

# MicroBar

## Animated Health Bar

MicroBar is an easy and customizable solution for displaying health bars. Allows display of simple health bars or can be modified to be animated in various ways like flashing bar at low HP, shake when damaged and so on.

## Included

- Source code
- Demo scene

## Code Usage

To control MicroBar in code first you need to include the namespace:

```
using Microlight.MicroBar;
```

To access specific health bar, you need to reference it:

```
[SerializeField] MicroBar _hpBar;
```

Before using health bar, max value needs to be initialized:

```
_hpBar.Initialize(100f);
```

After that just update the health bar with UpdateHealthBar function. Pass the current health value and that's it. Animation can be disabled with second parameter:

```
_hpBar.UpdateHealthBar(50f);  
_hpBar.UpdateHealthBar(10f, true); // Animation disabled
```

If your max health needs update, use SetMaxHealth (not animated, current hp value not changed):

```
_hpBar.SetMaxHealth(100f);
```

FadeBar enables you to fade in or fade out the health bar. Second parameter decides duration of the fade animation:

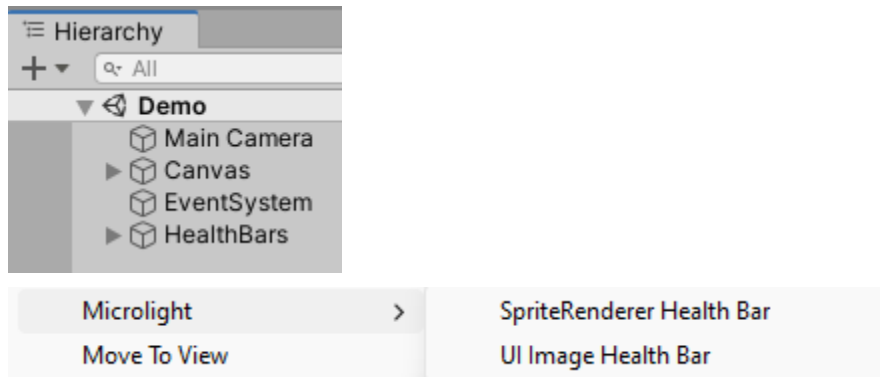
```
_hpBar.FadeBar(true, 1f);
```

If need to override shake or heal scale setting for just one call, override chaining is enabled:

```
_hpBar.OverrideShake(0.5f, 50, 1f).UpdateHealthBar(_hp);  
_hpBar.OverrideHealScale(0.5f).UpdateHealthBar(_hp);
```

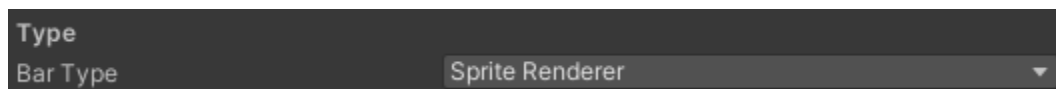
# Editor Setup

Right click anywhere in your Hierarchy -> Microlight -> Choose one of the Health Bar types you need:

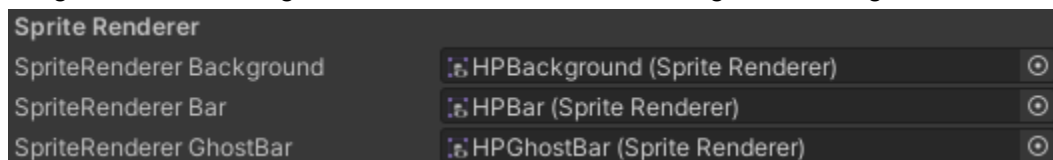


To see UI option you must right click on canvas (or its children).

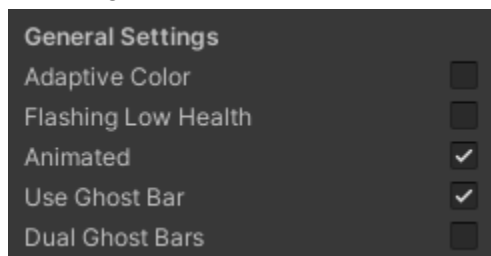
## Settings



First option is the type of the bar, the Sprite Renderer version (World Object) which is suitable for world objects like health bars inside the world that follows the player. Second option is the Image version which goes onto the Canvas and is a regular UI image.



Here are references to the Sprite Renderers and Images that are representing the background of the health bar, primary bar that displays health points and ghost bar which can be turned off in settings.



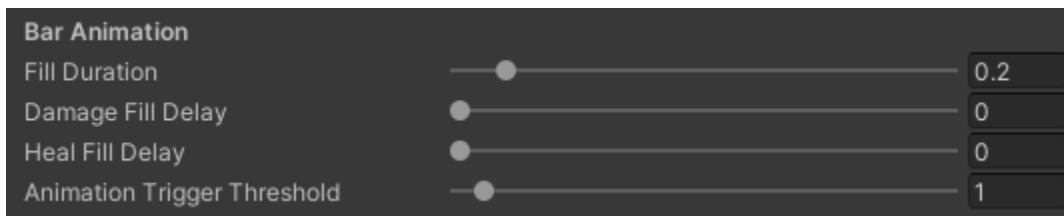
- Adaptive color enables bars to change color based on which % bar is, for example red color at 10% and green color at 90% (modifiable).
- Flashing low health makes the bar flash when health is below a certain threshold.
- Animated enables the bar to be animated, instead of just getting to position.

- Ghost bar is a bar that is animated after the primary bar and basically displays how much damage the player took or how much the player has been healed, ghost bar is disabled if animation is turned off.
- Dual ghost bars enable a different color of bar for displaying hurt or heal animation. Disabled if adaptive color is used.
- Note that not all options are always available. Some options may be disabled in some configurations.



Here color is selected for bars but differs based on settings. Hover over labels for more information.

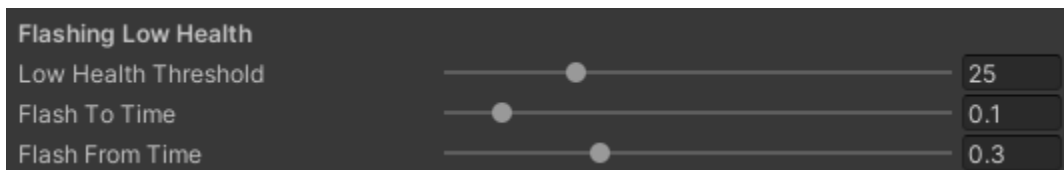
Ghost bar alpha is shown when the ghost bar is enabled and determines alpha of ghost bar.



Fill duration sets duration over which bar will reach intended value.

Damage and Heal fill delay determine how long the fill duration waits before starting.

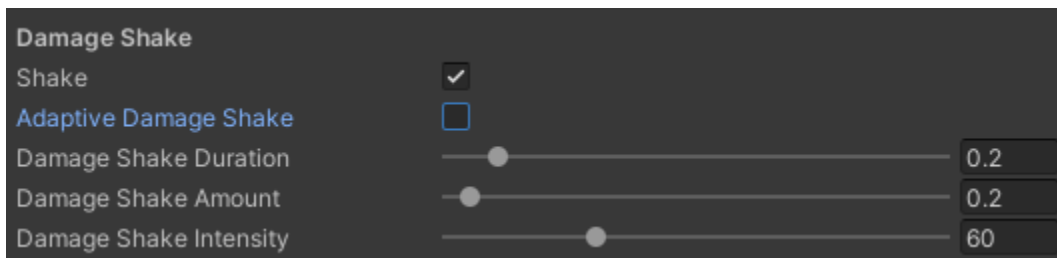
Animation trigger threshold sets how much health bar needs to be changed in % to be animated else it just jumps to intended position.



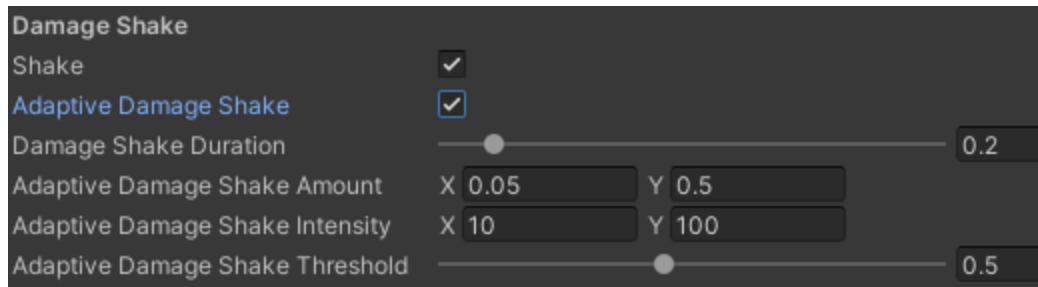
Low health threshold sets at which % or below does HP needs to be to start flashing the bar.

To time means how much in seconds the bar needs to go to flash color.

From time means how much in seconds the bar needs to go back from flash color.

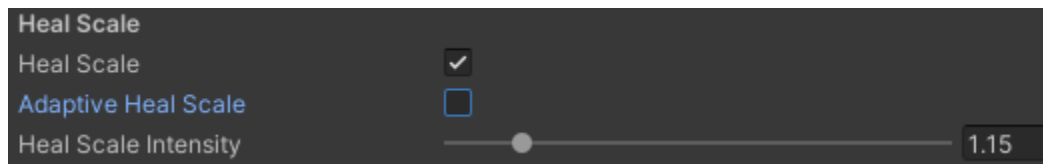


Shake can be modified how long it will last (seconds), how much it will move around and intensity which defines frequency of shake.

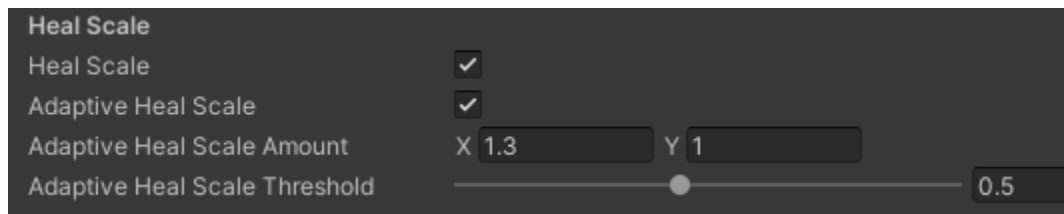


Adaptive shake enables shake to be stronger or weaker based on how much health has been changed. Threshold defines that % of hp. For example, the above image shows that if a player loses 50% of health, the bar will shake a lot but if loses 1% of health, bar shake will be very mild.

Shake animations need playing with to see what suits you best.



Heal scale enables the bar to scale up as heal animation is played.



Adaptive heal scale just as damage shake, enables heal scale to change based on how much health changes.

Scale animations need playing with to see what suits you best.

## Tips

- You can use any sprite. Just replace the default sprites with your. That enables you to change the look of the health bar, change background or something else.
- Background bar is controlled in the inspector while other bars should be controlled in settings. So don't change positions and scale of bars if you don't know what you're doing.
- If source code doesn't work in your case, or doesn't suit your needs, feel free to change it and adapt.