

Pinball Creator

CREATE YOUR PINBALL

Asset documentation Part 1.

Where to begin :

First of all, thank you for purchasing Pinball Creator.

How to use Pinball Creator :

1| First, read section : [Configuring the project : Settings needed to use this asset.](#)

2| Test the demo table : Project-> Asset -> Demo ->

- [Demo_Table_01](#)

- [Demo_Table_02](#)

3| Read sections : Introduction, First pinball (about 20 minutes). Then you were ready to create your pinballs.

4| If you want complete information about all the features included in Pinball Creator open the PDF named [Pinball_Documentation_Part2](#)

If you have a question look at section FAQ.

You could join the forum here : <http://forum.unity3d.com/threads/wip-pinball-creator.426338/> .

If you don't find your answer on documentation or on forum you can contact us at tropicalstudio3d@gmail.com .

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How to start :

- Configuring the project : [Settings needed to use this asset.](#) [link](#)
- First pinball (Tuto) [link](#)
- Ready to use Prefabs : overview [link](#)

FAQ

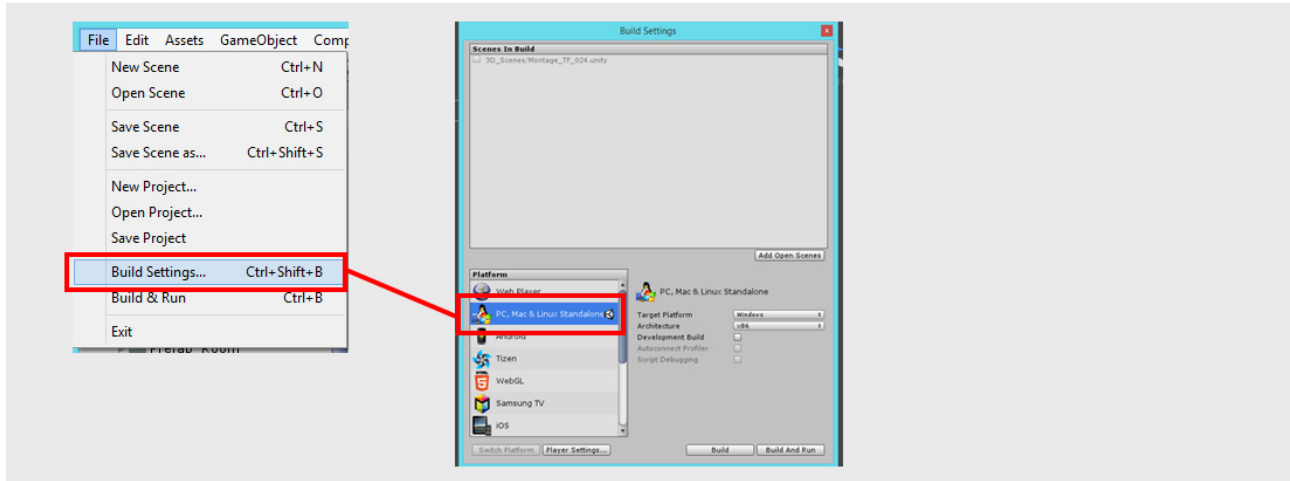
- How to customize led sprite ? [link](#)
- How to make a led blinking ? [link](#)
- How to modify basics settings from a mission ? [link](#)
- How to modify pinball illustration (cabinet, playfield, leds ...) [link](#)

Configuring the project :

Settings (Settings needed to use this asset).

Step 1 : Check if you are in the **PC, Mac & Linux Standalone** mode.

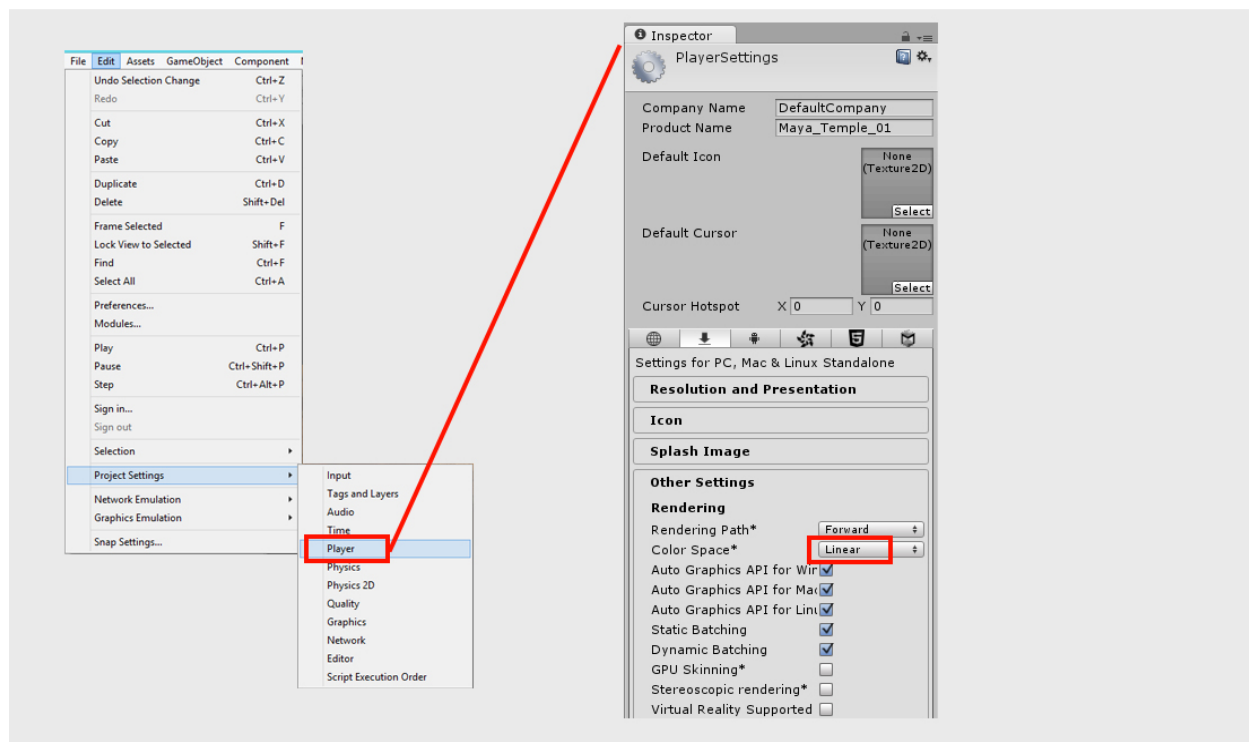
Go to **File -> Build_Settings**.



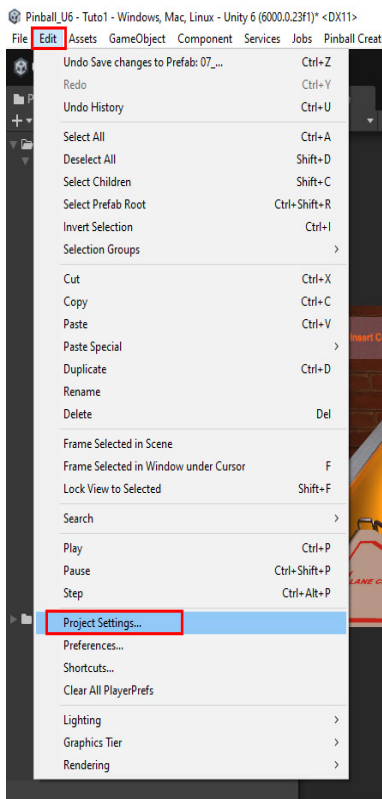
Step 2 : Color Space

Open **Edit -> Project Settings -> Player**.

In **Inspector** window change **Color Space** to **Linear**



Go to Edit > Project Settings



Very important:

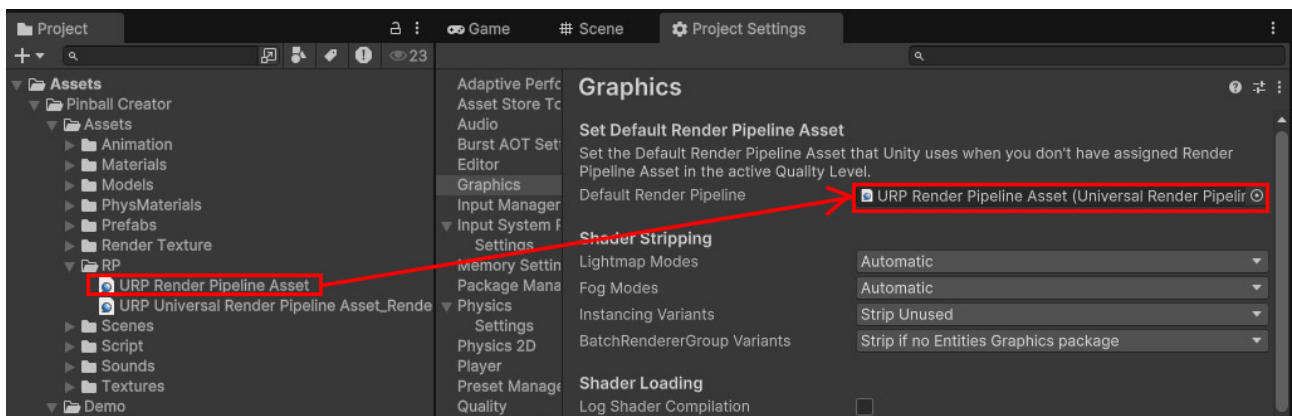
From Project tab drag and drop **URP Render Pipeline Asset** to Graphics tab (you will find Graphics tab into Projects settings window)

Caution : In some case it's not possible to drag and drop the pipeline asset due to a compilation problem at startup (materials are pink).

To solve the problem:

- Close Unity
- Re-open Unity

Now it's possible to do the following action : From Project tab drag and drop **URP Render Pipeline Asset** to Graphics tab



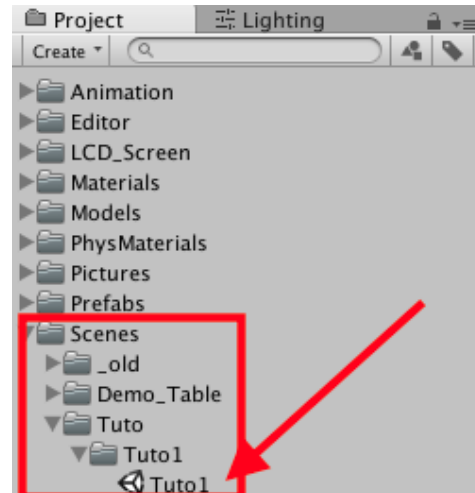
Settings needed for the asset are ready

Tuto 1 : First Pinball (Part 1)

1 Open Tuto : Tuto1.

- In project tab open **Tuto1**.

(Project -> Assets -> Scenes -> Tuto -> Tuto1 -> **Tuto1**)

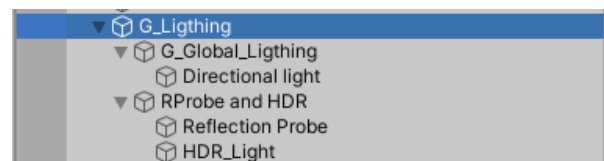


You find on the hierarchy :

AudioListener : Global sound volume,



G_Lighting : Manage Global Lighting,



G_UI_EventSystem : Allows to use UI Inputs



G_Game_Camera : Camera system,



Grp_Pinball contains the pinball parts:

p_Room : floor and wall mesh

p_Pinball_BackBox_Cabinet : cabinet prefab,

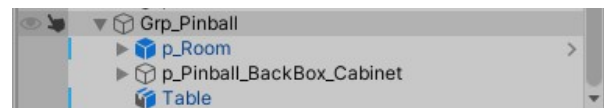
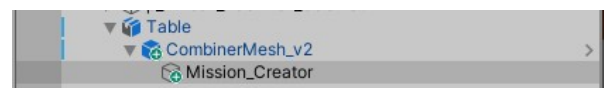


Table : Put inside all the mechanics prefabs,

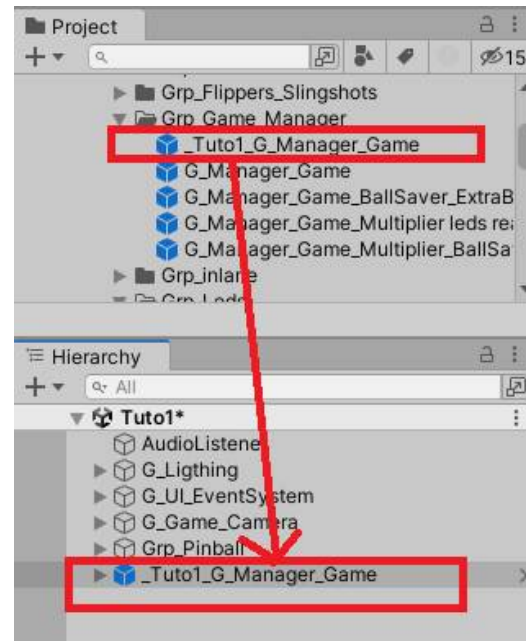
Mission_Creator : Contains a script to create pinball missions easily.



2 Add Pinball game Manager

- From the Project tab
drag'n'drop **_Tuto1_G_Manager_Game** prefab
in the root of the **Hierarchy**

(Project -> Assets -> Prefabs ->
Grp_Game_Manager ->
_Tuto1_G_Manager_Game)



This prefab manages all the rules of the game.
Press **play**.



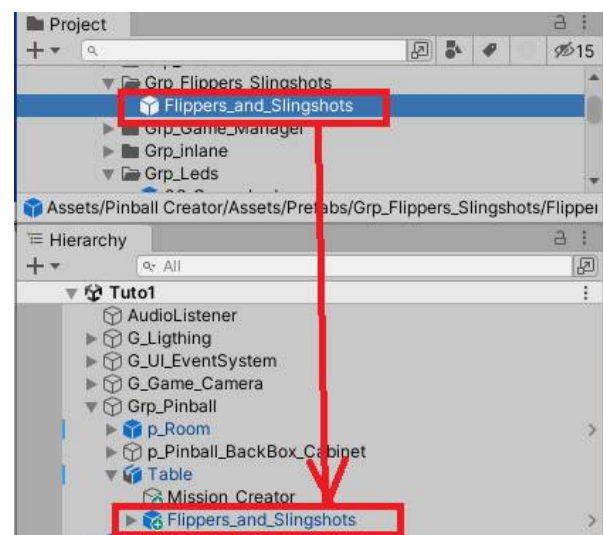
Then press input touch **C**. Camera view change
(4 views).
Press **Stop** before moving to the next part.



3 Add flippers and slingshots

From the Project tab
drag'n'drop prefab **Flippers_and_Slingshots**
inside **Table** on Hierarchy

(Project -> Assets -> Prefabs ->
Grp_Flippers_Slingshots ->
Flippers_and_Slingshots) **localPosition (0,0,0)**



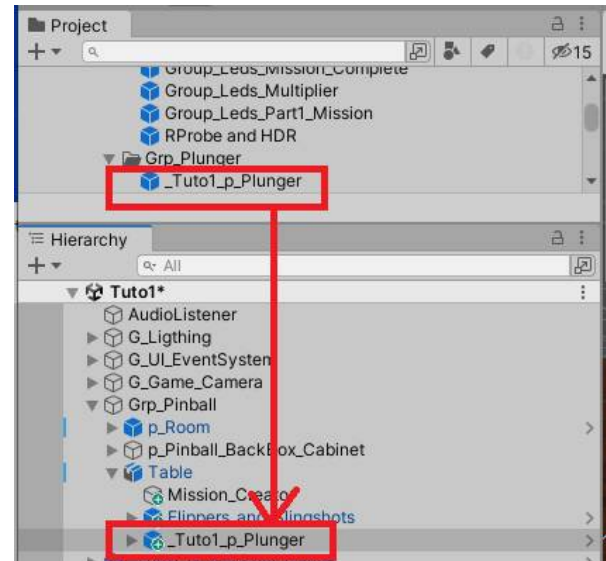
Press **play**. Control flippers with **S** and **L** keys.
Press **Stop** before moving to the next part.



4 Add plunger

- From Project tab
drag'n'drop **_Tuto1_p_Plunger** prefab
inside **Table** on Hierarchy.

(Project -> Assets -> Prefabs -> Grp_Plunger ->
_Tuto1_p_Plunger) localPosition (0,0,0)



Press **play**.



Press **Enter** to spawn a ball on plunger.
Then Hold **Enter** to eject ball.

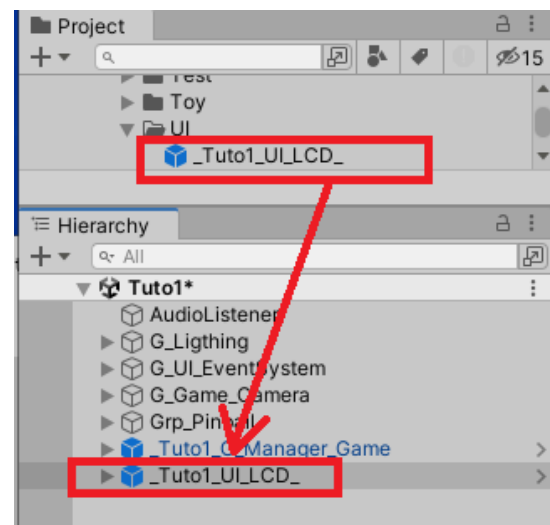
Press **Stop** before moving to the next part.

5 Add LCD screen

From the Project tab
drag'n'drop prefab **_Tuto1_UI_LCD**
in the root of **Hierarchy**

(Project -> Assets -> Prefabs -> UI ->
_Tuto1_UI_LCD) localPosition (0,0,0)

LCD Screen is added in the Scene view

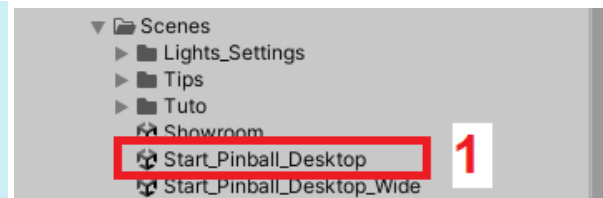


Note:

For the tutorial we have added manually all the needed elements to start creating a new pinball table.

The asset contained a scene already setup.
Start_Pinball_Desktop scene (spot 1)
(Project->Asset-> Scenes->).

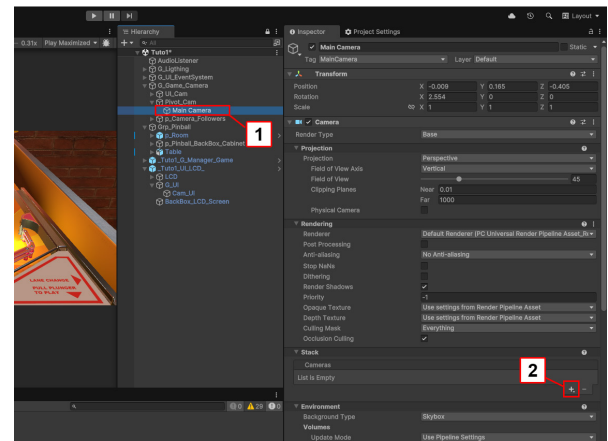
Duplicate the scene.
Use the duplicated scene to start your new pinball table.



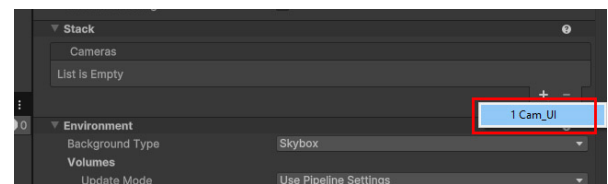
-In Hierarchy tab select **Main Camera** (spot 1)

Hierarchy -> G_Game_Camera -> Pivot_Cam->Main Camera)

-In Inspector tab press **+** button (spot 1)



-Choose Cam_UI



6 Create a mission

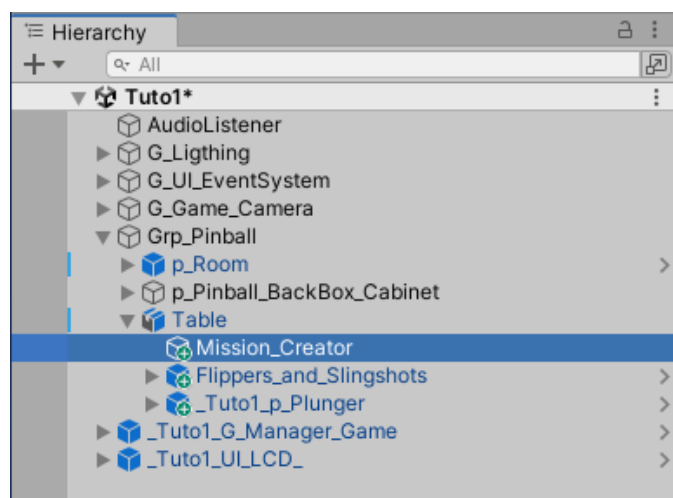
In a pinball table the player needs to complete missions.
For example, the player need to shoot 3 targets to have bonus points.

In the Hierarchy **Mission_Creator** object allows to create missions.

As an example we are going to create a mission composed of 2 parts:

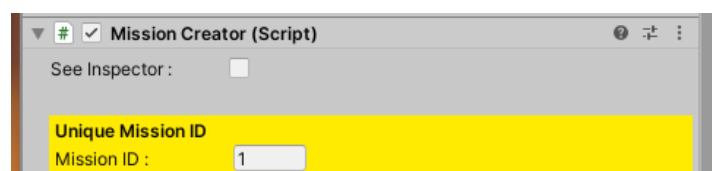
- First part the player must shoot 2 targets.
- Second part the player must shoot a third target.

In the Hierarchy select **Mission_Creator** in the Hierarchy tab.
(Grp_Pinball → Table → Mission_Creator)



Each mission must have a unique identifier.

When a mission is created with **Mission_Creator** :
The number indicated in **Mission ID** is



assigned to the mission.

In this case it is the first mission of the table, we keep the value **1** for the ID.

Tips:

Put your mouse over a parameter (spot 1) to display the description of this parameter (spot 2).

Unique Mission ID
Mission ID: **1** 138

Choose a unique ID for this mission. Each Mission of the table MUST have a unique ID. The ID is automatically increased when a mission is created.

2

Choose the name of the mission. The name is displayed in the LCD screen. As an example write **Mission 1**.

Mission Name:

For the 1st part of the mission we need to hit 2 drop targets.

In **Mission Part 1** section select:

Mechanics: Target (spot 1)
Type: No Order (spot 2)
Sub Type: Drop Target (spot 3)
How Many Target: 2 (spot 4)
Add Leds: check the toggle (spot 5)
Text: hit target x (spot 6)

Mission Part 1

Mechanics : Target **1**

Type : No Order **2**

Sub type : Drop Target **3**

How many targets: 2 **4**

Add Leds : ☒ **5**

text : hit target x **6**

For the 2nd part of the mission we need to hit 1 drop target.

In **Mission Part 2** section select:

Mechanics: Target (spot 1)
Type: No Order (spot 2)
Sub Type: Drop Target (spot 3)
How Many Target: 1 (spot 4)
Add Leds: check the toggle (spot 5)
Text: hit target x (spot 6)

Mission Part 2

Mechanics : Target **1**

Type : No Order **2**

Sub type : Drop Target **3**

How many targets: 1 **4**

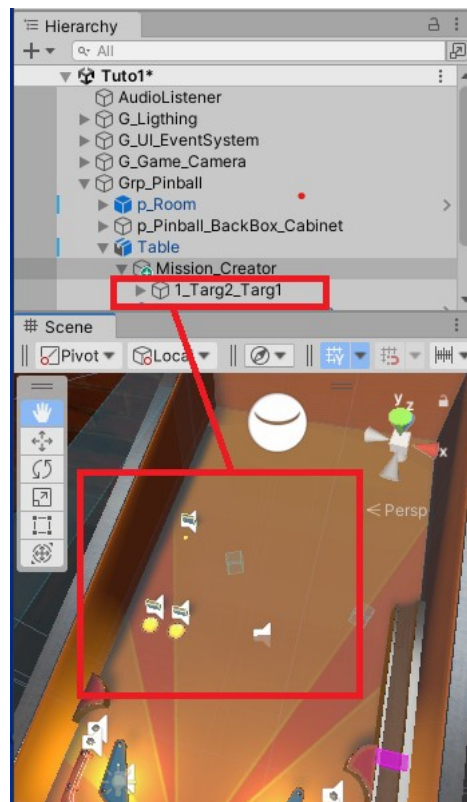
Add Leds : ☒ **5**

text : hit target x **6**

- Press **Generate the Mission** button.

Generate the Mission

The mission is generated inside the gameObject **Mission Creator**



- Press **Play**.

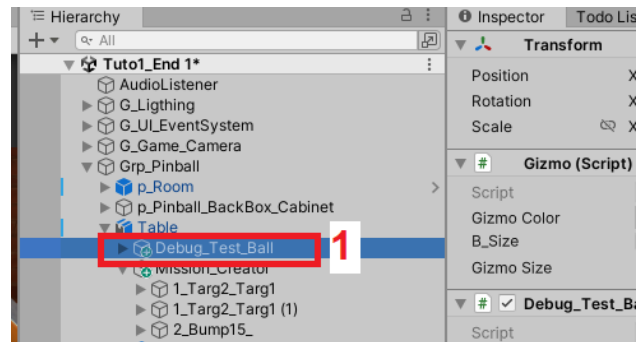


- Press **Stop** before moving to the next part.

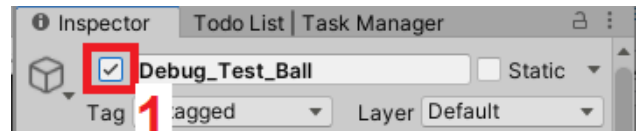
To easily test a mission you can use **Debug_Test_Ball** object.

In the Hierarchy select **Debug_Test_Ball** (pic 1).

(Grp_Pinball -> Table -> **Debug_Test_Ball**)



In the Inspector check the toggle spot 1 to enable the object.



Now during **Play Mode**:

When you press and hold **g** on the keyboard:
The ball moves to **Debug_Test_Ball** position (spot 1).



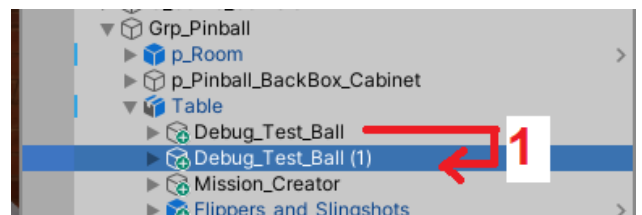
When you release **g** the ball is ejected on **Debug_Test_Ball** Z Axis direction (spot 2).



You can duplicate the **Debug_Test_Ball** as many time as you want.

In the Hierarchy select **Debug_Test_Ball** (pic 1).

(Grp_Pinball -> Table -> **Debug_Test_Ball**)



Ctrl + D to duplicate **Debug_Test_Ball**

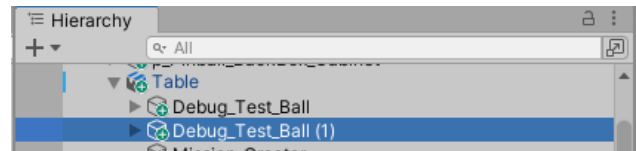
For the example change:
The position to **X = -0.09 | Y = 0 | Z = 0.15**



For each **Debug_Test_Ball** object we need to

choose unique input to spawn and eject the ball.

In the Hierarchy select **Debug_Test_Ball(1)**

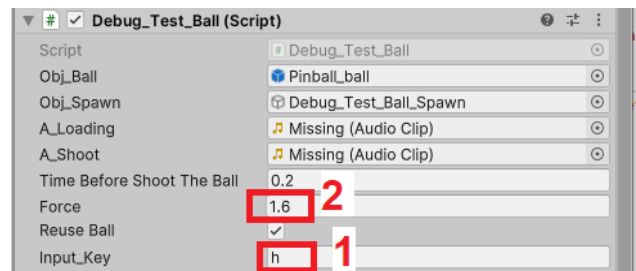


- In the Inspector change **Input_Key**

For the example:

- Choose **h** (spot 1) as the input.

- In **Force** parameter change the force applied to eject the ball to **1.6** (spot 2)



- Press **play**.



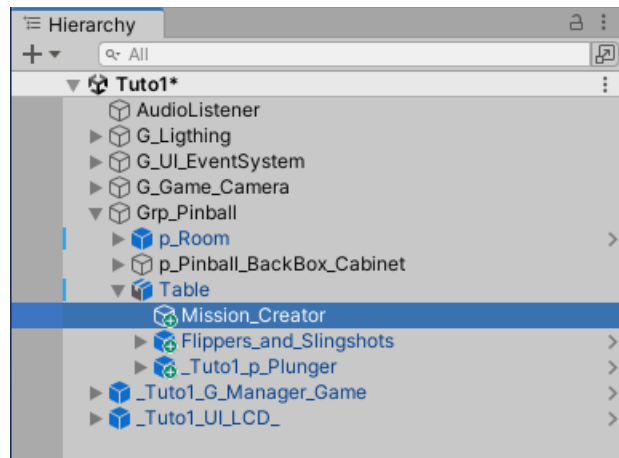
- Launch the ball on the playfield.

- Test your 2 **Debug_Test_Ball** objects (Press **g** or **h**).

- Press **Stop** before moving to the next part.

7 Create a second mission

In the Hierarchy select **Mission_Creator** in the Hierarchy tab.
(Grp_Pinball → Table → Mission_Creator)



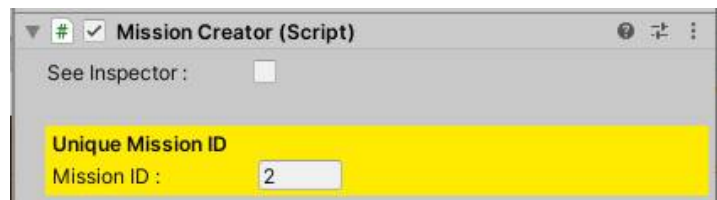
For this mission:

We want 3 bumpers.

We want a bonus of 100000 points after the player hits the bumpers 5 times.

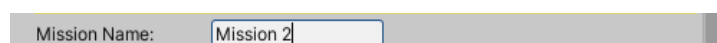
Each mission must have a unique identifier.

As you can see the value of **Mission ID** has been automatically increase after the creation of the first mission.



Keep ID to 2.

Choose the name of the mission. The name is displayed in the LCD screen. As an example write **Mission 2**.



For the 1st part of the mission we want 3 bumpers.

In **Mission Part 1** section select:

Mechanics: Bumper (spot 1)
Type: Blue (spot 2)
How Many Bumper: 3 (spot 3)
How Many Time: 5 (spot 4)
Text: hit bumper x (spot 5)

Mission Part 1

Mechanics : Bumper 1

Type : Blue 2

How many Bumper: 3 3

How many time: 5 4

text : hit bumper x 5

We don't want a second part for the bumpers

Mission Part 2

Mechanics : Empty

In Mission Part 2 section select:
Mechanics: Empty

We want to add bonus points when the players Hits 5 times the bumpers.

Other Options : ☒ 1

- Check Other Options toggle to access more options (spot 1).
- At the end of the options change Point when mission is complete to 100000 (spot 1).

Options When Mission is complete

Points when mission is complete 100000 1

Add cabinet Kickback : ☐

Add Bonus : No Bonus

When the mission is complete the player can received a bonus.

For the example:
In the dropdown menu select Multiplier (spot 1).

Add Bonus : Multiplier

Generate

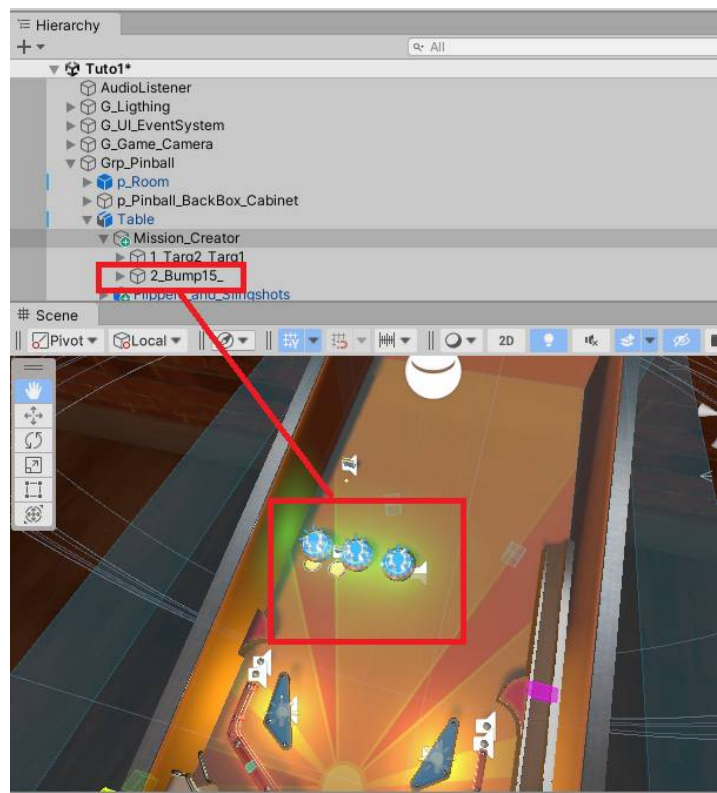
Add Bonus : No Bonus, Random, Extra Ball, Ball Saver, Multiplier (selected), Kickback

Now when the player complete the mission the Bonus Multiplier increased.

- Press Generate the Mission button.

Generate the Mission

The mission is generated inside the gameObject **Mission Creator**

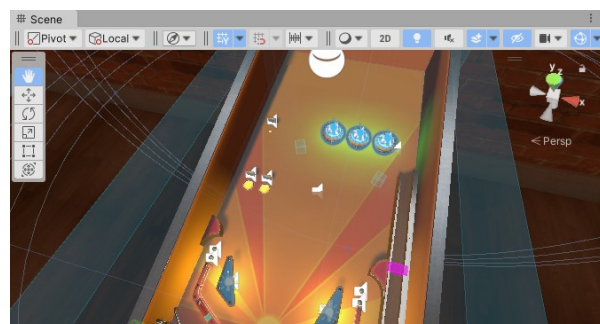
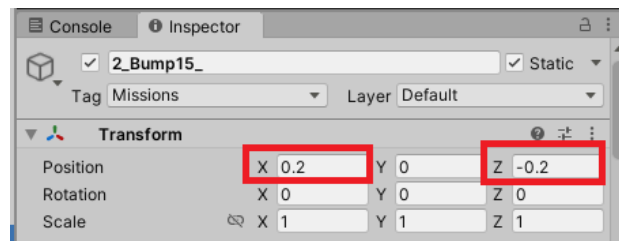


- In the Inspector
select **2_Bump5_** (spot 1).

(Grp_Pinball -> Table -> Mission_Creator
-> 2_Bump5_)



- Change the position to:
X = 0.2 | Y = 0 | Z = -0.2



- Press **play**. Mission is ready.
- Press **Stop** before moving to the next
part.

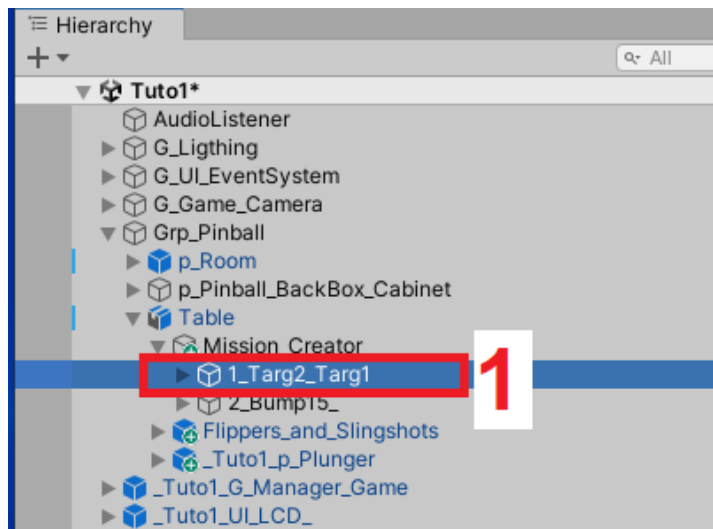


Create a third mission

We are going to see how to duplicate a mission.

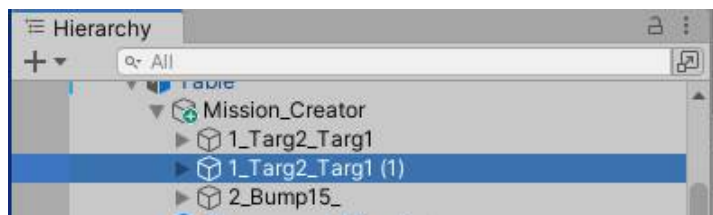
- In the Inspector select the first mission **1_Targ2_Targ1** (spot 1).

(Grp_Pinball -> Table -> Mission_Creator -> 1_Targ2_Targ1)

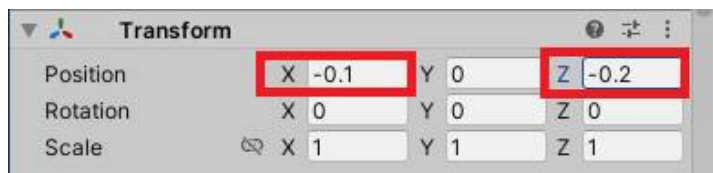


- Duplicate the mission (CTRL+D)

In the Hierarchy the mission is duplicated and automatically selected.



- In the Inspector change the position to Position **X = -0.1** | **Y = 0** | **Z = -0.2**

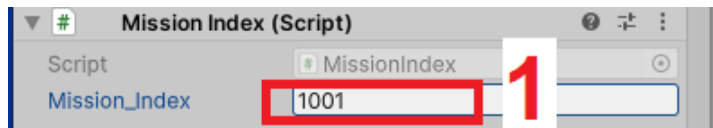


VERY IMPORTANT STEP

You **MUST** choose an ID that is not used by another mission.

To make sure you don't have a conflict with the missions created with **Mission_Creator**, choose an ID greater than **1000**.

As an example in the Inspector choose **1001** for **Mission_Index** (spot 1)



Note: If 2 missions have the Mission ID it will create issues.

We are going to modify the name of the duplicated mission.

In script **Mission_Start**:

Go to **Mission_Txt_name** parameter (spot 1).

As an example write **Mission 3**.

During the game the name is displayed in the LCD screen.

Mission_Start (Script)

Script: Mission_Start

[>See Documentation for more informations about Mission<-]

Initialize mission after ball lost
Init Mission When Ball Lost ☒

Allow a mission to be paused.
B_Pause Mission Mode ☒

--> **Table Mechanics Gpr 1 : Type**
How Many Time_Gpr 1: 1

Type : Target
Grp_1.Target ☒
Target_No_Order_Grp_1 ☒
Target_Order_Grp_1 ☐

Type : Rollover
Grp_1.Rollover ☐
Rollover_No_Order_Grp_1 ☐
Rollover_Order_Grp_1 ☐
Rollover_Type 3_Grp_1 ☐
Specific Text ☐

Type : Bumper
Grp_1.Bumper ☐

Type : Spinner
Grp_1.Spinner ☐

Type : Hole
Grp_1.Hole ☐

--> **Put here your tables Mechanics**
Obj_Grp_1: 1

--> **Leds corresponding to the tables Mechanics obj_Grp_1. Same order as the o**
Obj_Grp_1.Leds: 1

--> **During Mission : Keep Leds from Grp1 On**
Keep Led Grp 1 On During Missic: ☐

--> **Table Mechanics Gpr 2 : Type**
How Many Time_Gpr 2: 4

Type : Target
Grp_2.Target ☐
Target_No_Order_Grp_2 ☐
Target_Order_Grp_2 ☐
Target_Type_Stationary ☐

Type : Rollover
Grp_2.Rollover ☒
Rollover_No_Order_Grp_2 ☒
Rollover_Order_Grp_2 ☐

Type : Bumper
Grp_2.Bumper ☐

Type : Spinner
Grp_2.Spinner ☐

Type : Hole
Grp_2.Hole ☐

--> **Put here your tables Mechanics**
Obj_Grp_2: 1

--> **Leds corresponding to the tables Mechanics obj_Grp_2. Same order as the o**
Obj_Grp_2.Leds: 0
Arr_Led_State: 0

--> **Led for Part1 in progress**
Led_Part 1_In Progress: None (Game Object)

--> **Led for Mission in progress**
Led_Mission_In Progress: None (Game Object)

--> **The led that switch On when the mission is complete**
Led_Mission_Complete: 1 sc_Led_Cercle_zl

--> **Texts you want to display on LCD screen**
Mission_Txt_name: Mission 3

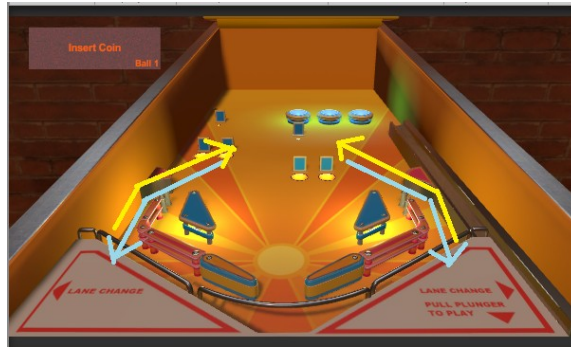
Create a kickback mission

We are going to create a kickback mission.

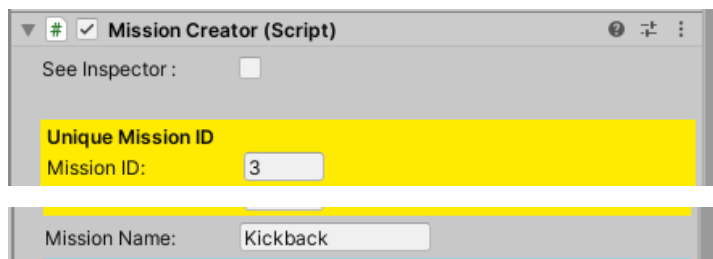
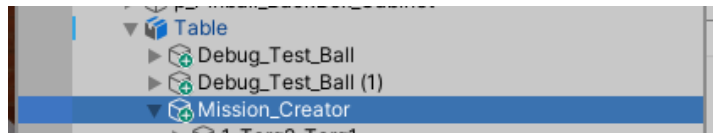
When the ball drained in the outlane (blue arrows)
the Kickback mission send the ball back into the playfield (yellow arrows).

When a new ball starts, kickbacks are activated.

When a spinner spins 5 times, kickbacks are reactivated.



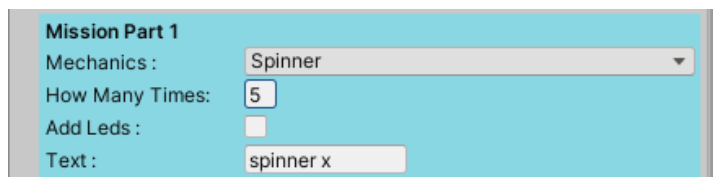
In the Hierarchy select **Mission_Creator** in the Hierarchy tab.
(Grp_Pinball → Table → Mission_Creator)



In the Inspector change **Mission Name** parameter to: **Kickback**

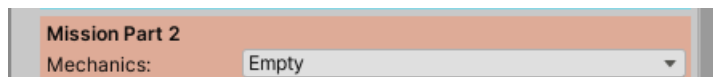
In Mission Part 1 select:

Mechanics: **Spinner**
How Many Times: **5**



In Mission Part 2 select:

Mechanics: **Empty**



For this example we don't use the second part of the mission. But it is possible to select Mechanics for Mission Part 2.

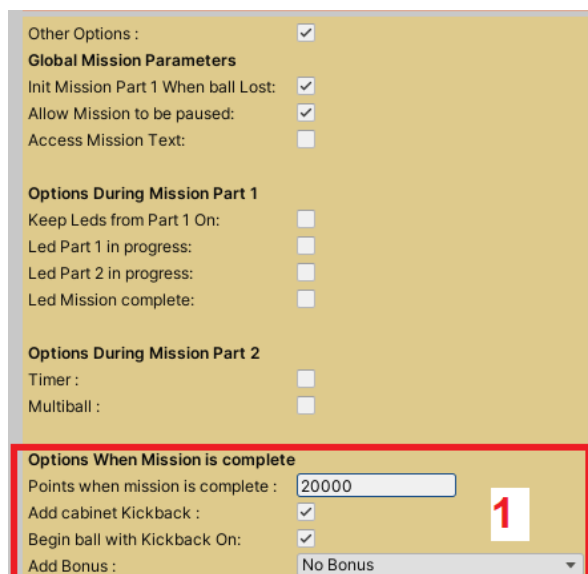
In **Options When Mission is complete** set:

Points when mission is complete: **20000**

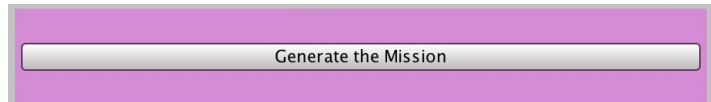
Add cabinet Kickback: **True**

Begin ball with Kickback On: **True**

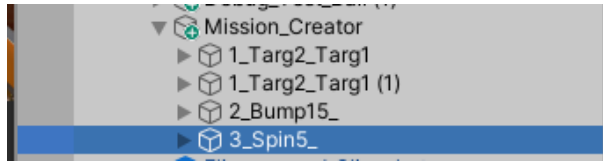
Add Bonus: **No Bonus**



- Press **Generate the Mission** button.



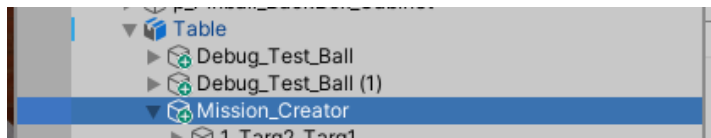
The mission is generated inside the gameObject **Mission_Creator**



IMPORTANT:

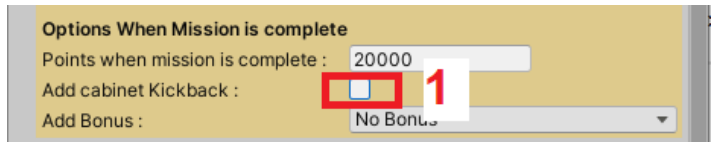
To avoid generating kickbacks again when creating another mission don't forget to uncheck **Add cabinet Kickback** toggle.

In the Hierarchy select **Mission_Creator** in the Hierarchy tab.
(Grp_Pinball → Table → Mission_Creator)



In **Options When Mission is complete** set:

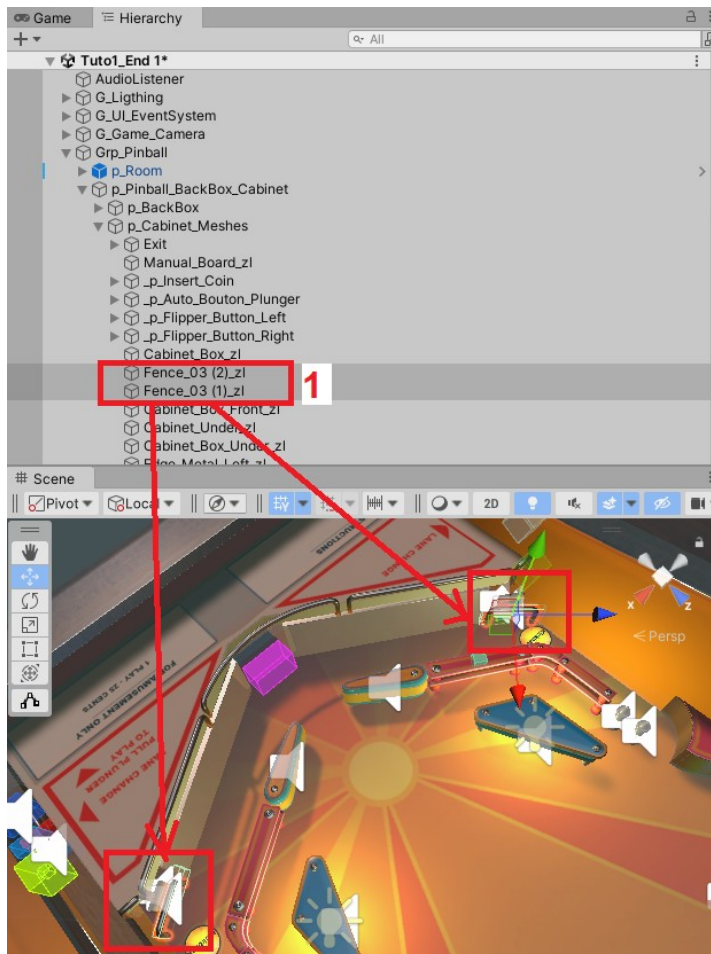
Add cabinet Kickback: **False**



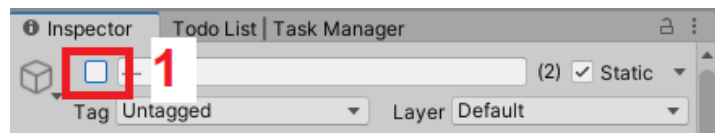
To be able to use the kickback we need to disabled 2 objects in the table.

In the Hierarchy select:
Fence_03 (2)_zl and **Fence_03 (1)_zl**

Grp_Pinball ->
p_Pinball_BackBox_Cabinet ->
p_Cabinet_Meshes ->



- In the Inspector uncheck toggle spot 1.



The spinner is on the same position as a target.

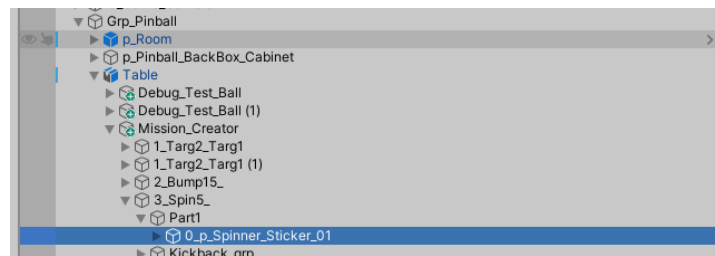
In the Hierarchy select

0_p_Spinner_Sticker_01

Grp_Pinball ->

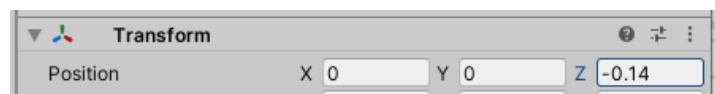
Table -> Mission_Creator -> 3_Spin5_ ->

Part1 -> 0_p_Spinner_Sticker_01



- In the Inspector change the position to

X = 0 | Y = 0 | Z = -0.14



The mission is now set up.

When a new ball starts, kickbacks are activated.

When the spinner spins 5 times, kickbacks are reactivated.

Create a multiball mission

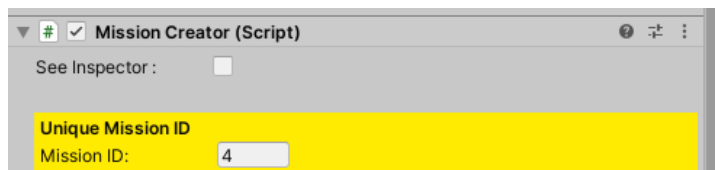
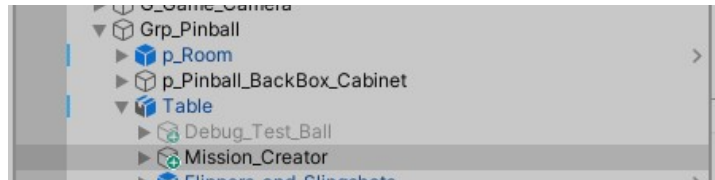
We are going to create a multiball mission.

When the player complete the part 1 of the mission the multiball starts.

Multiball ended when there is only one ball on playfield.

In the Hierarchy select **Mission_Creator** in the Hierarchy tab.

(Grp_Pinball → Table → Mission_Creator)



In the Inspector change **Mission Name** parameter to: **Multiball**



In Mission Part 1 select:

Mechanics: **Target**

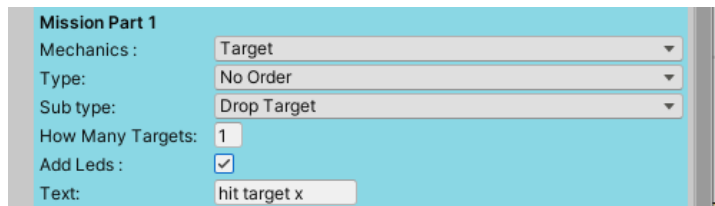
Type: **No Order**

Sub Type: **Drop Target**

How Many Targets: **1**

Add Leds: **True**

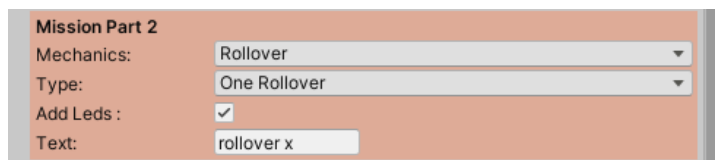
Text: **hit target x**



In Mission Part 2 select:

Mechanics: **Rollover**

We will setup the other Rollover settings later.



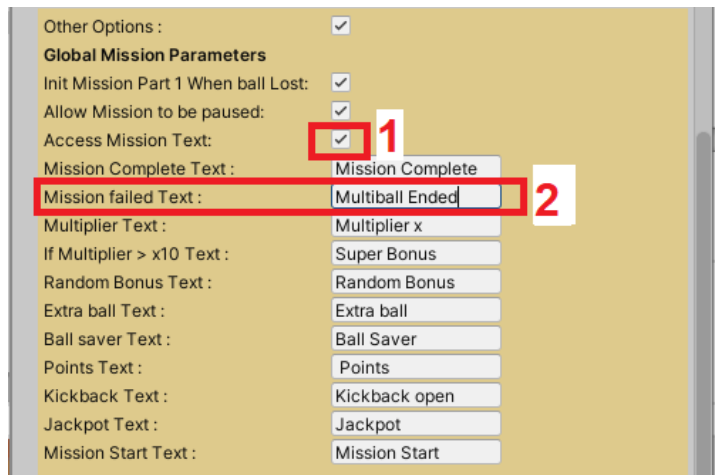
In **Global Mission Parameters** set:

Access Mission Text: **True** (spot 1)

A list of text appears.

We want to display the text **Multiball Ended** when the multiball mission stopped.

- Change **Mission failed Text** to **Multiball Ended** (spot 2).

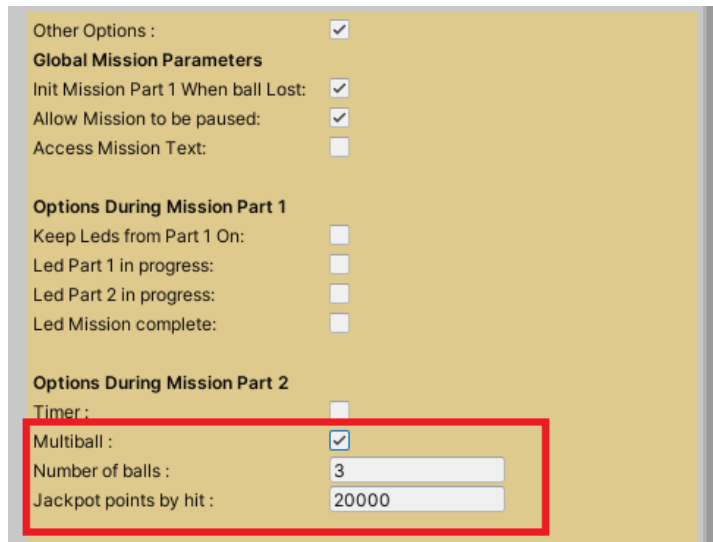


In **Options During Mission Part 2** set:

Multiball: **True**

Number of balls: **3**

Jackpot points by hit: **20000**



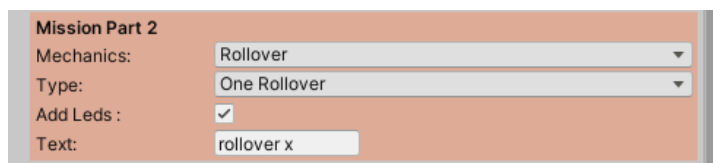
In Mission Part 2 select:

Mechanics: **Rollover**

Type: **One Rollover**

Add Leds: **True**

Text: **rollover x**



IMPORTANT:

The mission part 2 **MUST** use Rollover mechanics.

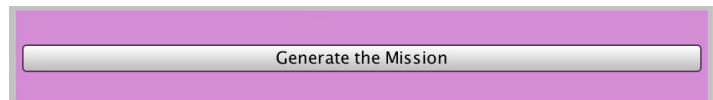
However it is possible to use one of the 3 types of rollover:

One Rollover

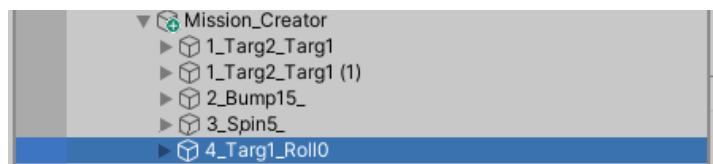
No Order

Order

- Press **Generate the Mission** button.



The mission is generated inside the gameObject **Mission Creator**



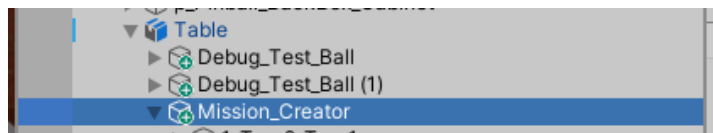
IMPORTANT:

To avoid generating multiball again when creating another mission don't forget to uncheck **Multiball** toggle and reset **Mission failed Text**.

To do that:

In the Hierarchy select **Mission_Creator** in the Hierarchy tab.

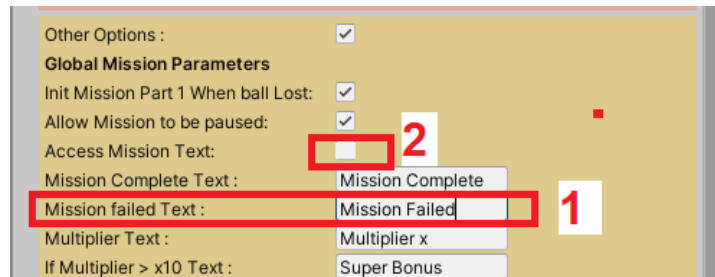
(Grp_Pinball → Table → Mission_Creator)



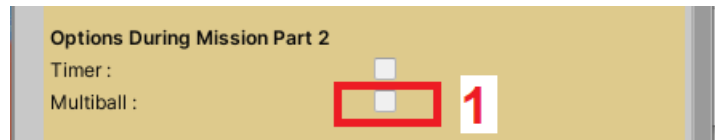
In **Global Mission Parameters** set:

-Change **Mission failed Text** to **Mission Failed** (spot 1).

-Access Mission Text: **False** (spot 2)

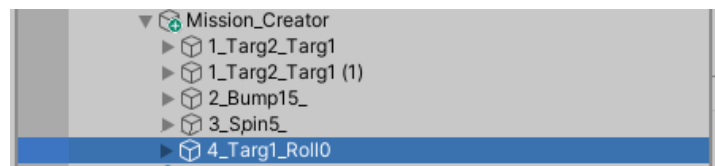


In **Options During Mission Part 2** set:
Multiball: **False** (spot 1).



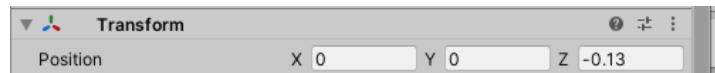
The mission is on the same position as the first one.

In the Hierarchy select **4_Targ1_Roll0**



Grp_Pinball ->
Table -> Mission_Creator ->
4_Targ1_Roll0

- In the Inspector change the position to **X = 0 | Y = 0 | Z = -0.13**



The mission is now set up.

When the target is hit, multiball starts.

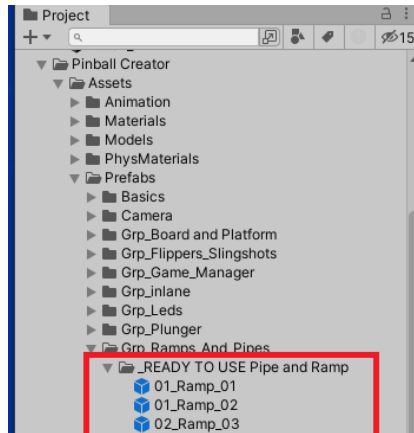
The player wins 20000 points each time a ball hit the rollover.

Add a ramp

You find ready to use ramp and pipe inside folder:

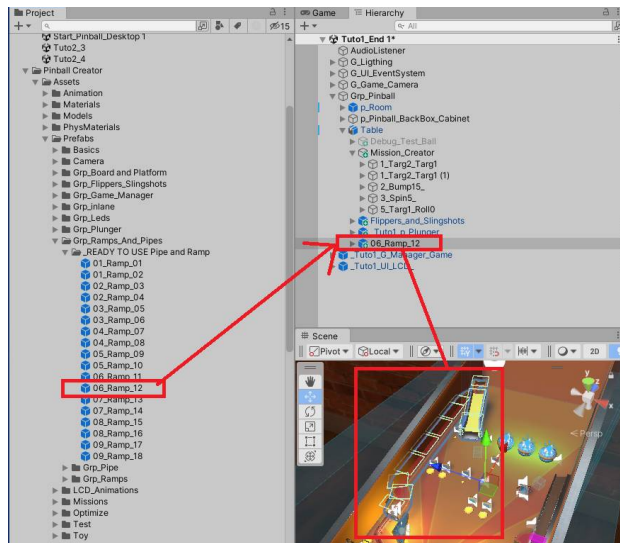
_READY TO USE Pipe and Ramp

Project -> Assets -> Prefabs ->
Grp_Ramps_And_Pipes -> **_READY TO USE Pipe and Ramp**



As an example : drag'n'drop prefab **06_Ramp_12** inside gameObject **Table** on the Hierarchy.

(Project -> Assets -> Prefabs ->
Grp_Ramps_And_Pipes -> **_READY TO USE Pipe and Ramp** -> **06_Ramp_12**)



Note:

If you want to create your own ramp and pipe see [Documentation_Part_2](#) section **Ramp and pipe**.

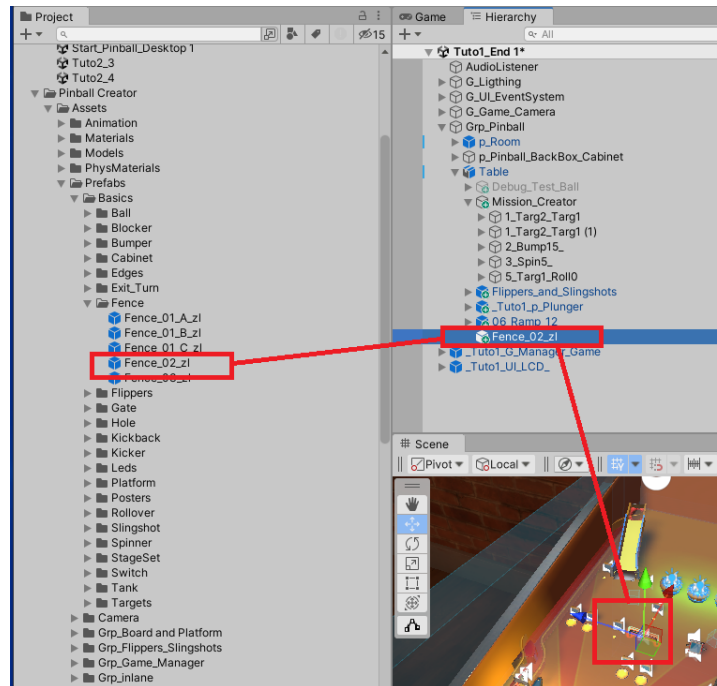
Add ready to use prefab

To easily create pinball table, the asset gives you ready to use prefabs.

You find all prefabs inside folder **Prefabs** on Project folder
(Project -> Assets -> Prefabs).

As an example : drag'n'drop prefab **Fence_02_zl** inside gameObject **Table** on the Hierarchy.

(Project -> Assets -> Prefabs -> Basics
-> Fence -> Fence_02_zl)

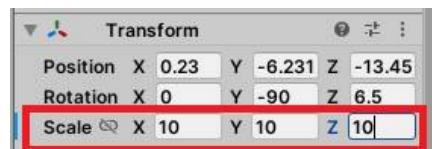


Tips to move with precision an object

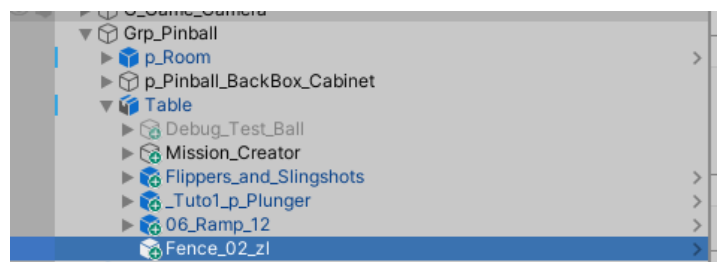
Sometime it is necessary to move with precision an object on the table. We are going to use **Fence_02_zl** to explain the process.

- In the Hierarchy select **Table**
(Grp_Pinball -> Table)

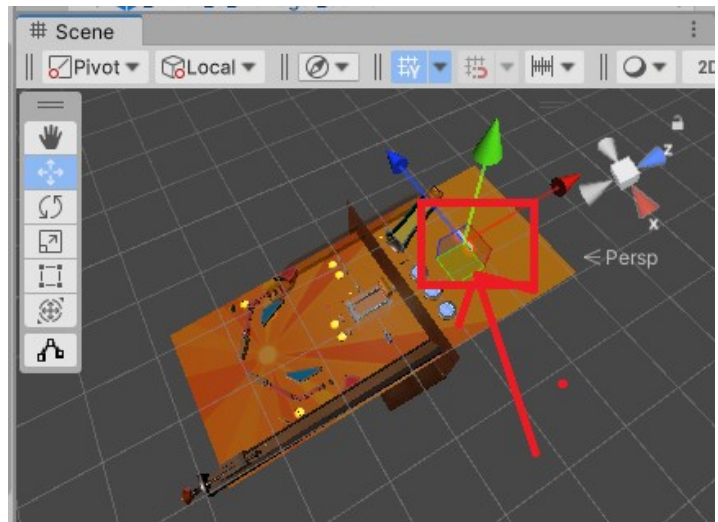
- In the Inspector scale **Table** by 10.
Scale: **X = 10** | **Y = 10** | **Z = 10**



- In the Hierarchy select **Fence_02_zl**
(Grp_Pinball -> Table -> **Fence_02_zl**)



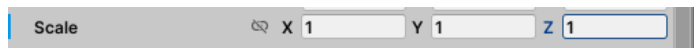
- In Scene View move your objects where you want in the table.



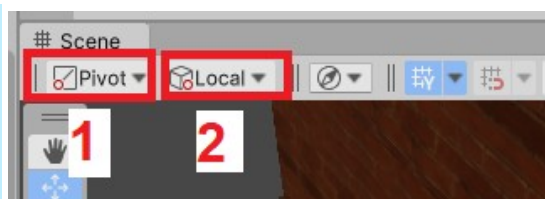
- In the Hierarchy select **Table**



- In the Inspector scale **Table** to Scale: $X = 1$ | $Y = 1$ | $Z = 1$



Tips:
To move easily a prefab on playfield the best way is to choose **Pivot** Mode and **Local** Mode.
Select pivot (pic 1) and local (pic 2)

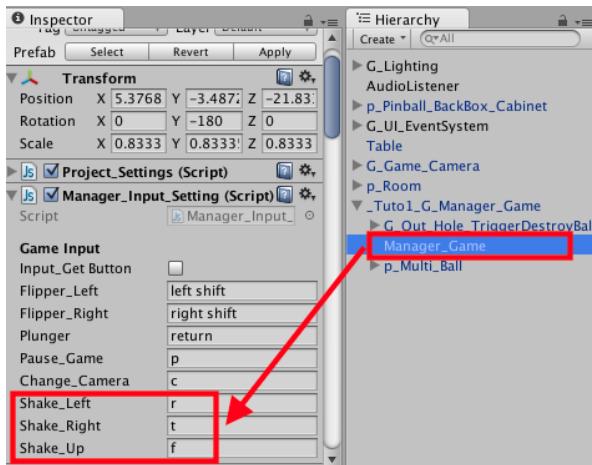


More info about the different type of prefab available in the asset [Here](#)

If you want to access the result of this tutorial open **Tuto1_End** scene.
(Project -> Assets -> Scenes -> Tuto -> Tuto1 -> **Tuto1_End**).

8 Info + : Nudge

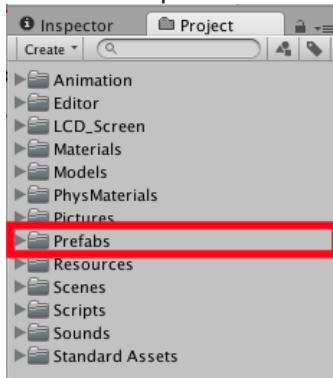
During a game, it is possible to use nudge technique by pressing button **D**, **K** or **Space**. If you want to modify these inputs, select the gameObject **_Tuto1_G_Manager_Game** on the Hierarchy and change the variables Shake Left, Shake Right and Shake Up.

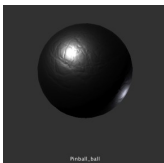

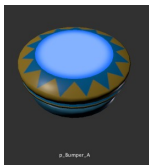
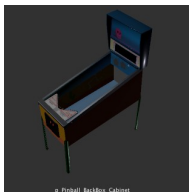



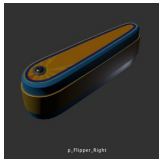
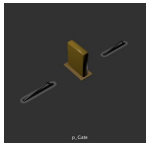

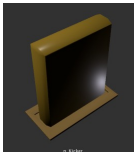

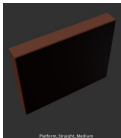
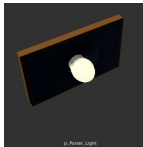

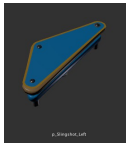
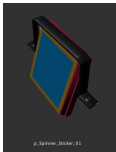


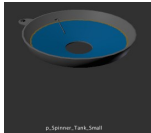
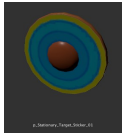
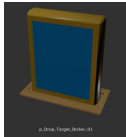

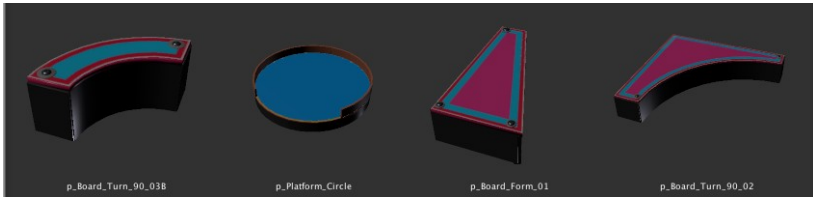
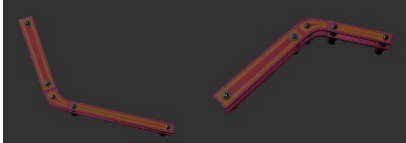




This section is complete.

Ready to use Prefabs folder : overview

This section shows the different type of prefabs you can use to create pinball tables.
You find all prefabs inside folder **Prefabs** on Project folder (Project -> Assets -> Prefabs).



 p.ball_001	 p.Blocker_A	 p.Bumper_A	 p.Pickup.Backbox_Cabinet	 Edge_Turn_00_01	
Ball	Blockers	Bumpers	Cabinet	Edges	Exit
 Fence_01_C	 p.Flipper.Right	 p.Gate	 p.Hole	 p.Kicker	 p.Led.Cabinet_001_01
Fence	Flipper	Gate	Hole	Kicker	Leds
 Platform.Right_0000	 p.Poster.Left	 p.Rollover	 p.Slingshot.Left	 p.Spinner.Right_01	 p.Stage
Platform	Poster	rollover	Slingshot	Spinner	StageSet
 p.Switch_001	 p.Spinner_Tank.Small	 p.Machine.TargetBox_01	 p.Box.Target.Box_01		
Switch	Tank	Targets	Targets	Grp_Flippers_Slingshots	
 p_Board_Turn_90_03B p_Platform.Circle p_Board_Form_01 p_Board_Turn_90_02					
Grp_Board and Platform				Grp_Inlane :	
 p.Plunger_01 p.Plunger_02			 p.Ramp_01 p.Ramp_02 p.Pipe_01 p.Pipe_02		
Grp_Plunger			Grp_Ramps And Pipes		
LCD_Animations	Missions	Test	Toy	UI	

Ball :

Blockers : Ball will bounced on these objects

Bumpers : Ball will bounced on these objects (a force is added)

Cabinet : The Pinball box

Edges : Create edges on pinball with these objects
Exit_Turn : Special edge
Fence : use to decorate the pinball
Flipper : There is a left flipper and a right flipper. Add flipper everywhere on playfield.
Gate : Use these combination of objects to create a gate on your pinball
Hole : 1. Ball is catch 2. Ball is ejected where you want on playfield
Kicker : Ball will bounced on these objects (a force is added)
Leds : 3 type of leds. Bulb, small bulb and sprite
Platform : use to decorate the pinball
Poster : use to decorate the pinball
rollover : ball must pass through on the rollover
Slingshot : Ball will bounced on these objects (a force is added)
Spinner : ball must rotate the spinner
StageSet : use to decorate
Switch : Ball could pass through on in a single direction
Tank : use in association with pipe
Targets : there is two types of targets : Stationary and drop targets
Camera : Find Camera system, Basic Camera
Grp_Board and Platform : Create edges and decoration on pinball with these objects
Grp_Flippers_Slingshots : flipper left, right and slingshot left right ready to use
Grp_Game_Manager : Prefabs to manage game rules.
Grp_Inlane : Create edges and decoration on pinball with these objects
Grp_Leds : Prefabs with leds and led animation ready to use
Grp_Plunger : auto, manual short and long plungers
Grp_Ramps_And_Pipes : add a ramp
LCD_Animations : Find Two examples of LCD animation
Test : Debug_Test_Ball is a prefab to help you test a mission
Toy : an example of toy using particle and an example of toy using animation.
UI : G_UI_Game_Interface : An interface for the game.
 G_UI_LCD : Use a LCD Screen.

All the prefab are available in the **Showroom** scene (Project -> Asset -> Scenes->)

You find complete informations about these objects on [Documentation Part 2](#)

Go further

If you want to customize more your pinball, read the PDF [Documentation_Part2](#) . You could look at :

- Create your ramp and pipe,
- UI Interface,
- LCD Screen,
- LED animation system

FAQ

Section Contents :

How to customize led sprite ?

[link](#)

How to make a led blinking ?

[link](#)

How to modify basics settings from a mission ?

[link](#)

How to modify pinball illustration (cabinet, playfield, leds ...)

[link](#)

Light intensity and pixel light count

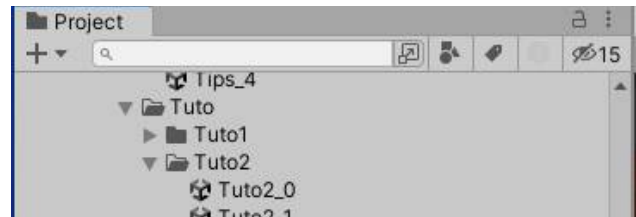
[link](#)

How to customize led sprite ?

1 Open scene Tuto2_0 :

In Project tab open Tuto2_0

(Project -> Assets -> Scenes -> Tuto -> Tuto2
-> **Tuto2_0**)

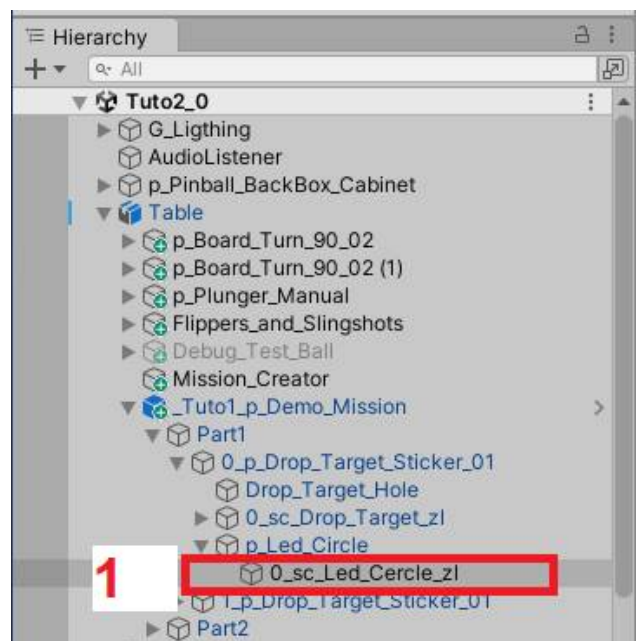


2 Choose the led you want to modify :

Step 1 :

On **Hierarchy** select gameObject
0_sc_Led_Cercle_zl

(Table -> _Tuto1_p_Demo_Mission ->
Part1 -> 0_p_Drop_Target_Sticker_01 ->
p_Led_Circle -> **0_sc_Led_Cercle_zl**)
(pic 1)



Step 2 :

In the Inspector
Clic on the circle next to **Plane_Led_01** (pic 2)



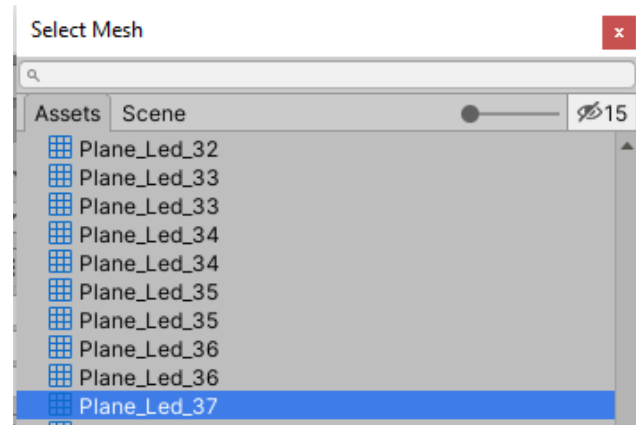
3 Select a new sprite

A new window name **Select Mesh** appears.

In the list select a new Plane.

You could choose between
Plane_Led_01 and **Plane_Led_64**

As an Example choose **Plane_Led_37**.



You see the new led sprite on the scene view.



If you have a problem open **Tuto2_1**

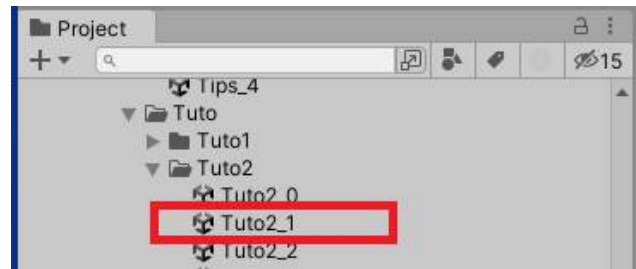
(Project -> Assets -> Scenes -> Tuto -> Tuto2
-> **Tuto2_1**)

How to make a led blinking ?

1 Open scene Tuto2_1 :

In Project tab open Tuto2_1

(Project -> Assets -> Scenes -> Tuto -> Tuto2
-> Tuto2_1)

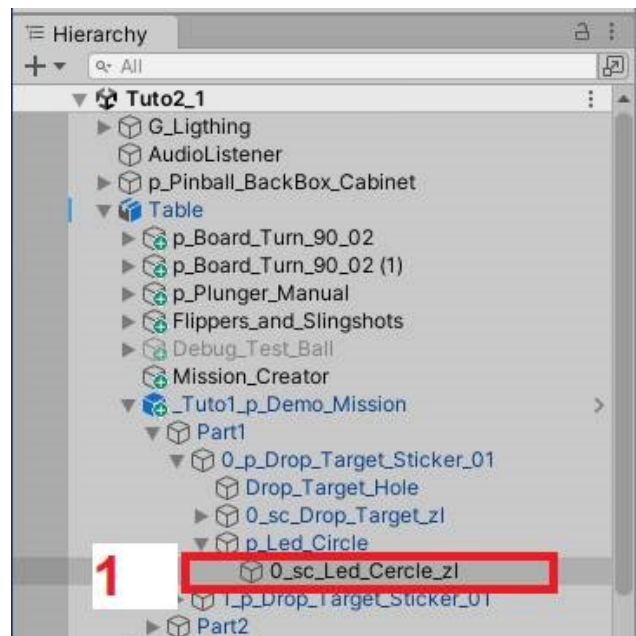


2 Make the led blink when the led is turned on :

Step 1 :

On Hierarchy select gameObject
0_sc_Led_Cercle_zl

(Table -> _Tuto1_p_Demo_Mission ->
Part1 -> 0_p_Drop_Target_Sticker_01 ->
p_Led_Circle -> 0_sc_Led_Cercle_zl)
(pic 1)



Step 2 :

On script ChangeSpriteRenderer check the
box B_Blinking. (pic 2)



Step 3 :

Press Play



Step 4 :

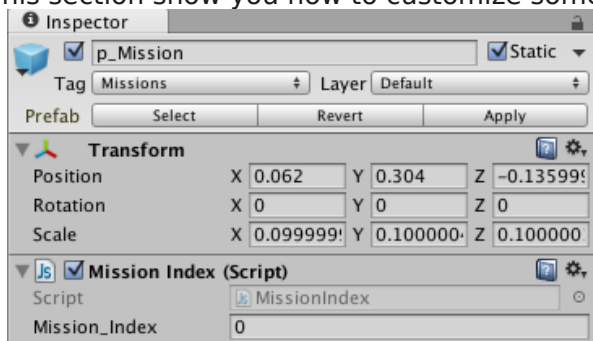
Press Enter (or return) to start a game.

Led sc_Plane_Led_01 blink.

If you have a problem open Tuto2_2 (Project ->
Assets -> Scenes -> Tuto -> Tuto2 -> Tuto2_2)

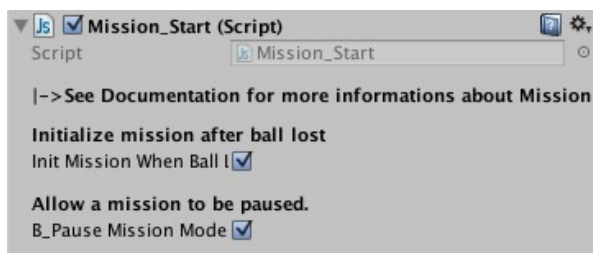
How to modify basics settings from a mission ?

This section show you how to customize some mission parameters.



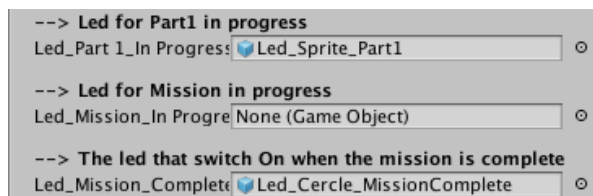
Tag : Missions

Mission_index : **VERY IMPORTANT** Choose a unique Index for each mission.



InitMissionWhenBallLost : if True the mission is init when the player lose a ball. False the mission is init only if it's the part 2 of the mission or when the player is game over.

b_PauseMissionMode : If false. Mission is not affected by the pause of other mission. And the mission couldn't pause other mission

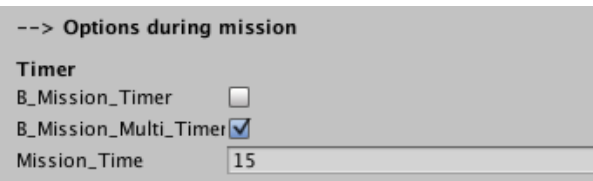
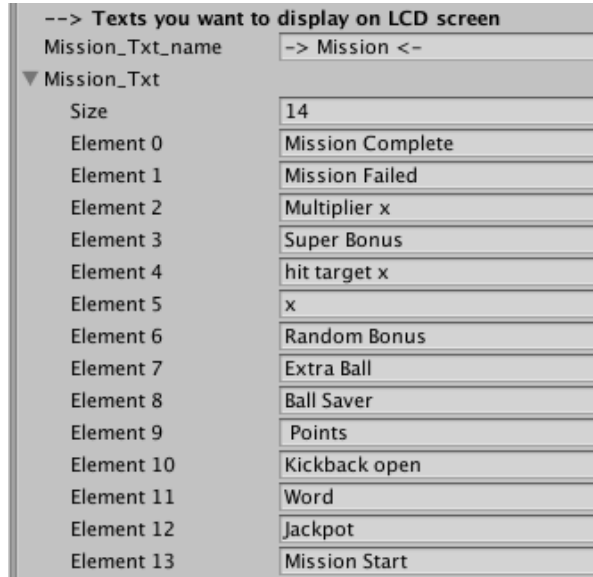


Led_Part1_InProgress : Switch On a led when mission Part1 is in progress

Led_Mission_InProgress : Switch On a led when mission Part 2 is in progress

Led_Mission_Complete : Switch On a led when mission is complete. This led stay switch On until the player is game over

Mission_Txt_name : Mission name



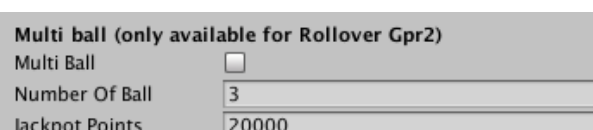
When mission Part 2 start you could choose to add a mission Timer. If timer = 0 mission is failed.

b_Mission_Timer : If true : Timer is not initialized during mission part 2.

b_Mission_Multi_Timer : If true : Timer is initialized when ball hit an object

Mission_Timer : Timer duration

Multi Ball is only available with Rollover on part 2



Multi-ball starts when Mission part 1 is ended

and stop when there is only one ball on playfield.

MultiBall : if true, multi ball start when mission part 1 is ended.

MultiBall ended when all the multiball are ejected and there is only one ball on playfield

NumberOfBall : The number of multi ball.

JackpotPoints : Points win when ball go through a rollover

Bonus options when a mission is complete

--> Options when Mission is Complete

Points

Random Bonus between (ExtraBall,BallSaver,Multiplier,Points)

Random_Bonus ☐

Extra Ball ☐

Ball Saver ☐

Ball Saver Duration

Multiplier ☐

Kick Back ☐

Begin With Kick Back ☐

▼ Obj_Door_Kickback

Size

▼ Obj_Led_Kickback

Size

Choose only one option at a time

Random_Bonus : choose a bonus randomly between Extra Ball, Ball Saver, Multiplier, points

ExtraBall : win an extra ball

BallSaver : Ball saver start

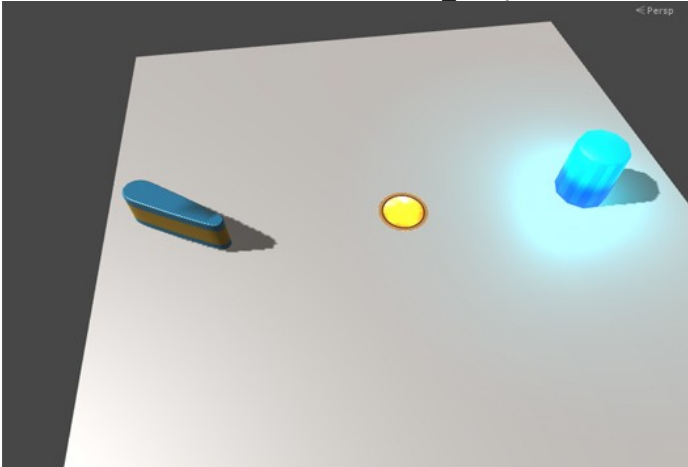
BallSaverDuration : Choose the duration of the ball Saver

Multiplier : increase the Bonus multiplier

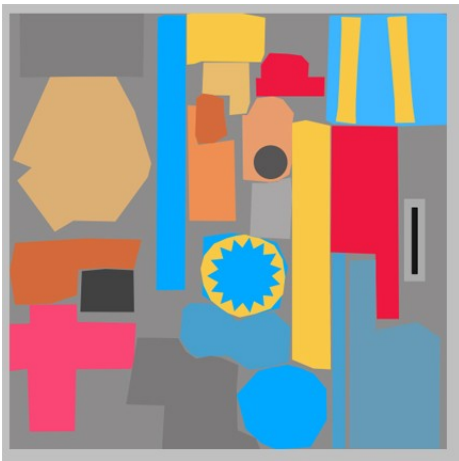
How to modify pinball illustration (cabinet, playfield, leds ...)

Step 1 : In Unity open : [Tutorial_Graphics_v2](#)

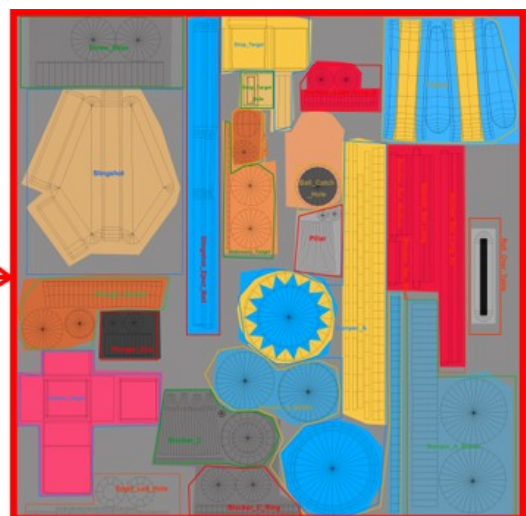
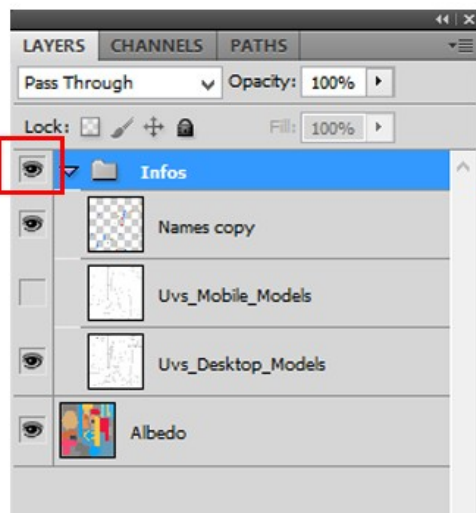
Assets -> Scenes -> Tuto -> Tuto_Graphics -> Tutorial_Graphics_v2



Step 2 : Open your favorite drawing software :



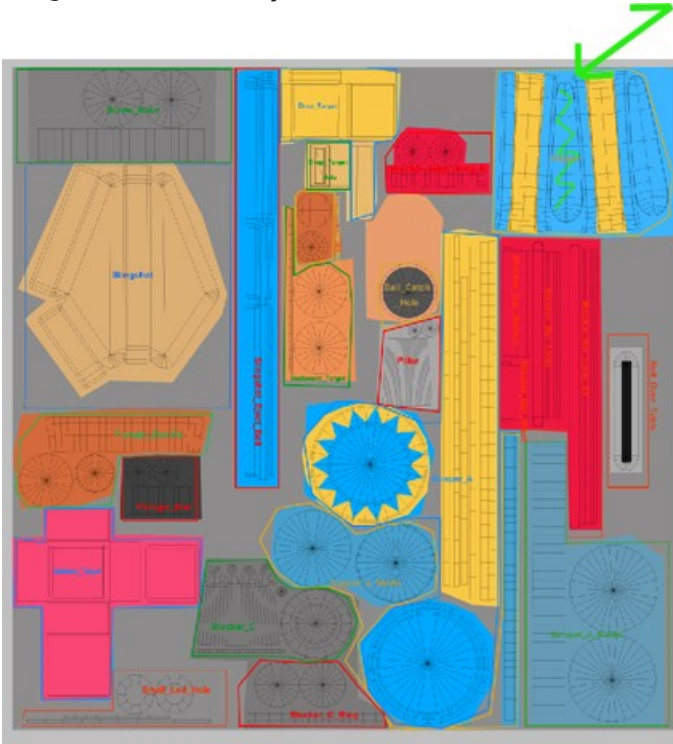
Step 3 : Open Assets ->Textures -> Textures_Tuto -> [Tuto_Texture_02_Albedo_v2](#)



Step 4 : Enable Infos Layer

Step 5 : Create new layer for greater comfort.

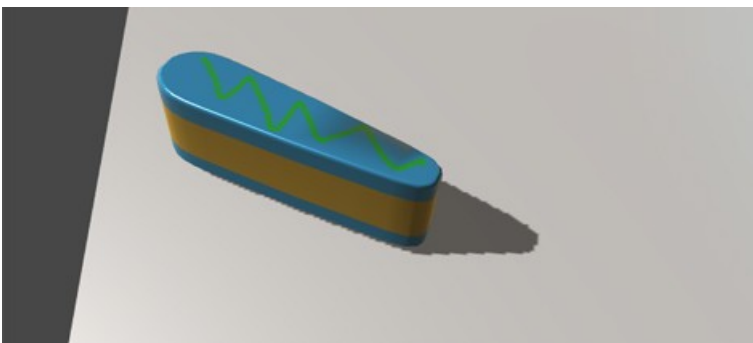
Step 6 : Draw what you want on the texture.



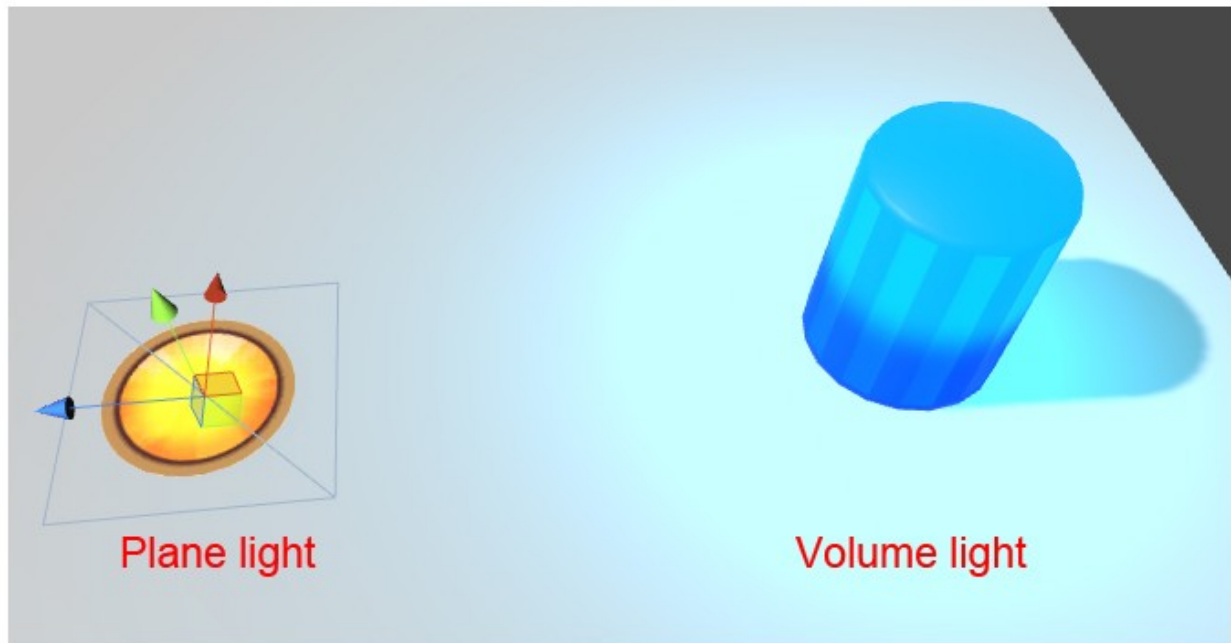
Step 7 : Disable Infos Layer

Step 8 : Save Texture in psd

Step 9 : Open Unity : texture automatically change



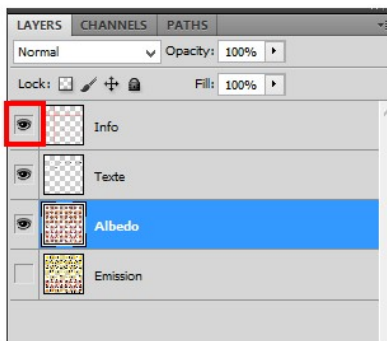
Lights are separate in 2 categories : plane light and volume light
Each light need one albedo texture and one emission texture.



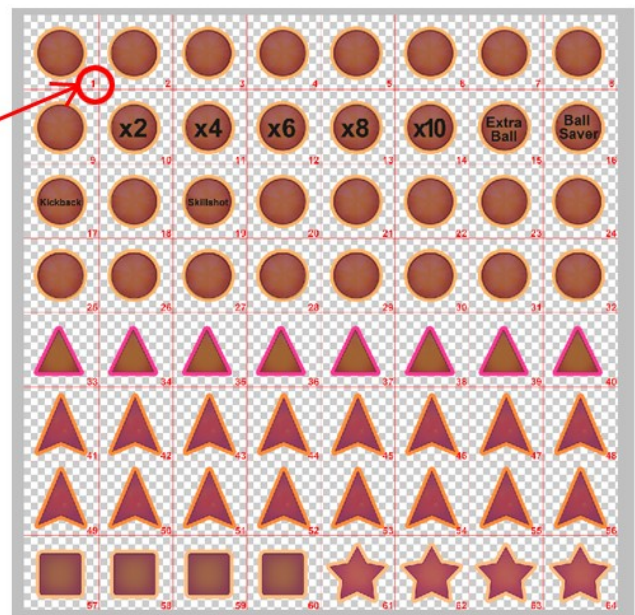
Step 1 : In your drawing software:

Open Assets ->Textures -> Textures_Tuto -> [Tuto_Sticker_Led_01_Albedo](#)

Step 2 : Enable Infos Layer



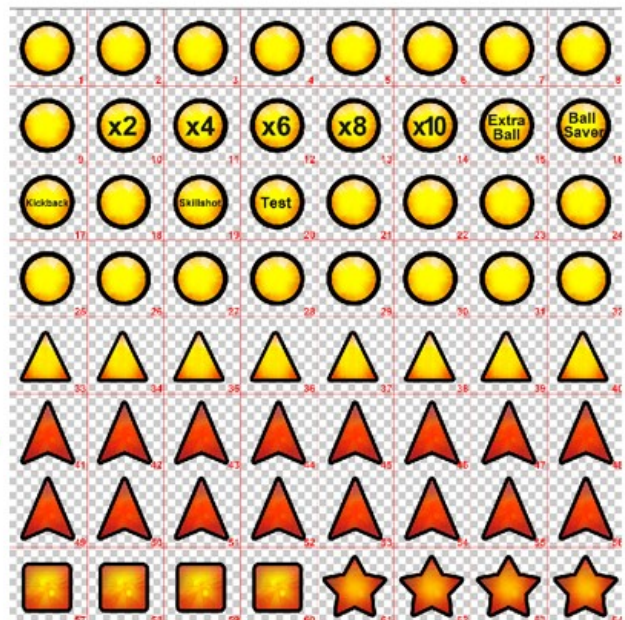
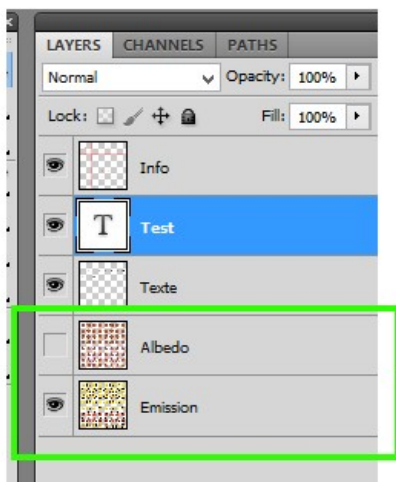
ID number
of the light



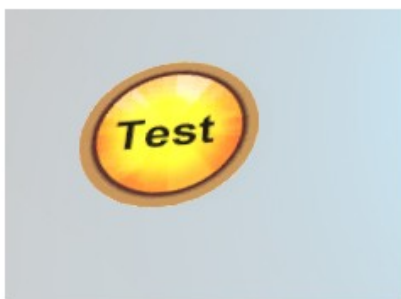
Step 3 : On a new layer write the word **Test** (In the 20 id number square)



- Step 4 :** Disable info layer
- Step 5 :** Save
- Step 6 :** Disable albedo layer
- Step 7 :** Enable Emission Layer



- Step 8 :** Save in psd with the name [Tuto_Sticker_Led_01_Emission.psd](#)



- Step 9 :** Open Unity : texture automatically change
Volume light work in a similar way.