

# **Documentation**

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## **Scripts**

### Main Scripts

ZippyWater2D | Core water script.

ZippyWater2DCollider | Collider script detects objects falling in water.

### **Secondary Scripts**

ZippyWater2DAnimateColors | Animates water colors with gradients.

ZippyWater2DBeachBall | Applies random force to a Rigidbody2D object.
ZippyWater2DCenterOfMass | Changes center of mass on Rigidbody2D object.

### **External Resources**

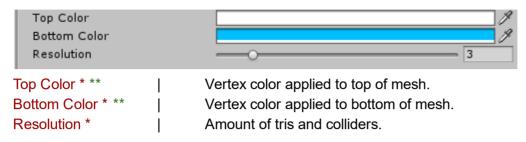
#### **Demos**

YouTube Video Android APK

## **Properties**

\* Cannot edit in runtime

#### **Appearance Settings**

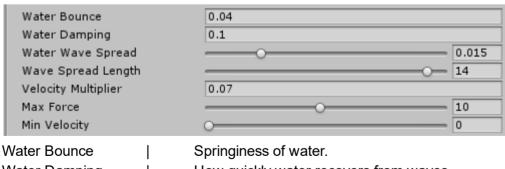


<sup>\*\*</sup> Call ZippyWater2D.GenerateMeshColors(); after changing colors.

### Size Settings

Width Height Collider Height Offset Update Wave Colliders Update Wave Colliders	26.87 4.7 -0.4	
Collider Height Offs*  Update Wave Collid	Water size in units. 1 unit = 1m. Reduces size of colliders to allow light objects to su Moves wave colliders based on water waves. Time between collider positions are updated.	ubmerge.

#### Water Splash Settings



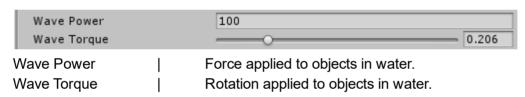
Water Damping | How quickly water recovers from waves.
Water Wave Spread | Ripple power.
Wave Spread Length | Ripple travel length.
Velocity Multiplier | Colliding objects splash power.
Min Velocity | Velocity required to splash water.

#### Water Wave Settings

Enable Wave	✓
Noise	0
Random Splash Delay	3
Random Splash	0
Wave Height	0.02
Wave Speed	4.27
Wave Limit	01
Wave Frequency	-0.41

**Enable Wave** Enabled constant sine wave. Noise Adds random noise to water line. Random Splash Del... | Time between each time water updates. Random Splash Force of randomly added splashes to wave. Wave Height Height of the sine wave. Wave Speed Travel speed of the sine wave. Wave Limit Limits the vertical speed of wave, ripples and splash. Wave Frequency Distance between waves.

#### Wave Force Settings



### **UV & Material Settings**



Create UV \* Generates texture UV map to mesh.

UV Scale Adjust size texture should be displayed in.

UV Distort Distorts UV based on waves, ripples and splash.

Material Offset Speed Animates horizontal offset of mesh material.

Sorting Order Distorts UV based on waves, ripples and splash.

Animates horizontal offset of mesh material.

2D sprite system sorting order.

Sorting Layer Distorts UV based on waves, ripples and splash.

Animates horizontal offset of mesh material.

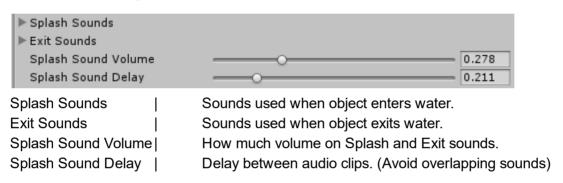
2D sprite system sorting order.

2D sprite system sorting layer.

### Particle Settings

Particles	
Particle Splash Power	3
Particle Splash Emit	2
Bubble Particles	Bottom Bubbles Particles (Particle System) ○
Bubble Particles Emission Ra	te4
Particles *	Particles used when water splashes.
Particle Splash Power	Particle speed on splash.
Particle Splash Emit	Number of particles emitted on splash.
Bubble Particles *	Bottom particles.
Bubble Particles E*	Number of particles emitted from bottom of water

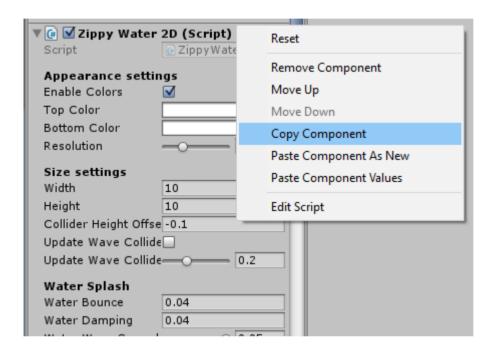
## **Sound Settings**



## Customizing

### Play Mode Editing

The easiest way to customize the water is to do so while the game is running. When the wanted result is achieved, simply copy the component by right clicking on the Zippy Water 2D title.



Stop the game, then right click again to paste in the component values from when the game was playing. This method also works on other components such as particle systems.