

# Shader Documentation

## Shader Properties

- **samplerCUBE\_StarsCubeMap** – The cube map that will be displayed when the sun has set, this should be a cube map containing the real positions of stars.
- **samplerCUBE\_ConstellationsCubeMap** – *The cube map that will be displayed over the top of the stars, combining patterns of stars into constellations.*
- **samplerCUBE\_MoonTex** – The cube map used for the surface of the moon.
- **float\_ConstellationsFade** – a float value responsible for controlling the alpha of the constellations.
- **float\_MoonRadius** – The size of the moon in the skybox, this radius should be just slightly smaller than the sun if solar eclipses are to work properly.
- **float\_PlanetsScale** – A multiplier used to increase/decrease the visual appearance of the planets in the sky.
- **float3\_PlanetDirections[8]** – The directions of the planets in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float3\_PlanetColours[8]** – The colours of the planets in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float3\_PlanetSizes[8]** – The sizes of the planets in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float3\_MoonDirection** – The direction of the moon in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float4x4\_GlobalToLocalMoonMat** – The matrix used to correctly rotate the moon sphere in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float4x4\_StarsRotationMatrix** – The matrix used to correctly rotate the stars in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float3\_SunDirection** – The direction of the sun in the sky, this is set by “PBR Night Sky Controller” and should not be modified.
- **float\_Exposure** – The exposure of the sky, this is used to add emission to the stars when the value is greater than 1.
- **float\_CloudMaskMultiplier** – A multiplier used to dim stars behind the HDRP cloud layer (HDRP only).
- **SamplerTexture2D\_TwinkleNoise** – The noise texture used to make the stars twinkle.
- **float\_StarTwinkleSpeed** – The speed at which the stars will twinkle.
- **float\_StarTwinkleIntensity** – The intensity of the twinkle of the stars.
- **float\_StarTwinkleNoiseTiling** – The tiling amount of the twinkle noise texture.