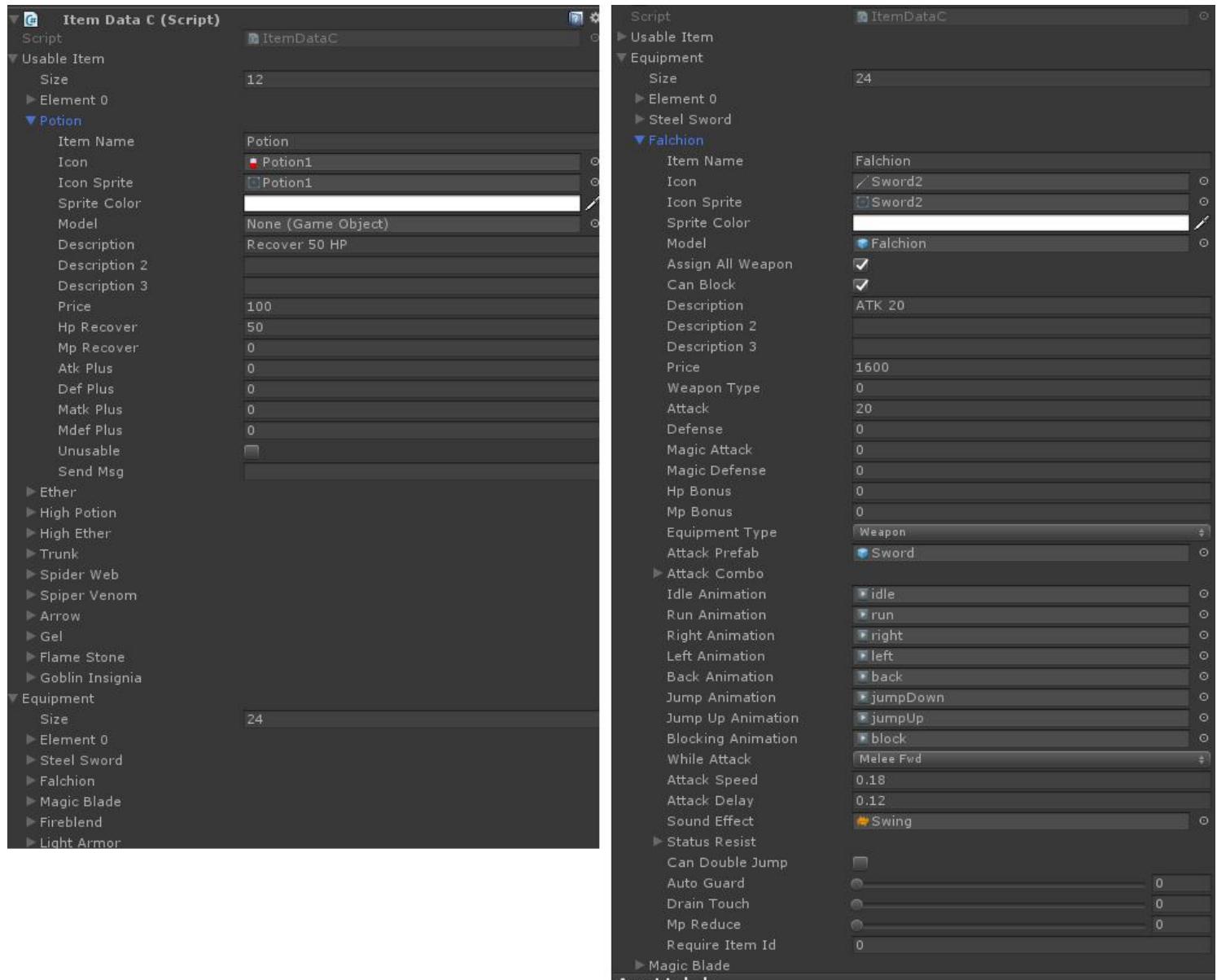
Your custom UI prefab then assign it to “UI Master” component on your player.



# Items Database

You can use “ItemDatabase” prefab(ActionRPGKit/Database/ItemDataC)

As a Database



You can add new item data by edit Size in “Usable Item” and

“Equipment”

The Element number is an ID of your item. It's very important to use it for the Shop and Inventory

# Equipment

**Assign All Weapons** – If your character carry more than 1 weapon (ex. Dual sword), when you swap the weapon  
It will swap all weapon's mesh.

**Can Block** - Player can block an attack if equipped with this weapon.

**Attack Combo** - Change Player Attack Animation when equip this weapon

**Idle, Run, Right, Left, Jump Animation** - Change the player's movement animation when equipping this weapon

**While Attack** - MeleeFwd = Move forward a little when attack  
- Immobile = Can't move while attacking  
- WalkFree = Can walk freely while attacking

**Can Double Jump** – Player can double jump if equip this item

**Auto Guard** - Chance for block an attack automatically

**Drain Touch** - Percent of life stolen from normal attack

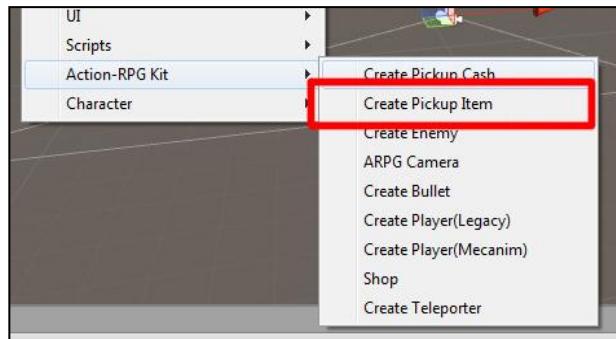
**MP Reduce** - Percent of MP reduction when using skill

**Require Item ID** - Set this to 0 if this weapon didn't require any item for attack

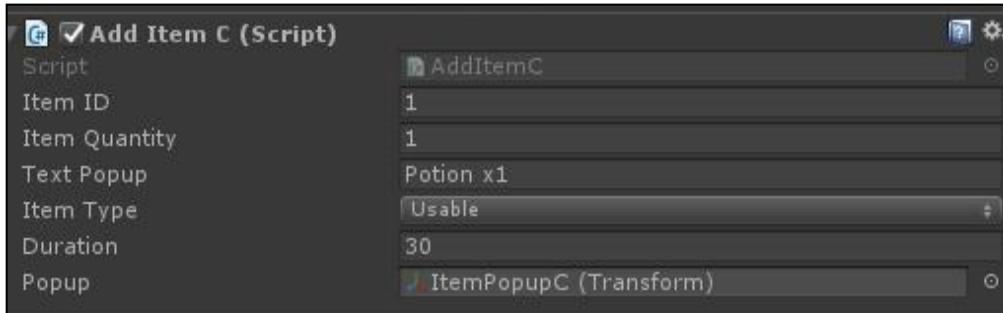
# Pickup Items

You can add an item to your Inventory by creating new game Object

Go to “Component / Action-RPG Kit / Create Pickup Item”



Then select “Is Trigger” in the Collider



Item ID - ID of item

Item Quantity - Quantity of the item

Item Type - Type of the item (Usable and Equipment)

Duration - Duration in which the object stays in the world.

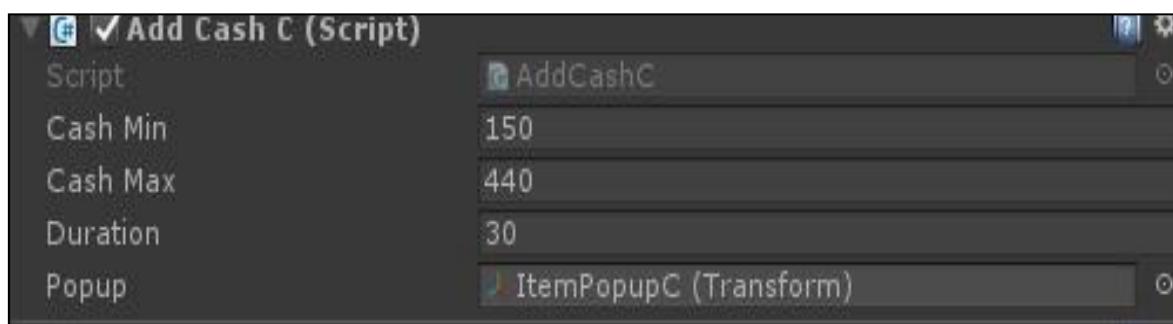
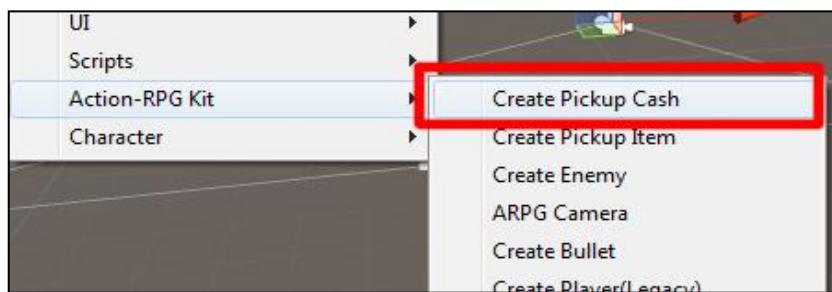
If = 0 the object will not be destroyed until the player  
pick it up

## Add Cash

You can add cash to your Inventory by creating new game Object

Go to “Component / Action-RPG Kit / Create Pickup Cash”

Then select “Is Trigger” in Collider (like with the Item).



Cash Min	-	Minimum cash to be added
Cash Max	-	Maximum cash to be added
Duration	-	Duration in which the object stays in the world.  If = 0 the object will not be destroyed until the player pick it up

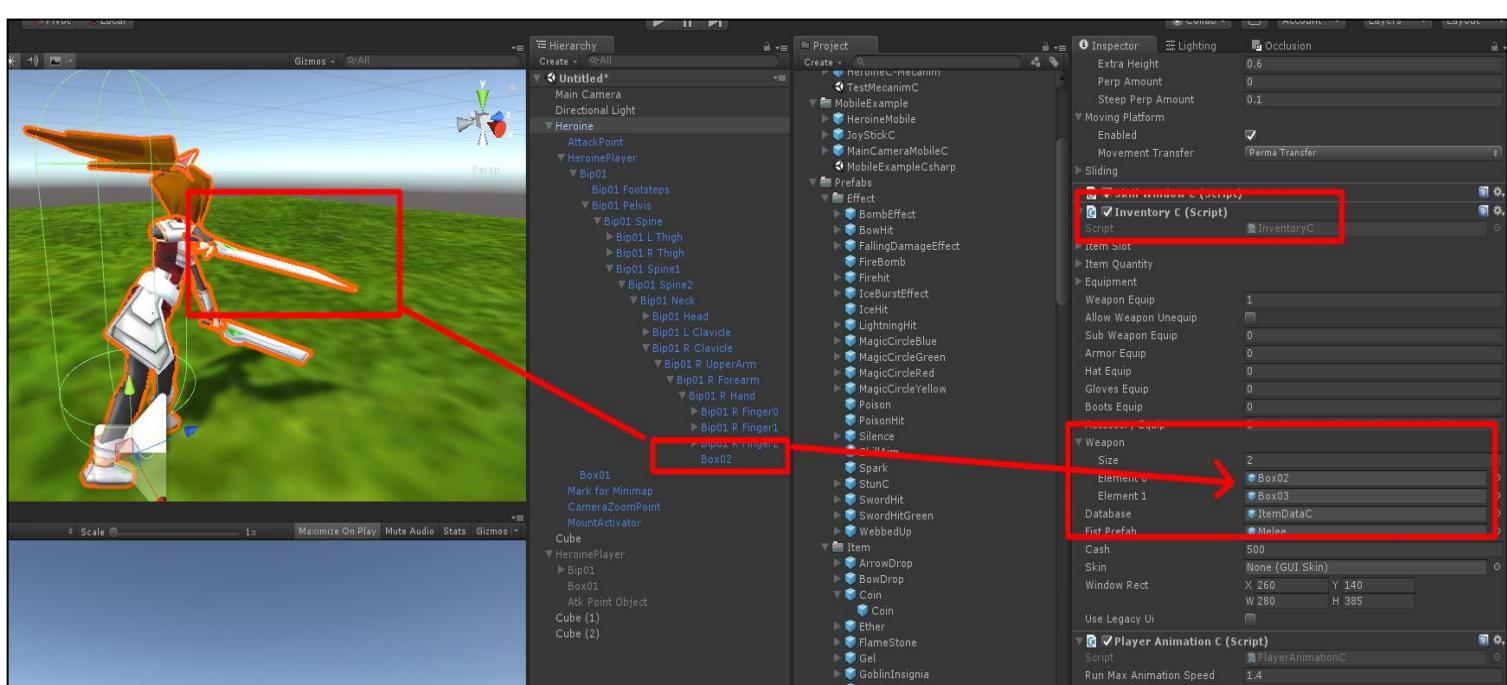
This Script will then randomize a value between “Cash Min” and “Cash Max” to be added as cash.

# How to Swap Weapon's Model with this kit



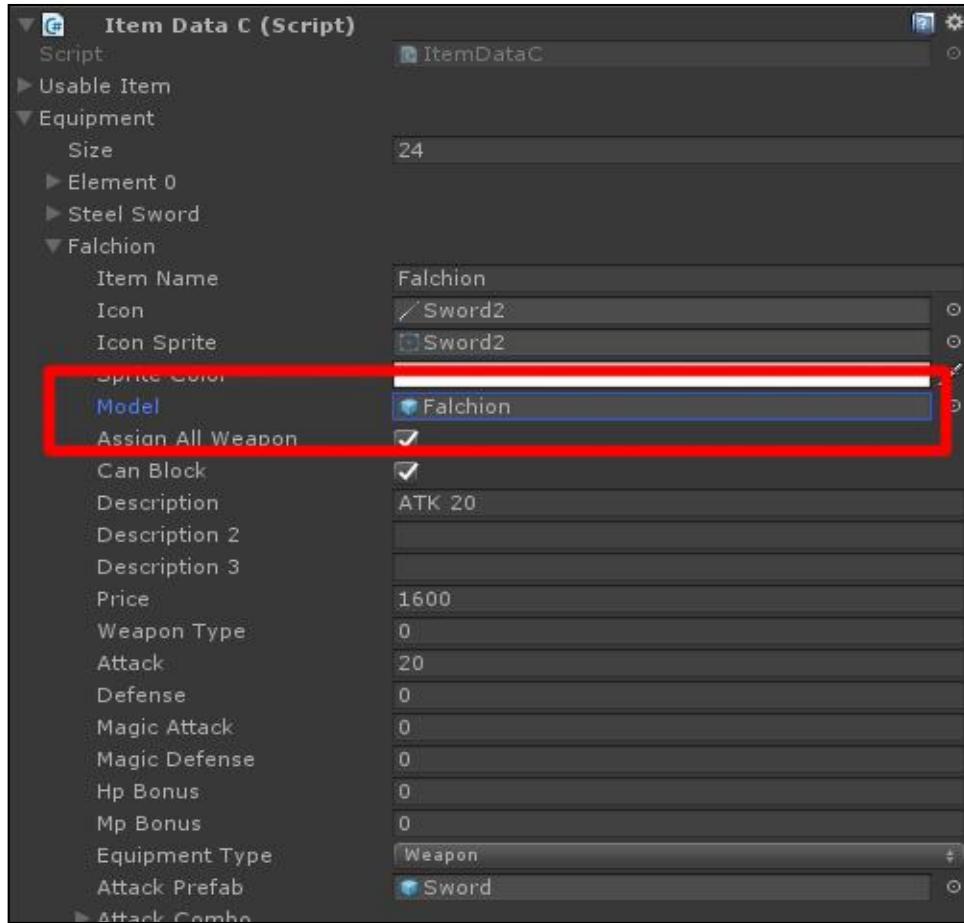
First, assign the main weapon's model in the characters to Weapon Variable in Inventory Script (If your character has more than 1 weapon

(Ex. Dual Swords), you should assign to all of them too)



Then in the “ItemDatabase” of the weapon, assign the weapon model

To the “Model” variable

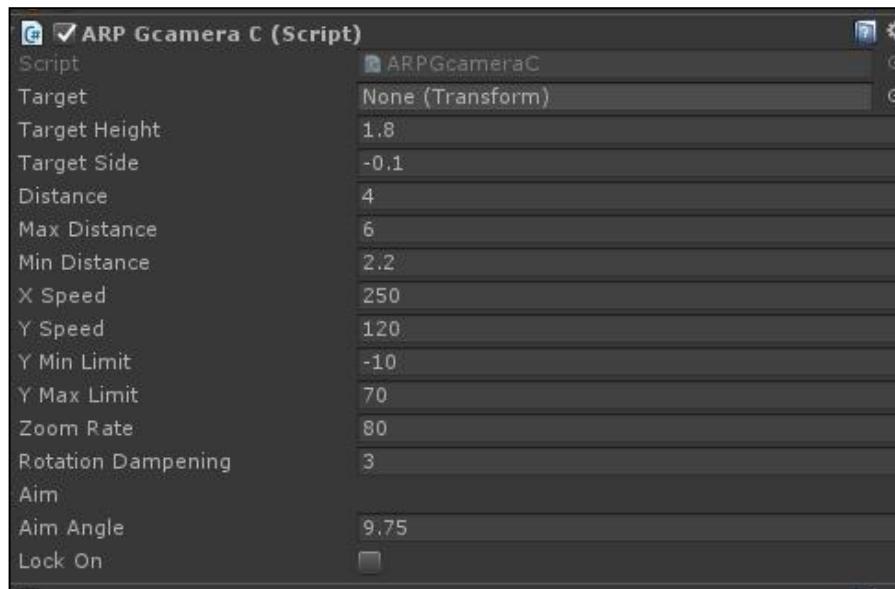


When you equip the weapon. If you do both steps correctly, the system swap the Weapon Model.



# Main Camera

There is a Main Camera for Action-RPG Starter Kit in “ActionRPGKit/Prefab/Player/ARPGCamera” You can set the values here.



Target Height - The camera's height from the target

Distance - The camera's length

Max Distance - The farthest camera's length

Min Distance - The shortage camera's length

Xspeed - The camera's speed in X axis

Yspeed - The camera's speed in X axis

Ymin Limit - The lowest camera's angle

Ymax Limit - The highest camera's angle

Lock On - If you select this, the character will always face towards the camera

The Camera's Linecast will detect an object with “**Wall**” tag

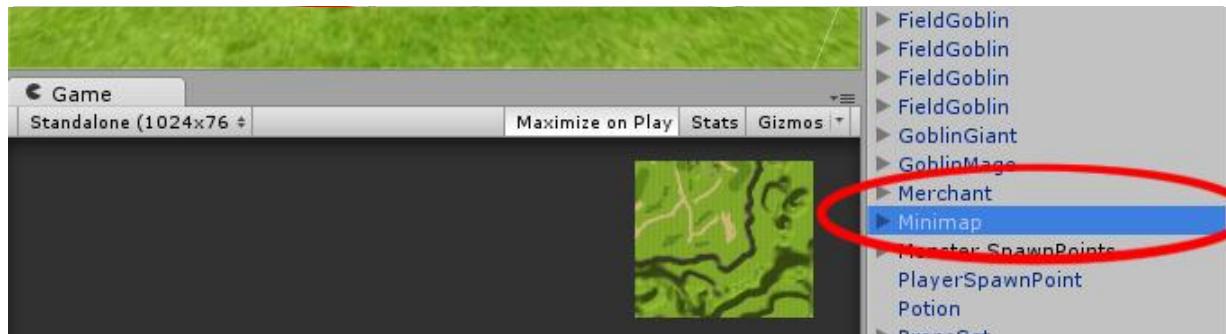
# Minimap

First you have to drag "Minimap" from "Prefab Folder" to the scene you want to show the minimap.

Then, you can change the Layer of an object you want to show on the Minimap

- "Minimap" Layer (**Layer 8**) will make the object shown on the minimap.

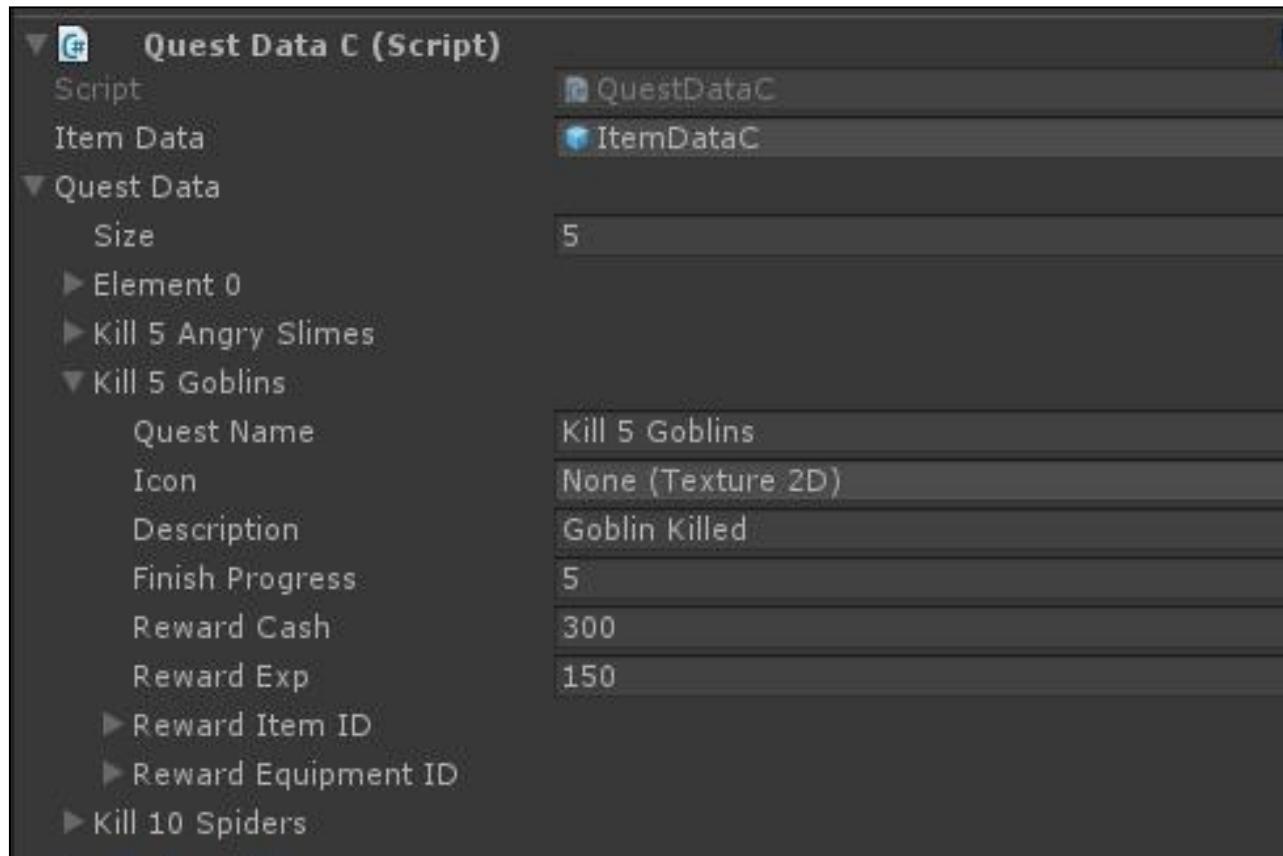
- "MinimapOnly" Layer (**Layer 9**) will make the object shown on the minimap only and not shown in the scene



A screenshot of the Unity Editor interface. The Hierarchy panel on the left shows various game objects like AngrySlime, Arrow, and Terrain. The Project panel in the center shows a folder structure for ActionRPGKit. The Inspector panel on the right is focused on a Terrain object. The "Layer" dropdown is set to "Minimap", which is highlighted with a red circle. Other settings visible in the Inspector include "Position" (X: -48.4, Y: 0, Z: -26.2746), "Rotation" (X: 0, Y: 0, Z: 0), "Scale" (X: 1, Y: 1, Z: 1), and a "Terrain (Script)" section with tool selection buttons. A "Terrain Collider" component is also present with "Create Tree Colliders" checked.

# How to Create Quests

## Quest Data

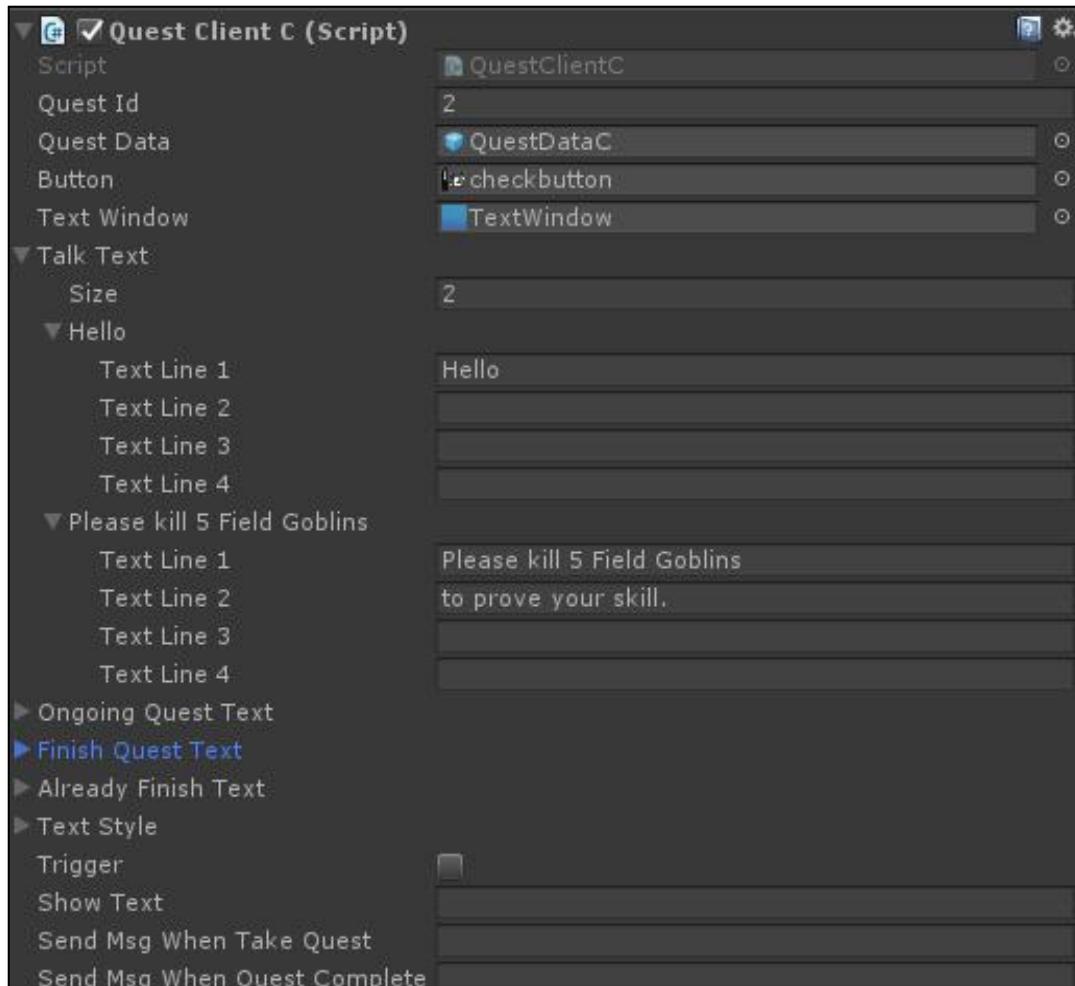


You can add new quests in the Database folder  
“ActionRPGKit/Database/QuestDataC”

-Finish Progress

Ex. If your quest is to kill 5 Goblins you should set the Finish Progress to 5

# Quest Client

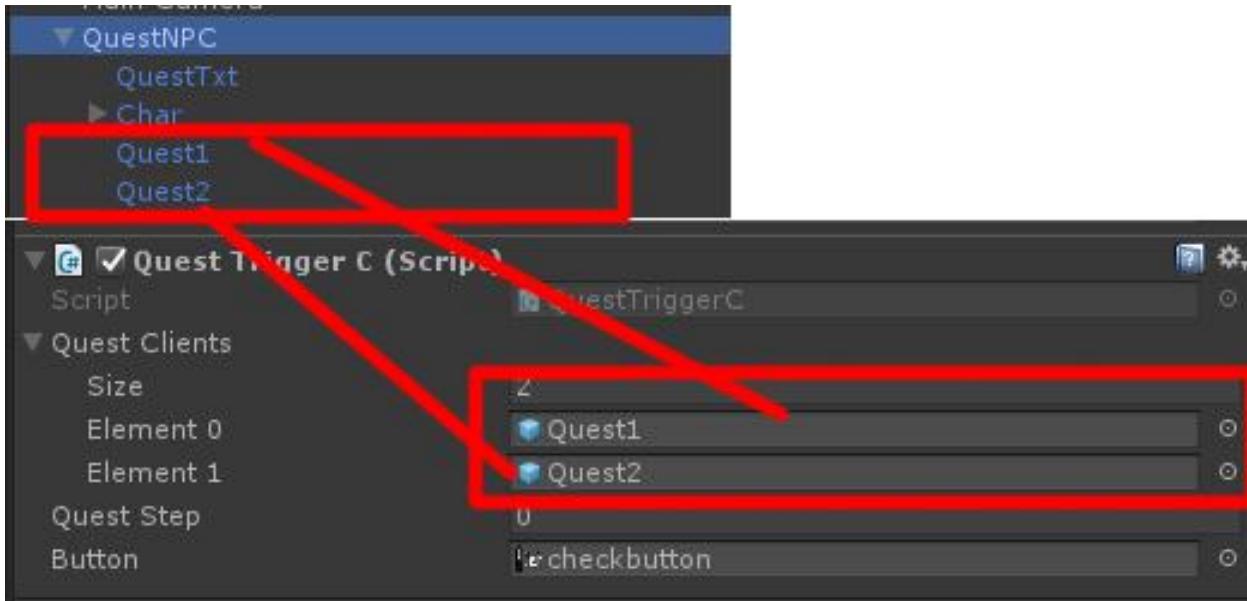


Quest Client script is for the Quest NPC

- Quest ID = ID of the quest (match to the QuestData)

- Quest Data = Database of the quest

## Quest Trigger



Quest Trigger Script is for NPC who has more than one quest available.

For example, the NPC will start with the quest in Element0. When you finish the quest, it will activate subsequent quest until the quests you assign to the “QuestClients” variable.

**Quest will be a GameObject and must contain the “Quest Client” script**

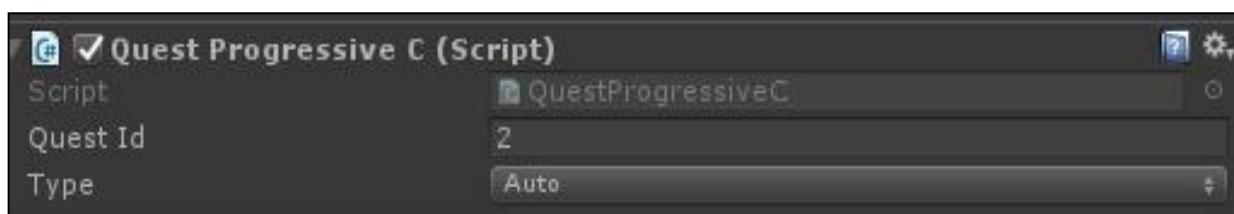
## Quest Progressive

This script is used to increase the progress of your quest.

For example, you can assign it to the Monster’s Death Prefab  
or Item to pick up

Quest ID - ID of the quest you want to increase.

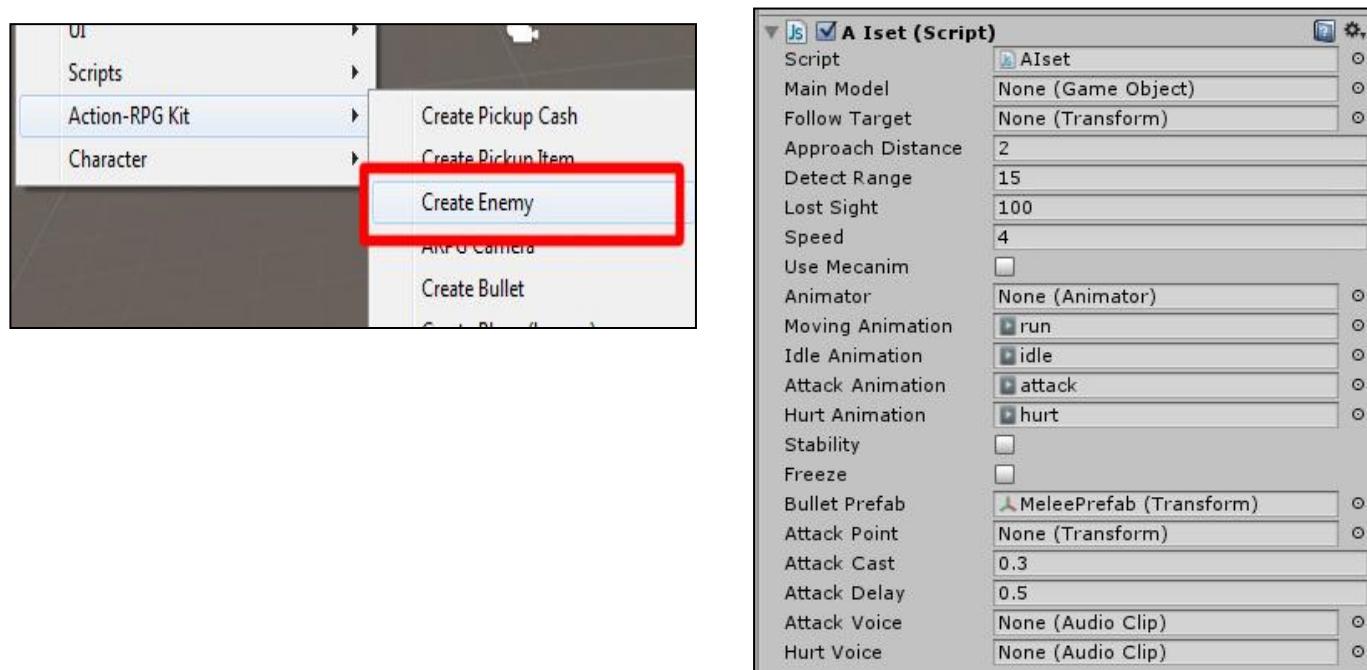
Type - Auto = Automatic increase your quest stat  
- Trigger = You must collide the object to increase quest stat



# How to Create a Monster

After import the monster's model to your project

Go to “Component / Action-RPG Kit / Create Enemy”



Main Model	-	Main Model for playing animation
Approach Distance	-	The closest distance between the enemy and the target
Detect Range	-	The enemy's detection range
Lost Sight	-	The distance until the enemy stop following
Speed	-	Enemy's movement speed
Use Mecanim	-	Use this if you use Mecanim Animation
Moving Animation	-	The Enemy walking animation's name
Idle Animation	-	The Enemy idle animation's name
Attack Animation	-	The Enemy attack animation's name

Stability	-	If you select this, the enemy will not flinch from an attack by the player
Freeze	-	If you mark on this, the enemy will freeze
Bullet Prefab	-	Store the enemy bullet's variable
Attack Point	-	The enemy bullet's spawn point
Attack Cast	-	Time before enemy's attack goes off
Attack Delay	-	Delay time after enemy attack

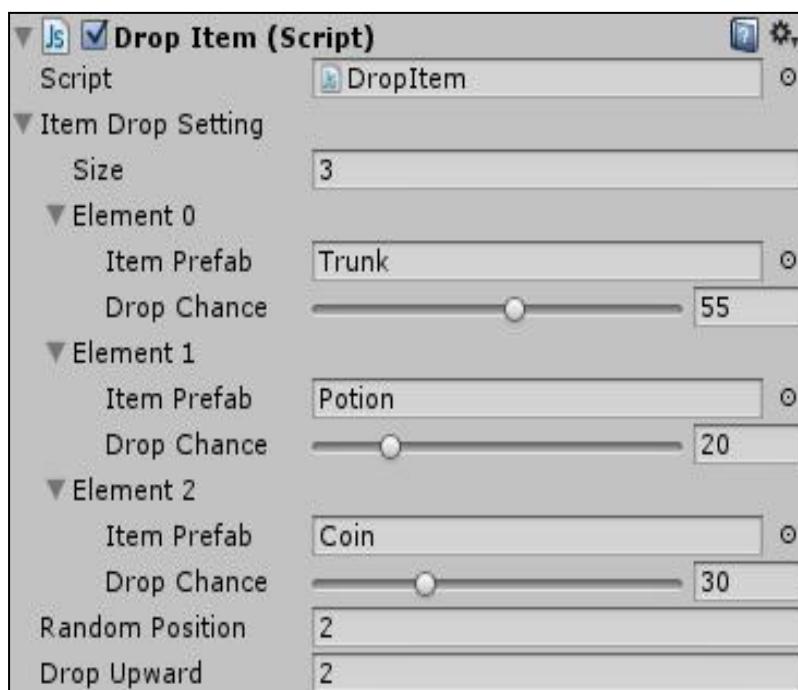
## Enemy's Drop Items

When an enemy dies, the Status Script will spawn its Death Body Prefab.

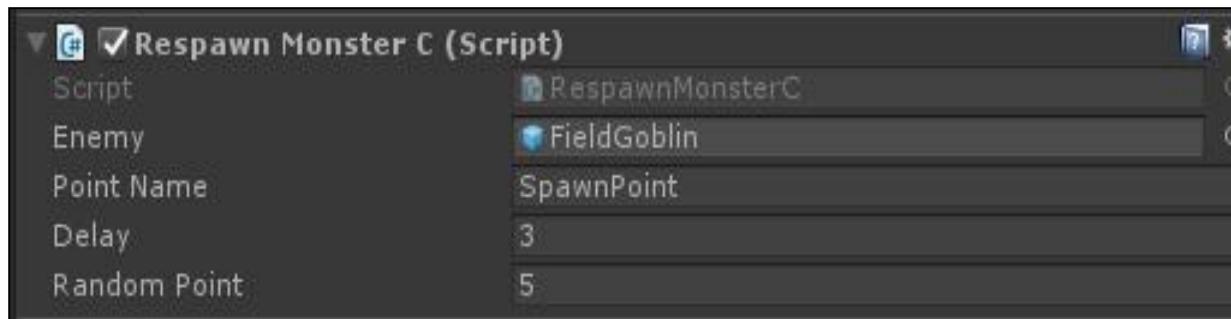
In the Death Body Prefab you should attach the “GainEXP” Script to it so that the Player would gain EXP when the monster’s death prefab is spawned.

Attach the “DropItem” Script to the monster’s death prefab

when monster’s death prefab is spawned, it will randomize dropped item from the script



## Enemy Respawn



Attach to the enemy's death prefab like the “DropItem” script

Enemy - Prefab of the Enemy to respawn

Point Name - Name of all respawn point the monster will randomize.

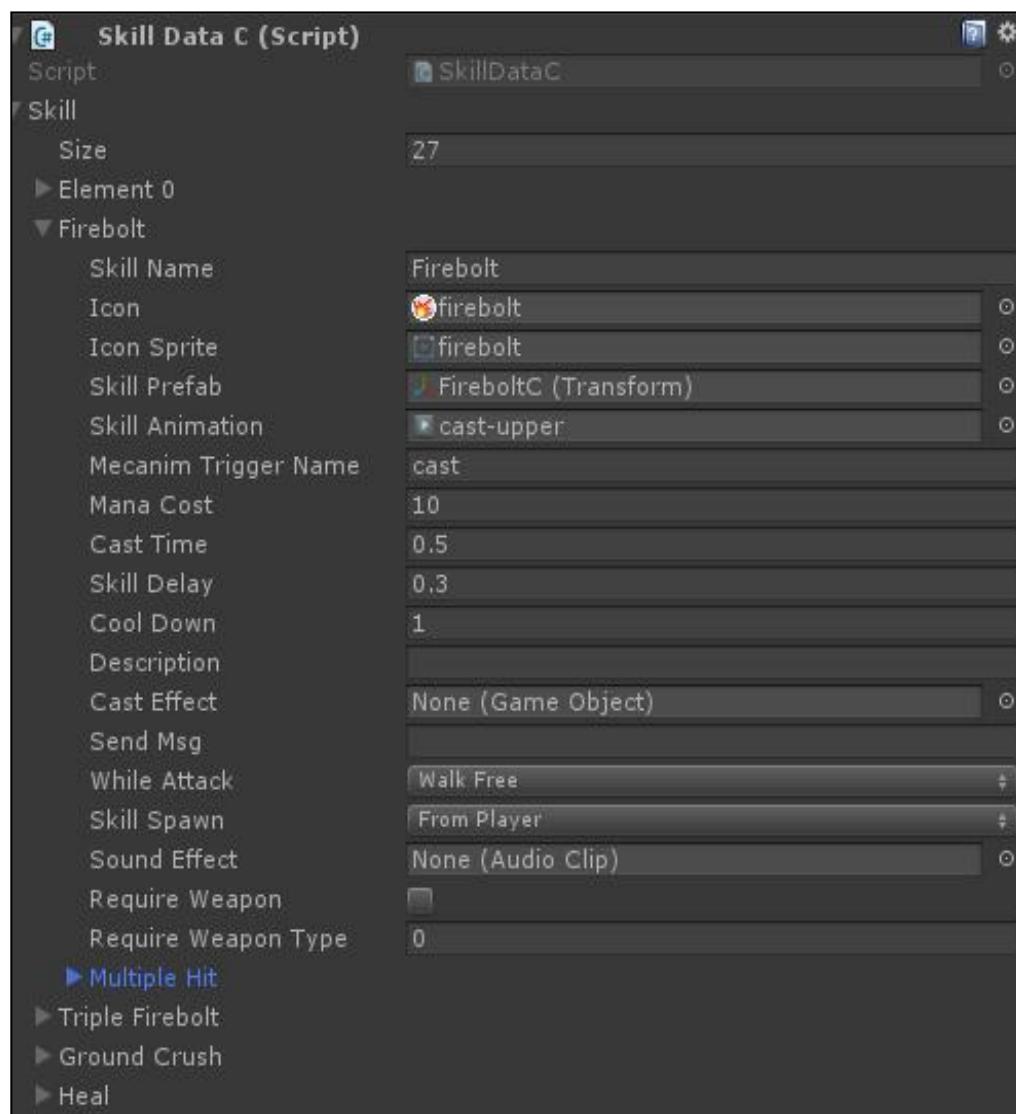
Respawn at the position of object with the same name  
as this variable

Delay - Delay after enemy's death until it respawns

Random Point - Value used to randomize variance of the respawn position

# How to Create Skill(Database)

You can use “SkillDatabase”prefab (ActionRPGKit /Database/SkillDataC) as a Database



You can add new skill data by editing Size in “Skill” variable

The Element number is an ID of your skill. It is very important to use

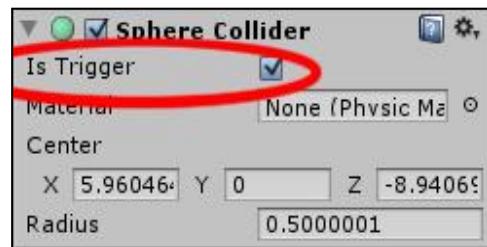
It with the Skill Tree

\*\*Mecanim Trigger Name – This variable is for Mecanim user

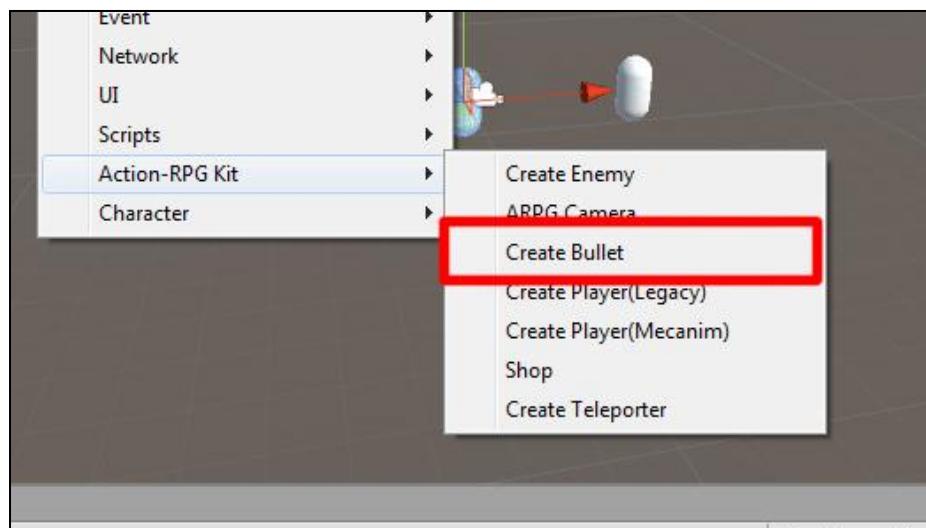
If you leave it blank, the system will play Animation from Skill Animation directly

# How to Create Skill(Prefab)

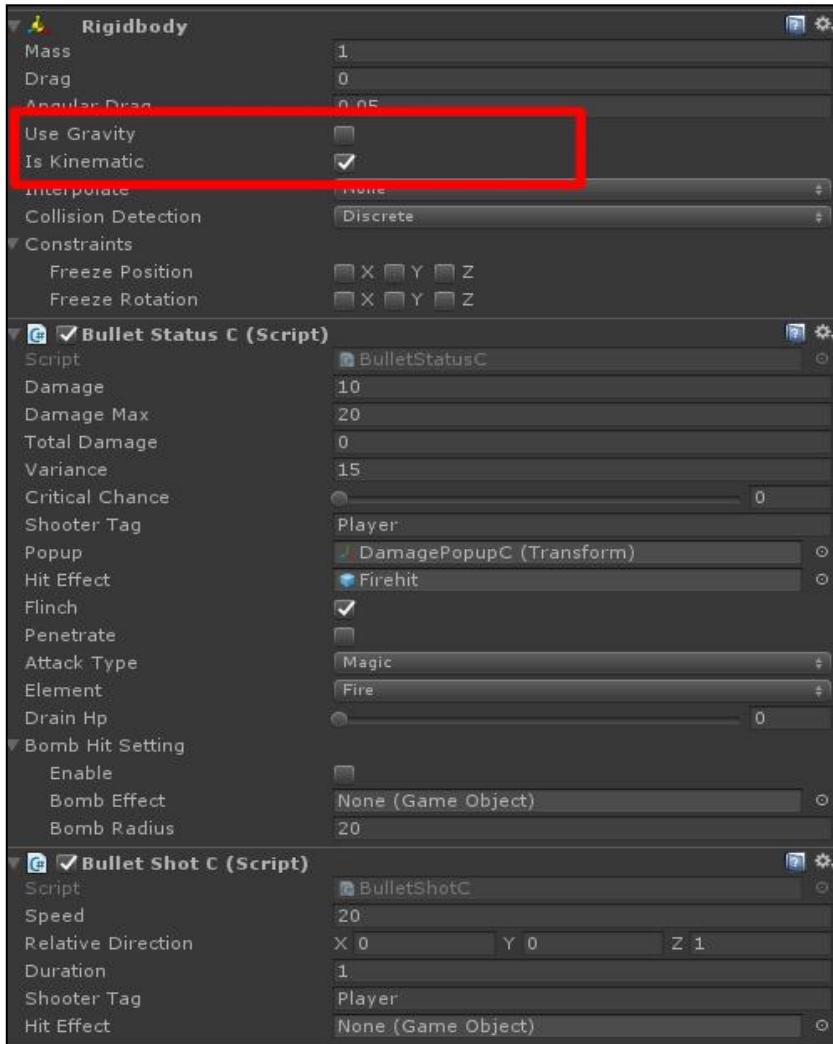
Now we can make skills for both the player and monsters. Let's try creating the attack skill for them. In this example, we will make a bullet. After you've made a bullet model for use in this skill, select the Is Trigger



Then Go to “Component / Action-RPG Kit / Create Bullet”



After that, go to Rigidbody component and unselect Use Gravity so that the game won't calculate the gravity.



Damage - The bullet's minimum Damage

Damage Max - The bullet's maximum Damage

Variance - The damage variance

Popup - Stores Prefab for showing the damage on screen. In this example, we use DamagePopup from the Prefab folder

Hit Effect - The bullet's hit effect

Flinch - If you select this, the target will flinch after an impact with bullet

Penetrate - Bullet will not destroyed when it hits the enemy

Attack Type -      Physic = Physical Attack

                        Magic = Magical Attack

Element      -      Element of this bullet

In the BulletShot script, there are only 2 main variables. The speed and the duration for the bullet's speed and the bullet's remaining time. When the bullet is shot by the Tag Player. The target will become a Tag Enemy. On the other hand, if the bullet was shot by the enemy. The player will become the target. When the bullet hits an object with “**Wall**” tag, the bullet will disappear. The components that are used for this skill are below.

# Skill Tree

First you need to create and set up player's skills in the "Skill Database".

(ActionRPGKit /Database/SkillDatabase)

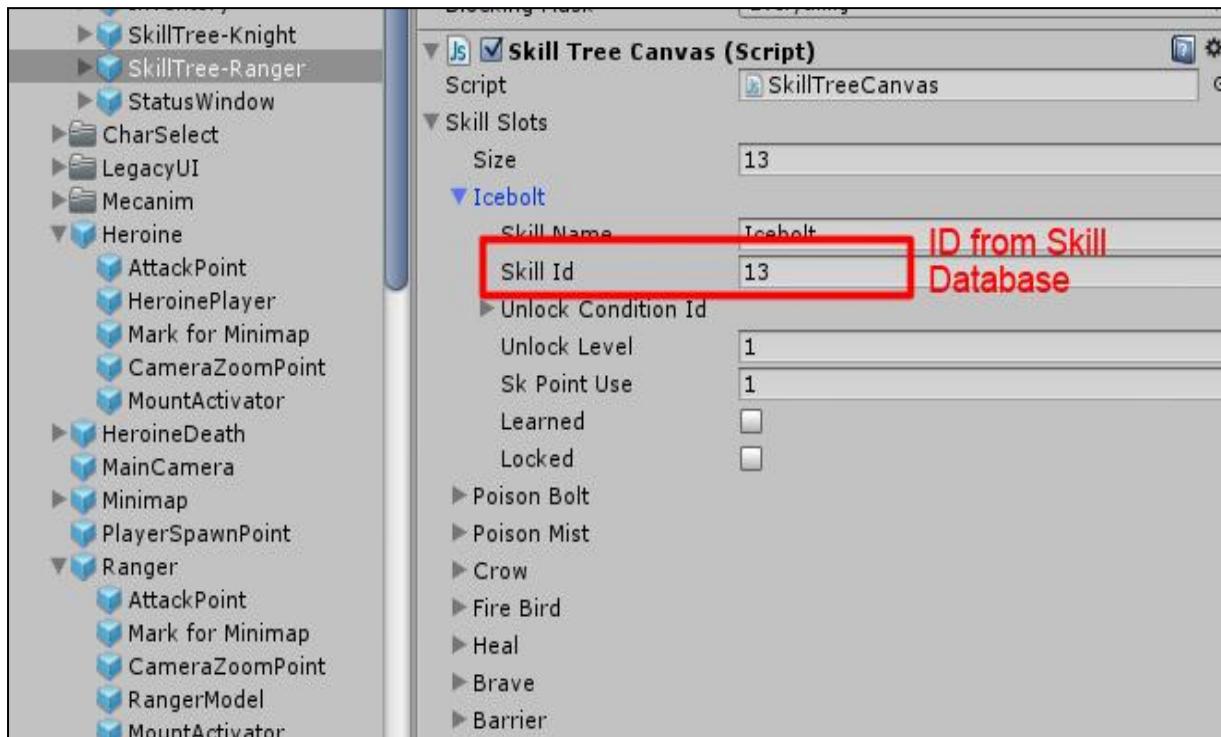
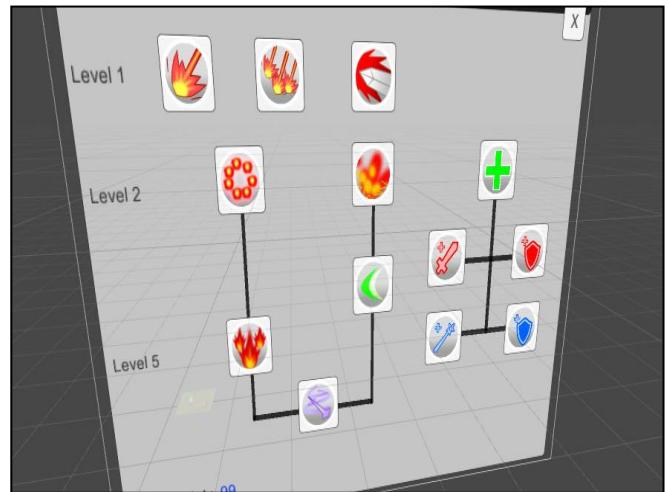
Then go to Skill Tree Canvas in

(Prefab/Player /CanvasUI/SkillTree)

You can duplicate the Skill Tree to and customize it as your own.

In "SkillTreeCanvas" component on Skill Canvas UI. Setup Skill Slot

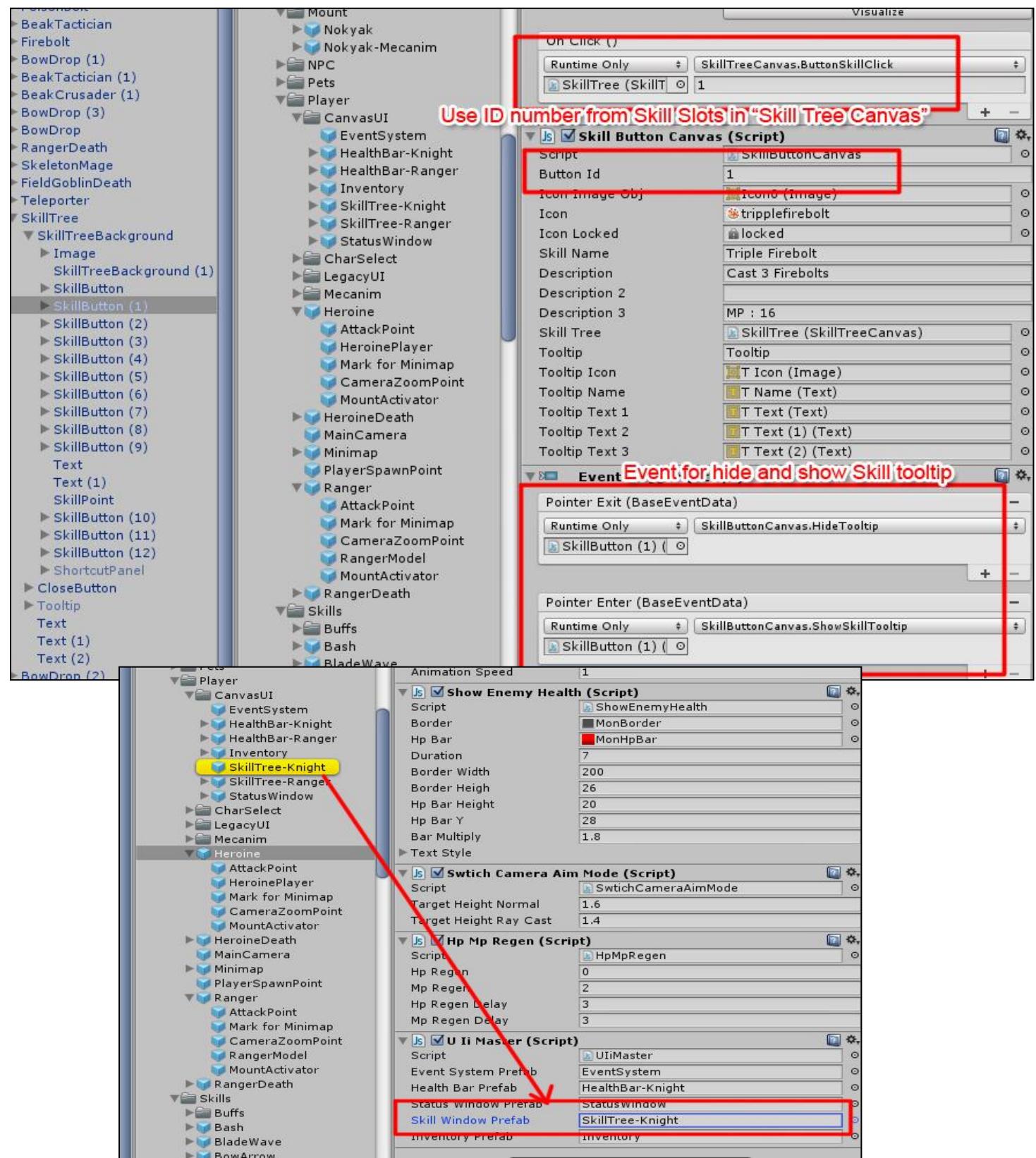
- Skill ID (Use ID number from Skill Database)
- Unlock Condition ID (Use ID number from Skill Database. Characters must have those skills to unlock this skill slot)
- Unlock Level (Player's level must be higher or equal to unlock this skill)
- Sk Point Use (How many Skill Point is needed to learn this Skill)



## In Skill Button (Child of Skill Tree Canvas)

You can setup the Button ID (Use ID from Skill Slots in Skill Tree Canvas)

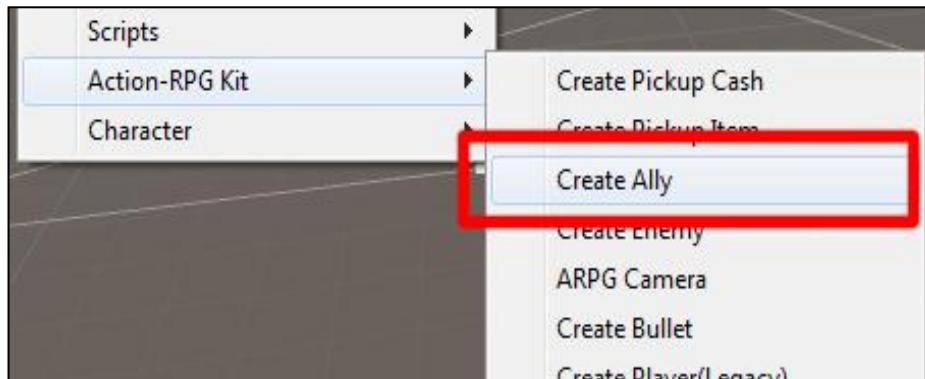
Skill's Icon, and Description here.



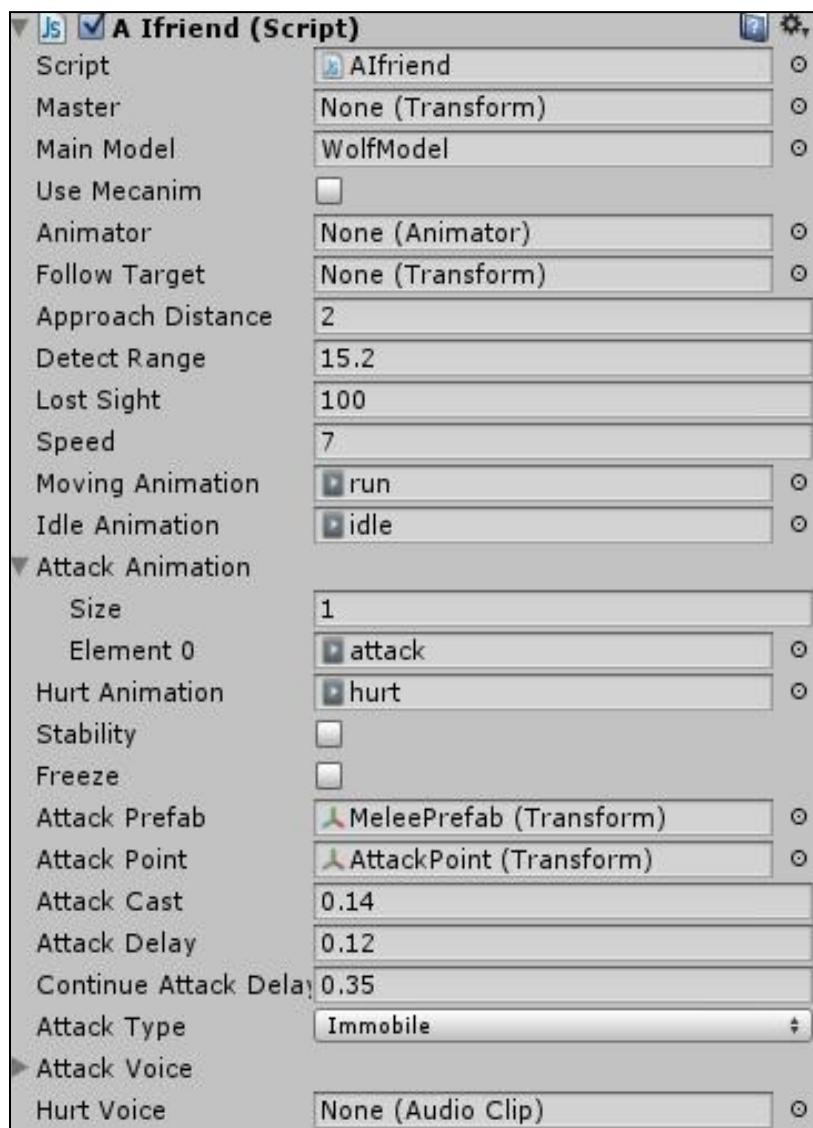
# Summoning Skill

First create your ally AI after importing the model

Go to “Component / Action-RPG Kit / Create Ally”

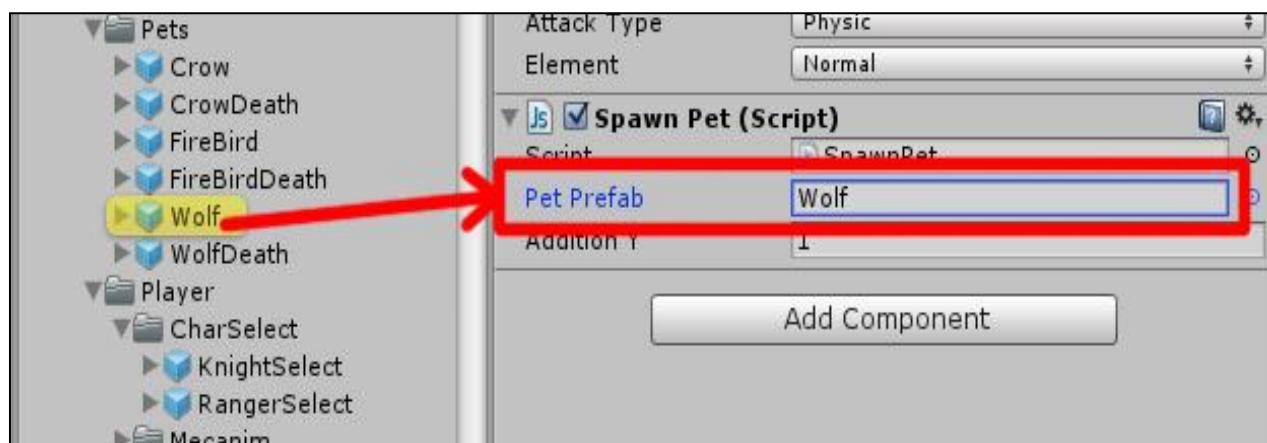


Then set the value in “AIfriend” and assign it to the prefab.

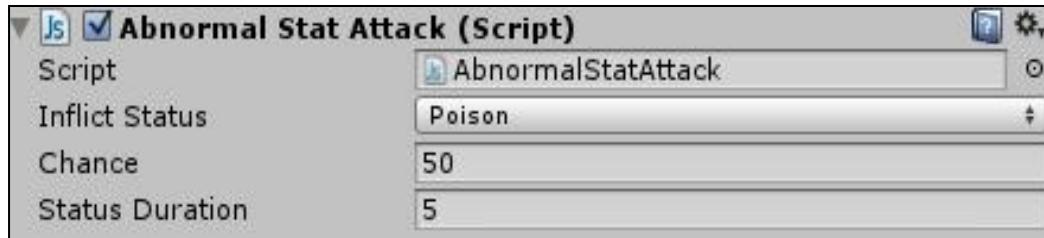


After the Ally's prefab is ready. Create a new empty game object.

Attach the “SpawnPet” script to it then assign the Ally prefab to  
“Pet Prefab” variable



## Abnormal Status



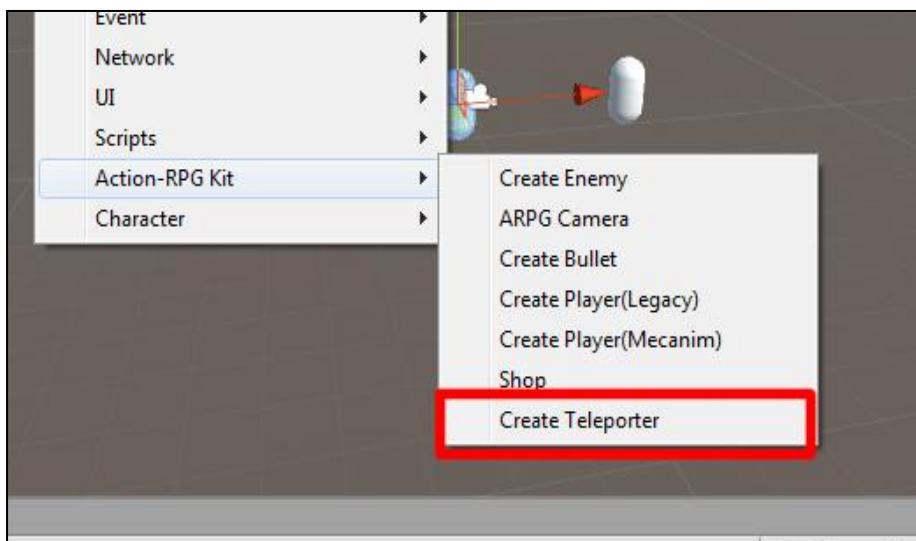
Attach to the Skill Prefab or Attack Prefab.

- |                 |   |  |
|-----------------|---|--|
| Inflict Status  | - | What type of Status to inflict on the target |
| Chance          | - | Chance of inflicting successfully            |
| Status Duration | - | Duration of the abnormal status              |

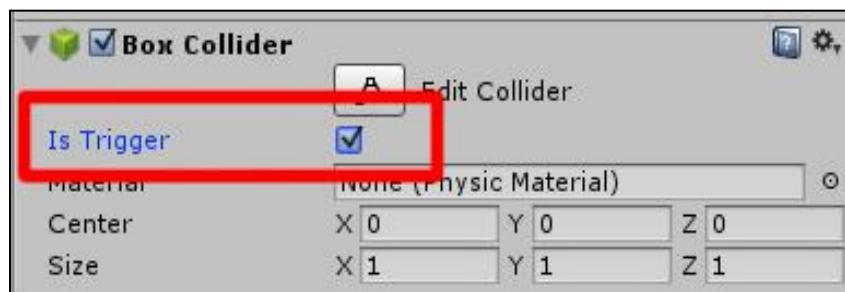


# Teleporter

You can teleport your player to the other scene by creating the box object and Go to “Component / Action-RPG Kit / Create Teleporter”



Select “Is Trigger” in the collider.

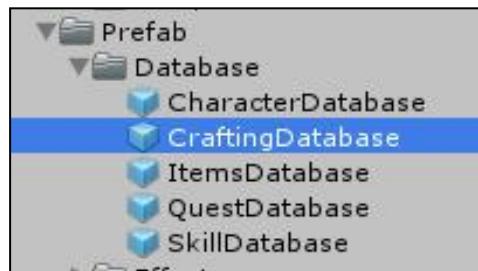


Teleport to Map - Destination scene's name

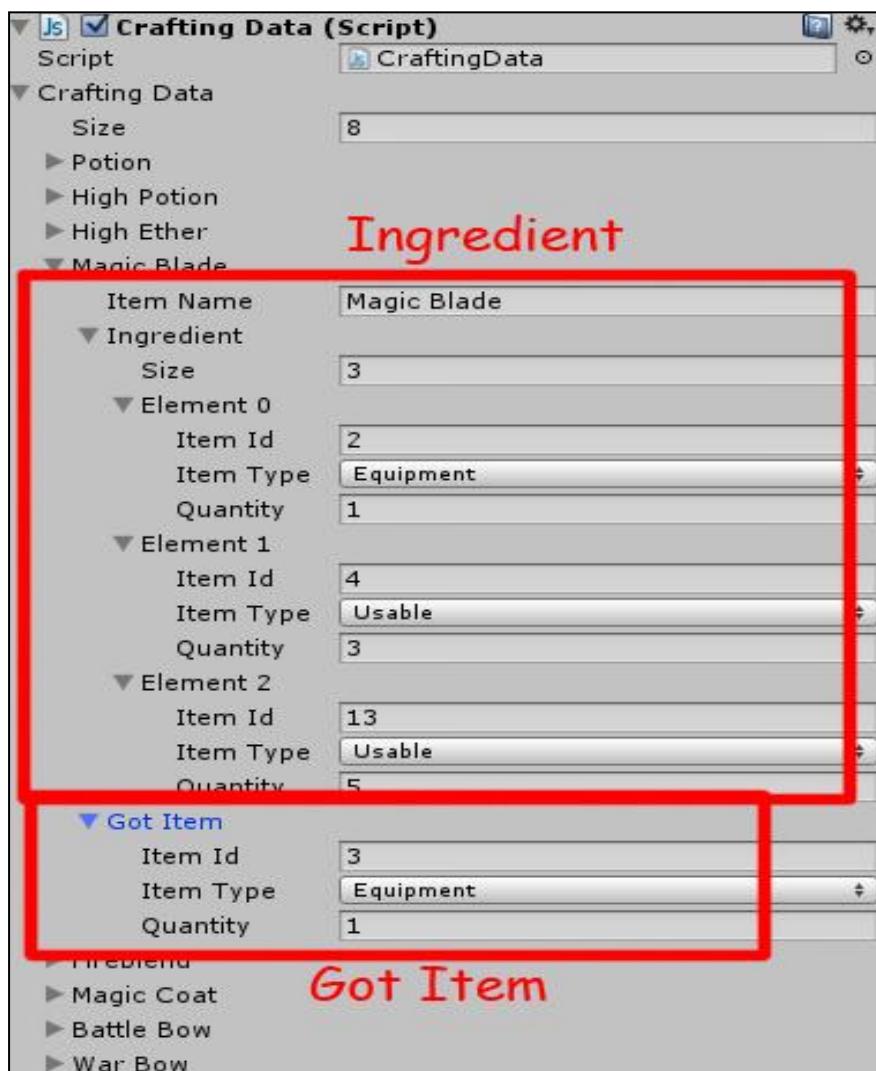
Spawn Point Name - Name of the game object to move the player to that object position.

# Crafting System

You can set the crafting Database in “ActionRPGKit / Database / CraftingDatabase”



Now you can set values of “ingredient” item’s ID and “got item” ID  
(ID from element of ItemDatabase)



For example, if you want to create a Magic Blade by using

- 1 Falchion (ID: 2, Equipment)
- 3 High Ether (ID: 4, Usable)
- 5 Spider Venom (ID: 13, Usable)

You will get

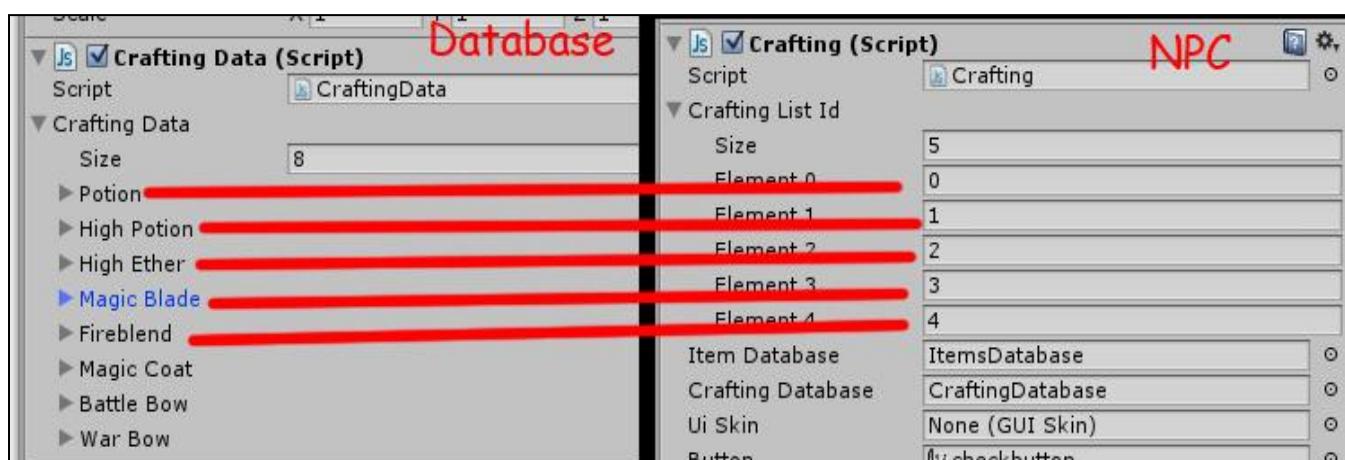
- 1 Magic Blade (ID: 3, Equipment)

You can set value same as depicted.

## Crafting NPC

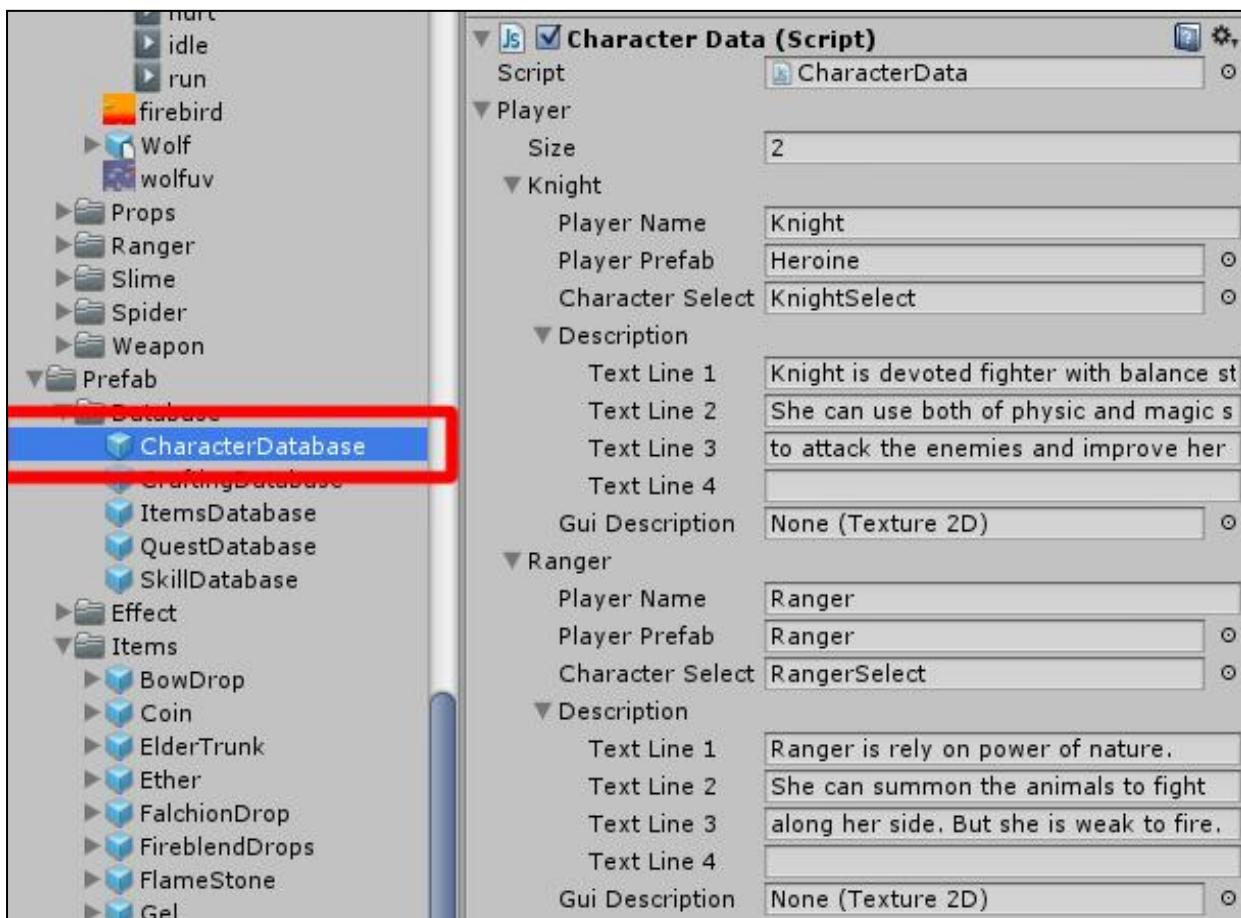
There is Crafting NPC example in “Prefab / CraftingNPC”

You can edit the list of crafting that an NPC can craft by setting the ID of Crafting Database.



# Character Selection

In the Title scene. There is “Title” script to make title window and Character Selection. You can add a new player character in Character Selection by going to “Prefab / Database / CharacterDatabase”



Assign Player's prefab to “Player Prefab” Variable

“Character Select” variable is for storing the model to be shown in the Character Selection screen.