

# AI ENGINE 2.5D PLATFORMER

For more information, please contact: [aigame.contact@gmail.com](mailto:aigame.contact@gmail.com)

## I. FEATURE

### Compatible with Character Controllers

#### Features:

- Special actions: Climbing Ladder, Swimming, Elevator, Rope(Climb/Swing), Sliding on slope, Balance, Push and Drag the object, Melee attack, Ledge climbing, Hidden.
- Sample level system
- Checkpoints
- Admob and UnityAds (Gameover and Finish)
- Easy replace the character with other Humanoid characters
- Mecanim Animator system

#### Player ability:

- Melee attack
- Gun attack
- Swimming
- Rope: Climb/Swing
- Rope: Grab the Ropepoint
- Jetpack
- Run and Slide
- Wall Jump (Side to side)
- Ladder
- Sliding on slope
- Balance
- Push and Drag object
- Ledge Climbing
- Hidden
- Hanging pipe and moving
- Auto climb up and over the low object

#### Camera script features:

- Adjust the limit up and below position
- Set offset position to player

## ----- VIDEO TUTORIAL -----

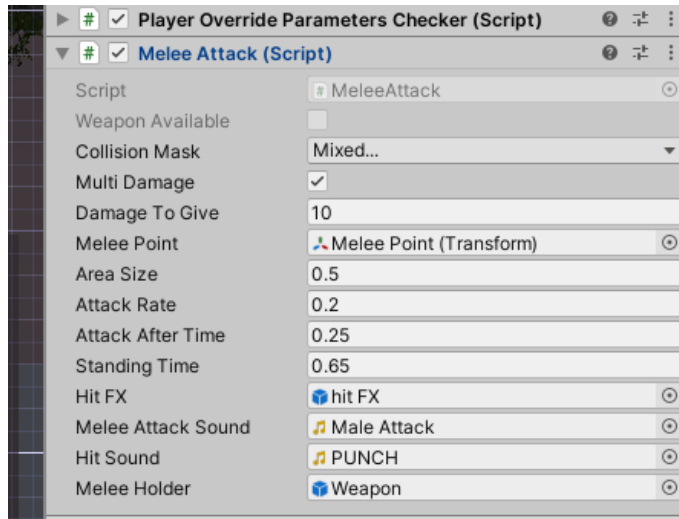
<https://youtube.com/playlist?list=PLHuyOBWrU-Q1gMJfyjuMVSR8XxjFkdjcW>

a. Player

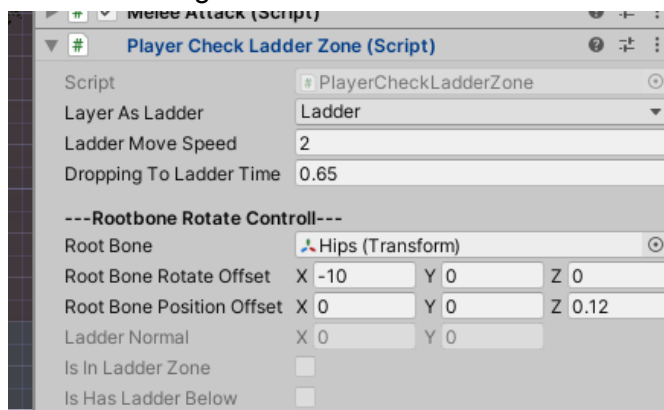
#	Player Controller (Script)	
	Script	<input type="text" value="PlayerController"/>
	Gravity	-20
	Player State	Ground
<b>---SETUP LAYERMASK---</b>		
	Layer As Ground	Mixed...
	Layer As Wall	Ground
	Layer Check Hit Head	Mixed...
<b>---WALL SLIDE---</b>		
	Wall Sliding Speed	1
	Wall Stick Time	0.5
	Wall Stick Time Counter	0
	Wall Sliding Jump Force	X 5 Y 2
	Is Wall Sliding	<input type="checkbox"/>
	Velocity	X 0 Y 0
	Input	X 0 Y 0
	Input Last Time	X 1 Y 0
	Is Grounded	<input type="checkbox"/>
	Ignore Input Control	<input type="checkbox"/>
	Is Dead	<input type="checkbox"/>
	Acceleration Time Airborne	0.2
	Acceleration Time Grounded	0.1
<b>---AUDIO---</b>		
	Sound Foot Step	<input type="text" value="Footstep"/>
	Sound Jump	<input type="text" value="Male Jump"/>
	Sound Hit	<input type="text" value="hiting_body"/>
	Sound Die	<input type="text" value="hiting_body"/>
	Sound Landing	<input type="text" value="Landing"/>
	Sound Slide Slope	<input type="text" value="WallSlide"/>
	Sound Grap	<input type="text" value="throw"/>
	Sound Rope Jump	<input type="text" value="Male Jump"/>
	Sound Foot Step Volume	<input type="range" value="0.1"/>
	Sound Jump Volume	<input type="range" value="0.2"/>
<b>Setup parameter on ground</b>		
	Move Speed	5
	Sneaking Speed	3
	Max Jump Height	1.5
	Min Jump Height	0.5
	Gravity	-20
	Last Ground Pos	0
	Delta Position	X 0 Y 0
	Last Ground Pos	X 0 Y 0 Z 0
	Current Target	None (Transform)
<b>---HARD FALLING FROM HEIGHT---</b>		
	Is Falling From Height	<input type="checkbox"/>
	Hard Falling Distance	5
	Hard Falling Idle Time	1
	Move Direction	X 0 Y 0 Z 0
	Layers Can Grab	Ground
<b>-----CLIMBING LEDGE-----</b>		
	Climbing State	None
	Climb Offset Pos	X 0 Y 1.7 Z 0.3
	Climbing Ledge Time	0.6
	Vertical Checker	<input checked="" type="checkbox"/> Check ledge (Transform)
	Vertical Checker Climb Ladder	<input checked="" type="checkbox"/> Check ledge when climb ladder (Transform)
	Vertical Check Distance	0.5
<b>---CHECK LOW CLIMB 1m---</b>		
	Climb LC Offset Pos	X 0.2 Y 0.5 Z 0.3
	Climbing LB Obj Time	0.6
	Is Dropping To Ladder	<input type="checkbox"/>
<b>---HANGING TOP PIPE---</b>		
	Layer Top Pipe	TopPipe
	Is Hanging Top Pipe	<input type="checkbox"/>
	Hanging Offset	X 0 Y -1.1
	Hanging Move Speed	3

- **Wall Sliding Speed:** when stick on wall, player will move down with this value speed
- **Wall Sliding Jump Force:** the jump force value applied when jump when stick on wall
- **Acceleration Time...:** the response time to the speed, try to change this value when run, jump to know more
- **Ground Parameter:**
  - **Move Speed:** moving speed
  - **Sneaking Speed:** the speed that player can move when hidden behind the wall
  - **Max Jump Height:** the highest Y value that player can reach if hold the Jump button
  - **Min Jump Height:** the lowest Y value that player reach to if user release the Jump button very fast
  - **Gravity:** set the gravity for the player depend on Ground or Water
- **Hard Falling Distance:** when player jump from the height, active the landing action if the height > this distance value
- **Hard Falling Idle Time:** the landing time that player must idle before keep moving

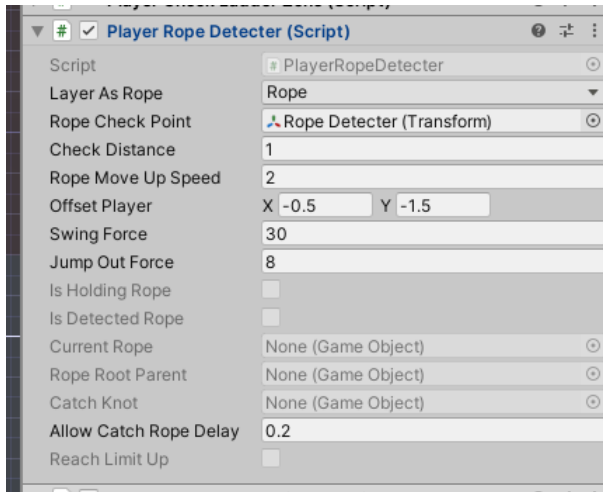
- **Climb Offset Pos:** the offset value when grab and climb ledge, depend on the different height of the character, adjust this value to see the better result when the player climb on ledge
- **Climbing Ledge Time:** the time to finish climbing animation, must be adjust depend on the length of the animation clip
- **Climb LC Offset Pos:** read "Climb Offset Pos"
- **Climbing LC Obj Time:** read "Climbing Ledge Time"
- **Hanging Offset:** change this value depend on player model for best look
- **Hanging Move Speed:** set speed for player to move horizontal when hanging



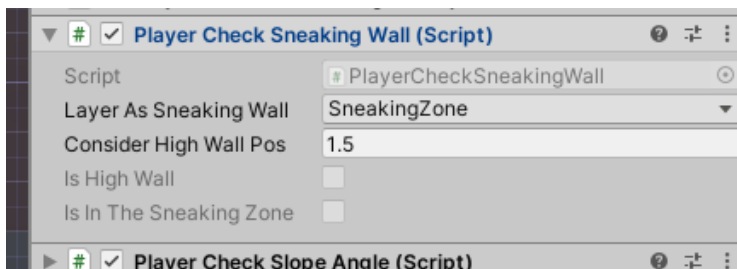
- Multi Damage: can attack more than 1 enemy in 1 hit
- Damage To Give: deal the damage to the enemy
- Area Size: enemy in this zone will get the damage
- Attack Rate: the delay between 2 attacks
- Attack After Time: To sync with the attack animation
- Standing Time: because player must standing when attack, set the time value for standing



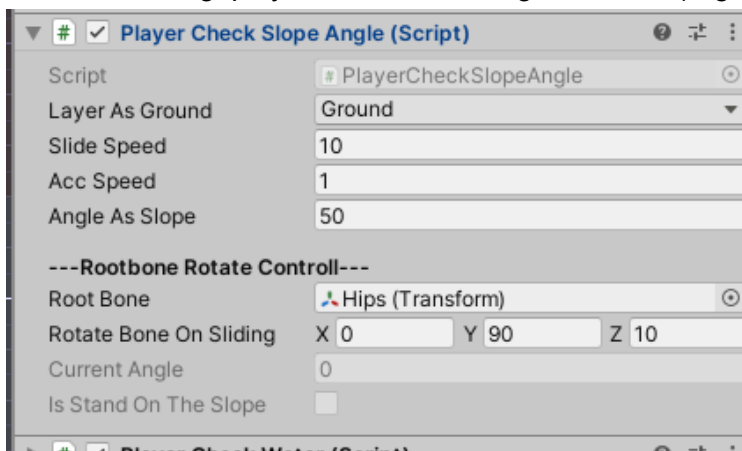
- **Ladder Move Speed:** the climbing speed up and down
- **Dropping To Ladder Time:** sync with the Dropping to Ladder animation
- **Rootbone Rotate Control:** you might need to change this value if you use another dropping animation to sync



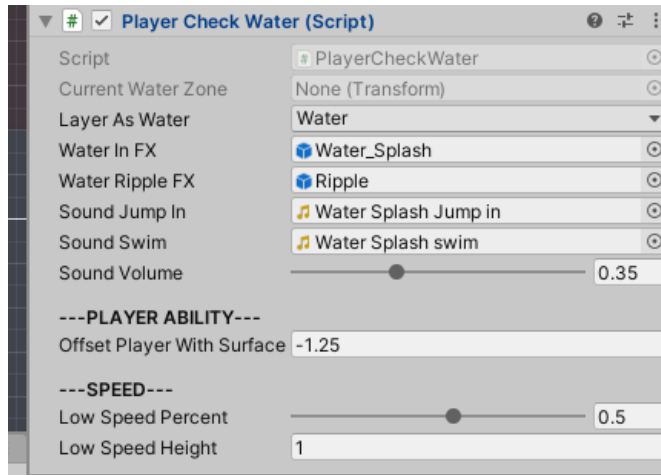
- **Check Distance:** the distance to detect the rope
- **Rope Move Up Speed:** the moving speed up - down
- **Offset Player:** change this value if you replace the player model to make it look like hold the rope
- **Swing Force:** the swing speed Left-Right
- **Jump Out Force:** jump out speed from the Rope



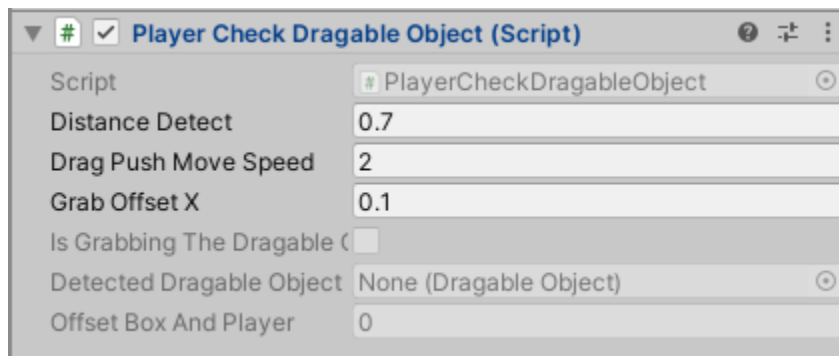
- **Consider High Wall Pos:** if the wall higher than this value, it is the High Wall, when sneaking, player have 2 sneaking animation (High and Low)



- **Slide Speed:** the sliding speed of the Player
- **Angle As Slope:** if the Slope with the angle larger than this value -> it is slope and player will do this action

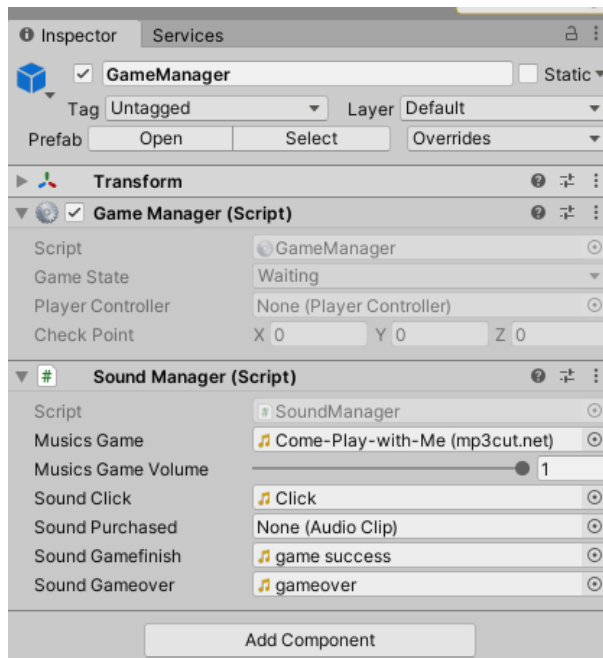


- **Offset Player With Surface:** the distance of the root position with the surface of the water
- **Low Speed Percent:** when player walk in the water, the speed will be reduce this value (0.5 mean 50%)
- **Low Speed Height:** if the distance of the player's position and the water's surface lower than this value -> Player will walk instead swimming



- **Distance Detect:** the distance detect the pushable object
- **Drag Push Move Speed:** the dragging/push speed
- **Grab Offset X:** synn with the holding animation to make player look like grab the object

## b. GameManager and SoundManager

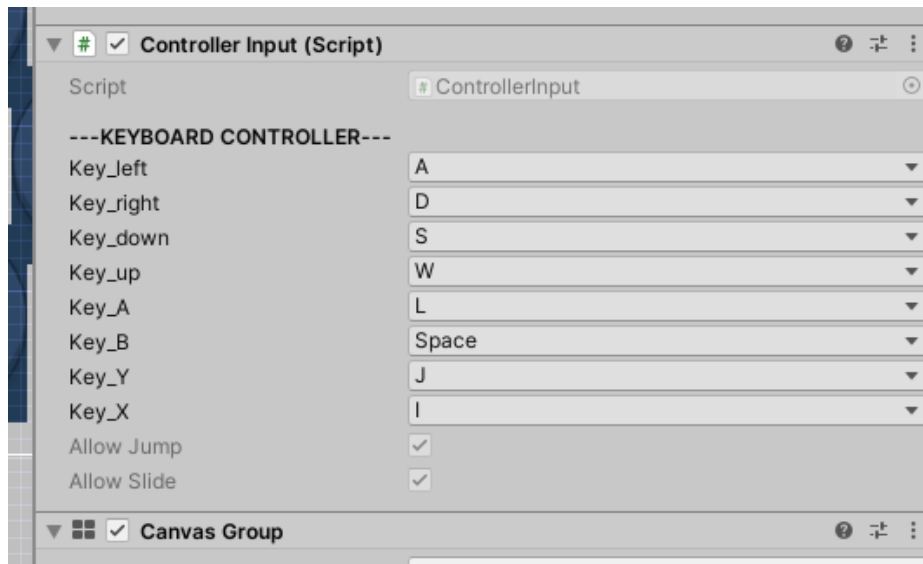


- Sound Manager: place game music and sound

## c. Keyboard Control

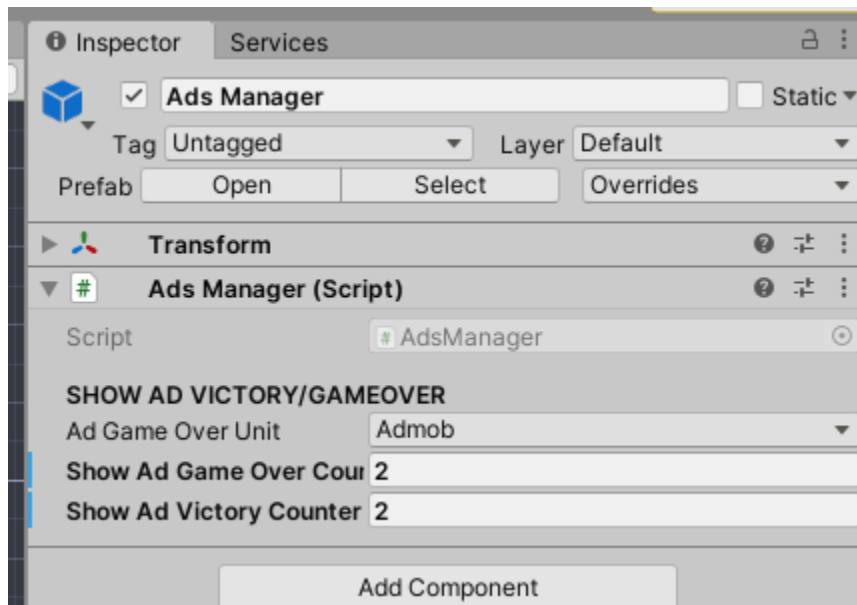
- Move: **A/D/S/W** - Arrow keys
- Jump: **Space**
- Action: **L**
- Melee: **J**

## d. Keymap



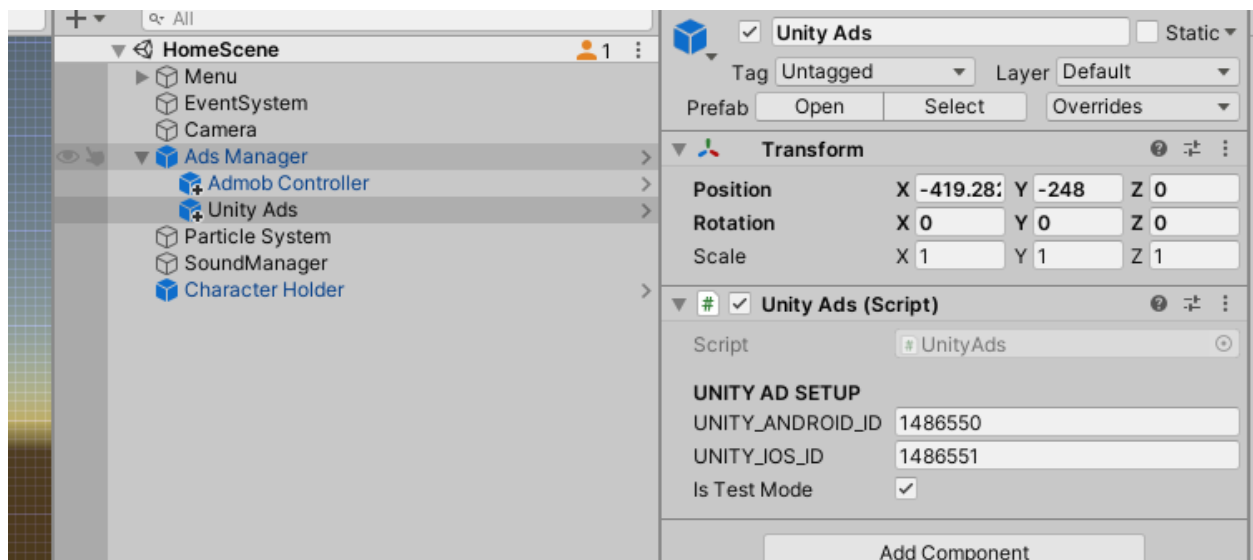
- Set the Keyboard key to control the Player

#### e. AdsManager



Set the Ads type (Admob & UnityAd) to show

#### f. UNITY ADS



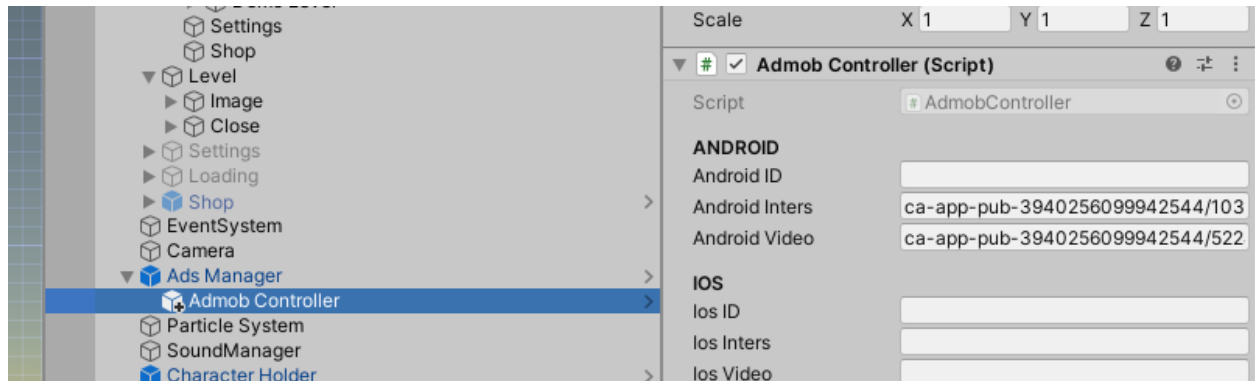
#### g. ADMOB

For more information about setup admob:

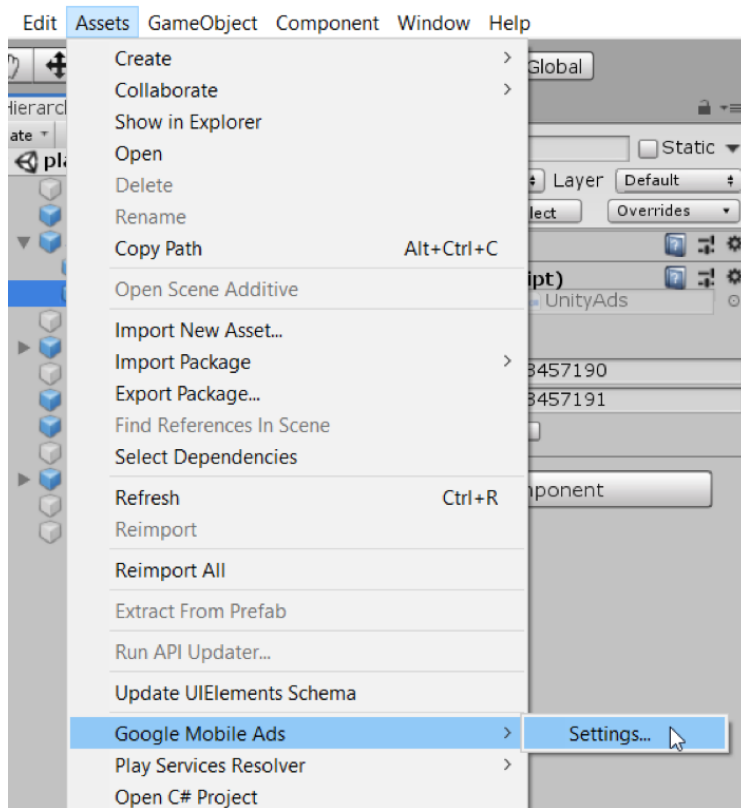
<https://developers.google.com/admob/unity/quick-start?hl=vi>

Install the admob package:

<https://github.com/googleads/googleads-mobile-unity/releases/tag/v5.4.0>

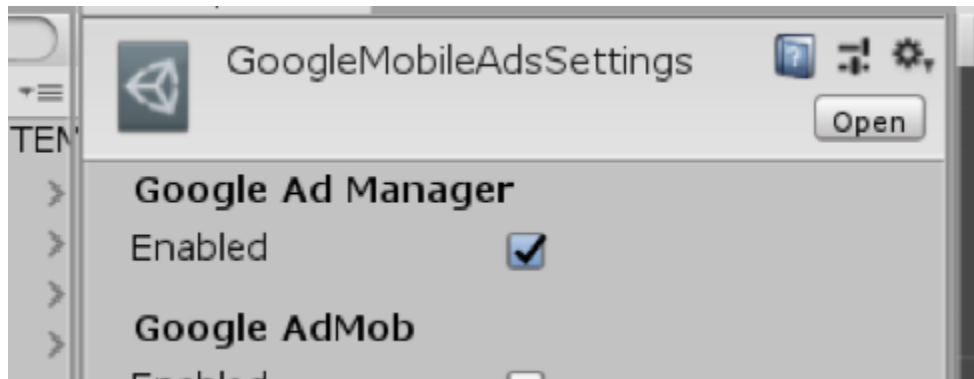


- Fill the Admob IDs here
  - Go to Settings... (if you can't find Google Mobile Ads settings then you didn't install the Admob package, so please read the Readme first.txt file to know more)

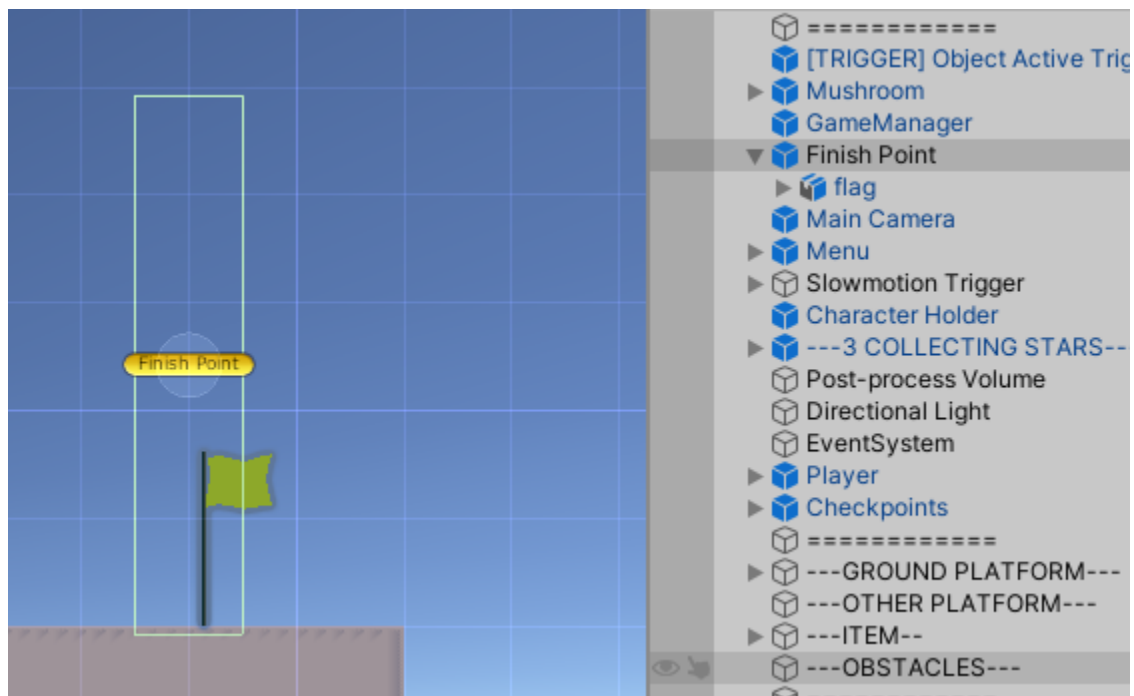




- Then tick Google Ad Manager enable

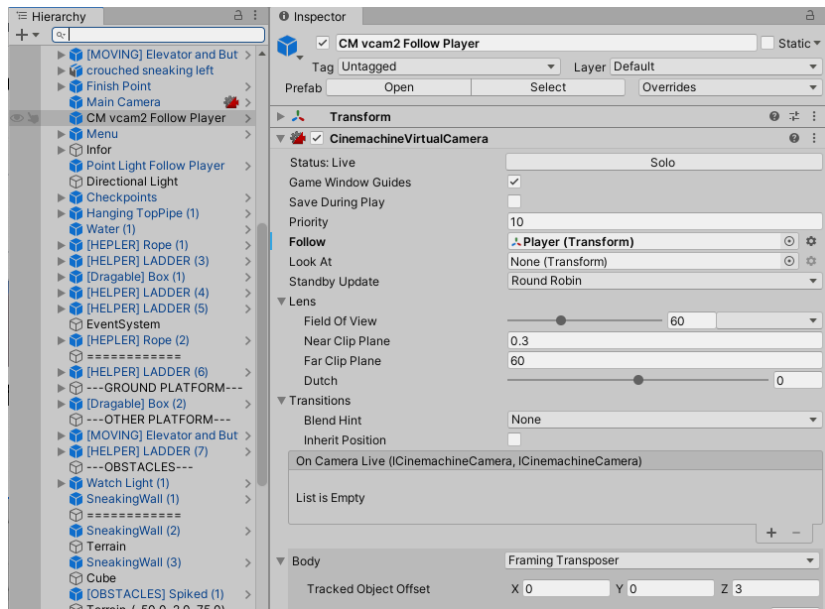


#### h. Finishpoint



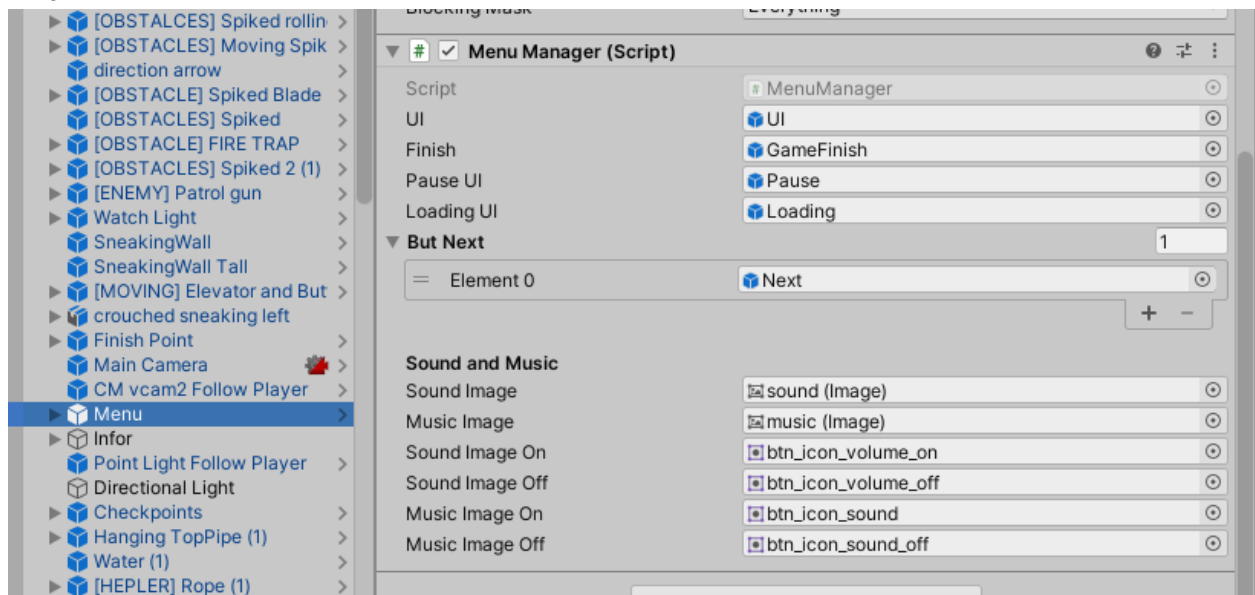
Place finish point to the correct position

### i. CM vcam2 Follow Player



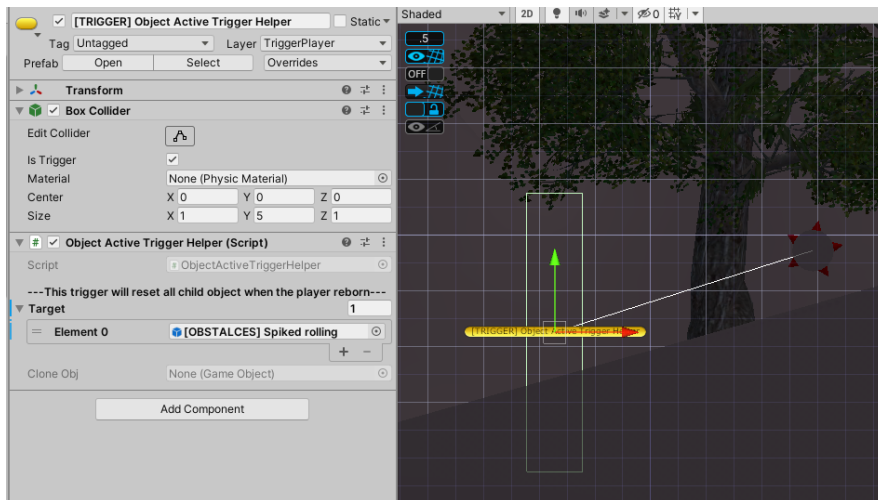
- This camera virtual will control the Main Camera follow the player, you can change the camera settings here

### j. Menu



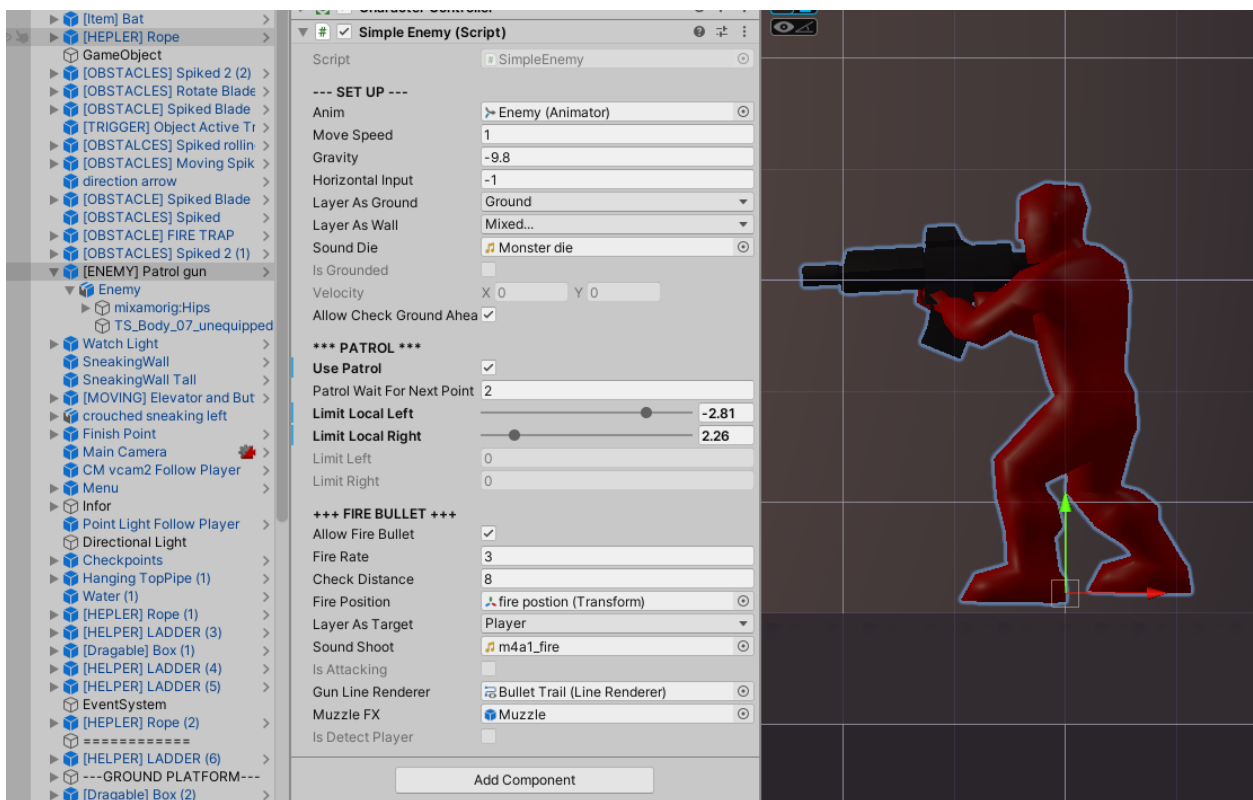
- Handle text/button/image

## k. Object Active Trigger Helper



Place the object/objects wanna show it when player contact this trigger

## I. ENEMIES



- **Horizontal Input:** -1 mean facing Left, 1 mean facing right on the begin
- **Use Patrol:** set the Limit Local Left/Right for the enemy
- **Allow Fire Bullet:** allow this enemy shoot the player in range
- **Fire Rate:** the delay between 2 shots
- **Check Distance:** the distance that this player can detect the player and shoot

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