

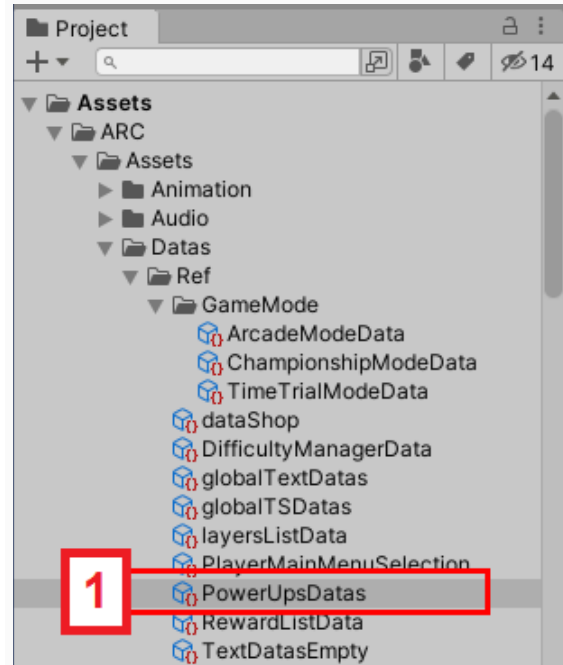
Airplane race Creator

Link

How to: Create a custom Power-up

This section describes the process to create a custom Power-up.

In the Project Tab select **PowerUpsDatas** (spot 1)
(Project tab: Assets → Datas → Ref → PowerUpsDatas)



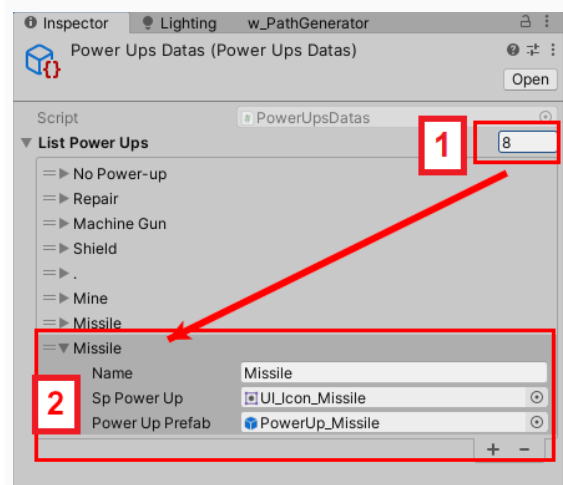
In the Inspector increase by 1 the size of the list (spot 1).

For example if the list size = 7 choose size = 8.

The last slot of the list is duplicated (spot 2).

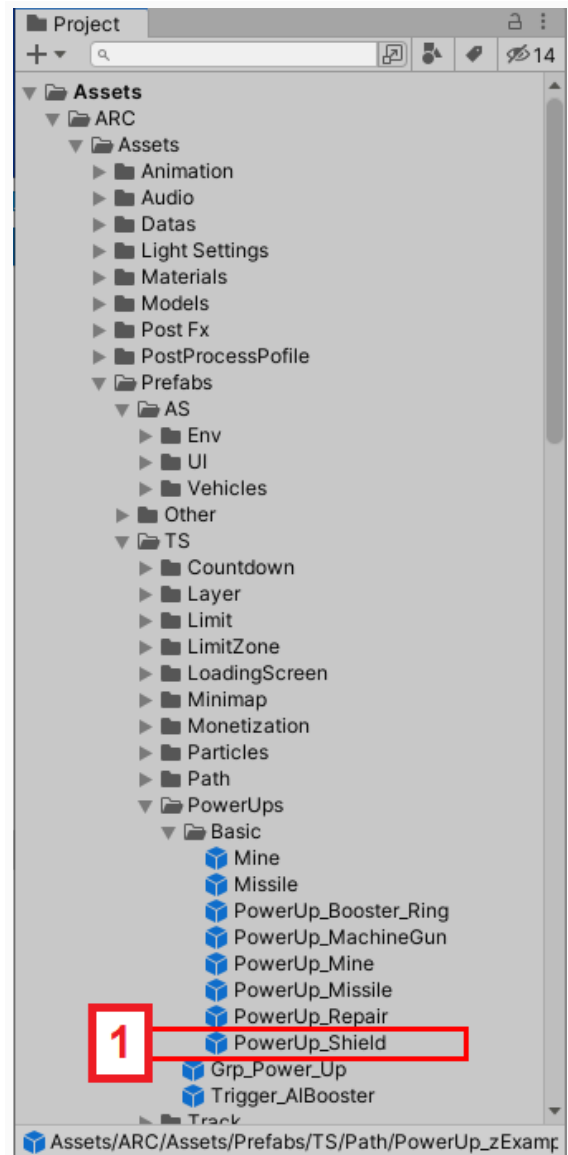
In that case Missile slot is duplicated.

We are going to setup the new slot but before we need to create a new Icon for our new power-up.



In Project tab duplicate **PowerUp_Shield** (Ctrl+D)
(spot 1)

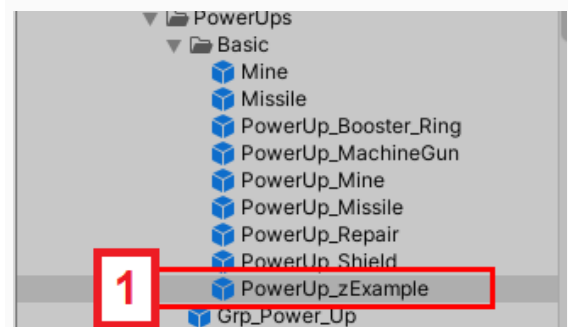
(Project tab: Assets → Prefabs → TS → PowerUps → Basics → PowerUp_Shield)



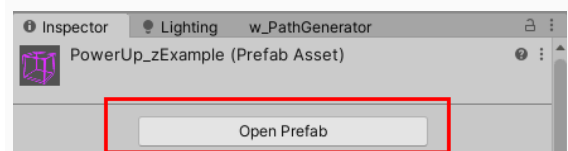
This new prefab will be used as the power-up displayed in the scene

For this example select and rename the new prefab
PowerUp_zExample (spot 1)

(Project tab: Assets → Prefabs → TS → PowerUps → Basics → PowerUp_zExample)

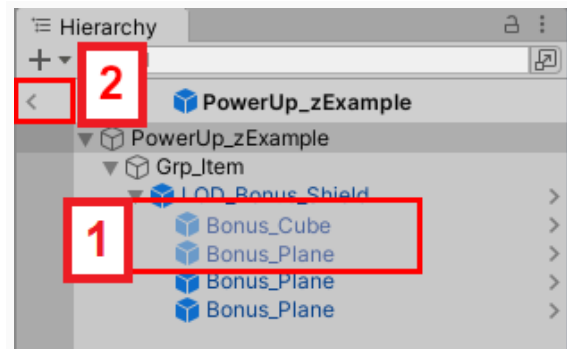


In the Inspector press **Open Prefab** button.



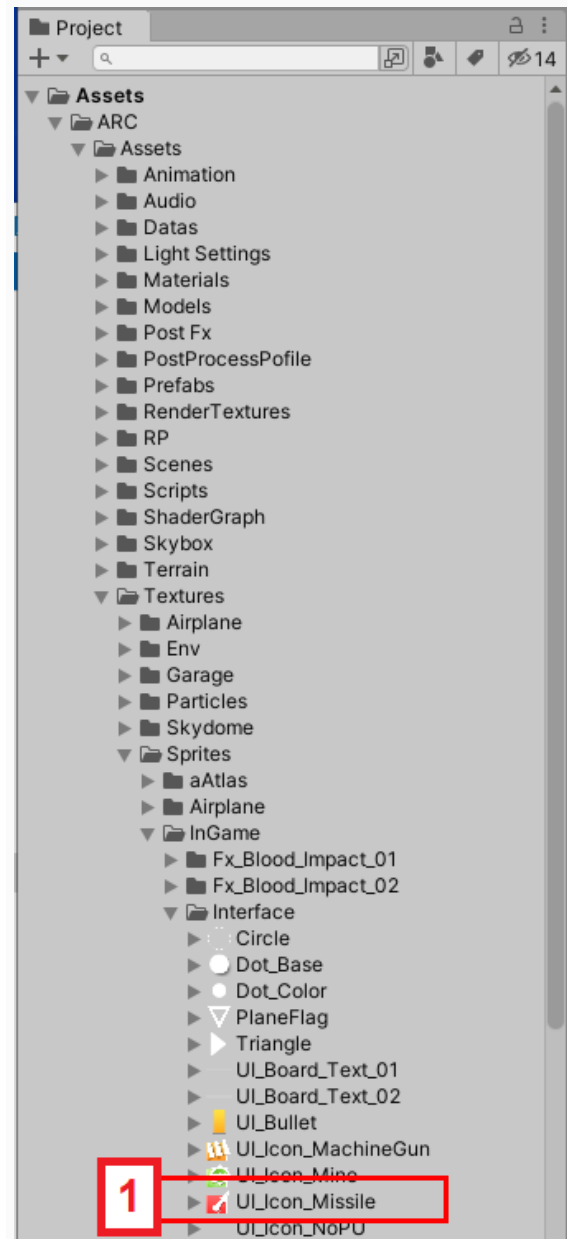
In the Hierarchy disabled the two objects spot 1.

Then close the prefab by pressing the arrow (spot 2)



In Project tab duplicate **UI_Icon_Missile** (Ctrl+D)
(spot 1)

(Project tab: Assets → Textures → Sprites → inGame → Interface
→ UI_Icon_Missile)



This new sprite will be used as the power-up sprite displayed in the UI.

For this example select and rename the new prefab **PowerUp_zExample** (spot 1)

(Project tab: Assets → Prefabs → TS → PowerUps → PowerUp_zExample)

Note: If you want you can modify the sprite in your drawing software.

In the Project Tab select **PowerUpsDatas** (spot 1)

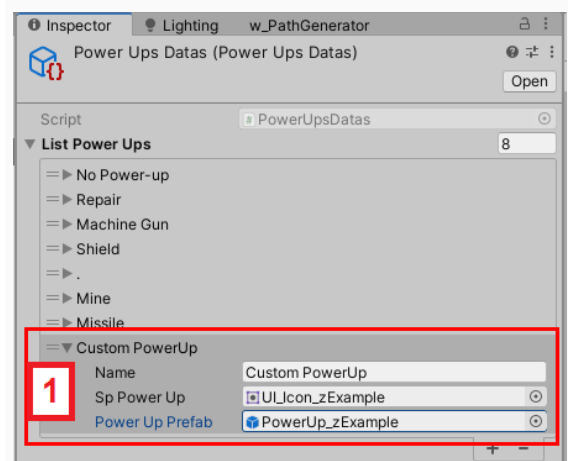
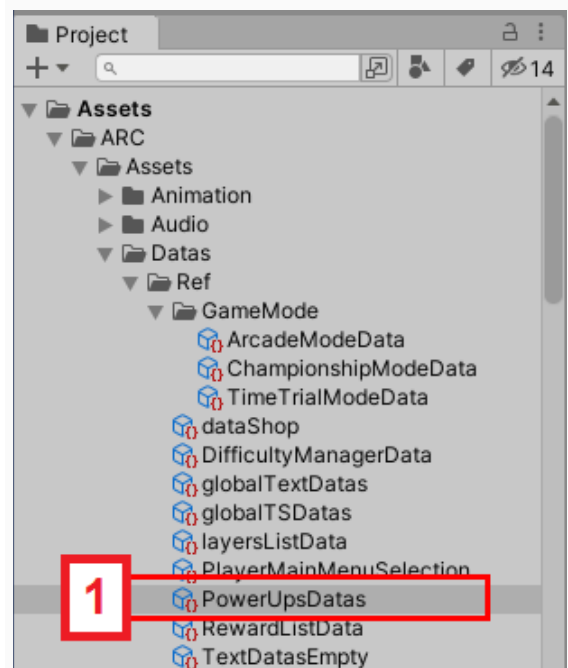
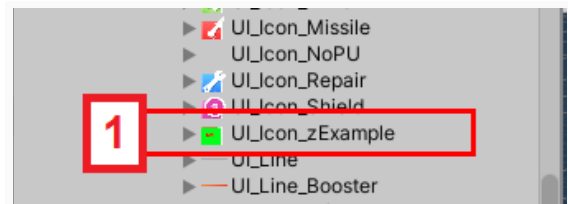
(Project tab: Assets → Datas → Ref → PowerUpsDatas)

In the Inspector:

-Rename the new slot. For this example rename it **Custom PowerUp**

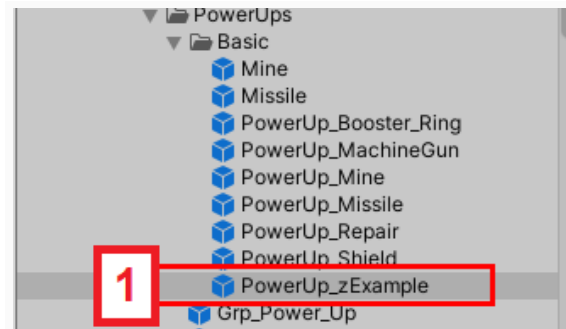
-In slot **Sp Power Up** drag and drop the sprite named **UI_Icon_zExample** we have created previously.

-In slot **Power Up Prefab** drag and drop the prefab **PowerUp_zExample** we have created previously.

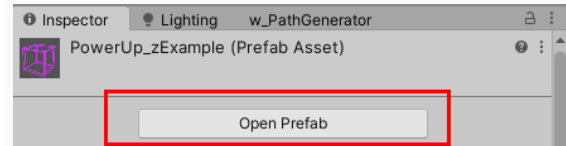


In Project tab select **PowerUp_zExample** prefab (spot 1)

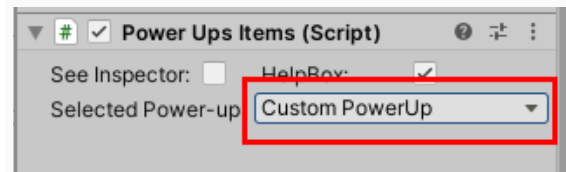
(Project tab: Assets → Prefabs → TS → PowerUps → Basics → PowerUp_zExample)



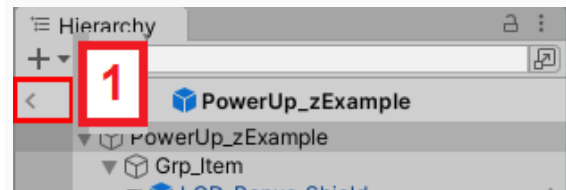
In the Inspector press **Open Prefab** button.



In the Inspector go to script **Power Up Items** and select the new power-up. In our example select **Custom PowerUp**

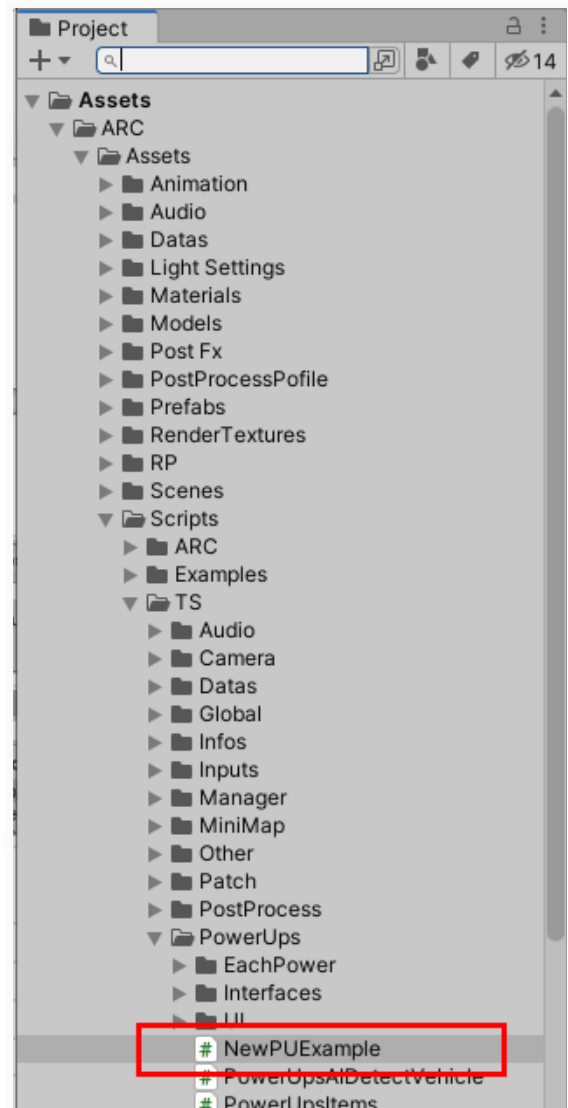


Close the prefab by pressing the arrow (spot 1)

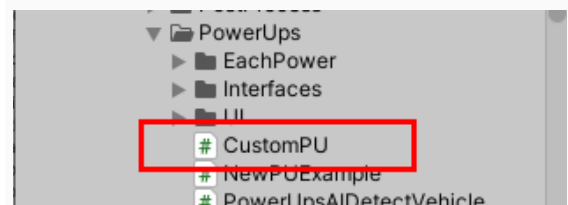


The new power-up is setup.
Now we are going to setup the vehicle to be able to use the new Power-Up.

In Project Tab duplicate the script **NewPUExample**
(Project Tab: Assets → Scripts → TS → PowerUps →
NewPUExample)

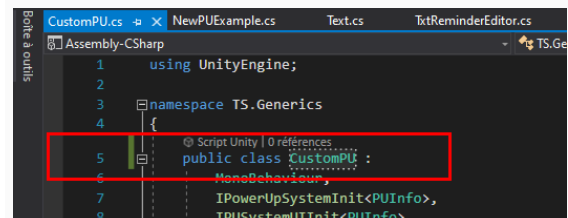


Rename it **CustomPU**



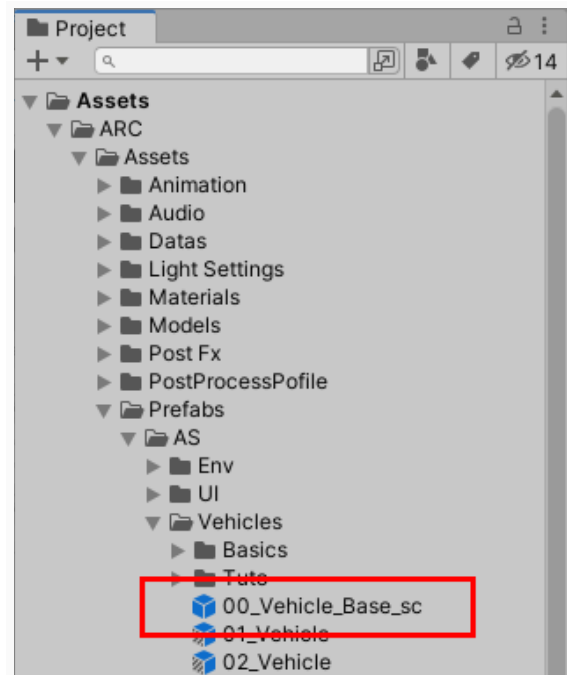
Open the script in your script editor

Change line 5 to:
`public class CustomPU :`

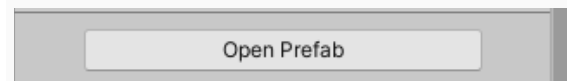


Save the script (Ctrl+S)
Go back to Unity.
Scripts are recompiled.

In the Project Tab select **00_Vehicle_Base_sc**
(Project tab: Assets → Prefabs → Vehicles →
00_Vehicle_Base_sc)

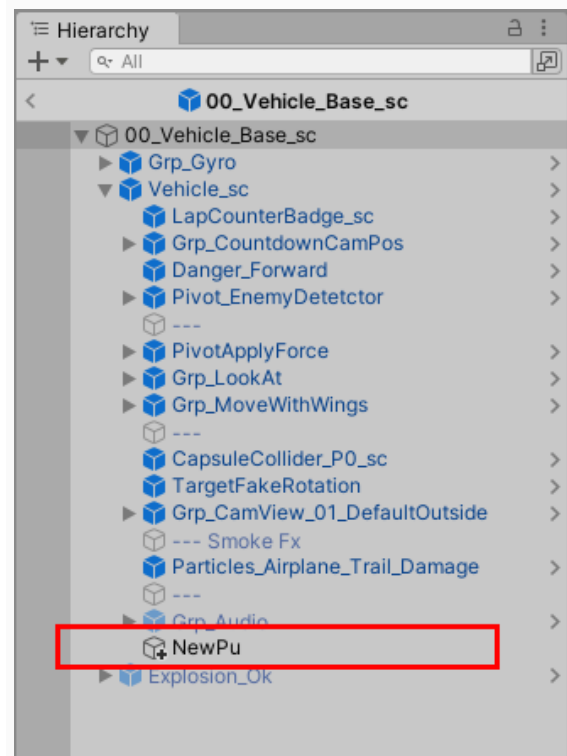


In the Inspector press **Open Prefab**.



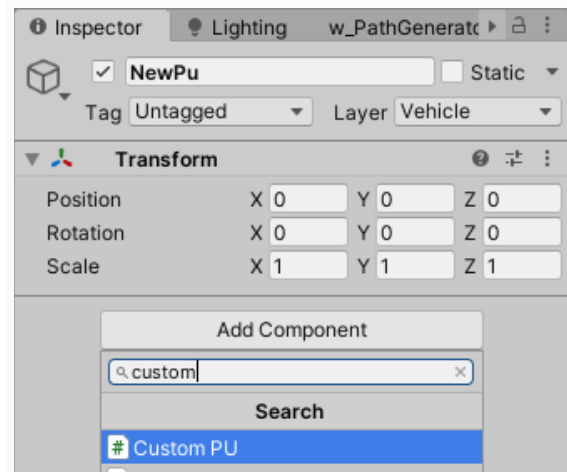
In the Hierarchy create inside **Vehicle_sc** a new
empty object.

For this Example rename it **NewPU**.

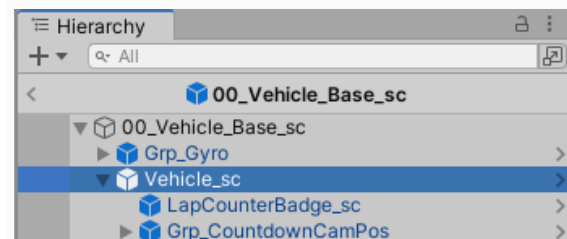


Select **NewPU** in the Hierarchy.

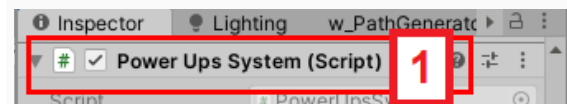
Then in the Inspector add the component **Custom PU**.



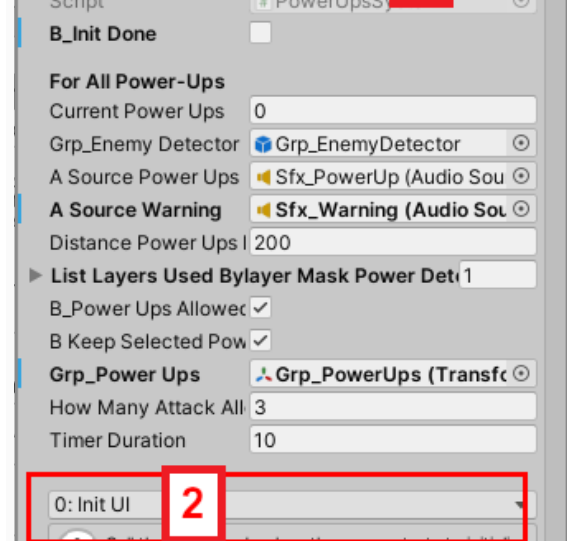
In the Hierarchy select **Vehicle_sc**
(00_Vehicle_Base_sc → Vehicle_sc)



In the Inspector go to **Power Ups System** script section (spot 1)



In the drop down menu select **0: Init U** (spot 2).



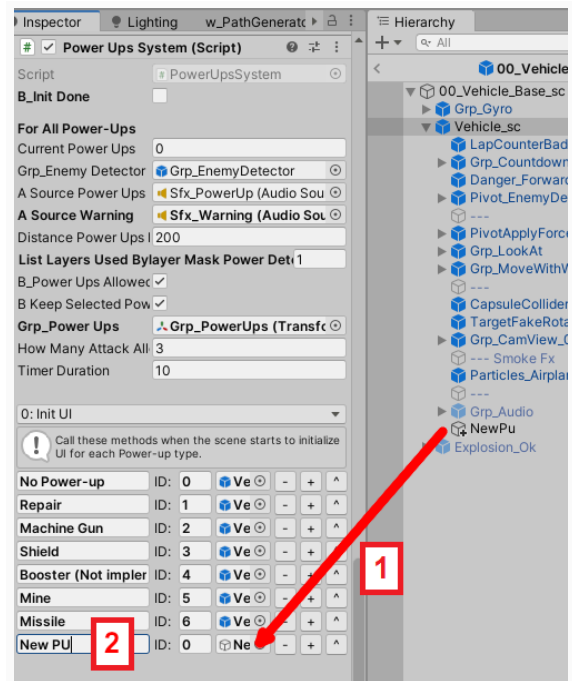
Press **+** button at the end of the list to create a new slot (spot 3)



A new slot is created.

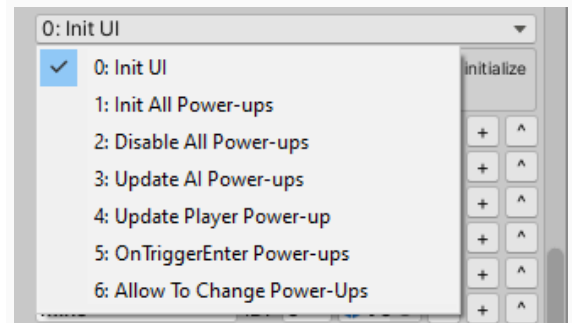
Drag and drop **NewPU** object from the Hierarchy to the empty slot (spot 1)

Choose a name for the slot (spot 2). For the example choose **New PU**.

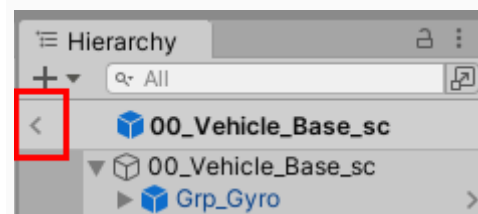


Repeat the process for each dropdown menu section:

- 1: Init All Power-ups
- 2: Disable All Power-ups
- 3: Update AI Power-ups
- 4: Update Player Power-up
- 5: OnTrigger Power-ups
- 6: Allow To Change Power-ups



Close the prefab by pressing the arrow.

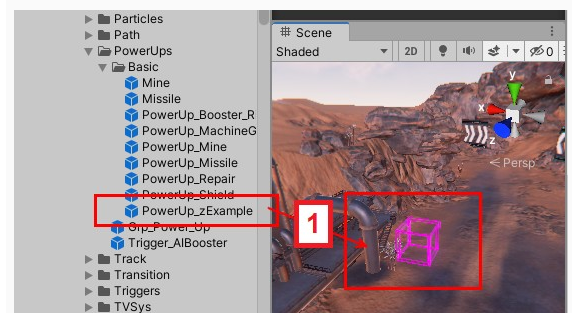


Now you are able to drag and drop in your scene the power-up prefab **PowerUp_zExample** (spot 1)

(Project tab: Assets → Prefabs → TS → PowerUps → PowerUp_zExample)

It is also possible to create a new group of power_up using this new power-up.

If you start the scene, vehicle are able to grab and use the power-up.



Scripting the Power-up behavior

Now you have to code your needed methods for your new Power-up.

Each Power-up is different. So you have to code it by yourself.

To help you, it is possible to have look to the methods created for the other Power-ups.

You will find examples for each methods in script

[PowerUPSystemAssistant.cs](#).

(Project tab: Assets -> Scripts -> TS -> PowerUps -> PowerUPSystemAssistant.cs)

For example if you want an example for

[InitPowerUpUI](#) go to script

[PowerUPSystemAssistant.cs](#) and search the method using the same name.

You will find all the default Power-up cases.