C# (C Sharp)

## Render Textures

#### RenderTexture

- A texture that is created and updated at run-time
- You can render a camera to a RenderTexture
- Used like normal textures, but also can be used for:
  - Mirrors
  - Post-processing image effects
  - Minimaps
  - In-game snapshots
  - Trippy effects

#### RenderTexture Setup

#### Example

A very quick way to make a live arena-camera in your game:

- Create a new Render Texture asset using Assets->Create->Render Texture.
- 2. Create a new Camera using GameObject > Create General > Camera.
- 3. Assign the Render Texture to the **Target Texture** of the new Camera.
- 4. Create a wide, tall and thin box
- 5. Drag the Render Texture onto it to create a Material that uses the render texture.
- 6. Enter Play Mode, and observe that the box's texture is updated in real-time based on the new Camera's output.

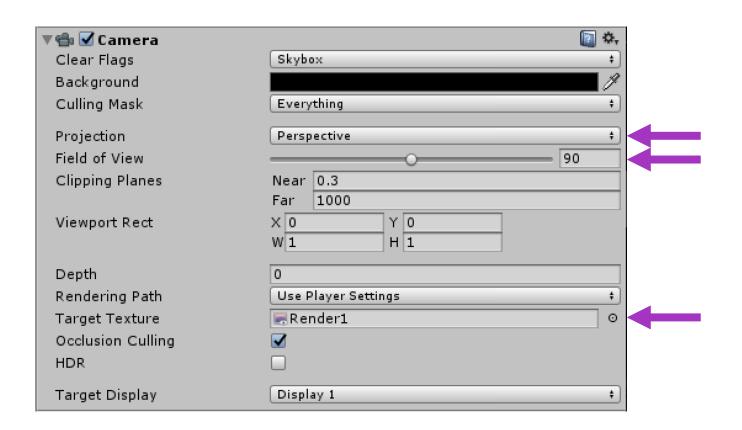
https://docs.unity3d.com/Manual/class-RenderTexture.html

#### RenderTexture Properties

Property:	Function:
Size	The size of the Render Texture in pixels. Observe that only power-of-two values sizes can be chosen.
Anti-Aliasing	The amount of anti-aliasing to be applied. None, two, four or eight samples.
Depth Buffer	The type of the depth buffer. None, 16 bit or 24 bit.
Wrap Mode	Selects how the Texture behaves when tiled:
Repeat	The Texture repeats (tiles) itself
Clamp	The Texture's edges get stretched
Filter Mode	Selects how the Texture is filtered when it gets stretched by 3D transformations:
No Filtering	The Texture becomes blocky up close
Bilinear	The Texture becomes blurry up close
Trilinear	Like Bilinear, but the Texture also blurs between the different mip levels
Aniso Level	Increases Texture quality when viewing the texture at a steep angle. Good for floor and ground textures

https://docs.unity3d.com/Manual/class-RenderTexture.html

#### Mirror Camera Settings



# Picking Up Objects

### New Scripting Concepts

- Controlling whether Physics affects a Rigidbody
  - <u>Rigidbody.isKinematic</u>
- Switching an object's parent
  - <u>Transform.parent</u>