

# GaussianBlur\_URP

[Asset Store Link](#)

[HRP version](#)

[non-ShaderGraph version](#)

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PLEASE LEAVE A REVIEW OR RATE THE PACKAGE IF YOU FIND IT USEFUL!

Enjoy! 😊

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## Contact

My Contact info is on my github profile

<https://github.com/jgarza9788>

# Terms of Use

Required:

please follow [Unity's EULA](#)

Suggestion/Optional:

please put my name in the credits, or in the special thanks section. 😊

## Description Features

- Alpha Mask
- Mobile Friendly
- Adjust Blur, Lightness, Saturation, and TintColor
- Built on URP
- easily modifiable/editable Shader Graph
- 3 Shaders
  - GaussianBlur\_IU
  - GaussianBlur\_IUEffect
  - GaussianBlur\_WS (WorldSpace, or Objects)

## Set Up

You need to set up your project to use a URP Asset.

1. You can use the URL\_Asset i provided (in **\*\GaussianBlur\_URP\Assets\URP**)

[Image Link](#)

2. or use your own.

if you use your own check ☒ "Opaque Texture"

[Image Link](#)

- if you are making a mobile game consider changing the "opaque Downsampling" option.

Note:

"Opaque Texture" gives us the ability to access `_CameraOpaqueTexture`, a texture of what the main camera sees (but this texture will not have transparent objects (like Sprites) within it)

## Set Up (for Transparent objects)

if you need sprites and non-opaque to show up in the blur, please see the **Demo\_Basic(Sprites).scene**

## Image Link

1. the RTCamera outputs an image to a RenderTexture
  - *(most of the time you'll want this to view exactly what the main Camera sees)*
2. the Shader uses the RenderTexture as the based image for the blur.

You can actual use nearly any image you want.

So if you don't want to use a second camera, consider a static image.

In addition, you can change the Size and Color Format of your RenderTexture.  
reducing the size and optimizing it.

## GaussianBlur\_UI

To use the shader on the UI, just use the material.  
(or create you're own material and use my shader)

CustomTexture:

pass in any texture (image) you'd like (i.e. a Render Texture or 2D Texture)

useCameraOpaqueTexture:

this will be used as a default texture for blurring.

note: this will not render transparent (Sprite and non-Opaque) objects (you might want to use a Render Texture)

- see **Set Up (for Transparent objects)** section above

BlurScale:

This is how much to blur the texture.

(This will automatically adjust two other variables)

Lightness:

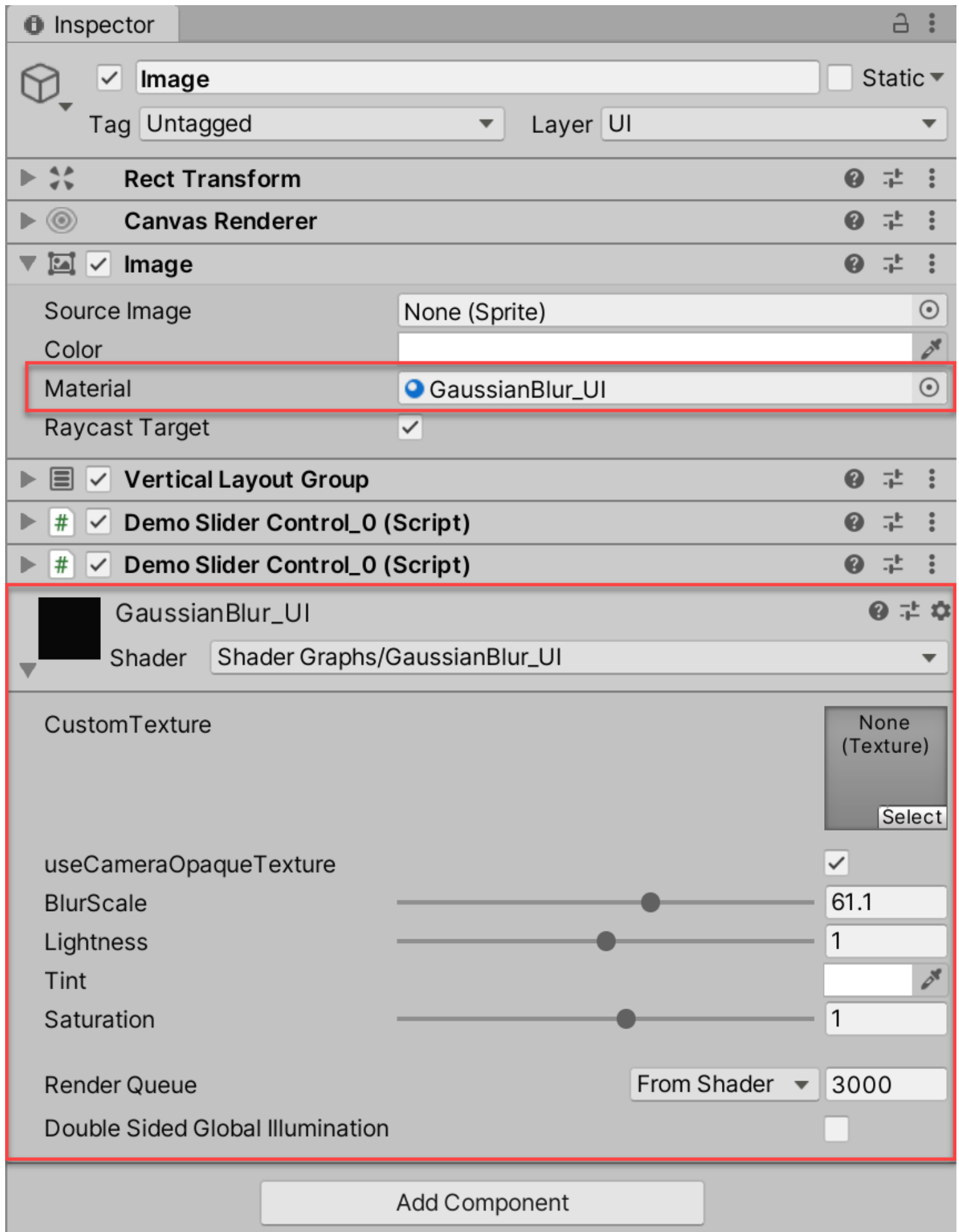
how light or dark the UI should be.

Tint:

a color tint to be applied to the UI.

Saturation:

adjusts the saturation (color) of the UI.



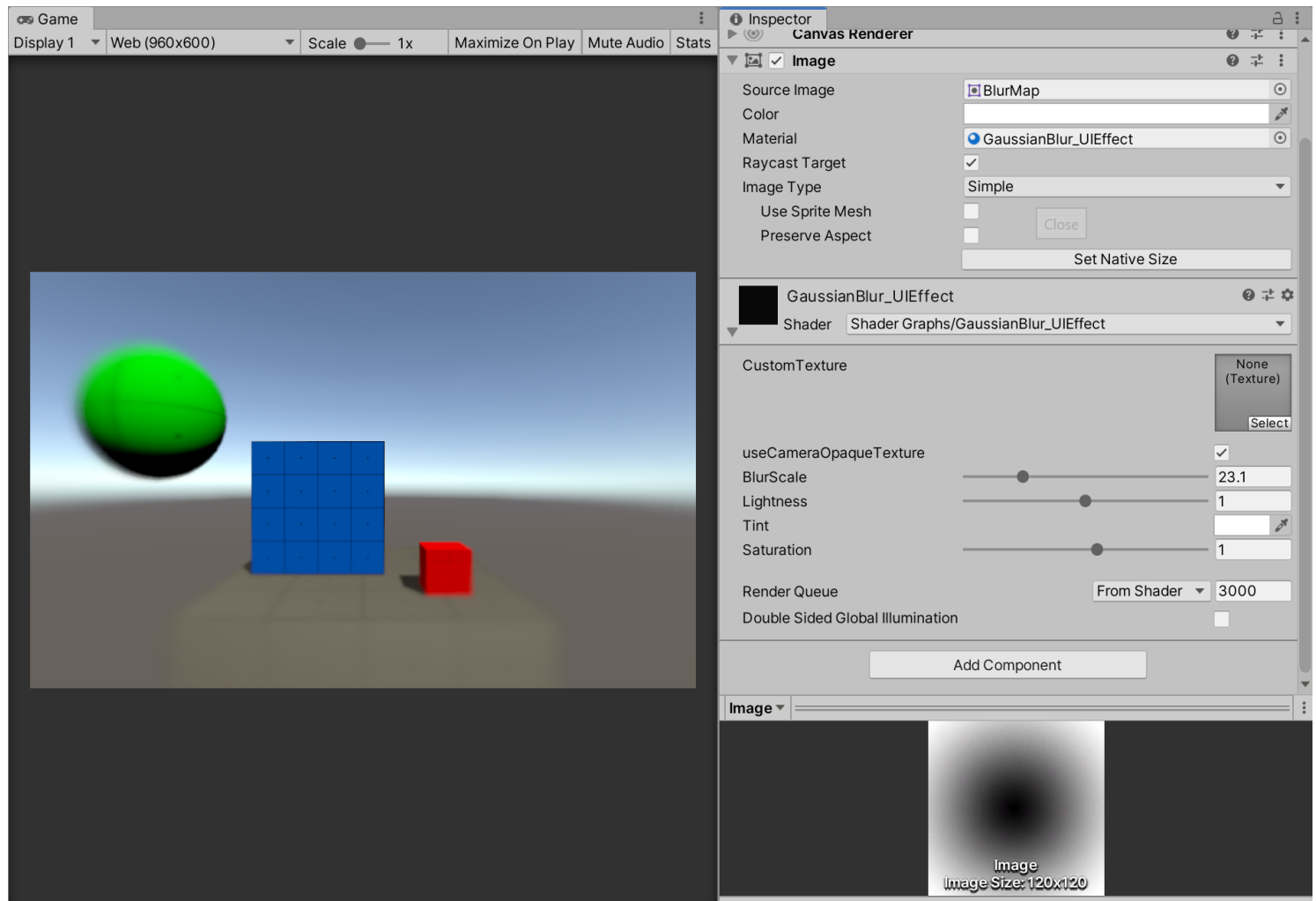
# GaussianBlur\_UIEffect

This will use the Source Image.

So you can fade the blur depending on where it is on the screen.

see **Demo\_UIEffect.scene**:

The Source Image is our map to know how much to blur the edges and the center.



# GaussianBlur\_WS

This is for Objects in the WorldSpace.

see **Demo\_3DModel.scene** for an example.

note:

The Layer should be set to **BlurObject**.


Metallic & Smoothness:

these are used to adjust the shinny-ness of the object.


if this is not working we might want to double check our custom-renderer.


it's in **\*\GaussianBlur\_URP\Assets\URP**


Inspector Project Settings

 ☒ **Cube (2)** ☐ Static

Tag **Untagged** Layer **BlurObject**


▶  **Transform** ? ⇅ ⋮

▶  **Cube (Mesh Filter)** ? ⇅ ⋮

▼  ☒ **Mesh Renderer** ? ⇅ ⋮

▼ **Materials**


Size


Element 0 ☒ **GaussianBlur\_WS** 


▶ **Lighting**

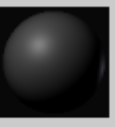
▶ **Probes**

▶ **Additional Settings**


▶  ☒ **Box Collider** ? ⇅ ⋮

▶  **Rigidbody** ? ⇅ ⋮

▶  ☒ **Add Torque On Start (Script)** ? ⇅ ⋮

 **GaussianBlur\_WS** ? ⇅ ⚙


Shader **Shader Graphs/GaussianBlur\_WS**

CustomTexture  **Select**

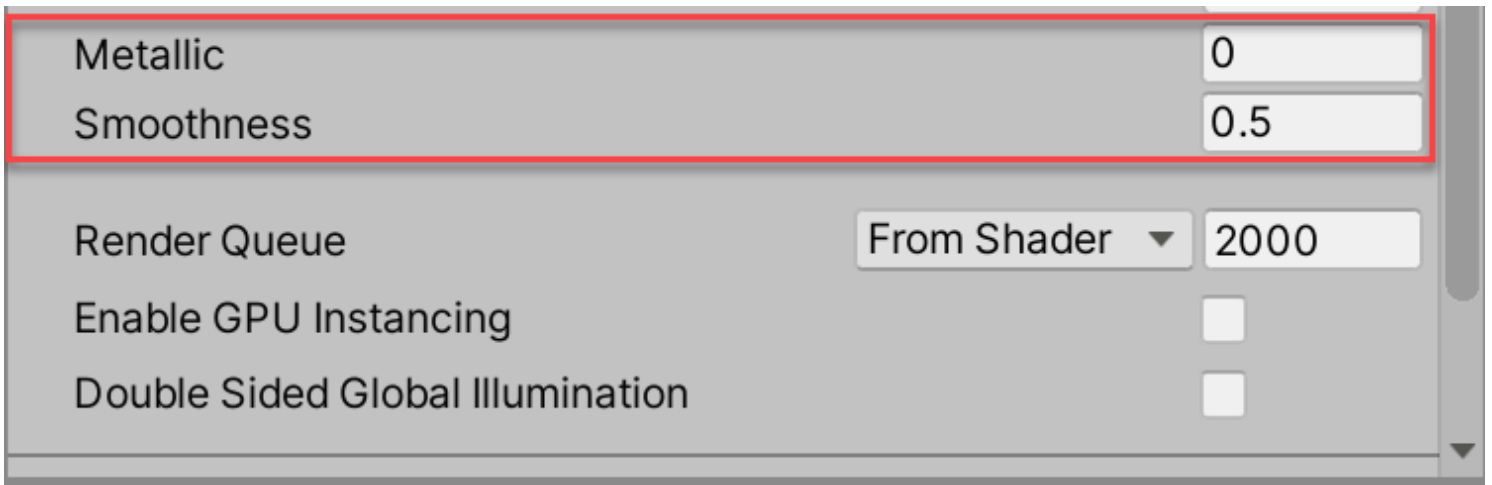
useCameraOpaqueTexture ☒

BlurScale

Lightness

Tint  

Saturation



Here are the settings for the custom-renderer.

1. we filter out the Layer "BlurObject"
  - because we do not want the camera to render it.
2. we create a render feature to add the BlurObject back into the final image after being rendered by the GaussianBlur\_WS material.



Inspector

Project Settings

URP\_Renderer

Open

Forward Renderer

Default Layer MaskMixed...

Post Process DataPostProcessData (PostProcessData)

Overrides

Stencil

Renderer Features

GaussianBlur (RenderObjects)

NameGaussianBlur

EventAfter Rendering

▼ Filters

QueueOpaque

Layer MaskBlurObject

Shader Passes

List is Empty

+ -

▼ Overrides

MaterialGaussianBlur\_WS

Pass Index0

Depth

Stencil

Camera

+ -

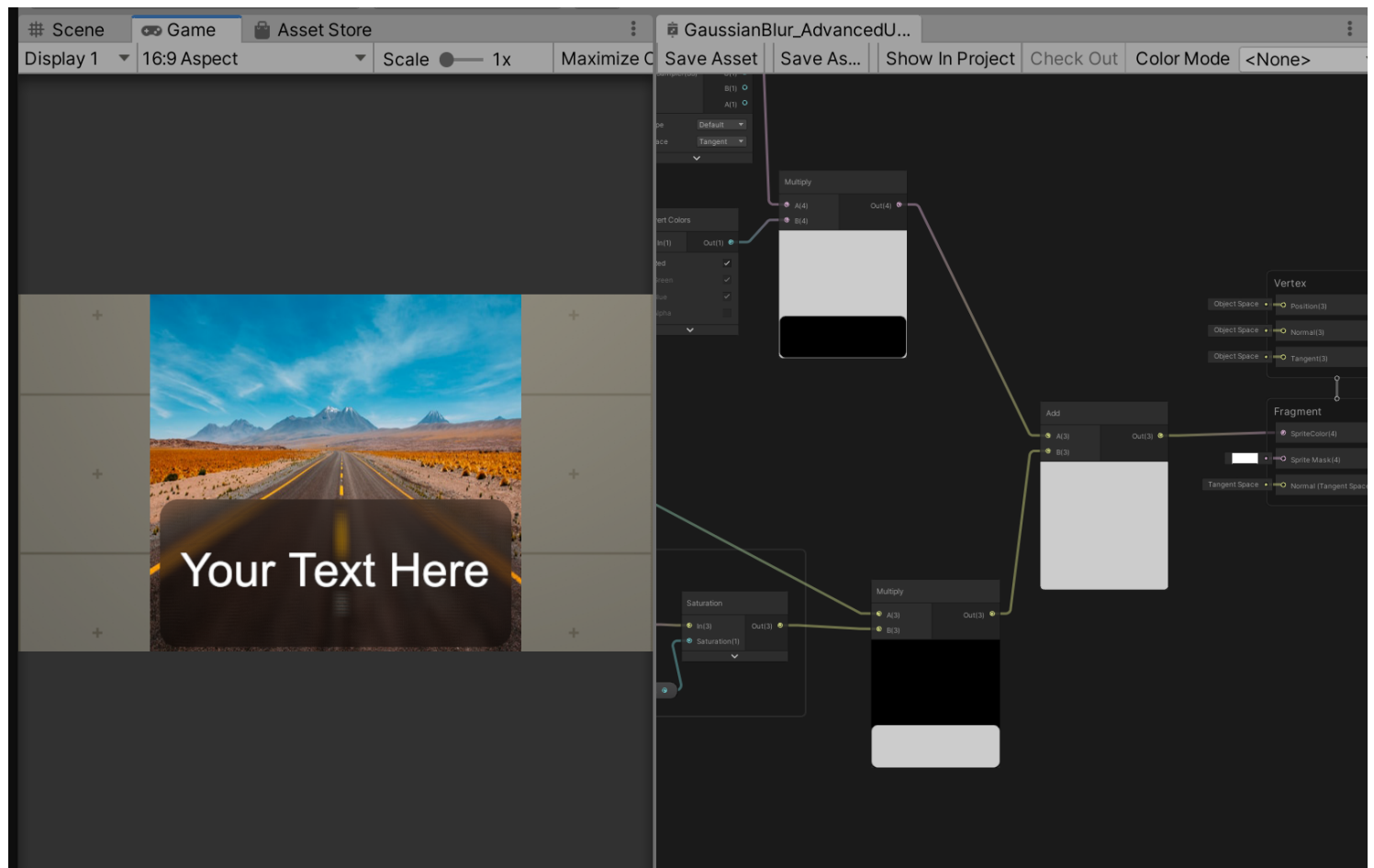
## Asset Labels

# Demo\_AdvancedUI\_1.0 and Demo\_AdvancedUI\_2.0

these scenes shows how we can blur only a piece of the image.

In the ShaderGraph we are creating a mask.

we are controlling the about of blur and other items with shader properties and Animator Component.



## Videos

these videos go in deal on how the ShaderGraphs work.

please watch these if you plan to create your own remix of the shader.

[GaussianBlur\\_UI Video](#)

[GaussianBlur\\_WS Video](#)

[GaussianBlur\\_UIEffect Video](#)

## FAQs

### why can't i see Sprites in the Blur?

by default by Shader will be using the \_CameraOpaqueTexture, this texture only contains Opaque Objects. However we can use whatever Texture we want.

please read the **Set Up (for Transparent objects)** section above.

### it's just GREY!

Most of the time this is just caused by the settings in the URP\_Asset or the settings you picked in the shader.

please review the settings and make sure they are ok.

Try re-downloading the asset and/or Contact me for help.

### Can I layer multiple Blur objects?

this asset can be adjusted for multiple Blur Layers, however there are a few issues with adjusting this asset for Blurred Layers.

1. i like to keep this asset simple enough so most people can easily use it.
2. multiple blur layers can be very taxing on the CPU/GPU
3. we would need to have multiple cameras, render textures, etc (one for each layer) or have a special shader to merge and blur each.

### better performance from mobile

1. use Vulkan
  - this should be in the PlayerSettings, Other Settings, Rendering.
2. DownSampling

- you can also change the "Opaque Downsampling" option in the URP\_Asset.
- reduce the size and color format of the render texture.