



# MANUAL

## Fight Game - Select Character

First I would like to thank your for preference. This manual contains a series of quick steps and easy for you to add your characters and scenarios. I'm always answering all emails , so any questions be sure to ask , I'll be happy to help. Always remember to explore the possible maximum capacity ! Thank you and I hope to collaborating with more projects in the future

## INTRODUCTION

### Explore Files



**01 Config** - contains the directories to get the project , if it is not accessed directly follow the tutorial on how to import

**02 Content** - contains all the files for the project, it can be easily imported into other projects too.

**03 Image PNG** - It's image is only to be an icon of the project opened in Epic Games Launcher , can be disposable

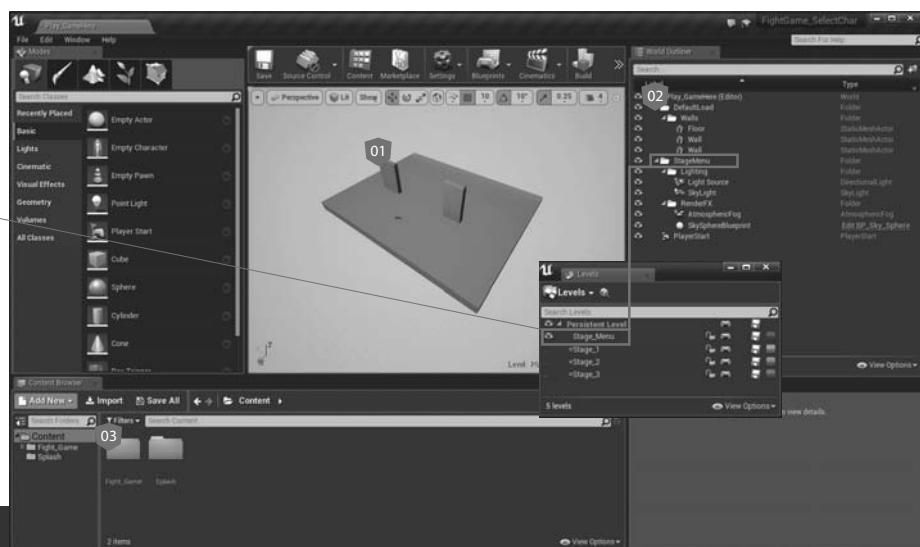
**04 Project** - This project contains a fighting game in full operation, it is not necessary to be your final project, but it is important to study it before migrating to its other projects.

### Start Project

**01 Play\_GameHere(Level)** This is the initial level, practically has the ground game and the limitations of the scenario, this layout is repeated at all levels according to the schedule.

**02 Label** - This area contains the view of the walls and the ground "Play GameHere ". Below there is a visible level which is the "Start Menu" it contains the objects to be loaded in the Start mode and SelectCharacter .

**03 Browser** - This area contains the project files , you can easily export it ( migrate ) to other content browser. The Splash folder is only for the design of charging modes and execution, they can change without problems



### CONTACT



Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>



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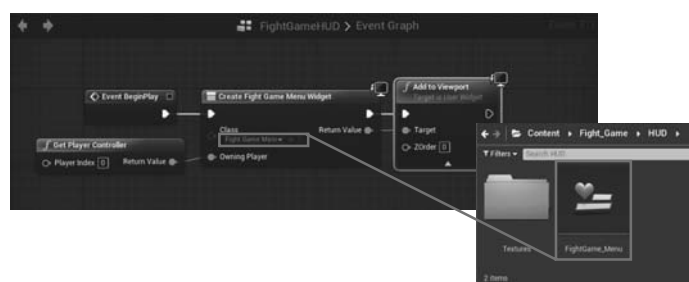
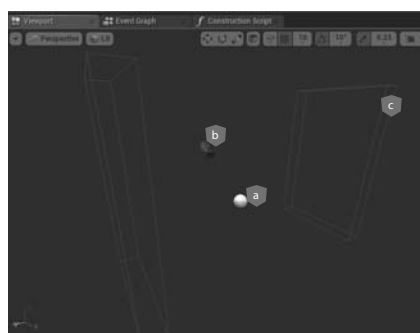
# PROJECT FILES

## DEFAULT BLUEPRINTS:



**01 BP\_CameraMaster- BlueprintActor** responsible for framing all objects. When operating the project it is automatically put next to other objects according to the selected menu. It has a programming allows you to view both players without losing focus .

- a. Ball responsible for the actor's positioning
- b. Camera for de view
- c. Wall responsible for blocking the players off the screen



**02 BP\_FightGameHUD** - Accept responsibility only for calling the FightGame\_Menu, this can be done in another blueprint

**03 BP\_FightGameMode** - It contains the " tree " file to run the game . It can easily be adapted , but need two files to run the project properly = GP\_GlobalController (Blueprint Controller) and FightGame\_Menu (Widget )

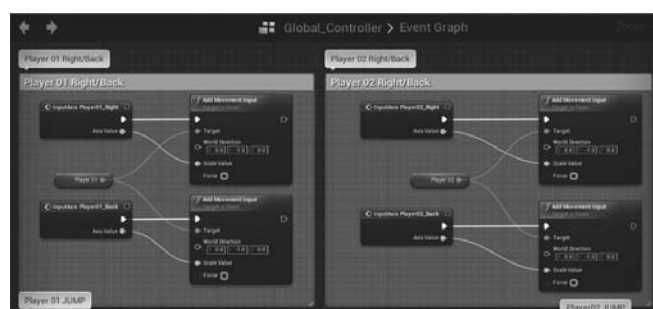


## CONTACT

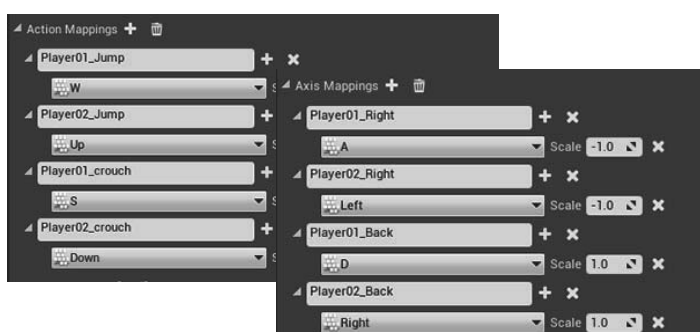


**04 BP\_Global\_Controller** - Responsible for distributing and controlling the players during the game. Its programming code depends solely on the choices made in **FightGameMenu**! In this Blueprint you can add your other attack controls, defense, among others.

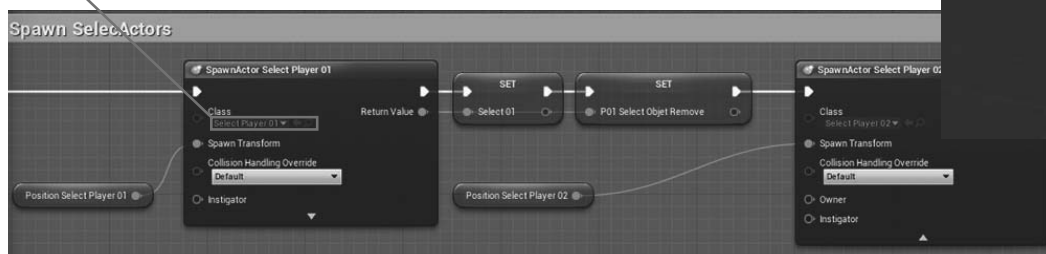
**IMPORTANT!!!** - To correct execution of this file is required names **INPUTS** configured according to the "Fight\_Game\_Settings.ini" in the Config folder.

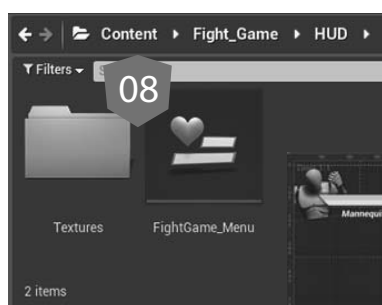


**05 BP\_Player02\_Controller** - Responsible for controlling the second player, it does not need to be configured just keep it next to BP\_GlobalController



**06 07 BP\_Select Player01 and Select Player02** - These two Blueprint will position the two players in the "SelectCharacter". No need setting, are only a position reference

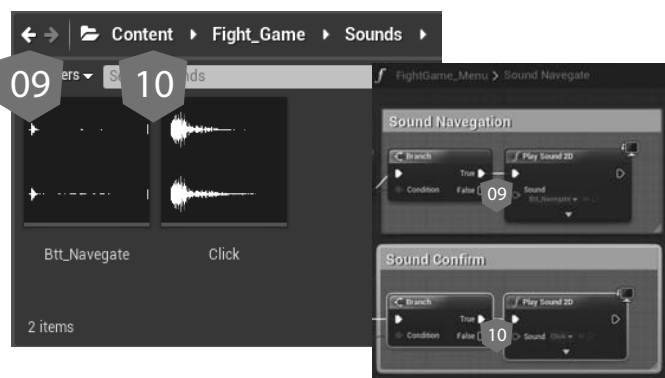




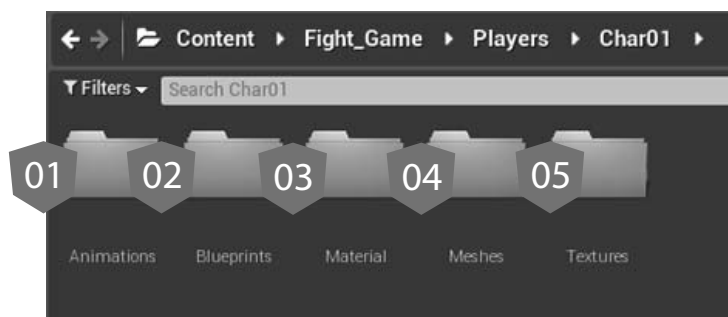
**08 FightGame\_Menu(Widget)**- Responsibility for over **50%** action of the project . It contains three levels of navigation : StartMenu, SelectCharacter and FightGamePlay . In this file you will insert the icons of your fighter and scenarios. Their codes tell the BP\_GlobalController which character and scenery distribute.



**09 & 10 Sounds**- The first (Btt\_Navigate) is used to navigate through all controls using the directional . The second (Click) is used to confirm the controls. Both can be easily replaced in FightGame\_Menu (Widget ).



## PLAYERS BLUEPRINTS (CHAR 01):



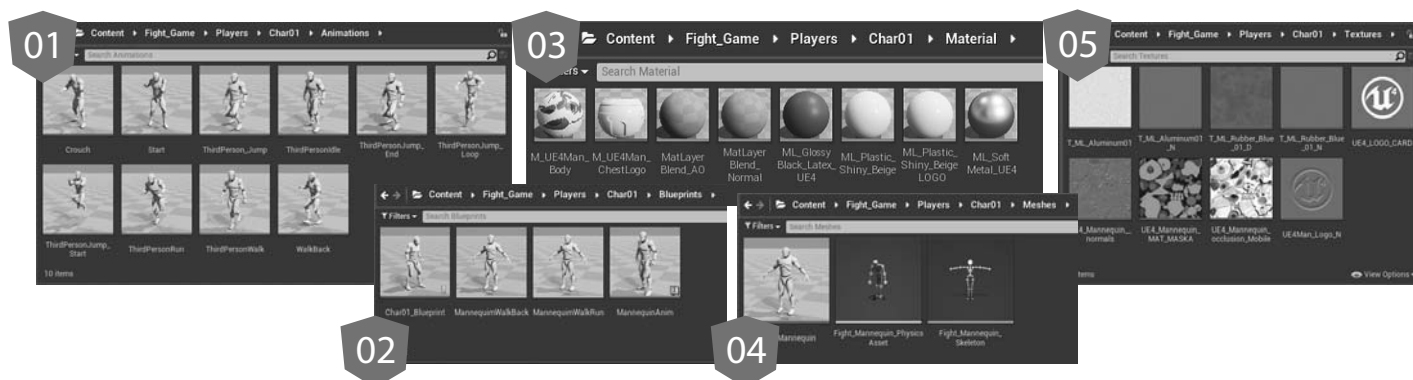
**01 Animation**- his folder contains all the basic animations to the character move ( front , back , jump , crouch )

**02 Blueprints**- this folder contains the main character codes (Char01 - Blueprint) and other animation blueprints used by the character (Walkback, WalkRun , Anim)

**03 Material** - Contains the material used by the character. It may be as many as you want.

**04 Meshes**- are the files imported models ( .FBX ) it is important to keep only one type of Skeleton meshes for each character , prevents future bugs.

**05 Textures**- This folder contains all the textures that your character will use, there are no limits.



## CONTACT

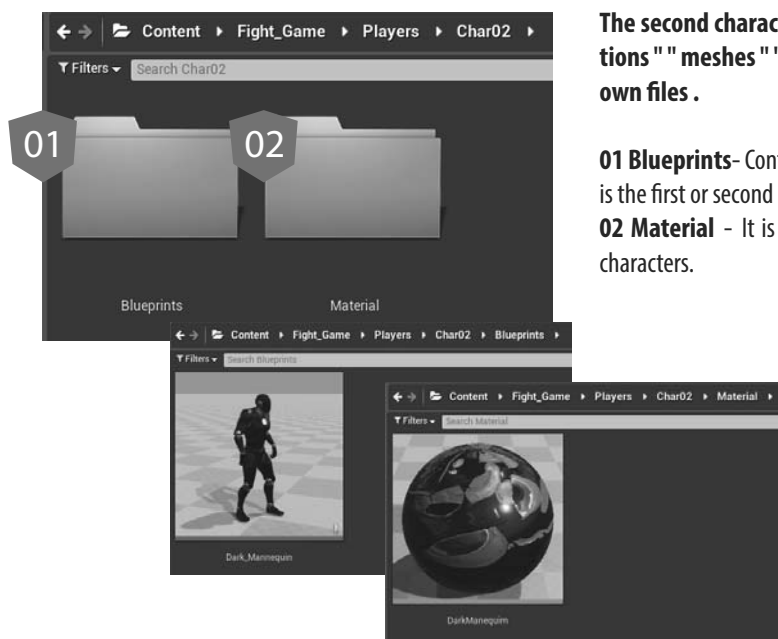


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## PLAYERS BLUEPRINTS (CHAR 02):



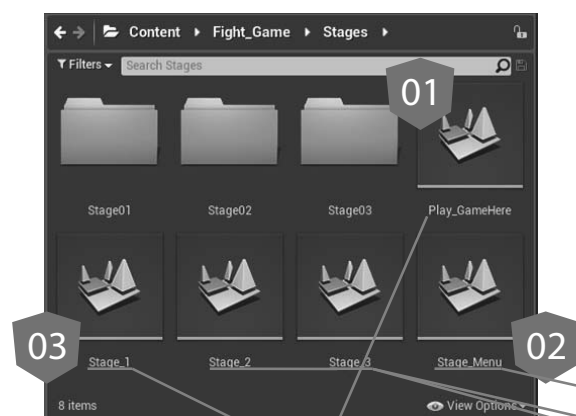
The second character is the copy of the first then the project dismissed the " animations " " meshes " " textures ". However, it is important that each character has their own files .

**01 Blueprints-** Contains the second character codes . For example , if it will change clothes if it is the first or second player .

**02 Material** - It is important that each has its material, avoid using the same for different characters.

**IMPORTANT!!!** - The project is organized in a way to let all independent characters with their specific schedules. But you can have freedom in your organization provided you have a blueprint main actor to call the major animations of the project.

## STAGES BLUEPRINTS (LEVELS):

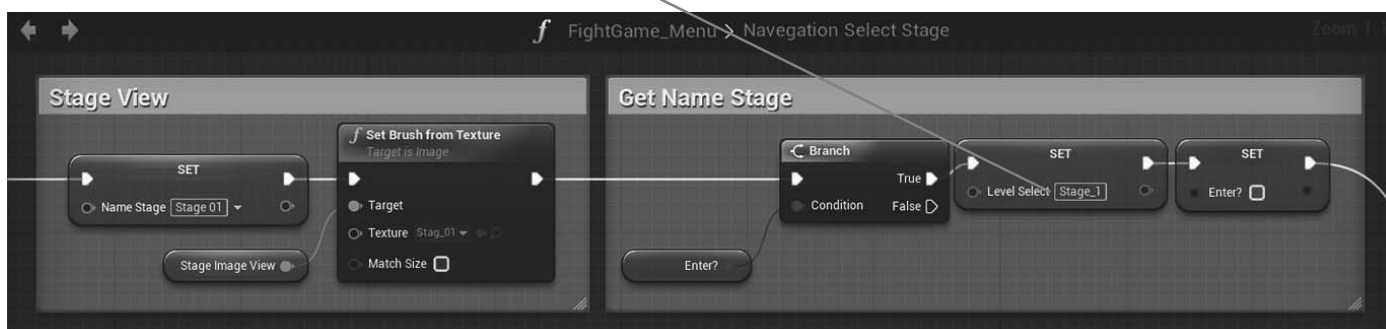
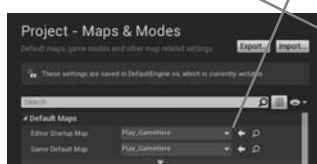


In this folder you will insert your levels to be loaded in the game. It is important to create subfolders for each level . It helps to better organize the project.

**01 - PlayGameHere** - This level is responsible for the game structure. It contains the walls that limit setting and the ground for the movement !

**02 - Stage\_Menu** - This level is the setting in which browsers " MenuStart and SelectCharacter " will be located .

**03 - Stages(1,2,3...)** - These levels are the scenarios that you will create options. There is no limit , but beware the gaming performance , heavy scenarios may jeopardize the project. Attention to names by which they will be responsible for the loading scenario .



## CONTACT



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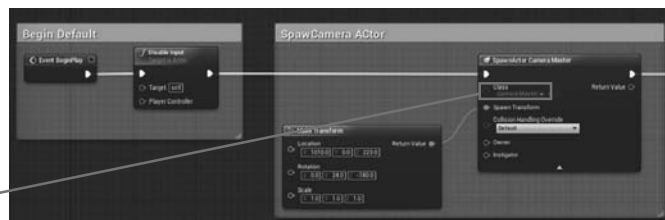
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# UNDERSTANDING FILES: BP\_GLOBAL CONTROLLER

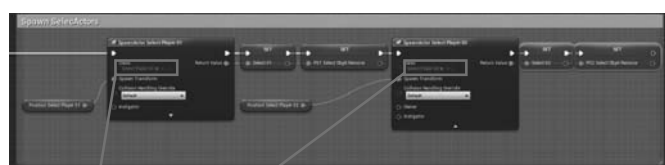
## Start\_Menu



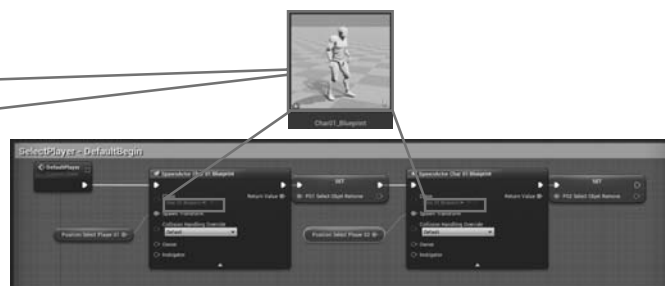
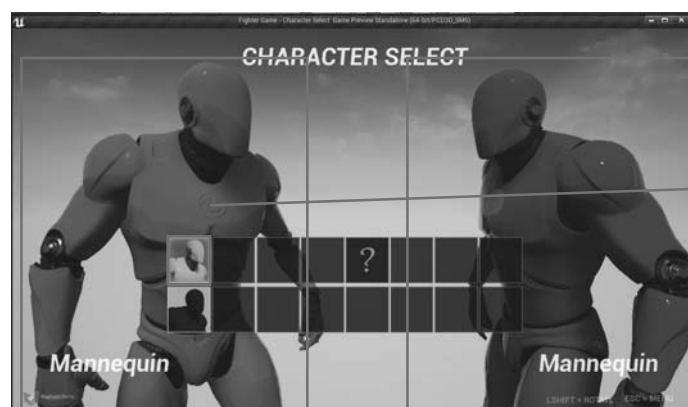
**BeginPlay**- In sequence , two blueprintactor are also distributed to position themselves in the Select Character mode



**BeginPlay**- When you start the game the controller disables the movements of the players. A camera is created and placed in the Location coordinates (1010, 0, 223) / Rotation (0,24, -180) / Scale 1.0 \*\*\* Can be change\*\*\*

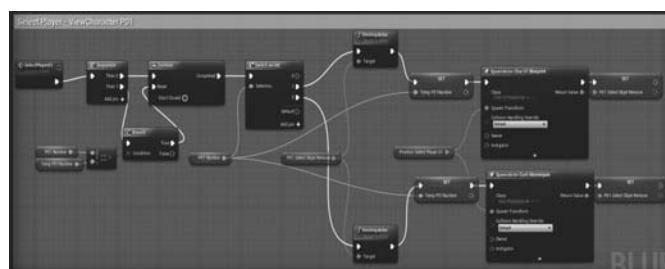


## Select Character



**DefaultPlayer**- After trigger mode SelectCharacter through Widget. The DefaultPlayer function is activated and it is replacing SelectPlayer 01 and 02 On the "first" grid character , in this case the White Mannequin ( Char01 )

**SelectPlayer01 or 02**- This function is activated when it is changed one character to another in menu handling commands ! a sequence is triggered to destroy the old character and create a new character in the same position as the previous one



## CONTACT



Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>

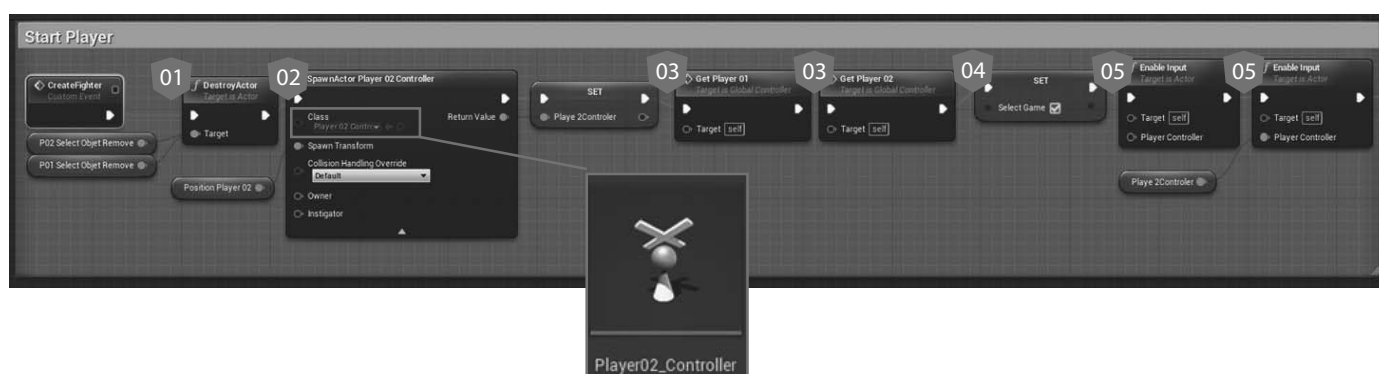
✉ [raphaelporto.portfolio@gmail.com](mailto:raphaelporto.portfolio@gmail.com)

## PlayGame



**CreateFighter** - This function is responsible for giving control to the players at the same time .

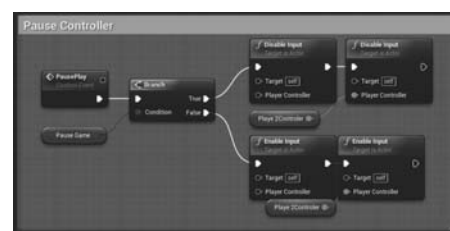
- 1 - Destroy the SelectPlayers the previous screen.
- 2 - Create the second control.
- 3 - Create the players 01 and 02 with " GetPlayer " function to generate the character according to the choice .
- 4 - Enable way of looking at each other
- 5 - Enable controls



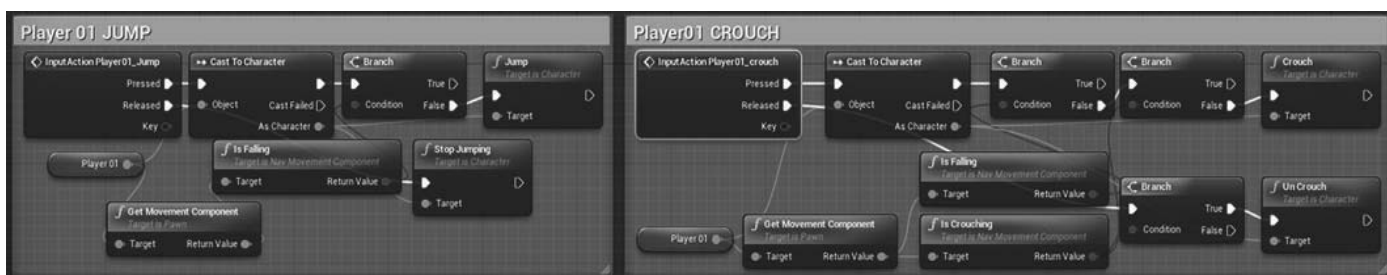
**Event Tick**- This function once activated will the two players always keep their counter-rotating with each other !



**PausePlay**- The Bp\_Global\_Controller you set the games controls. Both are copies . The jump and crouch movements are limited according to the character of the state



**PausePlay**- Simple function to enable and disable inputs. Activade by FightGame\_Menu



## CONTACT

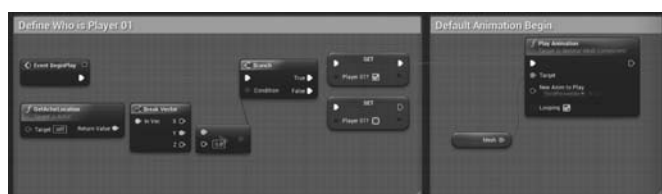
# UNDERSTANDING FILES: CHARACTER



## Char01\_Blueprint

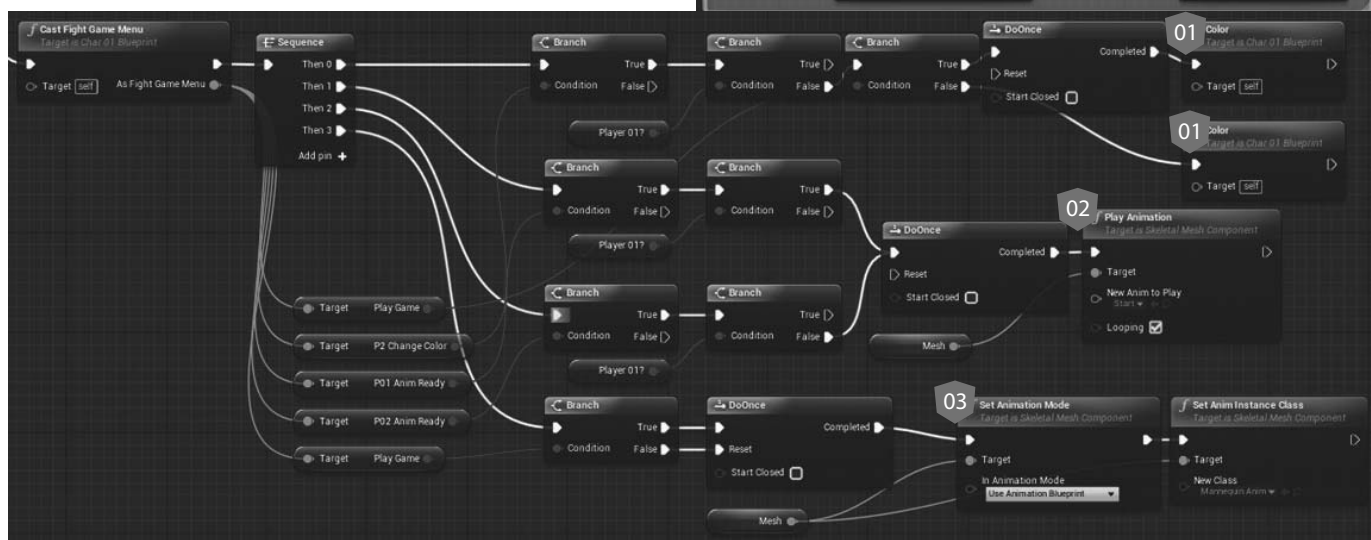
This file already uses **BlueprintCharacter** with some basic settings required for the project. More information visit the website of Unreal Engine to set up this kind of character . In this project three variables were created :

- 1 - **Acceleration** - This variable will paralyze the character when he crouch
- 2 - **Player 01** - This variable will tell if the character will need to change skin 3
- 3 - **Dynamica Color** - variable is not necessary. It was built that used the same material for two equal players .



**BeginPlayer**- When the character is inserted into the game the player is ranked "**player 01**" if it is on the **left**. This calculation is made by the coordinates "**y**". Play animation "Default" used in SelectCharacter

**Color**- This function is activated when the character is not the player 01 and the character is a copy of the first !



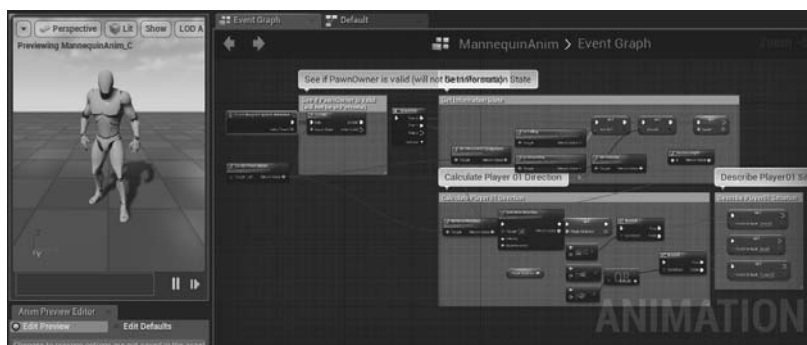
**Event Tick** - This function is always checked . This process is divided into sequences :

- 1 - This action changes the character color in two situations: In mode Select Character and PlayGame
- 2 - This action is triggered when it is confirmed the selection of the character. This action generates the animation in SelectCharacter confirmation screen.

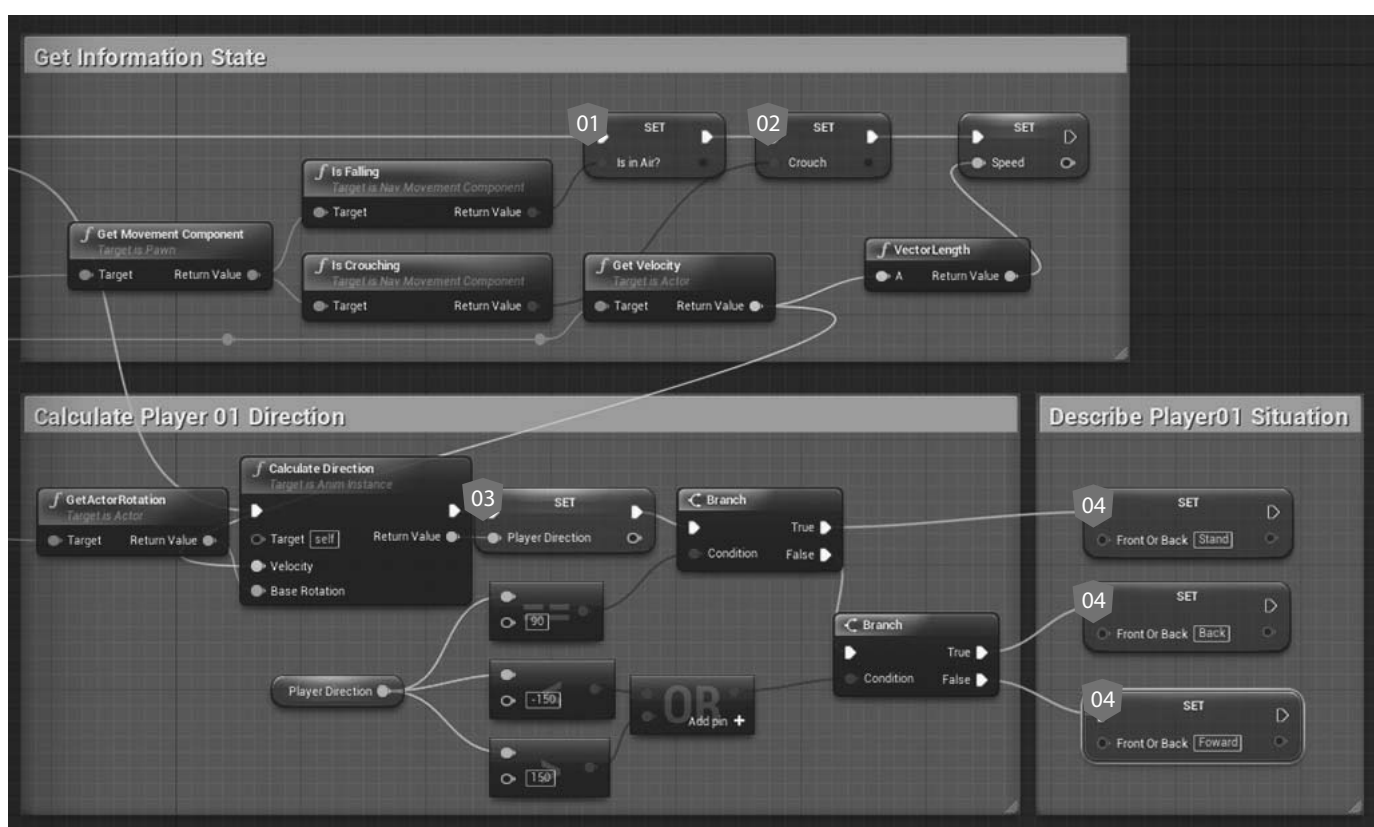
3-This action sets the animation of the character to your AnimaçãoBlueprint, generating scheduled animations with movement (front , back , crouch and jump )



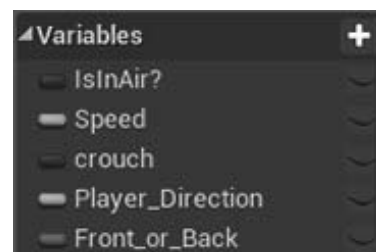
# UNDERSTANDING FILES: ANIMATION BLUEPRINT

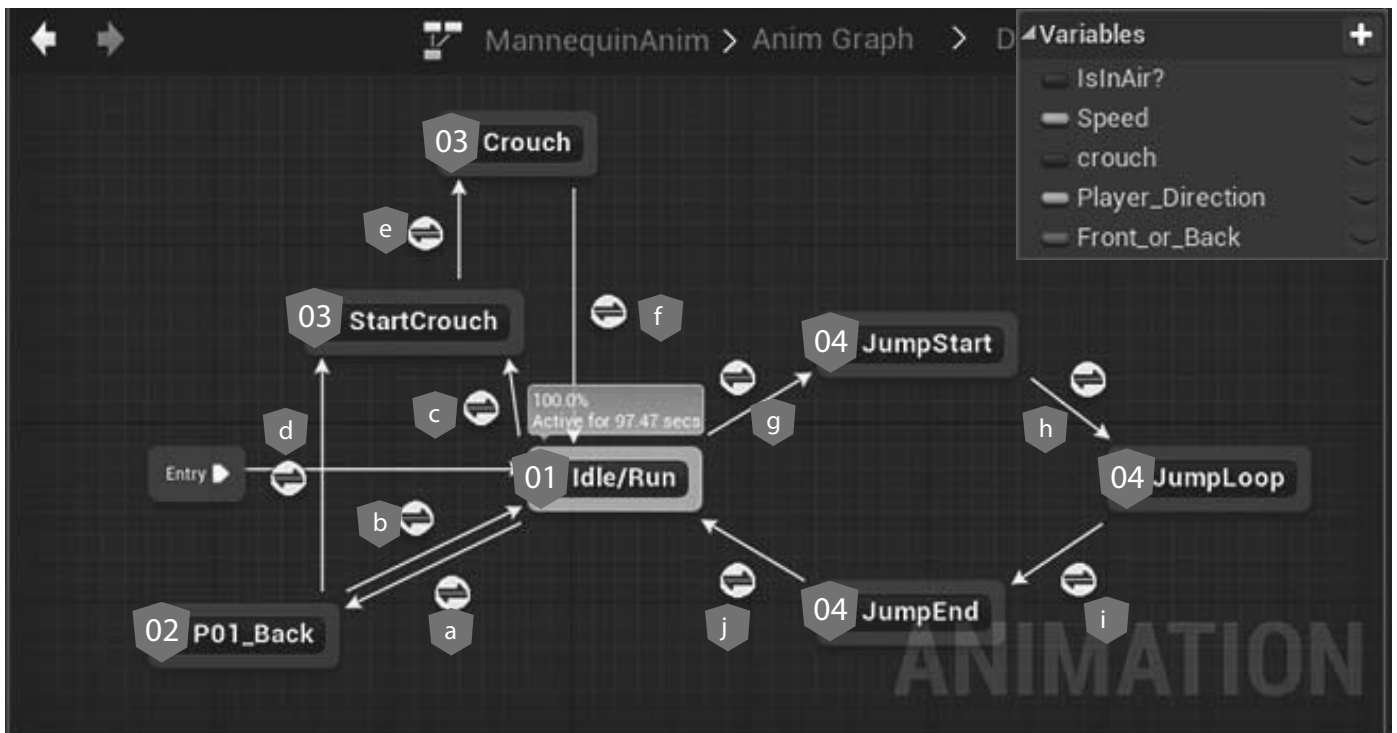


**MannequinAnim** - This Blueprint contains codes to recognize the character has to go forward or back. Both players are made of the same file. In this file is done calculating the distance and direction to set up if it is moving away or approaching.



- 1 - **Is in Air?** Used by Jump Animation
- 2 - **Crouch** - Use by Crouch Animation (activated by BP\_Global\_Controller)
- 3 - **Player Direction** - This variable carries the direction of the character based on the function "Calculate Direction"
- 4 - **Front or Back** - This variable translates through comparisons which the character's situation (Stand, Back, Forward)"





1- Idle/Run - Blend Space 1D (Idle, Walk, Run)

2- P01\_Back - Blend Space 1D (Idle, WalkBack)

3- StartCrouch/Crouch - (Crouch animation) This animation content all animation for crouch (idle/crouch)

4 - Jumpframes - Content all steps for jump. This animation is "default" for Mannequin (Unreal)

a-Speed >0.1 and Front\_or\_Back == Back

b. Speed <0.1 and Front\_or\_Back == Foward

c. & d.Crouch == yes!

e. Crouch == yes! and TimeRemainig 0.5

f. Crouch == Not

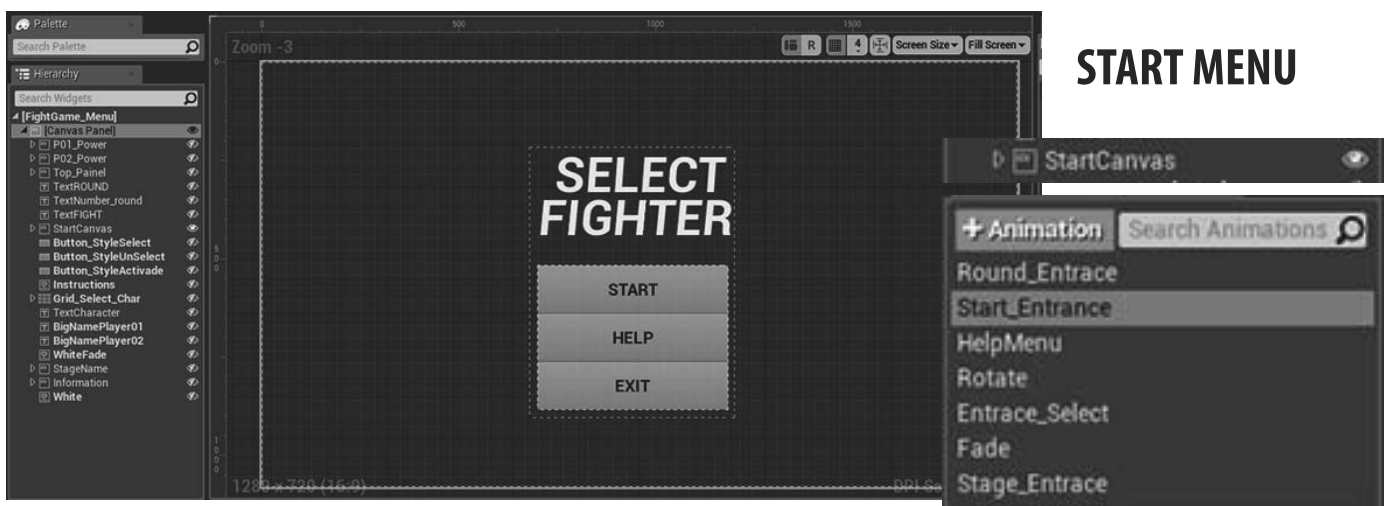
g. IsInAir==Yes

h.TimeRemainig < 0.1

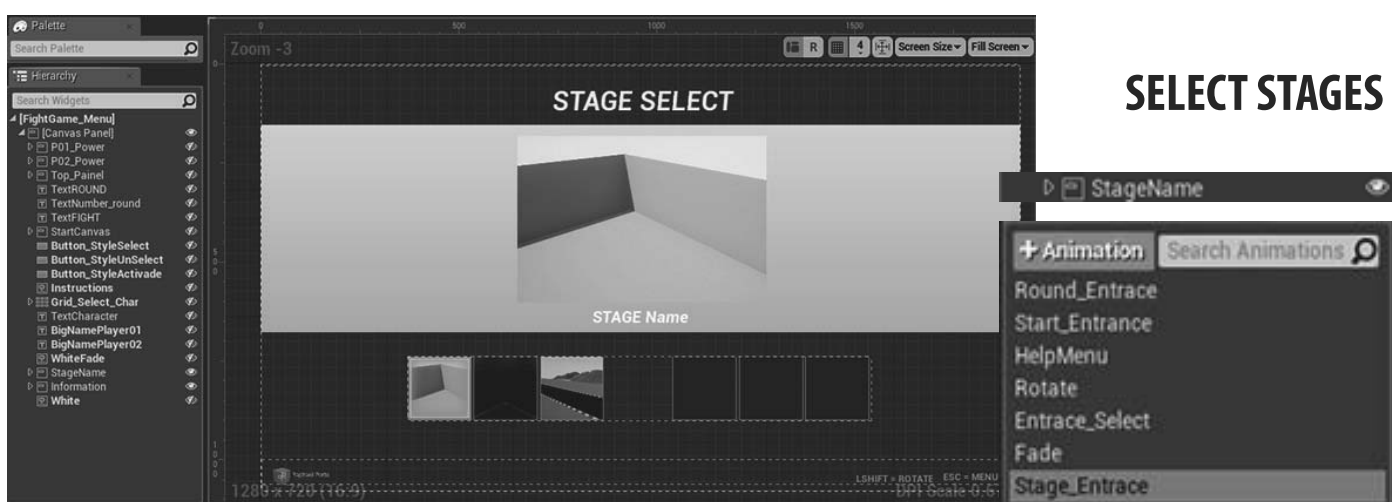
i IsInAir==Not

j. TimeRemainig < 0.1

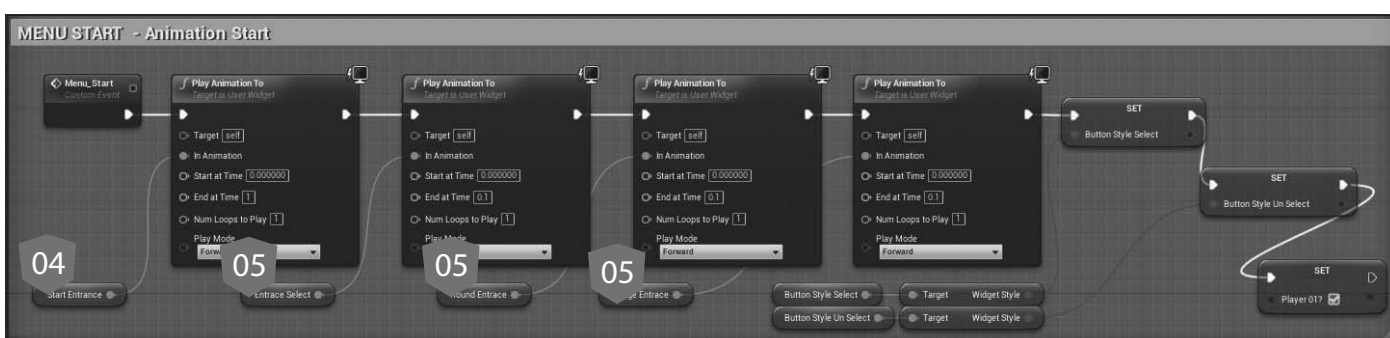
## UNDERSTANDING FILES: FIGHTGAME\_MENU (WIDGET)



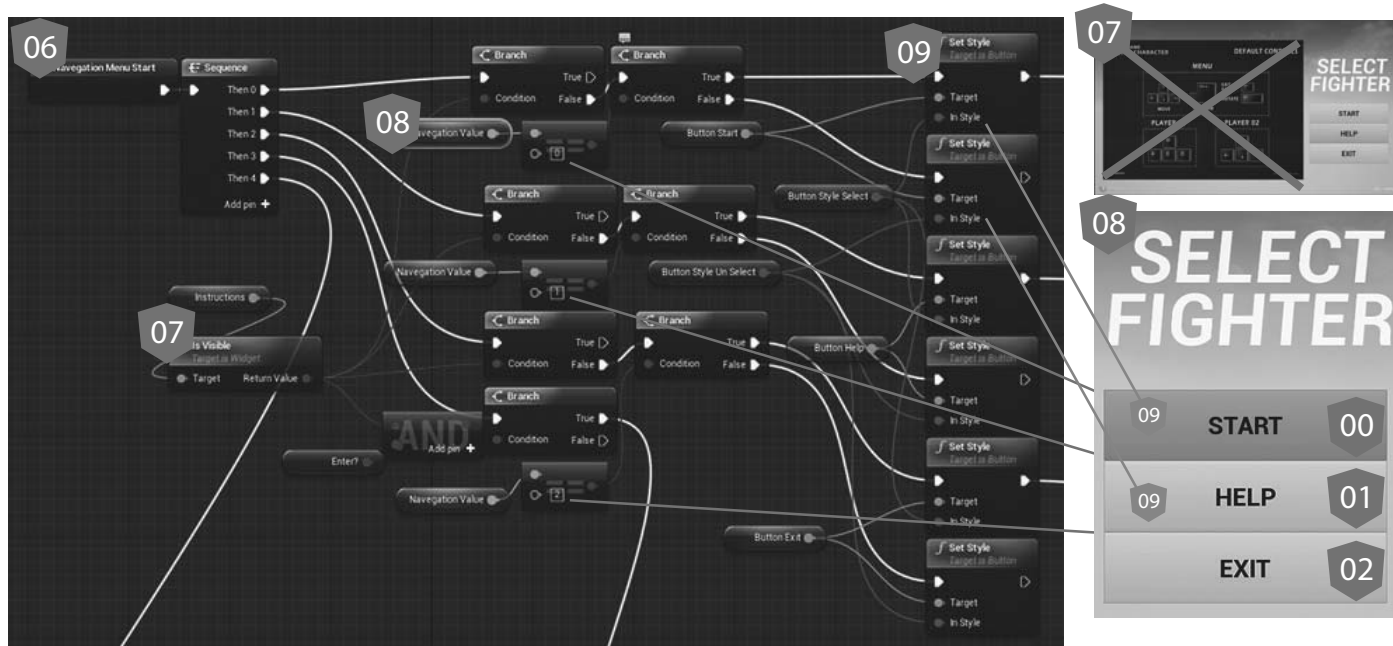
### START MENU



MENU START

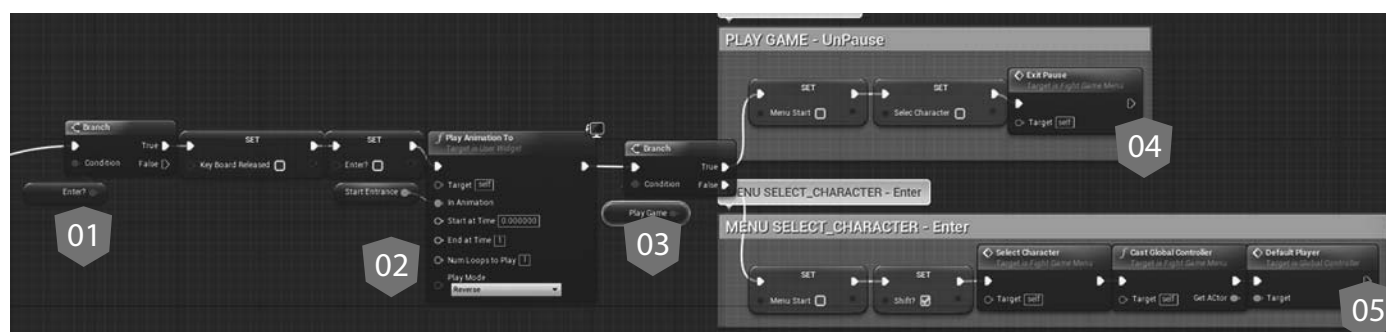


- 1- **MenuStart** - Function for begin AnimationEntrace
- 2-**LevelSelect**- Get "name" level do you used last time.
- 3- **LevelVisible- (Stage\_Menu)** If this level is Invisible == make visible
- 4 - **AnimationEntrace**- PlayAnimation
- 5 - **Other Animations** - Freeze other animation in Frame==1

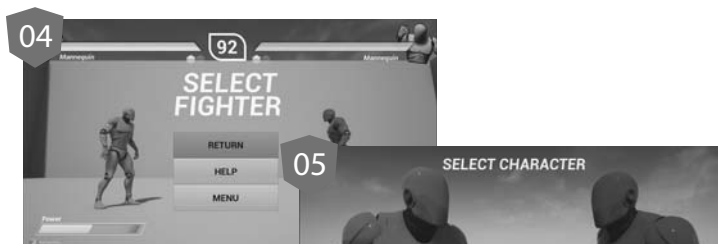


## CONTACT

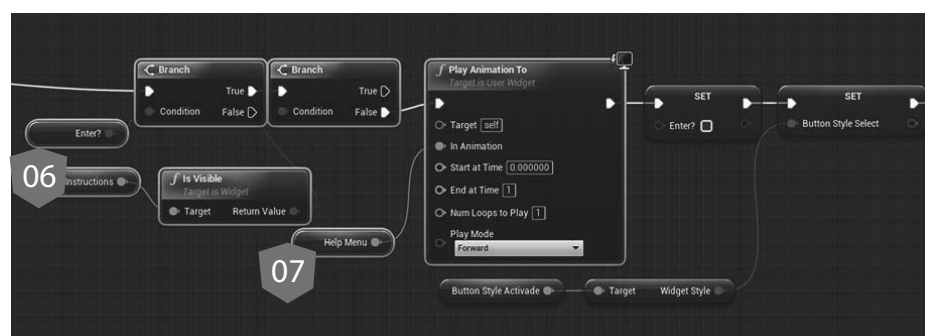
## MENU START - TRANSITION



- 1- **Enter** - Press ENTER your Keyboard
- 2- **StartEntrance** - Reverse animation
- 3- **PlayGame** - If true its just return for the gameplay, if not the menu change for SelectCharacter

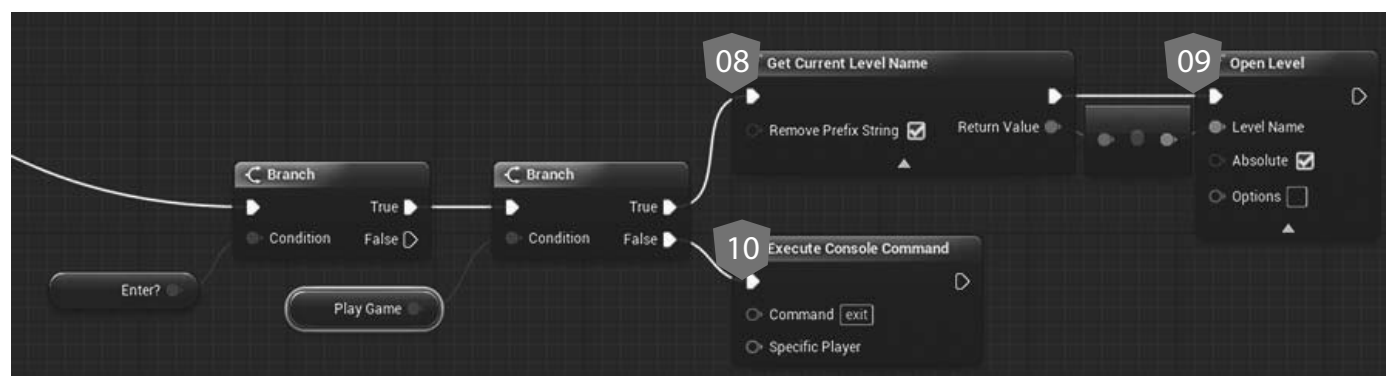


## MENU HELP



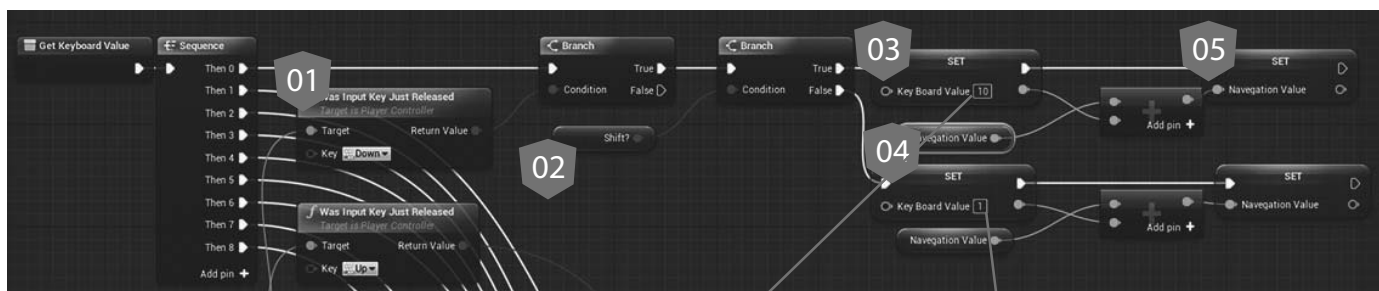
- 6- **Instructions** - Check if visible or not
- 7- **HelpMenu** - PlayAnimation
- 8- **CurrentLevel** - This function get current level (Play\_GameHere)
- 9- **OpenLevel** - Reset de level Project
- 10- **Command** - Exit the Project

## MENU EXIT



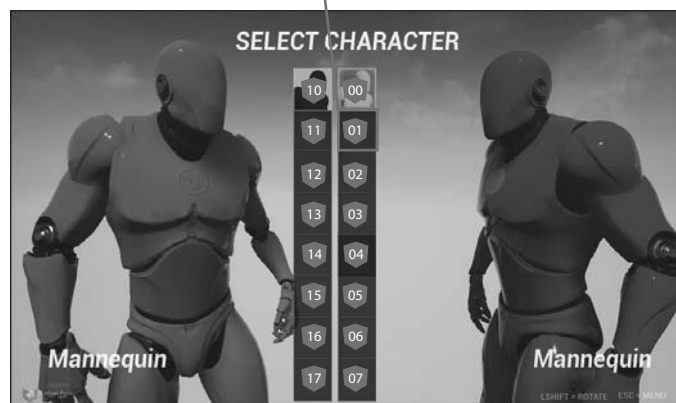
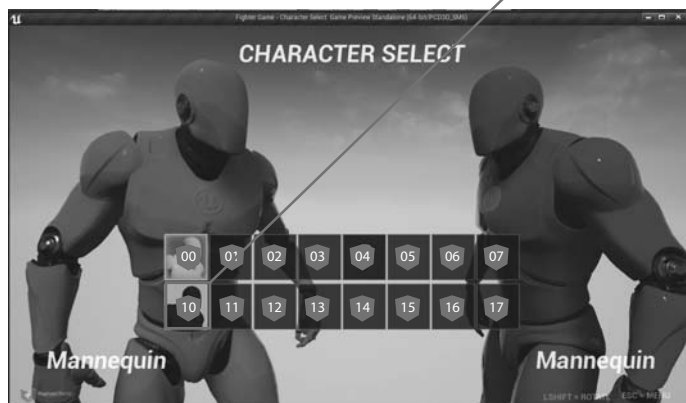
## CONTACT

## EVENT TICK - Get\_Keyboard\_Value

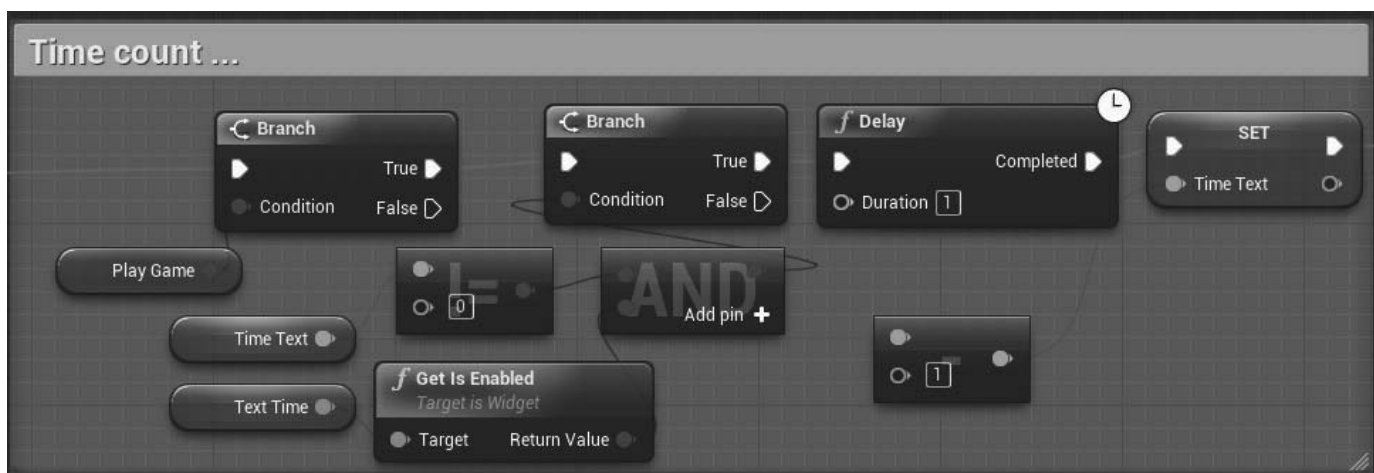


This function is responsible for navigation of all boxes of the widget. He has the sum of numbers to match the given position.

- 1- **InputKey**- Certain keyboard keys release certain commands (up,down,left,right,enter,shift and backspace)
- 2-**Shift**- Rotate the grid character
- 3- **KeyboardValue**- Value for current keyboard press
- 4 & 5 **NavigationValue** - the first carries the old value then sum the value of the keyboard



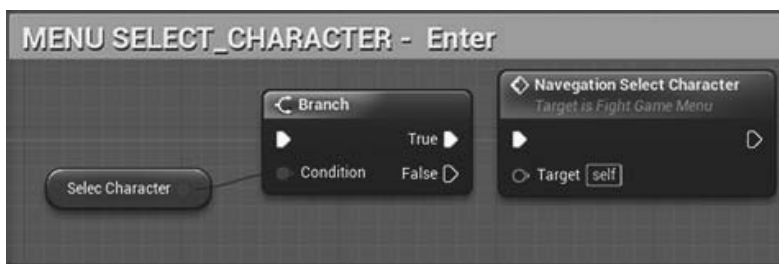
## EVENT TICK - Chronometer



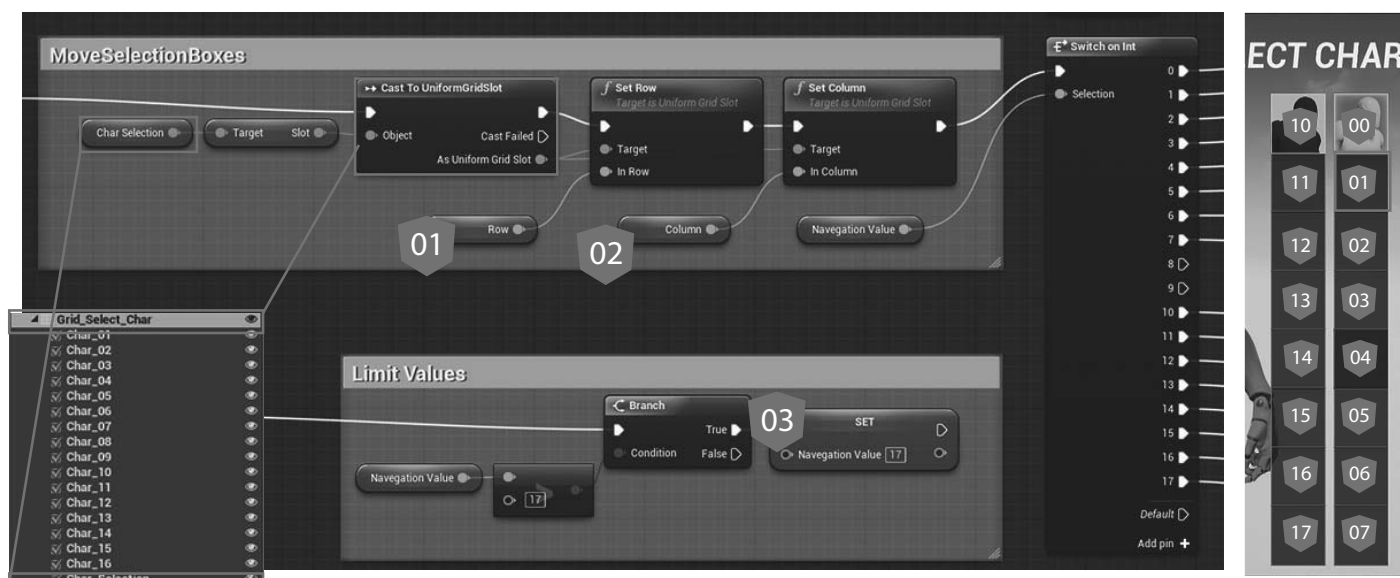
**Delay** - Every 1 second subtracts the value of time variable

## CONTACT

## SELECT CHARACTER



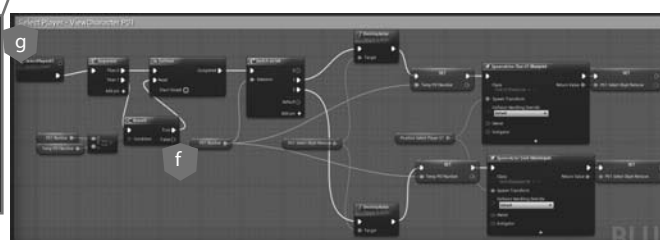
- 1- **RoW** - Load Char\_Selection where row it should be
- 2- **Column**- Load Char\_Selection where Column it should be
- 3- **NavigationValue**- Limit 17 boxes (you can change for more or less)



## Determine which character to play

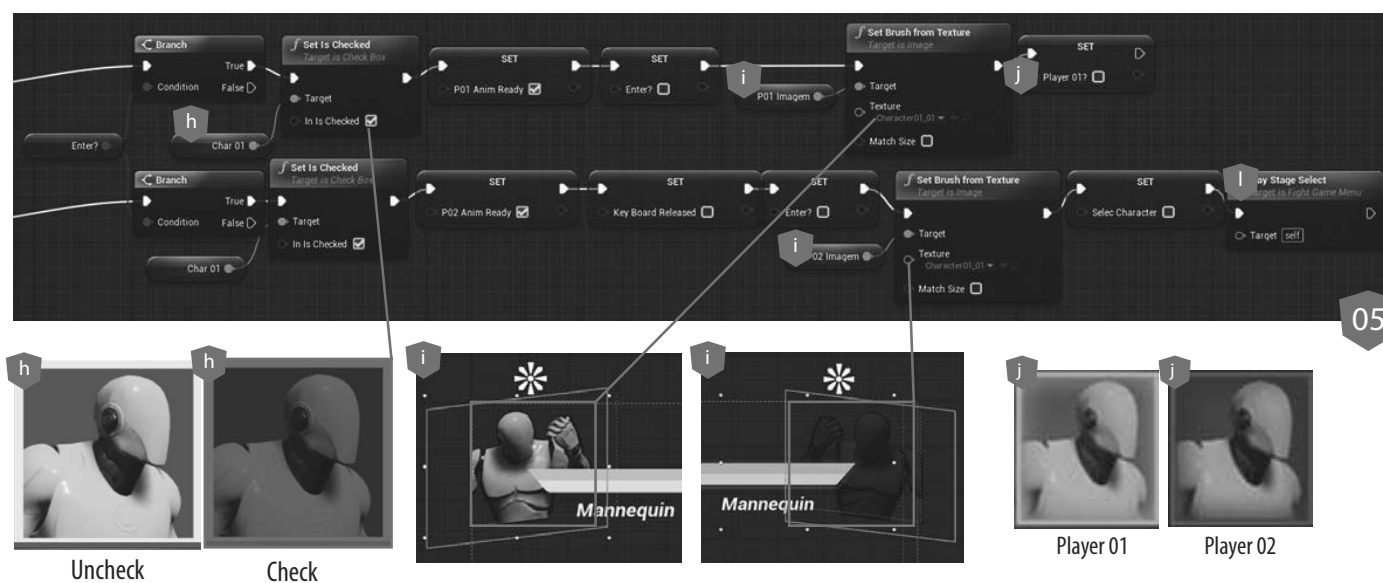


- a- **RoW** - Set Char\_Selection where row it should be
- b- **Column**- Set Char\_Selection where Column it should be
- c- **Player**- who will be selected the player 01 or 02



## CONTACT

## SELECT CHARACTER



## I SELECT STAGE



## CONTACT

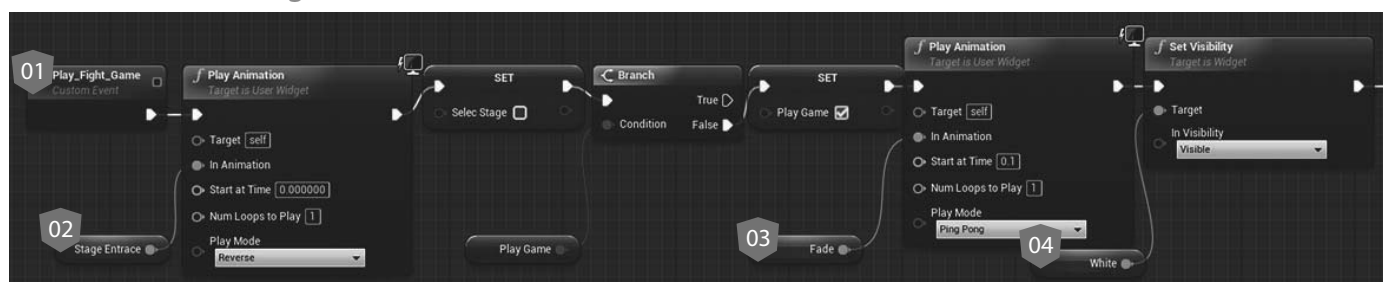


Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>

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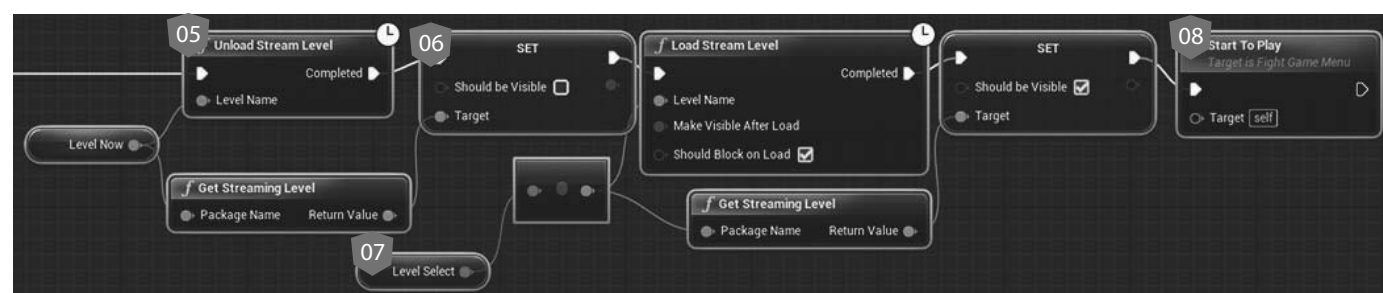


## PLAYGAME - Start Fight



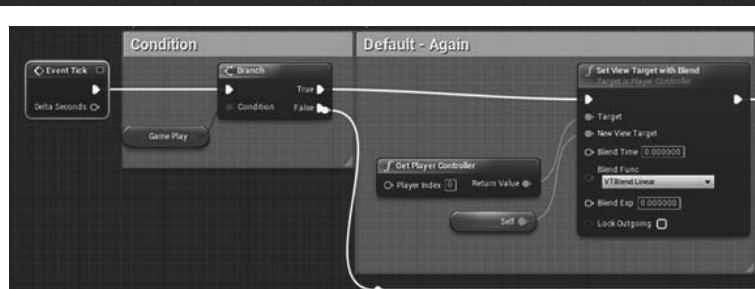
**1- Play\_Fight\_Game** - Function for close all stage and load Playgame  
**2- Stage Entrance** - Reverse Animation "Stage"

**3 Fade** - Animation made to cover the transition from game  
**4-White** - White Screen



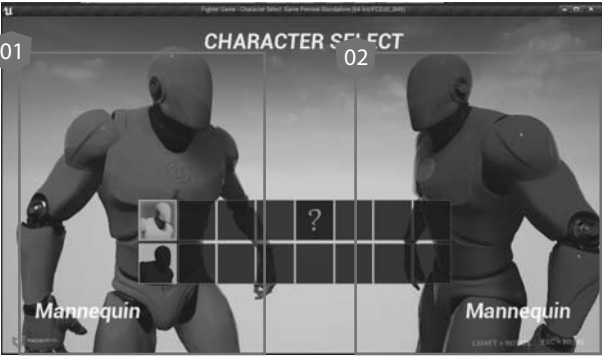
**5- Unload StreamLevel** - Release memory for level (Stage\_Menu)  
**6- LevelVisible** - Hide the Level of Menu

**7 LevelSelect** - variable that contains the name selected in the menu



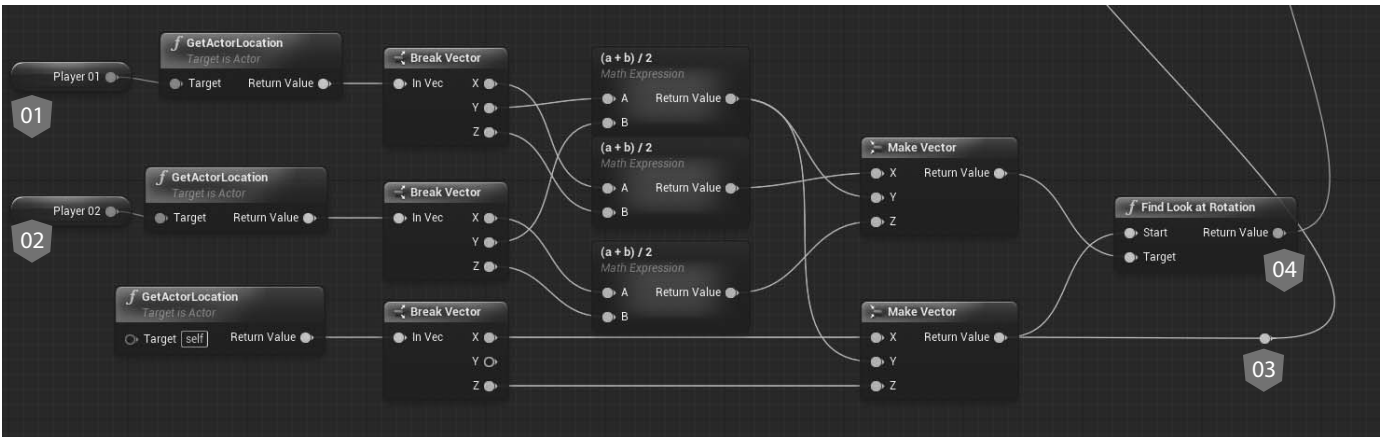
**7 LevelSelect** - variable that contains the name selected in the menu

## UNDERSTANDING FILES: BP\_CAMERAMASTER

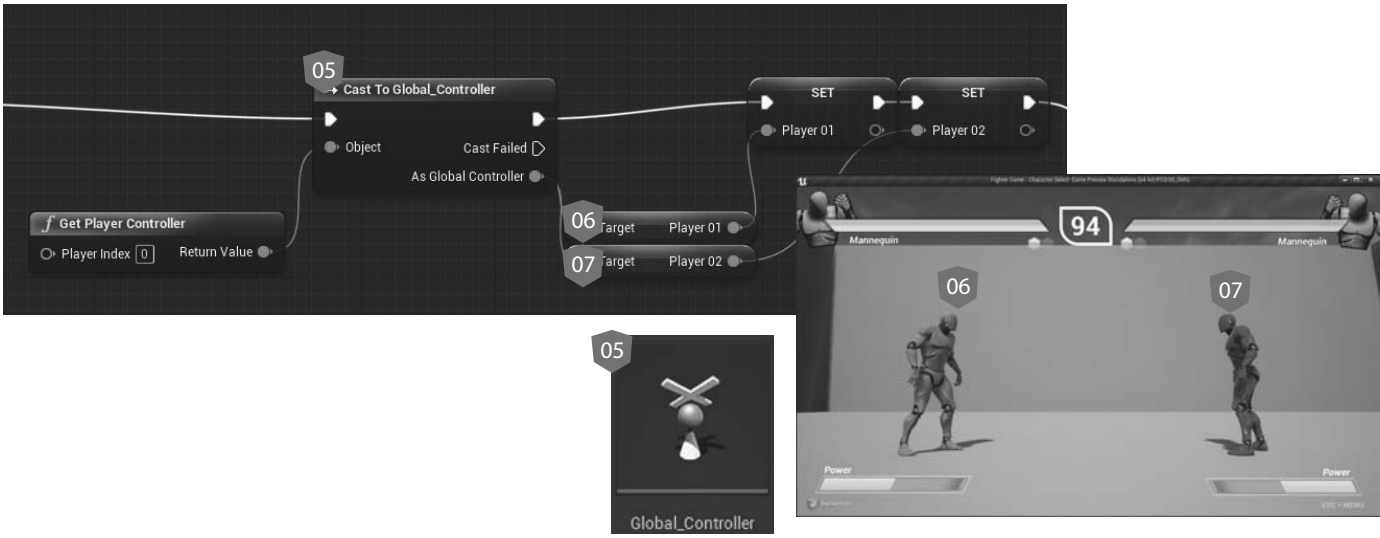


**BP\_CameraMaster** - This camera is positioned according to its variables **Player01** and **Player02** . Its displacement occurs when the two characters are confirmed.

## CODE: Get middle of two points



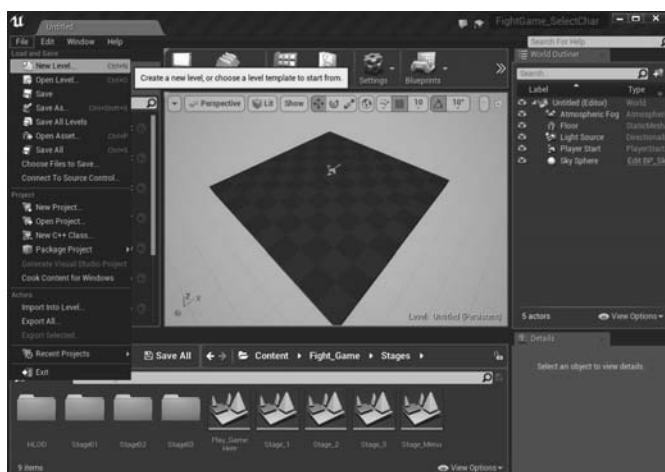
## PLAY GAME



## CONTACT

# CREATE YOUR STAGE

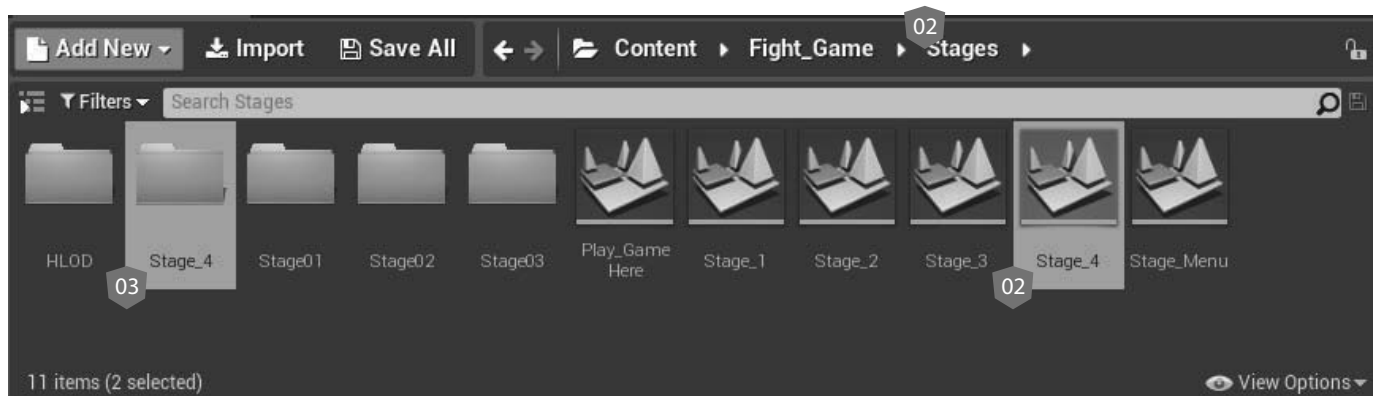
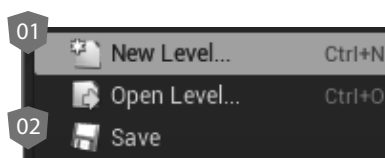
## Create a new Level



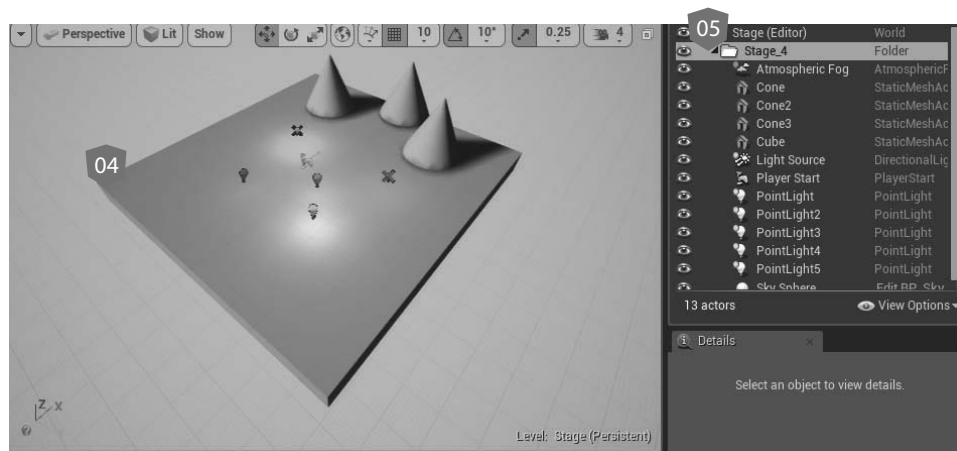
**1 - NewLevel** - You can create a level empty or migrate one you want. In this example I will do a basic empty level.

**2 - Save** - Save your level and move to folder "Stages"

**3 - Folder** - Create folder "Stage\_4". All element in stage put in this folder.



## Detail your Level

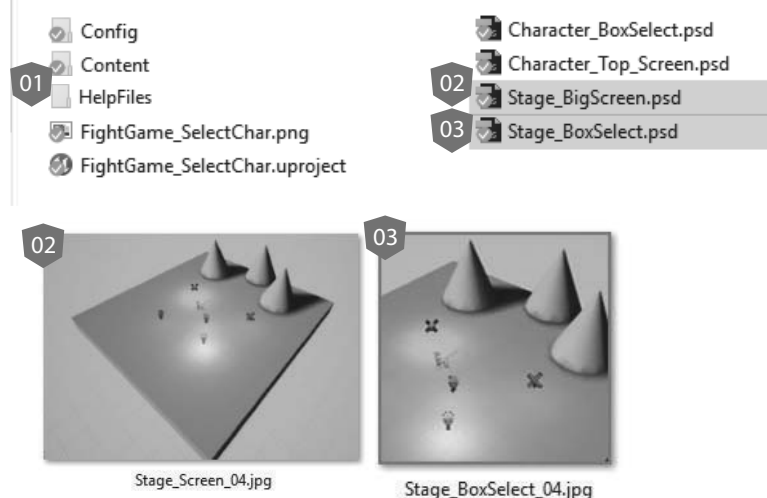


**4- Details** - I use simple light and simples forms (example)

**5 - Folder** - Create folder "Stage\_4" and put all files of stage inside for organization!

## CONTACT

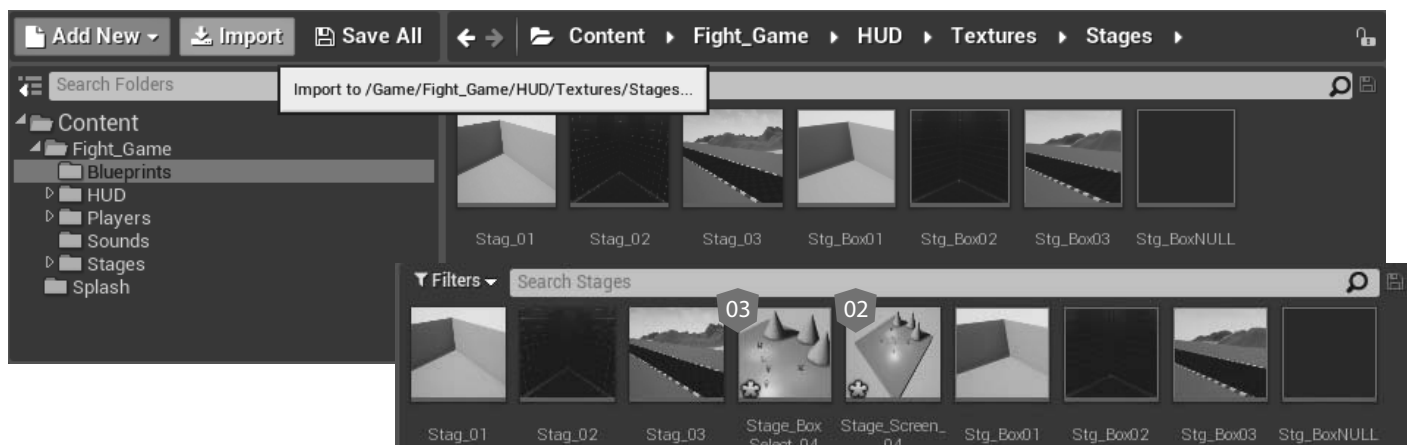
## Support files - Outside the project



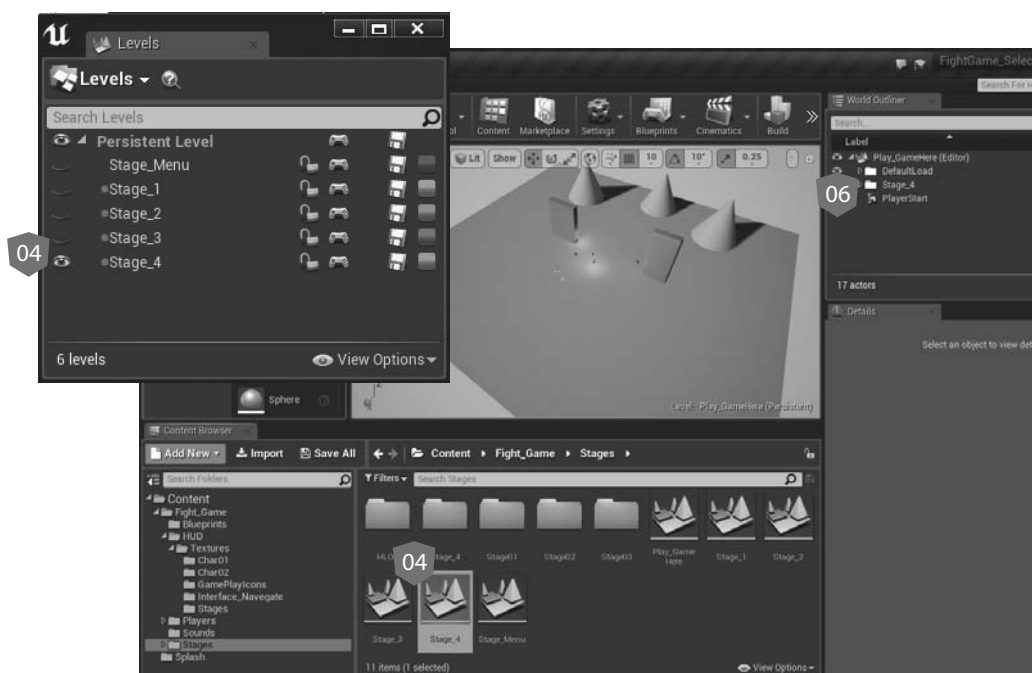
**1SupportFiles-** This folder contains extra content for those who want to generate project size images. It is not mandatory. It must produce two files.

**2 & 3 Images** - These images are to be inserted in the selection menu

**Import** - In the Content Browser click the **Import** button to Content folder > Fight\_Game > HUD > Textures> Stages



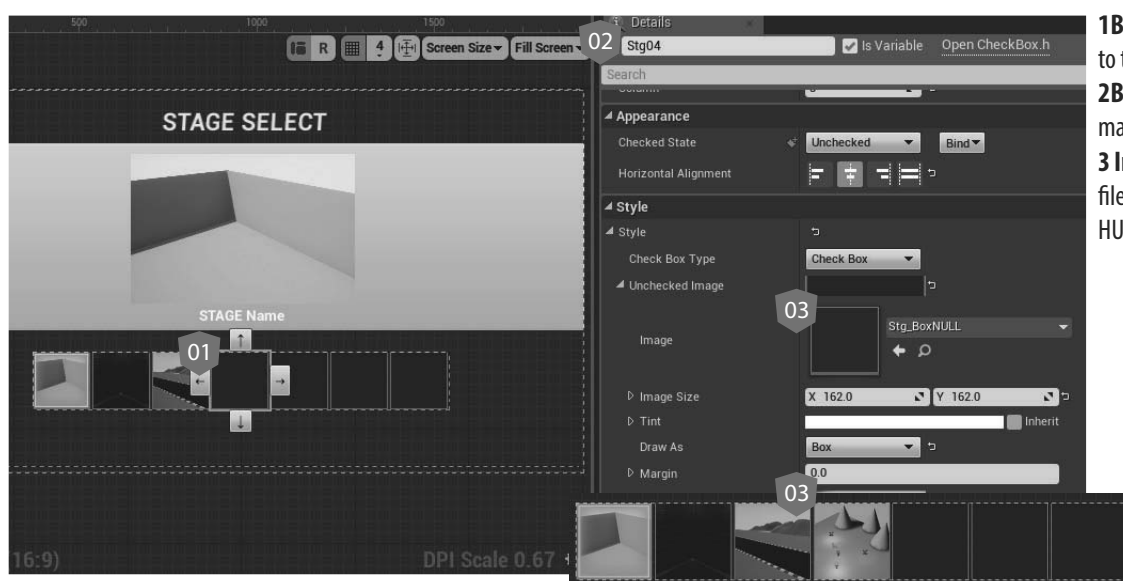
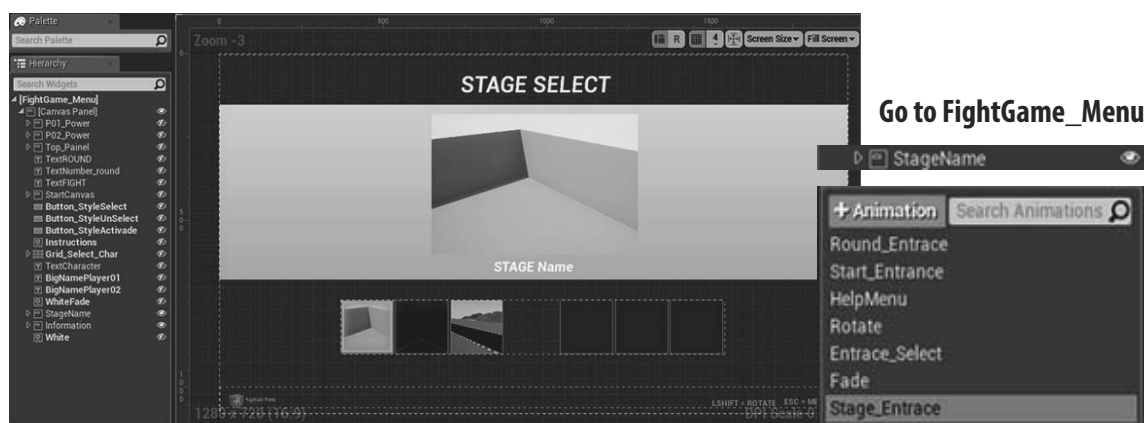
## Put in main Level



**4 Stage\_4-** Drag and drop with the mouse the stage\_4 in windows Levels. Closed the eye Stage\_Menu and open Stage\_4

**5 Folder** - Select all objects of this folder and place so that the walls of the main level allows viewing your scenario . Remember that the camera will be positioned between them.

## FightGame\_Menu - Insert your level



**1BoxGrid**- Click the box corresponding to the fourth sequence .

**2Box Name** - Verify that the name matches the box you want.

**3 Import**- Find and place corresponding file to this format > Fight\_Game > HUD > Textures> Stages

## Graph Insert your name level



**4 Navegation\_SelectStage** - Find this Function and Enter

**5 Column** - Check number "3" for your new sequence code

**6 Copy/Paste**- ICopy the code "Column 2" and connect to Colum 3 and Function StartPlayGame

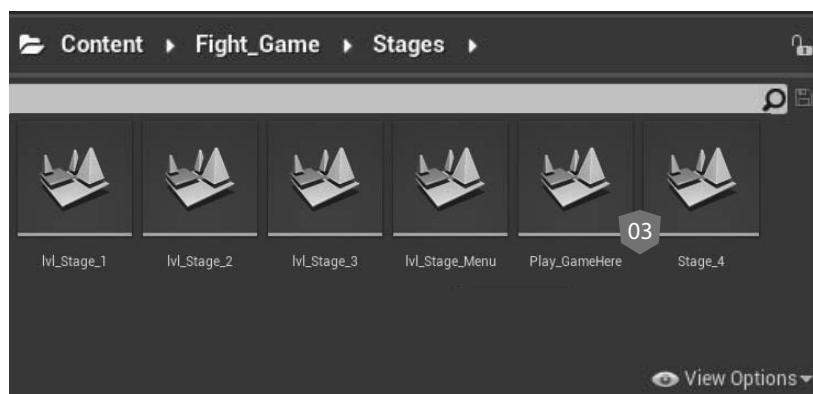
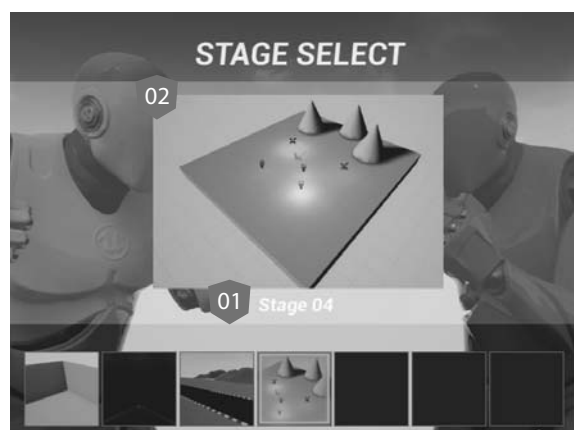
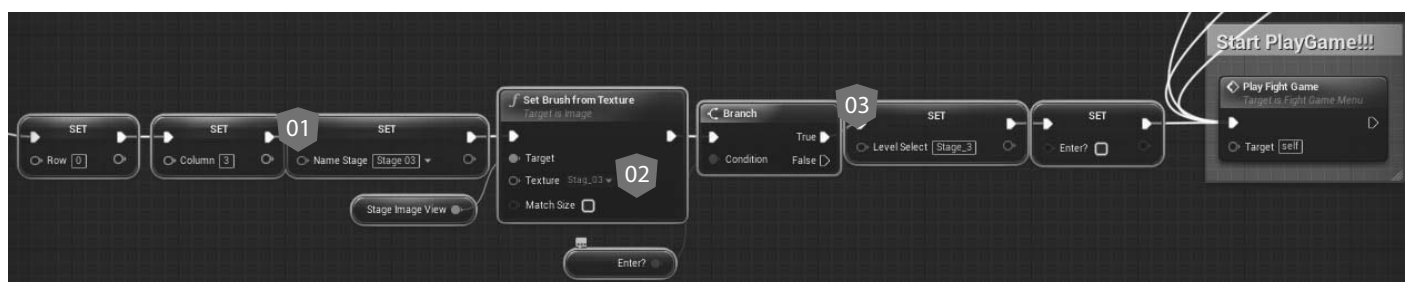
## CONTACT



Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>

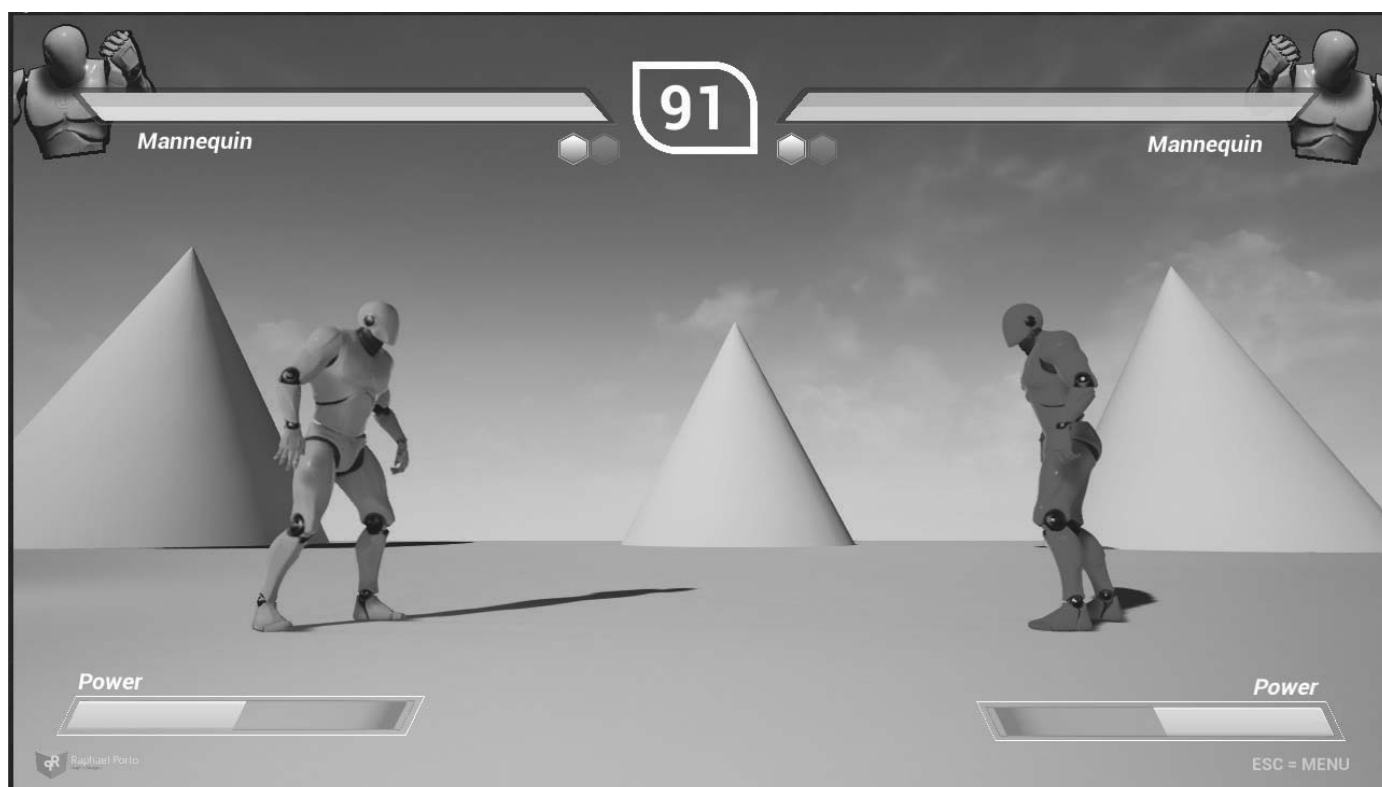
 [raphaelporto.portfolio@gmail.com](mailto:raphaelporto.portfolio@gmail.com)

Final



**Check Names !!!**

**CONGRATULATIONS !!!**



**CONTACT**



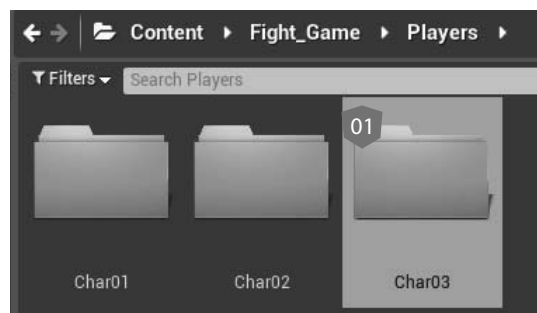
Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>



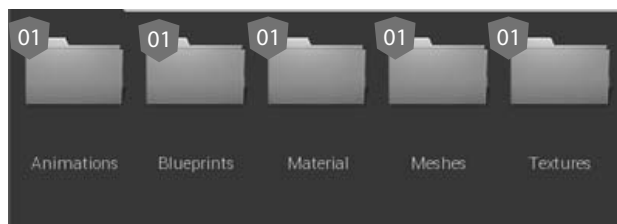
[raphaelporto.portfolio@gmail.com](mailto:raphaelporto.portfolio@gmail.com)

# CREATE YOUR CHARACTER

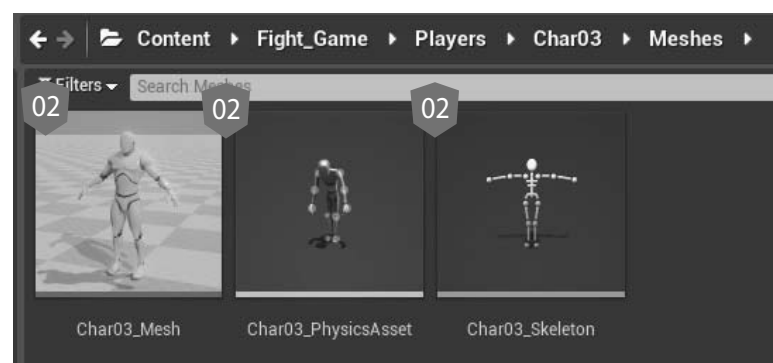
Files do you need!



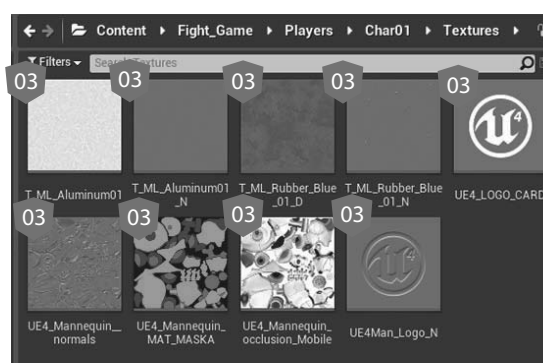
**1 - Folder-** First step is organization. Create the Char03 folders> Animations > BluePrints > Material > Meshes > Textures



Meshes



Textures

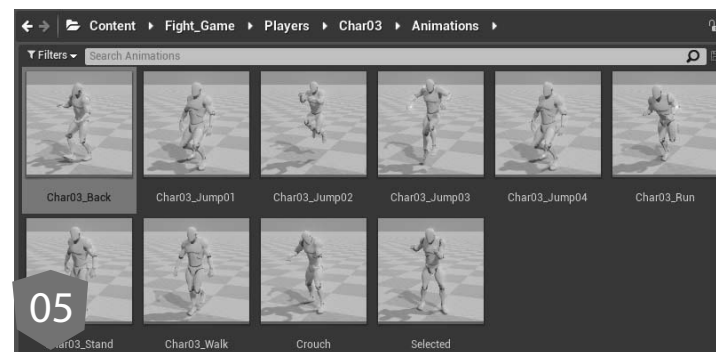


**2 Import Mesh** - Import your character (.FBX) and check that the **three** files are present **3 Textures** - Import texture for your character

Material



Animations



**4 Material** - Remember you may need to create two materials to create your character with another color!

**5 Animation-** Basic Sequence:

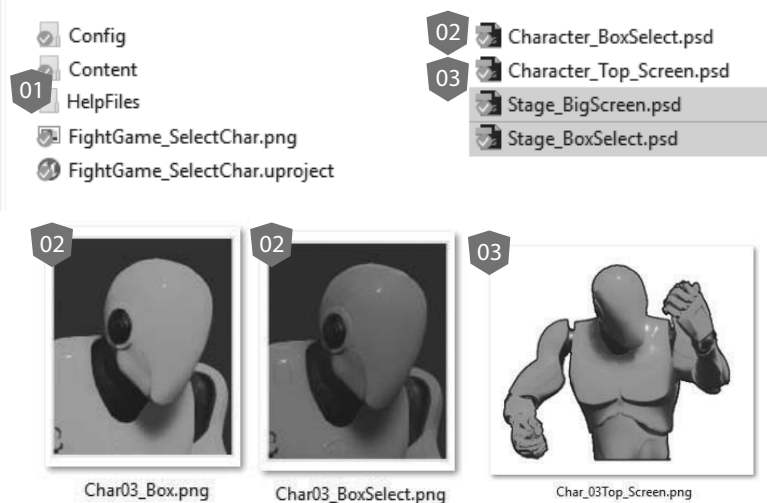
- a. Stand
- b. Walk
- c. Back
- d. Crouch
- e. Ready
- f. Jump 1/2/3/4

CONTACT

Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>

✉ [raphaelporto.portfolio@gmail.com](mailto:raphaelporto.portfolio@gmail.com)

## Support files - Outside the project

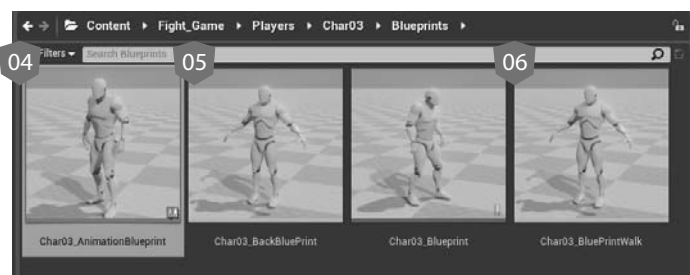


**1SupportFiles**- This folder contains extra content for those who want to generate project size images. It is not mandatory. It must produce two files.

**2 & 3 Images** - These images are to be inserted in the selection menu

**Import** - In the Content Browser click the **Import** button to Content folder > Fight\_Game > HUD > Textures> Char03

## Blueprint - AnimationBluePrint



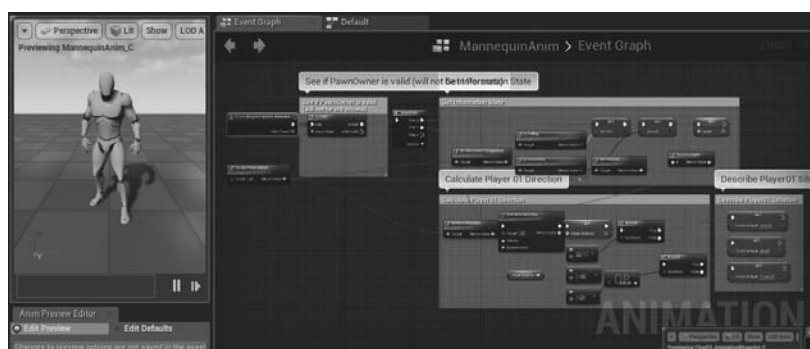
4 Animation Blueprint

5 & 6- Blend Space1D

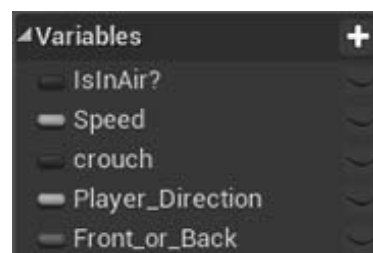


Animation Back

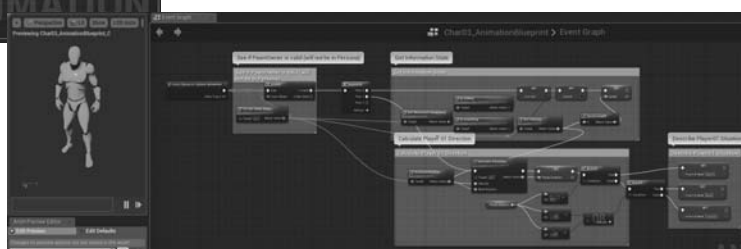
Animation WalkRun



Copy the Code Char01 and Paste Char03

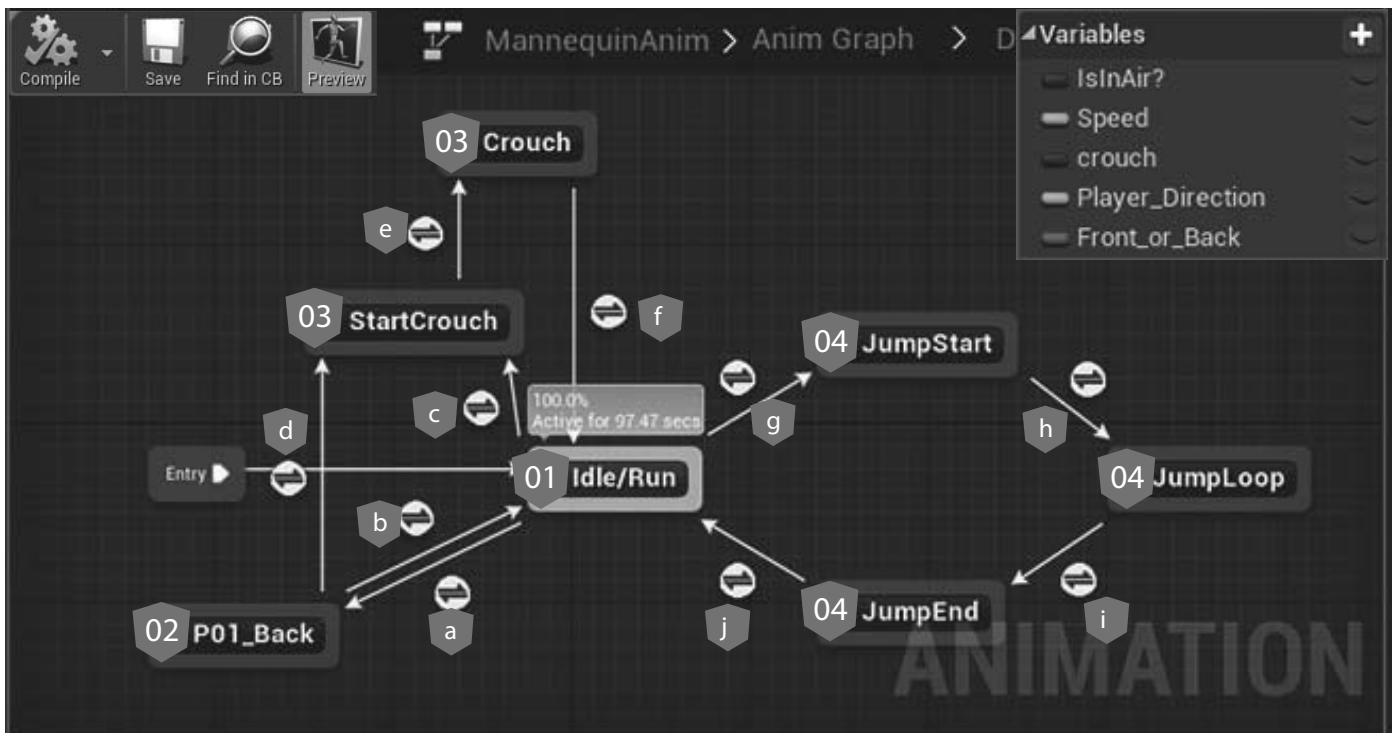


Create "Same" Variables Char01





## CHANGE ALL ANIMATION AND TEST BUGS



1- **Idle/Run** - Blend Space 1D (Idle, Walk, Run)

2- **P01\_Back** - Blend Space 1D (Idle, WalkBack)

3- **StartCrouch/Crouch** - (**Crouch animation**) This animation content all animation for crouch (idle/crouch)

4 - **Jumpframes** - Content all steps for jump. This animation is "default" for Mannequin (Unreal)

a-Speed >0.1 and Front\_or\_Back == Back

b. Speed <0.1 and Front\_or\_Back == Forward

c. & d. Crouch == yes!

e. Crouch == yes! and TimeRemaining 0.5

f. Crouch == Not

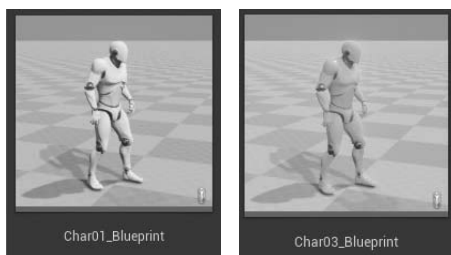
g. IsInAir==Yes

h. TimeRemaining < 0.1

i IsInAir==Not

j. TimeRemaining < 0.1

### Char03 Animation Blueprint



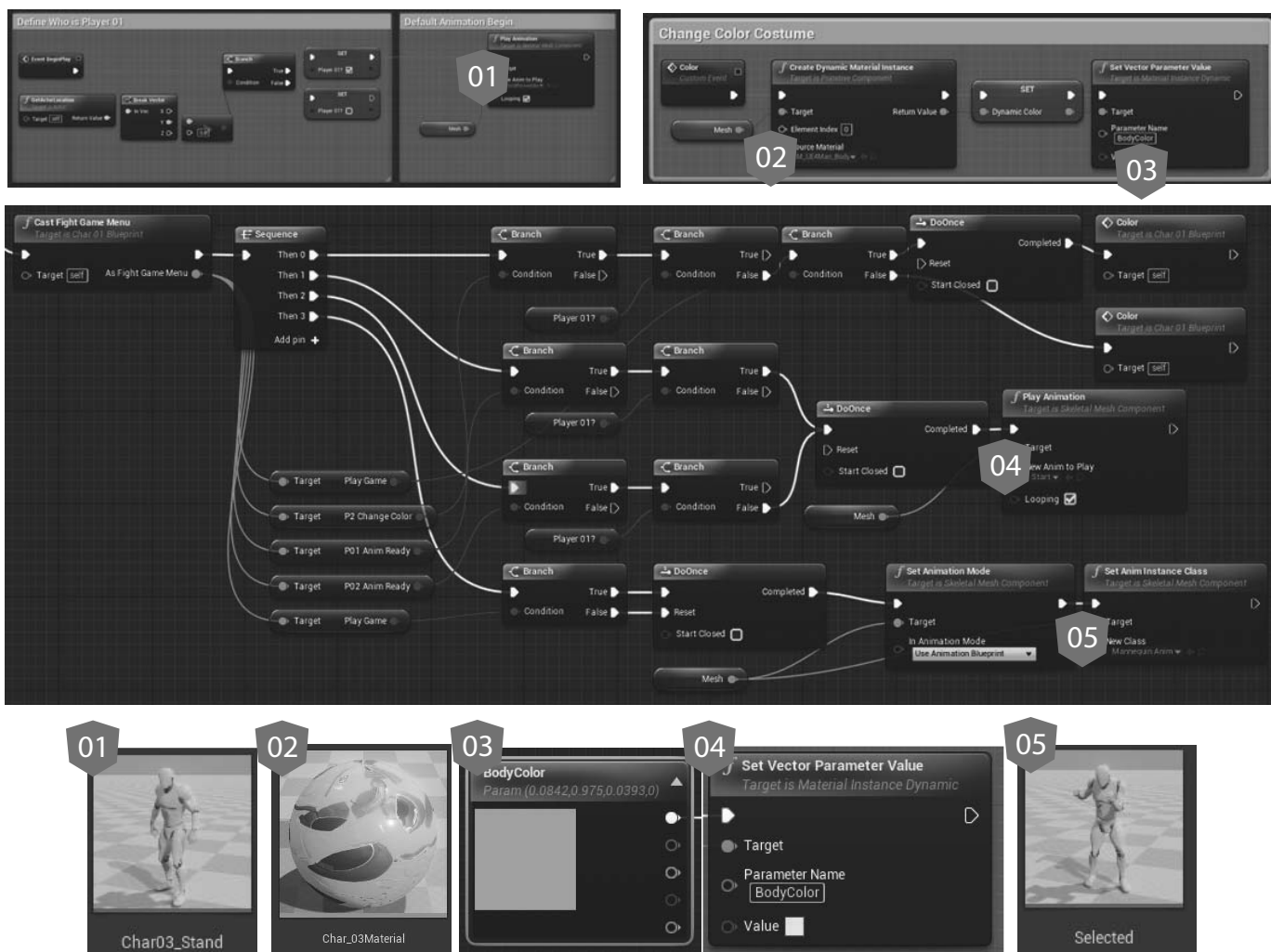
ORIGINAL

COPY

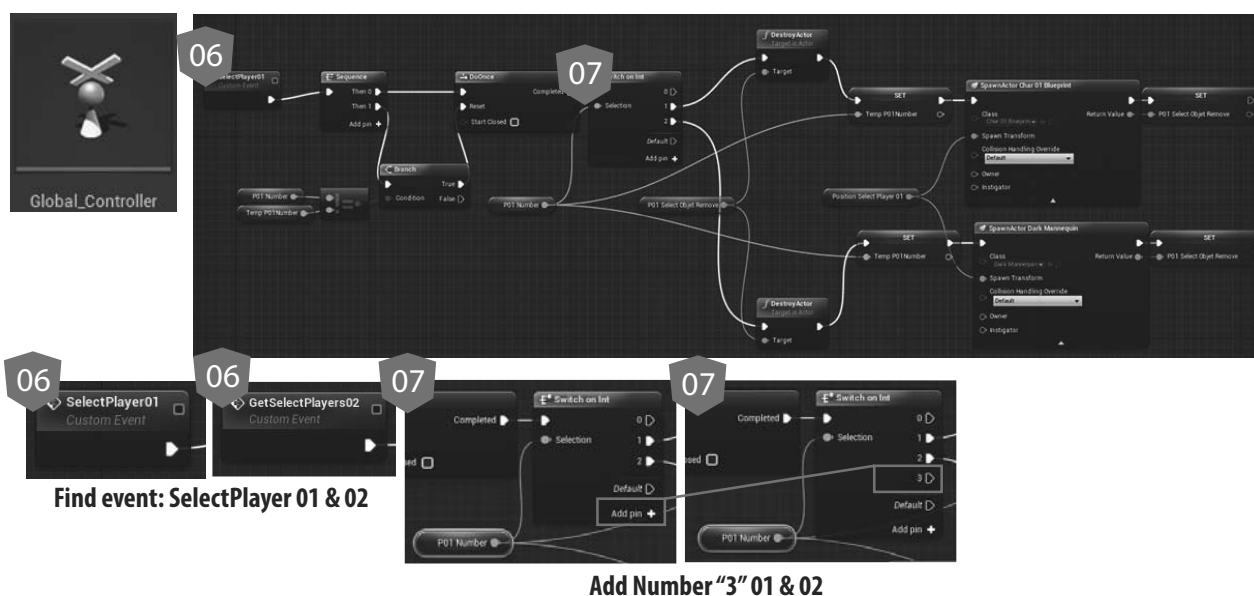
### COPY SAME INFORMATION!!!



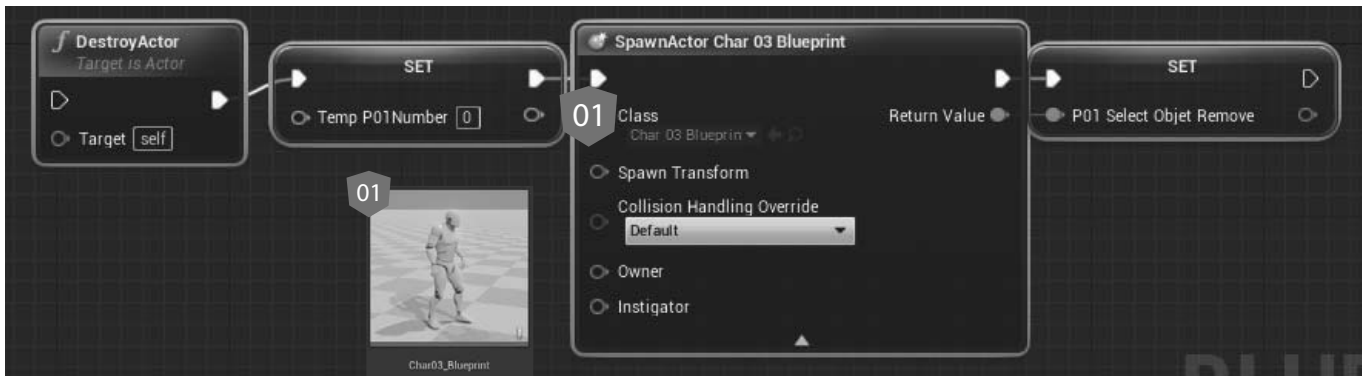
## INSERT VALUES BASE THE NUMBERS



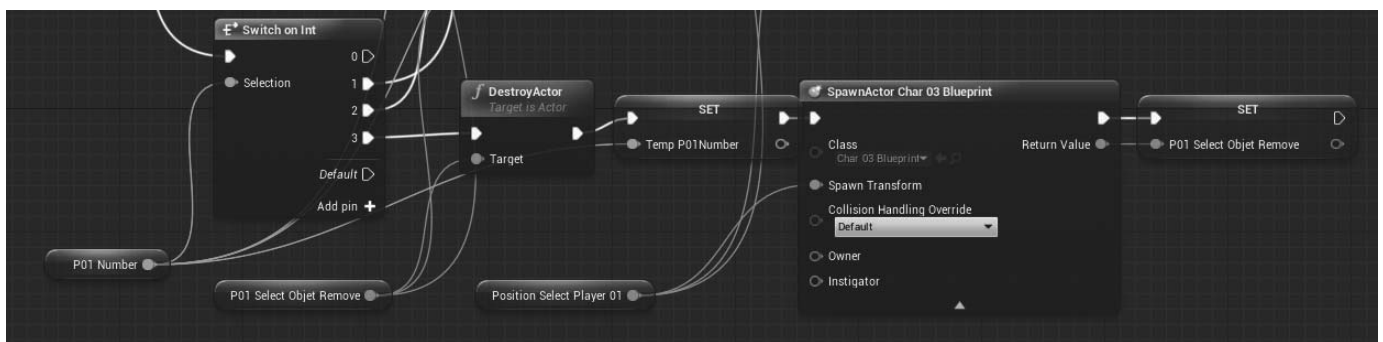
## Change BP\_Global\_Controller



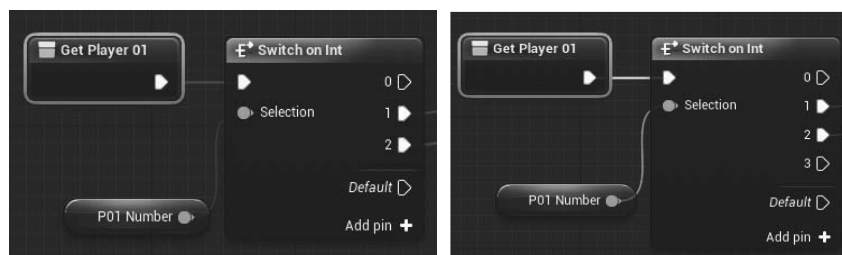
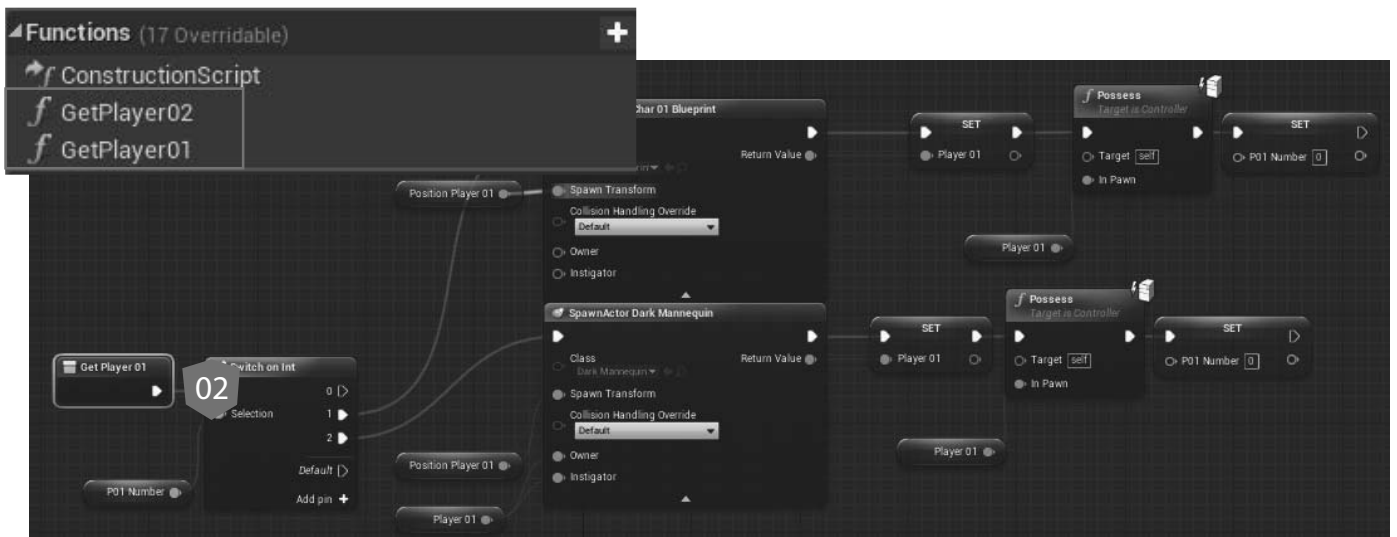
## Copy these sequence



Conect = "Switch 03" // "P01Number" // "P01 SelectObjectRemove" // "Position Select Player 01" ///SAME PLAYER 02!!!

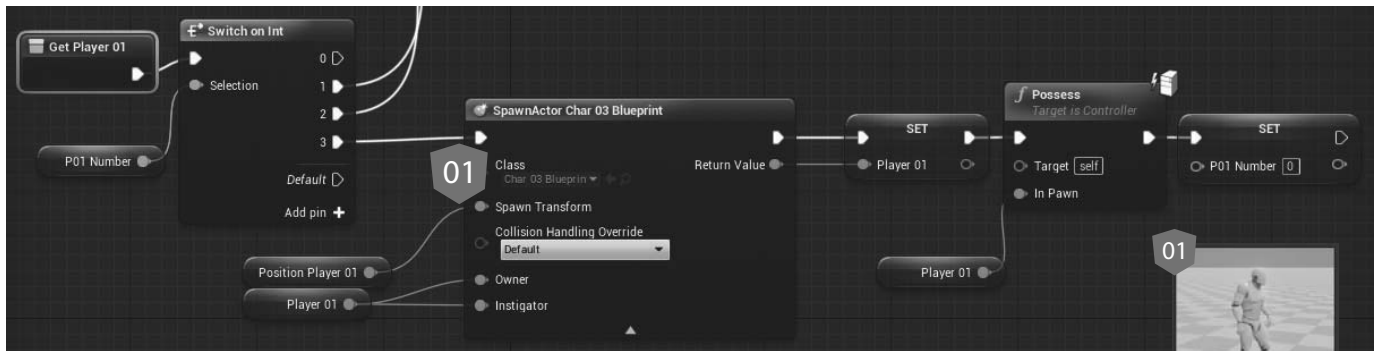


## Change this Functions SAME WAY!!!



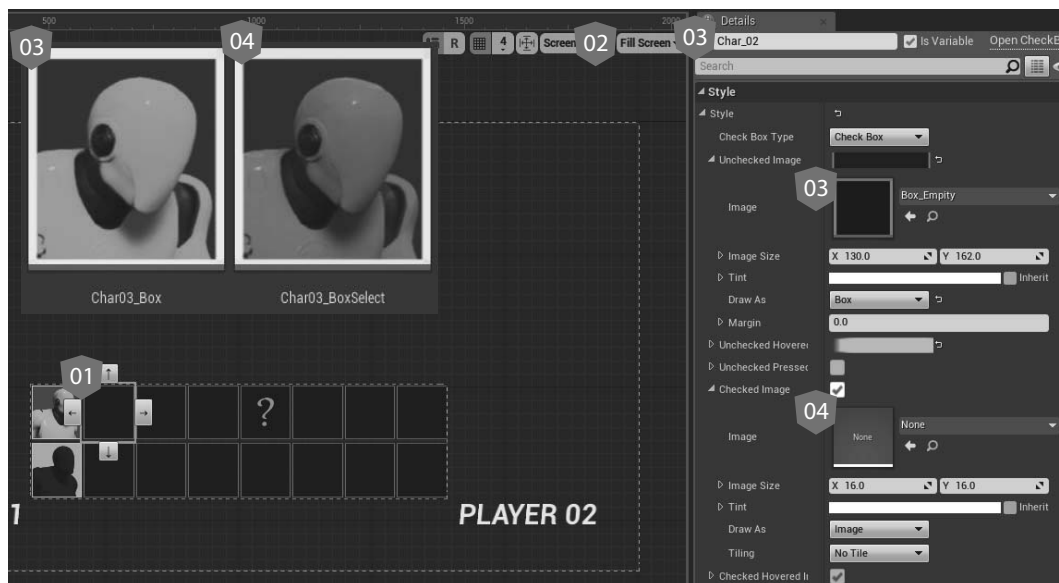
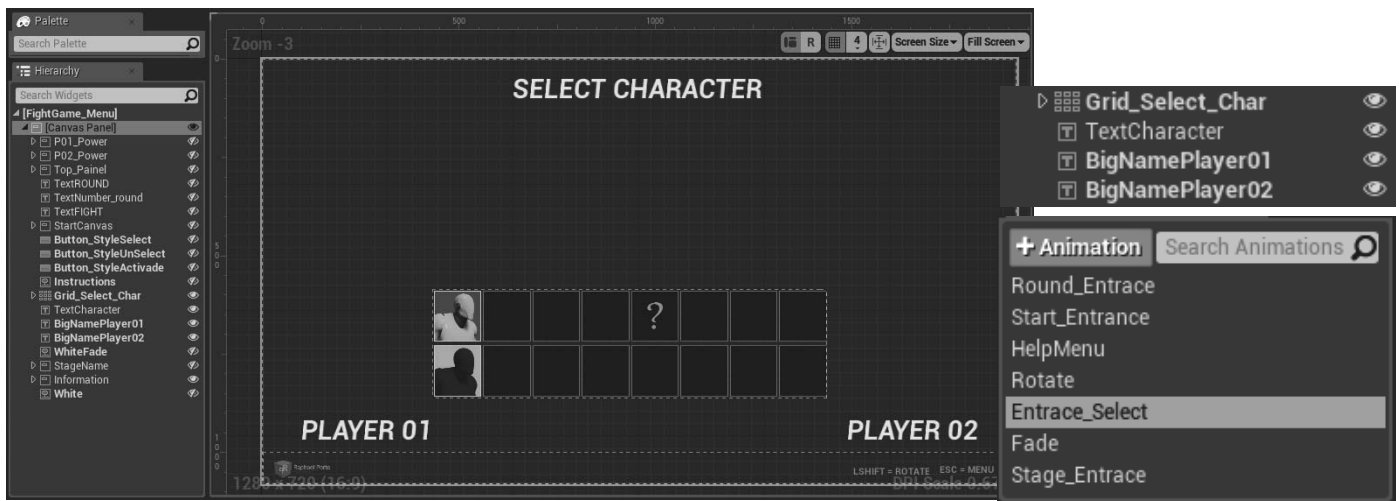
Add Number "3" 01 & 02

## CHANGE ALL PARAMETERS AND TEST BUGS



Copy Sequence and conect = "Switch 03" ///SAME PLAYER 02!!! (Get Player02)

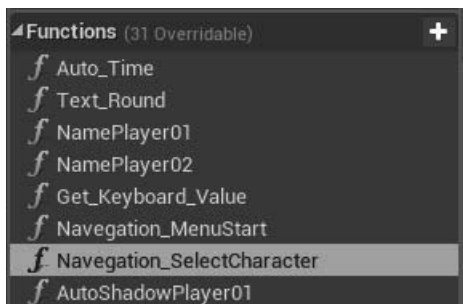
Widget\_FightGame\_Menu - Insert your level



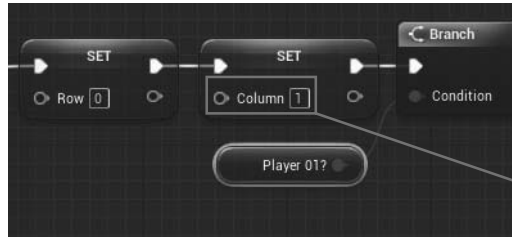
**1BoxGrid** - Click the box corresponding to the fourth sequence .

**2Box Name** - Verify that the name matches the box you want.

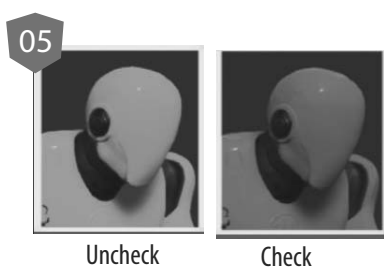
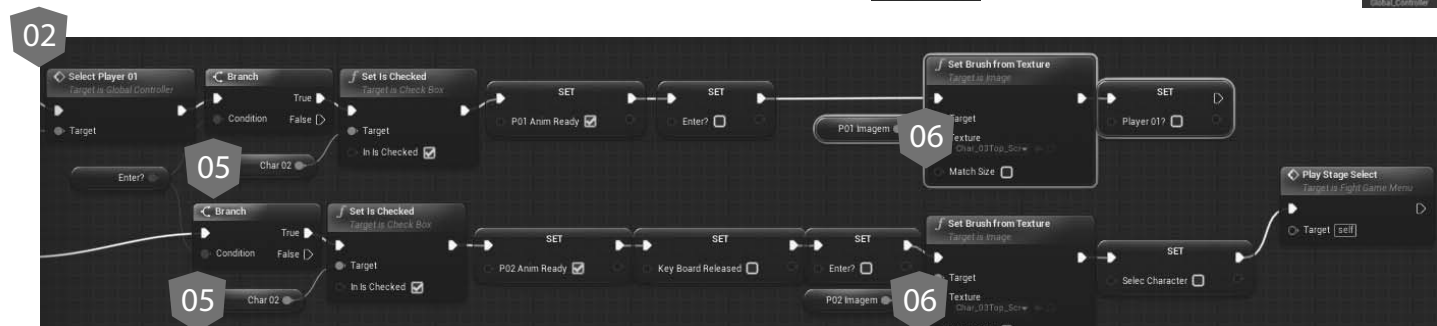
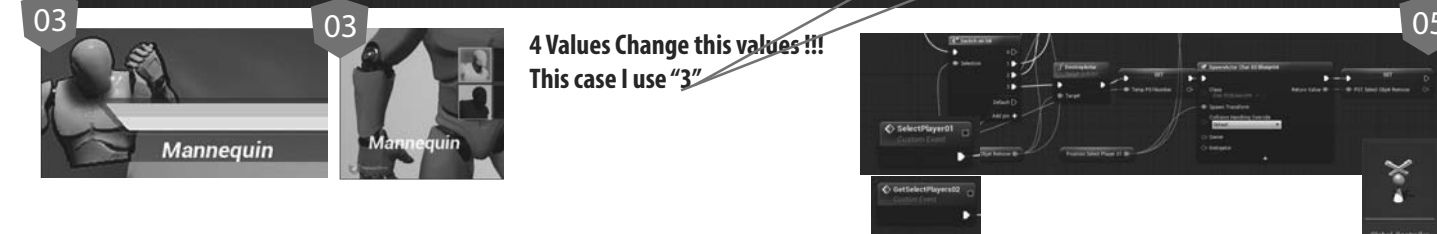
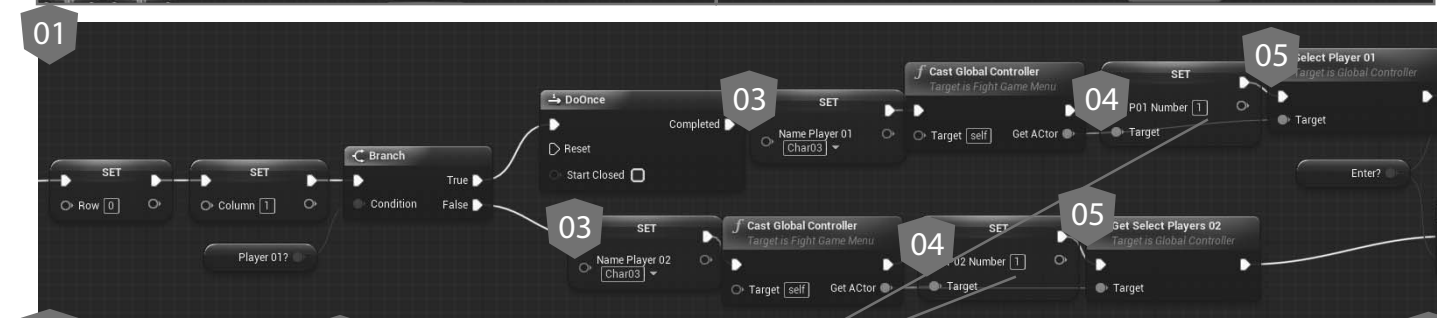
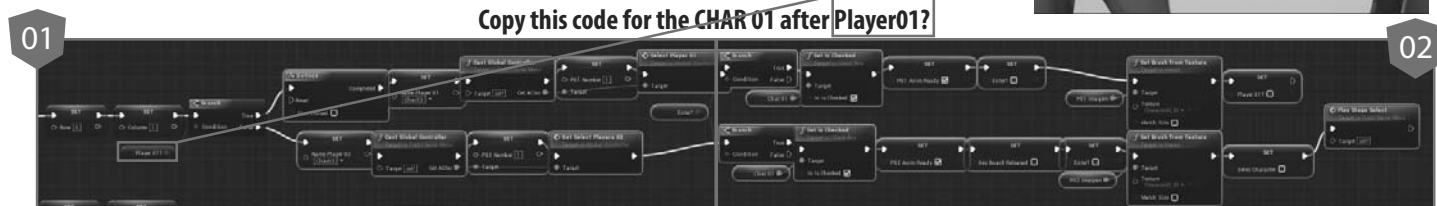
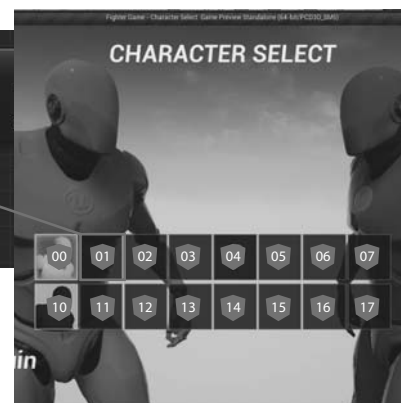
**3&4 Import** - Find and place corresponding file to this format > Fight\_Game > HUD > Textures> Char03



Find Function Navigation\_SelectCharacter

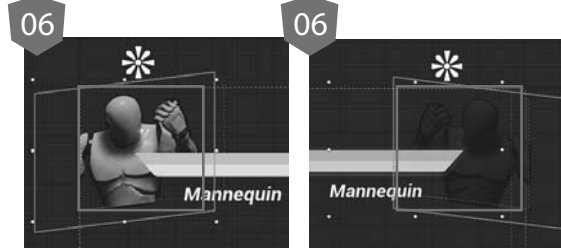


Find Code COLUMN == "1"



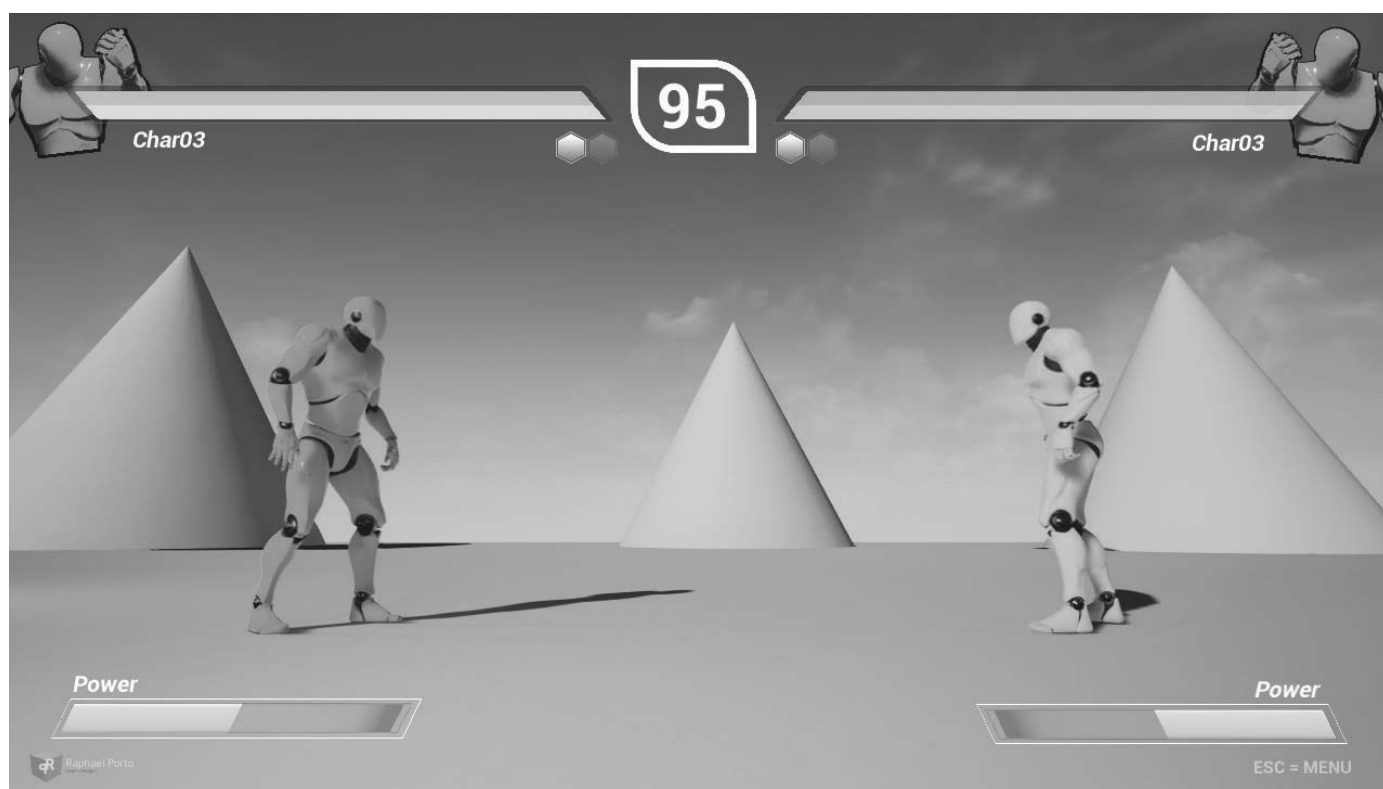
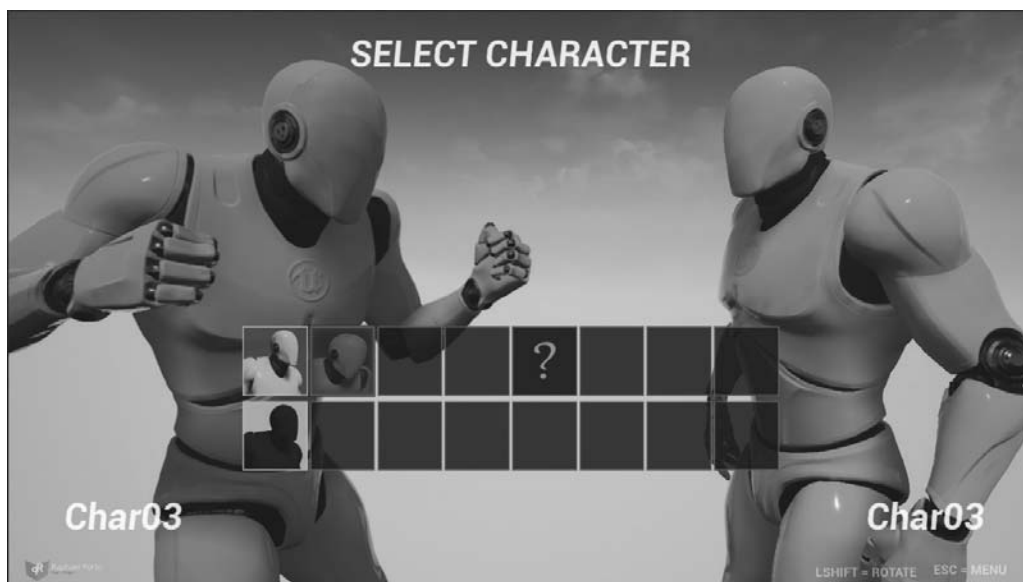
Uncheck

Check



Change for Your Character

# CONGRATULATIONS !!!



THANK YOU !!!

## CONTACT



Channel: <https://www.youtube.com/channel/UC-qeXV5aCUAKoKYng84Seag>

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