

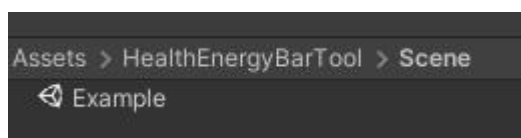
# HealthEnergyBarTool\_v0.5

HealthEnergyBarTool makes it easy to create dynamic state UI for your game, such as health bar, energy bar, hunger score, etc

Not just a single bar of blood display, but a representation of many heart images like Zelda can be implemented quickly, or define different display images and colors in multiple states and without any code

Remember, there are many different ways to display, choose one or more of your favorites and join the game!

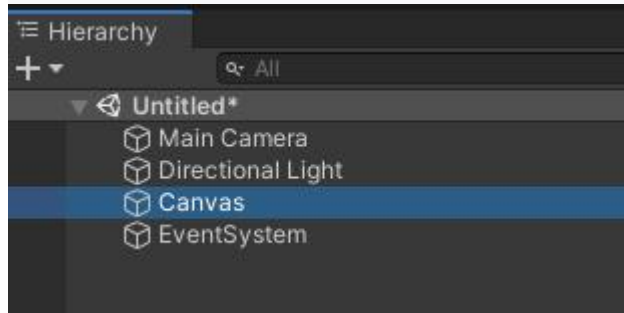
You can quickly see the effects with a demo scene



# Quick start

1. Right-click on the Hierarchy interface (or select GameObject from the menu) and create a Canvas through the menu "/UI/Canvas"

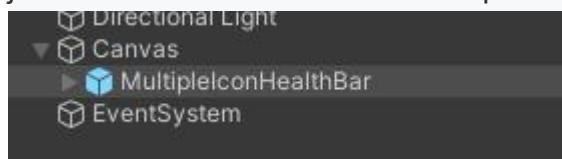
If you already have a Canvas in your scene, skip this step



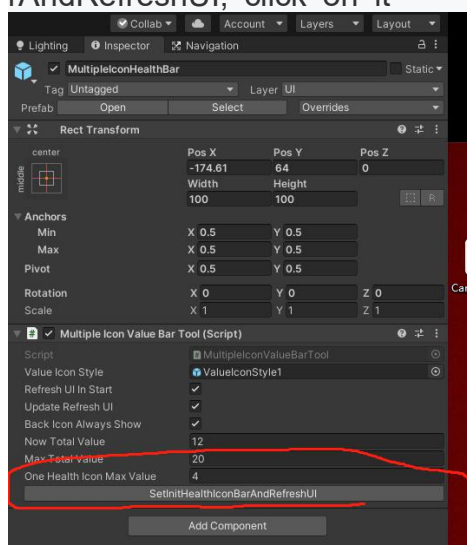
2. In the directory "HealthEnergyBarTool/Prefabs"

pull (MultipleIconHealthBar.Prefab) to your game scenario, put him in the Canvas in children

just make sure the ROOT of MultipleIconHealthBar is Canvas



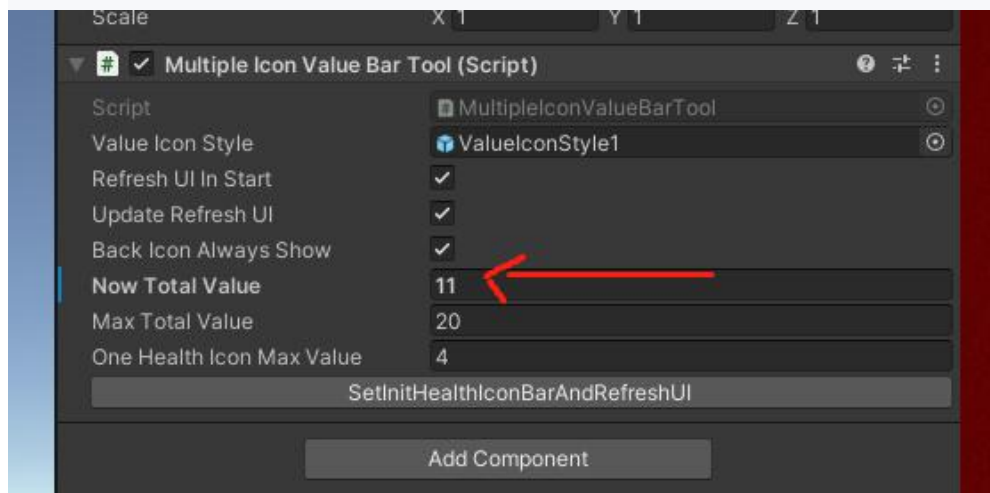
3. Selected MultipleIconHealthBar, see his Inspector panel, there is a button on the script component MultipleIconValueBarTool: SetInitHealthIconBarAndRefreshUI, click on it



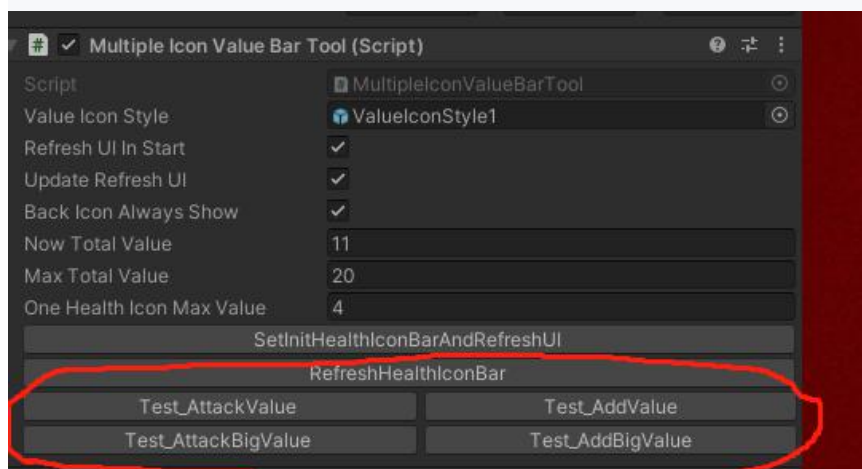
4. Now that you've generated a heart display in the scene similar to the Zelda Health UI, this UI represents a number as multiple ICONS if the location of the UI looks strange or invisible, adjust its position to match your game interface



Now you can play the game and use the mouse to change the nowTotalValue in the script. You can see the hearts change according to the value, and the animation is attached

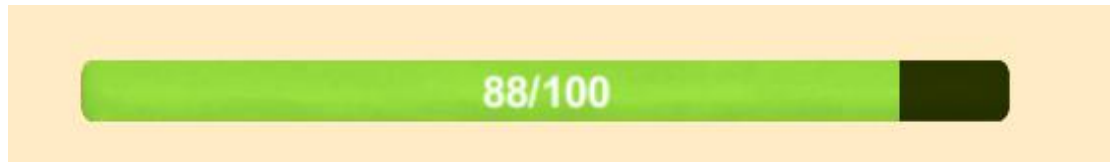


While the game is playing, the script component may have four new test buttons that you can click to test the effect of your UI



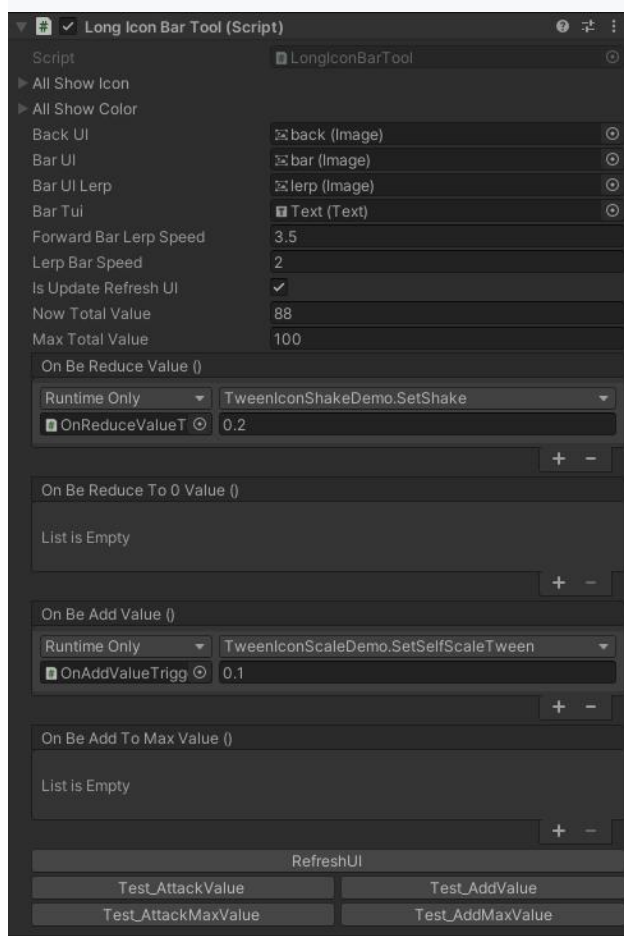
# Introduction to Basic Styles

## 1. LongIconBar



This is the most common way to display, often used for health, energy and other values

Change the value dynamically by calling **SetNowValue (value)** and **SetMaxValue (value)**.



**AllShowIcon:**When the array contains multiple images, when the value changes, the UI will display the image corresponding to the array according to the ratio of the current value to the maximum value(Reference Prefabs: OneLongIconBar\_ManyStatelcon)

**AllShowColor:**When the array is set with multiple colors and the script value changes, the UI will change the color of the UIBar to the corresponding color in the array according to the ratio of the current value to the maximum value

**BackUI:**The background bar Image object for UIBar

**BarUI:**The main Image object for UIBar

**BarUILerp:**Image object of UIBar for delayed display, sandwiched between the background Bar and the main Bar(Can be null)



**BarTui:**Text hints for numeric values, text objects

**ForwardBarLerpSpeed:**The numerical synchronization delay speed of the main Bar.  
When the value is 0, it indicates no delay and instantaneous synchronization

**LerpBarSpeed:**The delay synchronization speed of BarUILerp

**IsUpdateRefreshUI:**Refresh the display state of the UI in real time.

If this option is enabled, there is no need to call any refresh function, only need to directly change NowTotalValue value to see the change of the UI in real time, but the performance cost is high

If not, you need to call the script's SetNowValue () or SetMaxValue () function in your code to update the UI value

**NowTotalValue:**Current value

**MaxTotalValue:**Current maximum value

**OnBeReduceValue:**An event is triggered instantly when the value is reduced

**OnBeReduceTo0Value:**Triggered when the value is reduced to 0

**OnBeAddValue:**An event is triggered instantly when the value is increased

**OnBeAddToMaxValue:**The event that fires when the value is increased to the maximum value

**RefreshUI(button):**Updates the state of the object based on the parameter and variable Settings of the current script

**Test\_AttackValue(button):**A button for developers to test.Reduce a small number of values

**Test\_AddValue(button):**A button for developers to test.Reduce the maximum number of values

**Test\_AttackMaxValue(button):**A button for developers to test.Add a small number of values

**Test\_AddMaxValue(button):**A button for developers to test.Increase the maximum number of values

## 2. OneLongIconBar\_ManyStateIcon

This style builds on OnLongIconBar and changes the current UI image based on the ratio of the current value to the maximum value

It uses the same script as OnLongiconBar, see OnLongiconBar for details

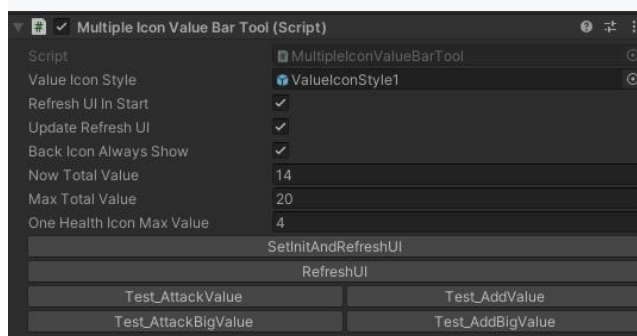
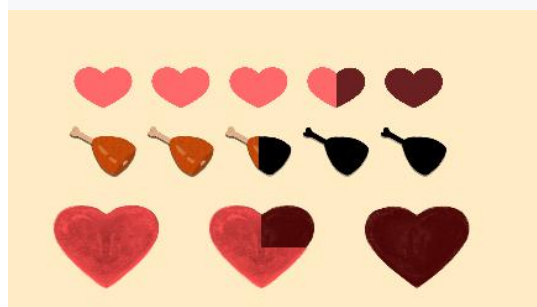
**Change the value dynamically by calling SetNowValue (value) and SetMaxValue (value).**



## 3. MultipleIconHealthBar

This style splits the value into paragraphs, each of which presents the value in a separate UI, similar to Zelda's Heart Health UI

**Change the value dynamically by calling SetNowValue (value) and SetMaxValue (value). Update the effect of the UI by calling RefreshUI ()**



**ValueIconStyle:**The style of each icon representing a numeric paragraph



**RefreshUIInStart:**When the game is playing, refresh the UI state in the start function

**UpdateRefreshUI:**Refresh the display state of the UI in real time.

If this option is enabled, there is no need to call any refresh function, only need to directly change NowTotalValue value to see the change of the UI in real time, but the performance cost is high

If not, you need to call the script's SetNowValue () or SetMaxValue () function in your code to update the UI value,you also have to call RefreshUI() to refresh the UI's effects

**BackIconAlwaysShow:**The background image of each icon is always displayed



If you don't need to set the background image at all, set the BackImage to NULL in the paragraph style Prefab

**NowTotalValue:**Current value

**MaxTotalValue:**Current maximum value

**OneHealthIconMaxValue:** Evaluate the value that each paragraph represents

**SetInitAndRefreshUI(button):**SetInit the script and Updates the state of the object based on the parameter and variable Settings of the current script

**RefreshUI(button):**Updates the state of the object based on the parameter and variable Settings of the current script

**Test\_AttackValue(button):**A button for developers to test.Reduce a small number of values

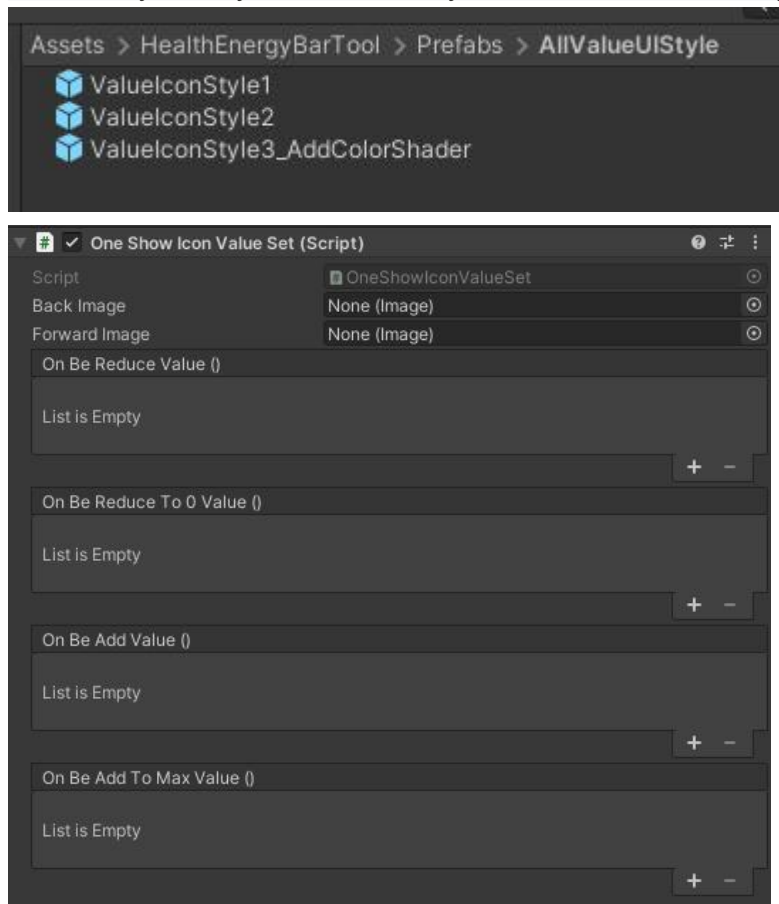
**Test\_AddValue(button):**A button for developers to test.Reduce the maximum number of values

**Test\_AttackMaxValue(button):**A button for developers to test.Add a small number of values

**Test\_AddMaxValue(button):**A button for developers to test.Increase the maximum number of values

## ValueIconStyle

MultipleIconHealthBar needs to set the style of each paragraph icon. We have built in 3 different styles for you to use directly. You can also customize your own style



**BackImage:**The background image object of the icon

**ForwardImage:**The main image object of the icon

**OnBeReduceValue:**An event is triggered instantly when the value is reduced

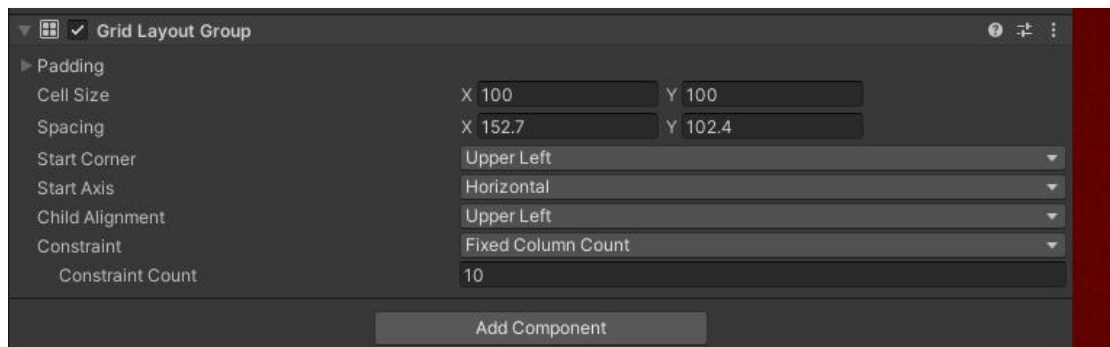
**OnBeReduceTo0Value:**Triggered when the value is reduced to 0

**OnBeAddValue:**An event is triggered instantly when the value is increased

**OnBeAddToMaxValue:**The event that fires when the value is increased to the maximum value



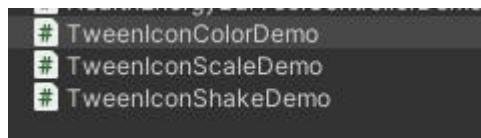
On the parent of each icon, there is a UGUI component - the `GridLayoutGroup`,



Using this component, you can adjust the ordering of these ICONS, such as horizontal or vertical, you can adjust the spacing of each line, or the spacing of each icon, can be adjusted here, details can be seen in the UGUI official tutorial

## TweenDemo

When the value decreases or increases, events trigger the UI to attach some animation effects to make it feel more like a game, such as the UI shaking when taking damage, and the UI zooming in and out when healing



**TweenIconShakeDemo:** This example code will make an object shiver for a while

**TweenIconScaleDemo:** The code in this example increases the zoom of an image by a multiple of an instant, and then gradients back to the original zoom at a certain speed

**TweenIconColorDemo:** This example code will change the color of an image to a certain color instantly, and then change it to the original color at a certain speed

These actions and animations can be customized with the event trigger provided. We have some simple animations built in and you can use them directly,

of course, you can also use Dotween and other more rich plugins