

RealToon



User Guide

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[Shaders & Modes]

A. Modes:

a. Multi Light

Can use **Point and **Spot** light and can use many lights.*

You can't change the **Received Shadows color and its strength individually.*

When **Received Shadows turned on, **Self Shadow** color should be the same as **Received Shadows** color.*

b. Single Light

Can only use one light and that's **Directional Light.*

****Received Shadows** and **Self Shadows** are combined but you can still adjust their intensity individually if you want.*

You can change **Received Shadows color but it is fused/combined to **Self Shadow**.*

You can also change the **Received Shadows strength.*

B. Others:

a. Outline

**Shaders with outline.*

b. No Outline

**Shaders without outline.*

c. Double Sided

**Can see the other side of a plane object or face.*

C. Shaders:

a. Default – Default/Normal RealToon Shader

b. Cutout – RealToon Shader with cutout.

c. Fade Transparency (No outline only) - RealToon Shader with fade or smooth transparency.

[How to use RealToon]

A. Default use (Multi Light Mode only):

- a. Create a material
- b. Select the material you've created and change the shader to RealToon shader you want to use.
- c. Drag the material to your object.
- d. Select your object and uncheck **Received Shadows** on the component **Mesh Renderer**.

B. Use RealToon with Received Shadows on (Multi Light Mode only):

- a. Create a material
- b. Select the material you've created and change the shader to RealToon shaders you want to use.
- c. Drag the material to your object.
- d. Select your object and check "Received Shadows" on the component **Mesh Renderer**.
- e. Change **Self Shadow Intensity** to **1**.
- f. Change **Self Shadow Color** to **Black**.
- g. Adjust the **Self Shadow Size** if needed to hide Receive Shadow weird edge.
- h. Adjust **Ambient Intensity** at the **Lighting Panel** to adjust the shadow intensity (**Self Shadow & Received Shadows**).
- i. Adjust your **Light Source** to balance the light.

[Additional Steps - If you don't want to use ambient light to adjust shadow intensity]

- j. Adjust **Self Shadow Intensity**
- k. Adjust **Shadow Strength** on your **Light Source**.

[Note/Tips: Change Shadow Type to Soft Shadow and change the Shadow Resolution to low for softer Received Shadows and for high performance].

C. Use RealToon with Received Shadows on, on Single Light Mode:

- a. Create a material
- b. Select the material you've created and change the shader to RealToon shaders you want to use.
- c. Drag the material to your object.
- d. That's it =)

[Controls & Functions]

A. Texture Color – Texture and Color of the object.

- a. **Texture/Main texture** – Texture of your object.
- b. **Color** – Color of your object.
**Adjust the color to something gray if you want to blend the object to other objects with Unity Standard shader or if it's too bright/over-expose just like other toon shader.*
**Use pure white color if you only use one light and the light intensity is between 1 – 0.*
- c. **Transparent** – Enable texture transparent. (If your texture has transparent/alpha).

B. Cutout (Cutout shader only) – Cutout transparent.

- a. **Cutout** - The amount of cutouts on your texture.
- b. **Alpha Base Cutout** – When check, it will use transparent/alpha of the texture but if uncheck it will use the color/s of the texture.

C. Transparency (Fade Transparency shader only) – Transparency/Opacity of the object.

- a. **Opacity** – The amount of transparency.

D. Color Adjustment

- a. **Saturation** – The intensity/vibrancy of the colors.
- b. **Reduce White** – Reduce whites/highlights.

E. Outline (Outline Shader only)

- a. **Outline Width** – Thickness of the outline.
- b. **Outline Noise Intensity** – Noisiness/Distortion of the outline.
- c. **Outline Color** - Outline Color.

F. Self Lit/Self Illumination – Objects own light/light of its own.

- a. **Self Lit Intensity** – The amount of its own light.
- b. **Self Lit Power** – How strong it's light.
- c. **Self Lit Color** – Color of the light.
- d. **Self Lit Mask** – Mask self lit.
**Use pure-strong black & white or texture with alpha/transparent.*

G. Gloss - Glossy effect.

- a. **Gloss Intensity** – How strong the gloss.

**The reason why you can make the value to high is to maintain the gloss on low light just like anime or cartoon.*

- b. **Glossiness** – How gloss the object is.

- c. **Gloss Color** – Gloss color.

- d. **Soft Gloss** – Soft type gloss.

**if check it will turn the gloss to soft but if uncheck it will turn back to default hard gloss.*

- e. **Gloss Mask** - Mask gloss.

**Use pure-strong black & white or texture with alpha/transparent.*

H. Shadow (Single Light Mode only) – Shadows on the object *(This combines Self Shadow & Received Shadows.)*

- a. **Shadow Intensity** – Shadow intensity/strength.

- b. **Shadow Color** – Shadow Color.

- c. **Main Texture Color Shadow** – Use Texture/Main Texture to color shadow.

**If check, it will use the texture to color instead the color you choose but if uncheck, it will use the default picked color.*

- d. **Receive Shadow Intensity** – Receive Shadow intensity/strength.

- e. **Shadow PTexture Intensity** – PTexture Intensity/strength.

- f. **Shadow PTexture** – Texture to use as shadow.

**PTextures/Pattern Texture, use for turning colored shadow to pattern style shadow like manga "Half Tone" or any texture with/without alpha/transparent.*

*You can also color the texture by adjusting the **Shadow PTexture Intensity**, blending **Self Shadow Color** and **PTexture**.*

I. Self Shadow – Object's own shadow

- a. **Self Shadow Intensity** - Self Shadow intensity/strength.

- b. **Self Shadow Size** – The amount of self shadow on the object.

- c. **Self Shadow Hardness** – Self shadow hard edge or soft.

- d. **Self Shadow Color (Multi Light Mode only)** – Self shadow color.

- e. **Main Texture Color Self Shadow (Multi Light Mode only)** - Use Texture/Main Texture to color self shadow.

**If check, it will use the texture to color instead the color you choose but if uncheck, it will use the default picked color.*

- f. **Self Shadow at View Direction** – Self shadow use your view direction.
**If check, self shadow use your view direction, if uncheck it will use the default light direction.*
- g. **Self Shadow PTexture Intensity (Multi Light Mode only)** - PTexture Intensity/strength.
- h. **Self Shadow PTexture (Multi Light Mode only)** - Texture to use as self shadow.
- i. ***PTextures/Pattern Texture**, use for turning colored shadow to pattern style shadow like manga “Half Tone” or any texture with/without alpha/transparent.
*You can also color the texture by adjusting the **Self Shadow PTexture Intensity**, blending **Self Shadow Color** and **PTexture**.*

J. AO – Ambient Occlusion. (Not Realtime, Uses Texture/2D Texture)

- a. **AO Intensity** – AO intensity/strength.
- b. **AO Texture** – AO in texture.
(Recommend): Use pure-strong black & white or texture with alpha/transparent.
**You can also use colored texture but it will automatically turn it to black & white but not strong & pure which is not good.*
- c. **Main Texture Color AO** - Use Texture/Main Texture to color AO.
**If check, it will use the texture to color instead the color you choose but if uncheck, it use the default picked color.*
- d. **Show AO on Light** – AO visible on light/light source.
- e. **Show AO on Ambient light** - AO visible on Ambient Light.

(Note): As default AO visible on shadow/self shadow when there’s light/light source just like amine/cartoon.

You can’t make AO invisible on shadow.

*If you want to make it visible to light, just check the **Show AO on Light**.*

K. Lighting (Multi Light Mode only) – Light on the object.

- a. **Enable Light Falloff** – Enable Point/Spot light falloff.
**If uncheck it will turn light falloff of these two lights into not smooth light fade just like cartoon.*

L. FReflection – Fake Reflection (Not Real-time, Not Cube map, Uses Texture/2D Texture).

- a. **FReflection Intensity** - FReflection intensity/strength.
- b. **FReflection/FReflection Texture** – Texture to use as reflection.
**Use square/equal sides size texture.*
Be sure to use the Tiling & Offset to adjust its position and size.
- c. **Mask FReflection** – Mask FReflection.
**Use pure-strong black & white or texture with alpha/transparent.*

M. Fresnel – Fresnel Effect. (Inside glow effect)

- a. **Fresnel Intensity** - Fresnel intensity/strength.
- b. **Fresnel Color** - Fresnel Color.
- c. **Fresnel Fill** – The amount of Fresnel on the object. (Amount of glow)
- d. **Hard Edge Fresnel** – Turn Fresnel into hard edge Fresnel.
- e. **Fresnel Visible on Dark/Ambient Light** – Fresnel visible on dark/no light and on ambient light.
- f. **Fresnel On Light** - Fresnel visible on light.
- g. **Fresnel On Self Shadow (Multi Light Mode only)** - Fresnel visible on light.
- h. **Fresnel On Shadow (Single Light Mode only)** - Fresnel visible on light.

*(Note): If you enable both **Fresnel On Light** & **Fresnel On Self Shadow** Fresnel will be invisible.*

[Notes & Tips]

- A. You can control the properties of the shaders in your code and make animation.
To see/access the shader properties, just go to **RealToon Shaders** folder and select the shader you want to access.

If you want to know how to access shader properties by code, just go to unity3d manual script.
- B. Use **No Outline - RealToon** shaders if your object/s don't need outline or if you don't want to use outline and want less draw calls.
- C. Use **RealToon Double Sided** shaders if you want to see the other side/face of a plane object like Grass, Signs, Anime/Toon Hair or Cloth, etc.
- D. You can use **Fresnel** as rim light for anime or toon looks.
Just enable **Fresnel Hard Edge** and adjust **Fresnel Fill**.
- E. If you want a manga/comics looks, just set the color saturation to 0, change **Self Shadow Color** to black and use **PTexture**.
- F. **Fade Transparency** doesn't receive shadows and don't have outline for some reason.
- G. Make your normal map smooth for better shading details.
- H. For better anime/toon look, separate the color and shadow into different/separate texture or atlas.
- I. For video tutorials and info, click this link :
https://www.youtube.com/playlist?list=PLOM1m9smMVPK_vLCBnJ8qlc3w5WsHrCM5.