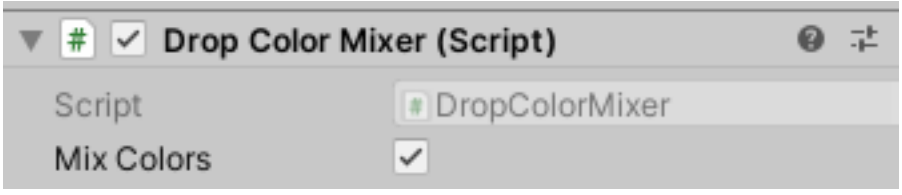
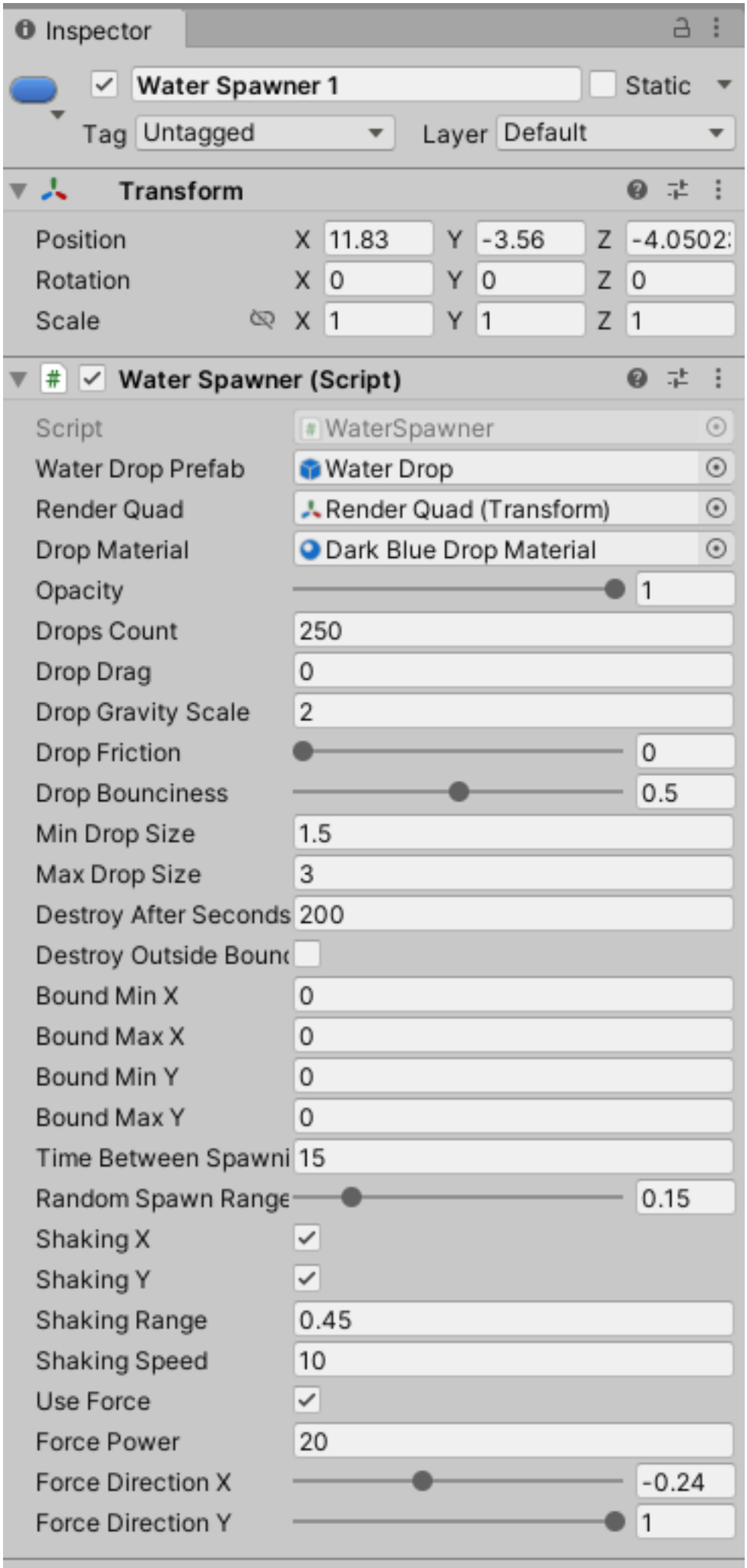
2D Water Fluid 2.0

- The name of the asset is 2D water but you can create any 2D fluid with it.
- This asset should be used only in 2D mode with orthographic camera.
- If you want to see a quick setup tutorial, please watch the video below:

https://youtu.be/1fgMQiV9g1o

- In the “Scenes” folder you will find several demo scenes.
- The main script is the WaterSpawner.cs. You will find it in the “Scripts” folder. You need to create an empty game object and attach this script to it.
- The UiManager.cs script is a sample UI script to show you how to start and stop WaterSpawner game object.
- The DropColorMixer.cs script is attached to the Water Drop prefab. It shows the “Mix Colors” checkbox. If you have multiple WaterSpawner objects in the scene and you want the drop’s color blends together, enable this checkbox.




Inspector
Water Spawner 1
Static
Tag Untagged
Layer Default
Transform
Position X 11.83 Y -3.56 Z -4.0502
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1
Water Spawner (Script)
Script WaterSpawner
Water Drop Prefab Water Drop
Render Quad Render Quad (Transform)
Drop Material Dark Blue Drop Material
Opacity 1
Drops Count 250
Drop Drag 0
Drop Gravity Scale 2
Drop Friction 0
Drop Bounciness 0.5
Min Drop Size 1.5
Max Drop Size 3
Destroy After Seconds 200
Destroy Outside Bound
Bound Min X 0
Bound Max X 0
Bound Min Y 0
Bound Max Y 0
Time Between Spawni 15
Random Spawn Range 0.15
Shaking X
Shaking Y
Shaking Range 0.45
Shaking Speed 10
Use Force
Force Power 20
Force Direction X -0.24
Force Direction Y 1

- **Water Drop Prefab**

Go to the “Prefabs” folder and drag the “Water Drop” prefab to this field. This is the main drop prefab that will be spawn by the script.

- **Render Quad**

You need to find the render quad under the Fluid prefab in the hierarchy and drag it to this field.

- **Drop Material**

From the Materials folder drag a drop material to this field. You can set the fluid color on the material.

- **Opacity**

It defines the opacity of the drops. All the drops on the screen must have the same opacity value. If you have multiple water spawner in the scene, the opacity value for all of them must be equal.

- **Drops Count**

This is the total drops count that will be spawned.

- **Drop Drag**

This is how much drag should be applied to the drops. For thick and sticky fluid use higher than zero values.

- **Drop Gravity Scale**

Here you can apply your desired gravity to the drops. The normal value is 1. For thick and sticky fluids use lower than 1 values. For the fast flowing fluids use values greater than 1.

- **Drop Friction**

This is how much friction will be applied to the drops when sliding on other colliders. For thick and sticky fluids use higher than zero values.

- **Drop Bounciness**

It defines how much bouncy are drops when colliding with other colliders.

- **Min Drop Size**

Minimum size of the drop. The drop size will be a random value between min drop size and max drop size.

- **Max Drop Size**

Maximum size of the drop. The drop size will be a random value between min drop size and max drop size.

- **Destroy After Seconds**

If you want to destroy drops after passing some times choose a value equal or bigger than 1. The default value is -1 that means the drops will not be destroyed by passing time.

- **Destroy Outside Bound**

If you check this box drops will be destroyed when goes outside the bounds that you have defined in the below sections.

- **Bound Min X**

The minimum drop.position.x value that drop can go without becoming destroyed.

- **Bound Max X**

The maximum drop.position.x value that drop can go without becoming destroyed.

- **Bound Min Y**

The minimum drop.position.y value that drop can go without becoming destroyed.

- **Bound Max Y**

The maximum drop.position.y value that drop can go without becoming destroyed.

- **Time Between Spawning**

This time should pass before spawning the next drop in milliseconds. To increase the fluid volume enter smaller value.

- **Random Spawn Range**

If you enter 0 for this field all of the drops will be spawned at the same place. By using higher values drops will be spawned in random position based on this value.

- **Shaking X**

If you check this box the spawner object will shake in x direction based on Shaking Range and Shaking Speed values.

- **Shaking Y**

If you check this box the spawner object will shake in y direction based on Shaking Range and Shaking Speed values.

- **Shaking Range**

The range that spawner object will be moving along it.

- **Shaking Speed**

The movement speed of the spawner object.

- **Use Force**

If you check this box the force will be applied to the drops.

- **Force Power**

The force power that will be applied to the drops.

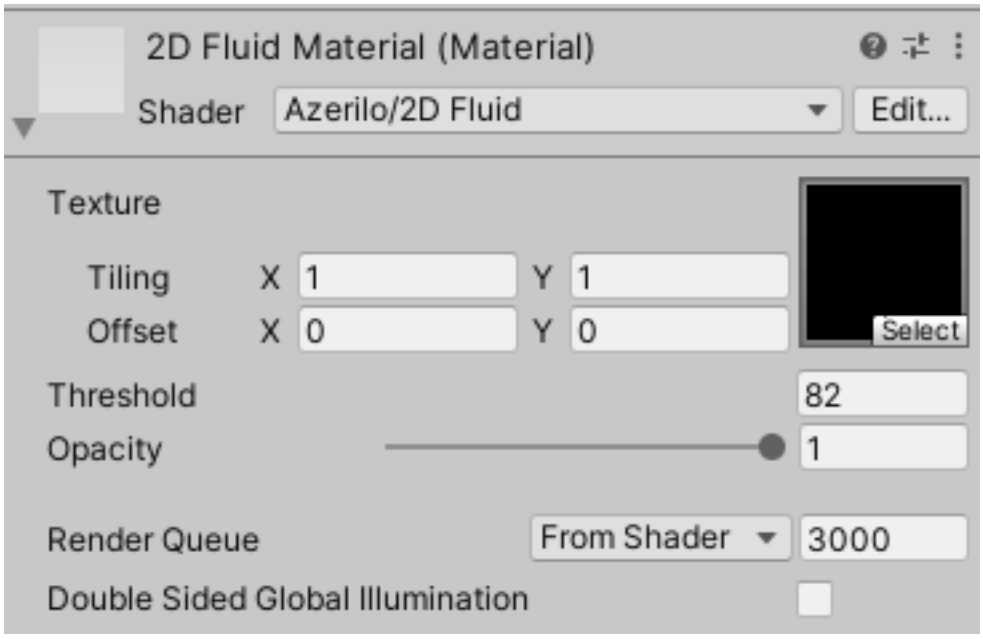
- **Force Direction X**

The X direction of the force.

- **Force Direction Y**

The Y direction of the force.

- The most important part of this asset is the “Fluid” prefab. You just need to drag it to the scene. First, on your main camera deselect the Water from its culling mask property. Under the Fluid prefab there is the water camera and its culling mask is set to water layer. It will render water drops on a render texture. In the “Shaders and Materials” folder you will find it. It is called “Fluid Render Texture”. Under the water camera there is a quad with a special shader that uses the fluid render texture as its texture.



- Don’t change the Opacity in this window. You should set the opacity in the WaterSpawner game object.
- The Threshold defines how the drops blend together. The default value is good enough for most purposes.
- The scale of the Render Quad must be two times of the size of Water Camera. The default size of the water camera is 22 so the X and Y properties of the scale on Render Quad must be 44.
- If you want to show the water behind or in front of other sprites you can do it by changing the “Order in Layer” property of the sprites.

If you need more help please contact me:

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