



VR Capture Plugin

Version 1.0.2

Created by RockVR

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1.Introduction and Overview

VR Capture is a plugin can record the game video. Many times there is no way to share your wonderful VR gameplay with friends, now we provide a solution to solve your problem. This plugin can be based on the requirements of the developer, recording the desired video in the game scene. In additional, its can support SteamVR interaction and record panoramic video.

VR Capture also include FFmpeg build, its a third party, open source, cross-platform tool that lets you easily convert video formats, and is bundled with VR Capture. You can learn more about ffmpeg through <http://ffmpeg.org/>.

Plugin Profile

When you import VR Capture into your project, the following assets will be included:



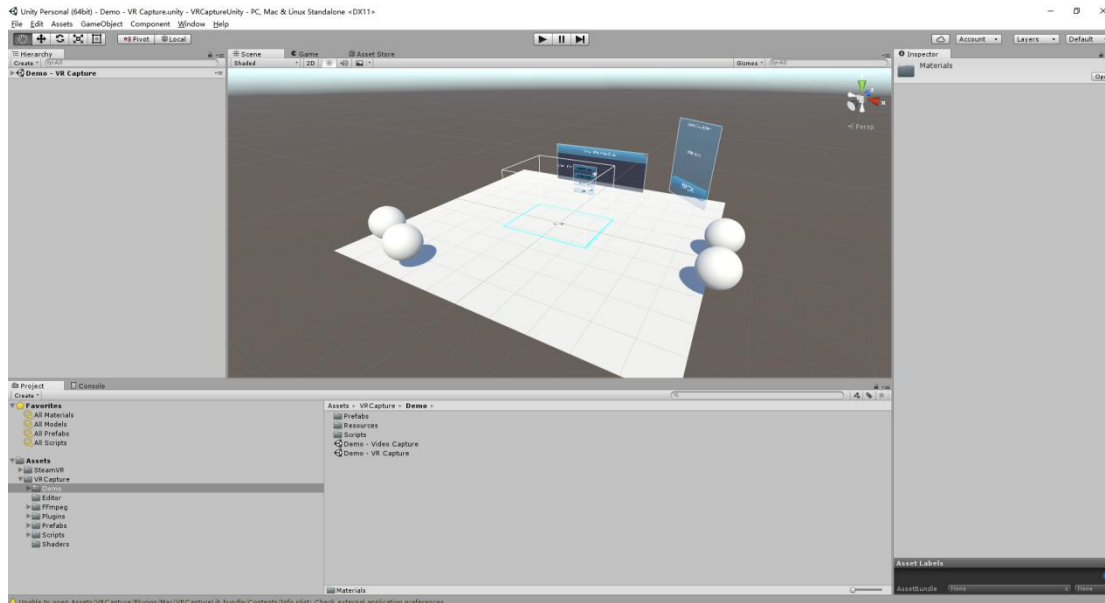
Demo/	Stores the scene file and all other assets for a fully functional demonstration of VR Capture. When importing to an existing project, you may choose to exclude this folder.
Editor/	Contains helper scripts and resources used in the Unity Editor and Inspector window.
FFmpeg/	Contains the FFmpeg binaries for Windows and Mac OSX. If you are only building for one target platform, you can exclude the file you don't need.
Plugins/	Contains the plugin core native logic.
Prefabs/	Contains useful prefabs can be imported to your scene.
Scripts/	Contains the script core logic. Including capture, interaction logic.
Shaders/	Contains material's shader that used in plugin.

This guide covers adding VR Capture to a new or existing project, and provides a detailed explanation on how the package works under the hood.

If you have additional questions or having issues, please email us directly at dev@rockvr.cn. We will try our best to respond as quickly as possible.

2.Demo Introduction

VR Capture comes with two demo scenes you can play with.

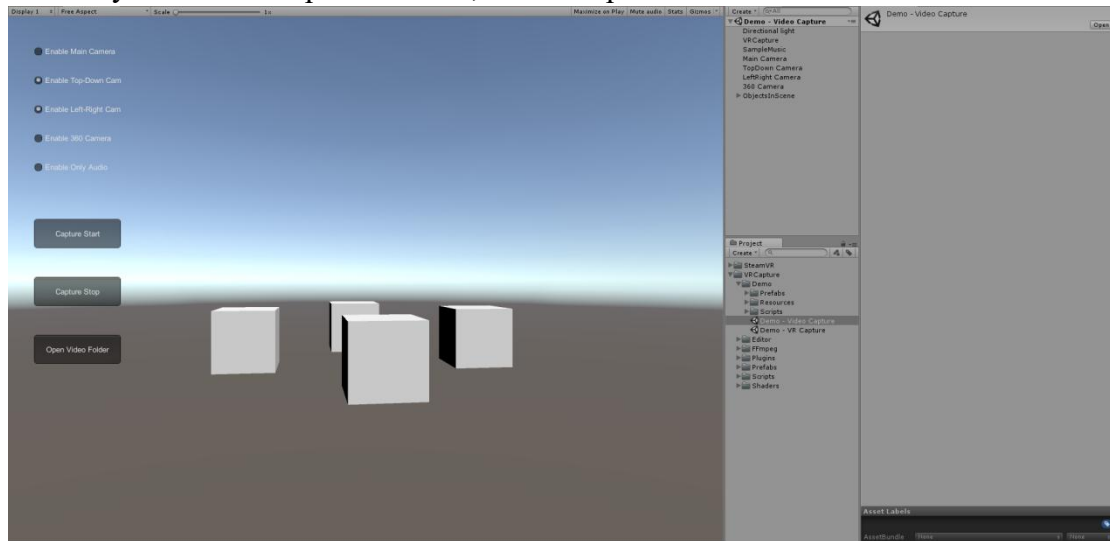


Demo - Video Capture

Open the demo scene located in \Assets\VRCapture\Demo\Demo - Video Capture.



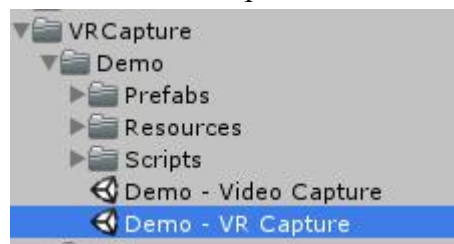
Choose your needed capture camera, click "Capture Start" button.



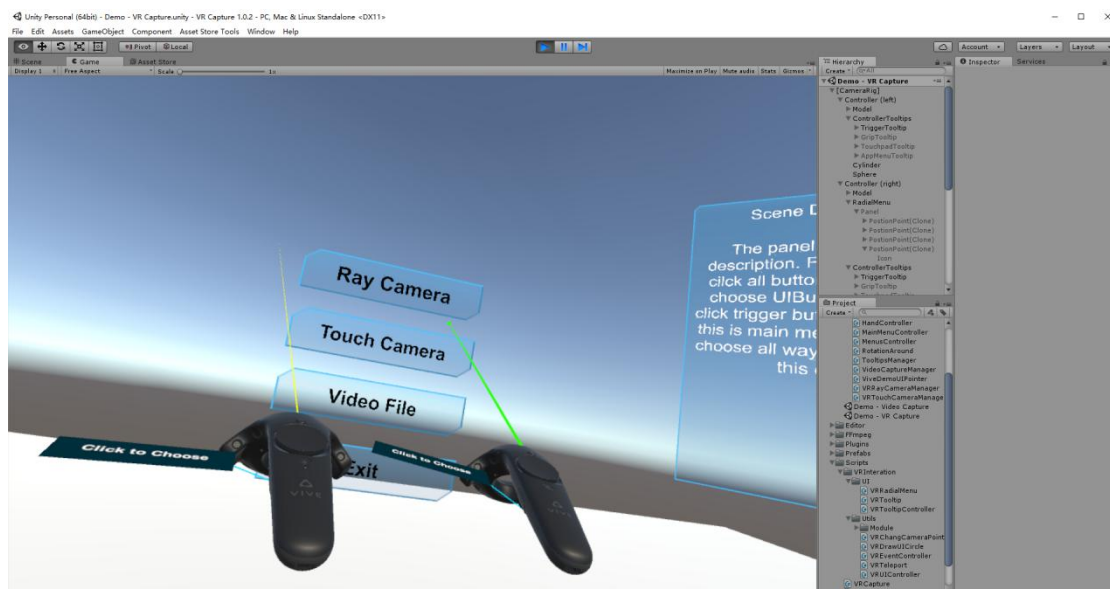
Click "Capture Stop" button when you want to end recording.
Click "Open Video File" button, you can find captured video files.

Demo - VR Capture

Open the demo scene located in \Assets\VRCapture\Demo\Demo - VR Capture.



Play the demo scene, check all tooltips of controller.

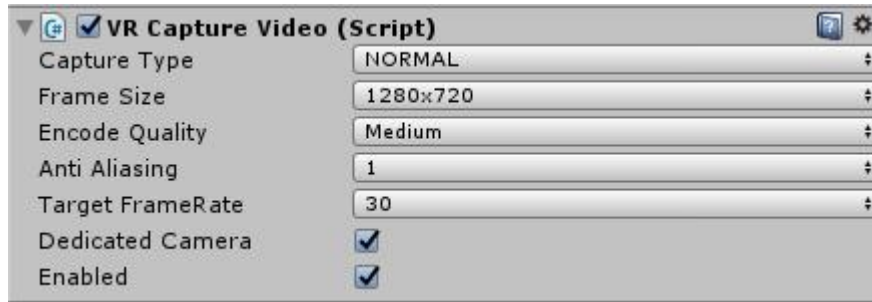


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3.Configure the VR Capture Properties

Capture Properties

Add **VRCaptureVideo** component in capture camera.



CaptureType: Decide record flat or equirectangular.

FrameSizeType: Resolution of recorded video.

CubemapSize: The cubemap size capture render to.

EquirecatngularFrameSizeType: The equirecatngular output video size.

EncodeQualityType: Lower quality will decrease file size on disk.

AntiAliasingType: Anti aliasing setting for recorded video.

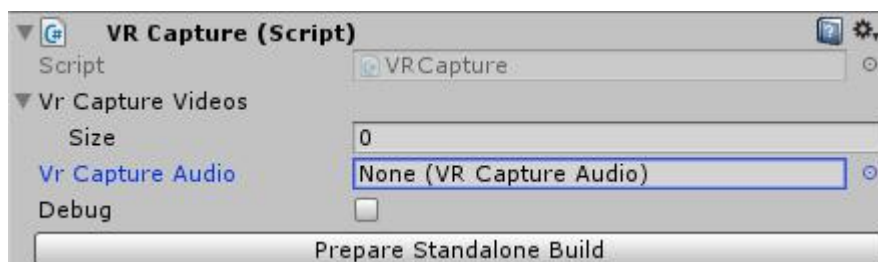
TargetFramerateType:Target frame rate for recorded video.

Add **VRCaptureAudio** component in listener.



IsEnabled: Whether this audio listiner is enabled for capture.

Add **VRCapture** component in any object.



VRCaptureVideos: Reference to the VRCaptureVideo capture objects from which video will be recorded. Generally you will want to specify at least one.

VRCaptureAudio: Reference to the VRCaptureAudio object for writing audio files. This needs to be set when you are recording a video with audio.

Debug: Show debug info message.

Prepare Standalone Build: Before building for a practically target platform, make sure you click the appropriate button in the VR Capture inspector window.

Introduce VR Capture Interaction Script

VREventController: This script is used to take response for SteamVR device controller.

VRInputModule: The module is designed to work as you would expect a SteamVR controller input to work. Events for button presses, dragging, and similar are sent in response to input.

Please read <https://docs.unity3d.com/Manual/scriptStandaloneInputModule.html> for reference.

VRUIGraphicRaycaster: Inherited from **GraphicRaycaster**, used to detect collision of UGUI object for laser input interaction.

Please read <https://docs.unity3d.com/Manual/script-GraphicRaycaster.html> for reference.

VRUIPointer: This script is used to take response for interaction event, wrapper for EventSystem.

VRChangCameraPoint: Used for setup positions of camera, and save position information in local cache.

VRDrawUICircle: This script is draw circle UI image, and set its attribute.

VRTeleport: This script implemented functionality of teleport in VR scene.

VRUIController: Configure interaction mode.

VRRadialMenu: This script is setting radial menu attribute, and binding keys to listener events.

VRTooltipController: Manage all tooltips.

VRTooltip: Setup VR tooltip attribute.

4.Code API

VRCapture

Event Delegate:

void SessionErrorDelegate (SessionStatusCode code): To be notified when an error occurs during a capture session, register a delegate using this signature by calling RegisterSessionErrorDelegate.

void SessionCompleteDelegate(): To be notified when the capture is complete, register a delegate using this signature by calling RegisterSessionCompleteDelegate.

Access Interface :

SessionStatusCode BeginCaptureSession(): Initialize the attributes of the capture session and start capturing.

SessionStatusCode EndCaptureSession(): Stop capturing and produce the finalized video. Note that the video file may not be completely written when this method returns. In order to know when the video file is complete, register a **SessionCompleteDelegate**.

VREventController

Event Delegate:

void PressTrigger(): The triggering event when the trigger button is pressed.

void PressTriggerDown(): The triggering event when the trigger button is pressed down.

void PressTriggerUp(): The triggering event when the trigger button is pressed up.

void PressGrip(): The triggering event when the grip button is pressed.

void PressGripDown(): The triggering event when the grip button is pressed down.

void PressGripUp(): The triggering event when the grip button is pressed up.

void PressApplicationMenu(): The triggering event when the application menu button is pressed.

void PressApplicationMenuDown(): The triggering event when the application menu button is pressed down.

void PressApplicationMenuUp(): The triggering event when the application menu button is pressed up.

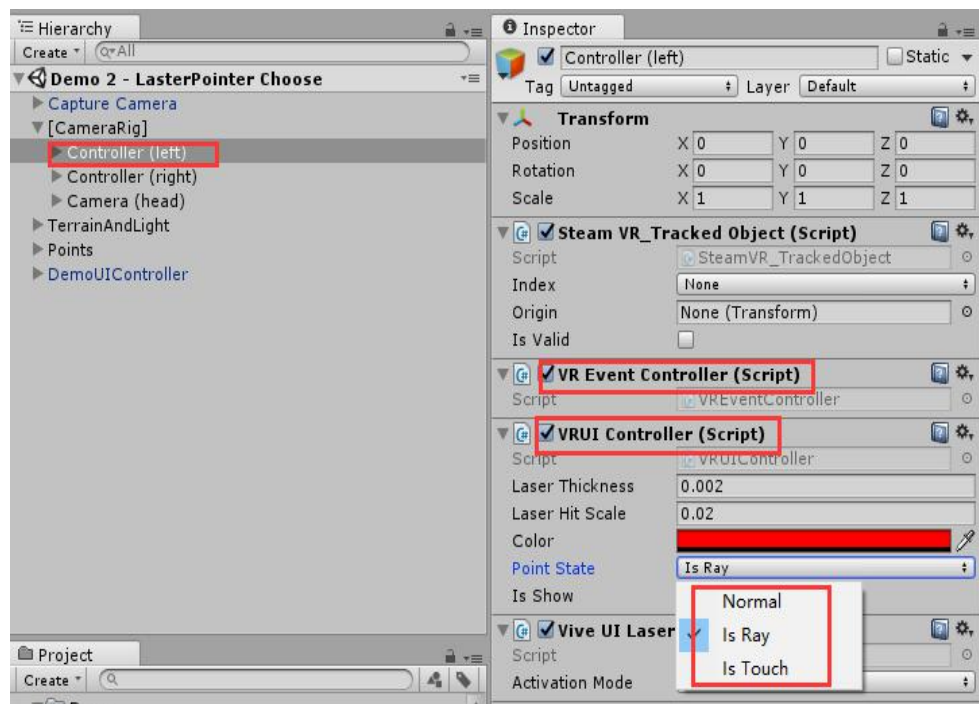
void PressTouchpad(): The triggering event when the touchpad button is pressed.
void PressTouchpadDown(): The triggering event when the touchpad button is pressed down.
void PressTouchpadUp(): The triggering event when the touchpad button is pressed up.
void TouchPadTouch(): The triggering event when the touchpad button is touched.
void TouchPadTouchDown(): The triggering event when the touchpad button is touched down.
void TouchPadTouchUp(): The triggering event when the touchpad button is touched up.
void SwipeLeft(): The triggering event when the touchpad button is swiped left .
void SwipeRight(): The triggering event when the touchpad button is swiped right.
void SwipeTop(): The triggering event when the touchpad button is swiped up.
void SwipeBottom(): The triggering event when the touchpad button is swiped down.

5.VR Capture Integration Guide

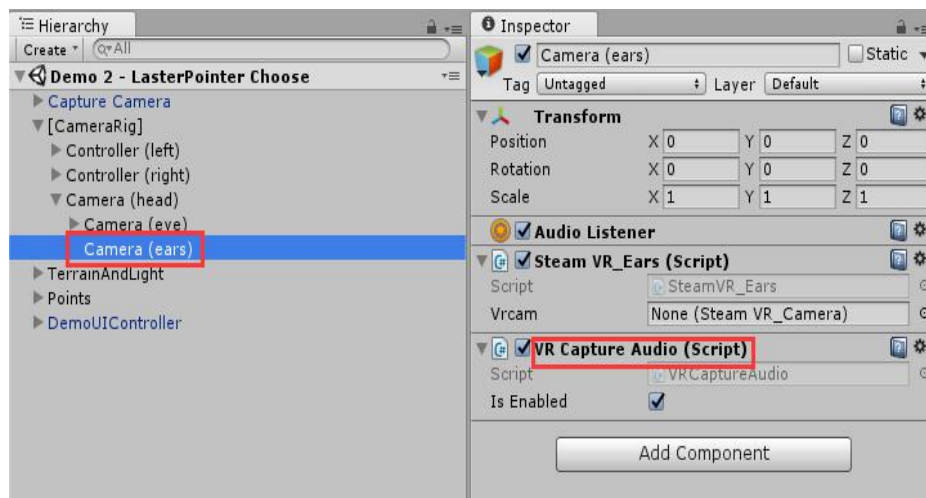
This chapter will teach you how to intergate VR Capture plugin.

Capture Camera Setup

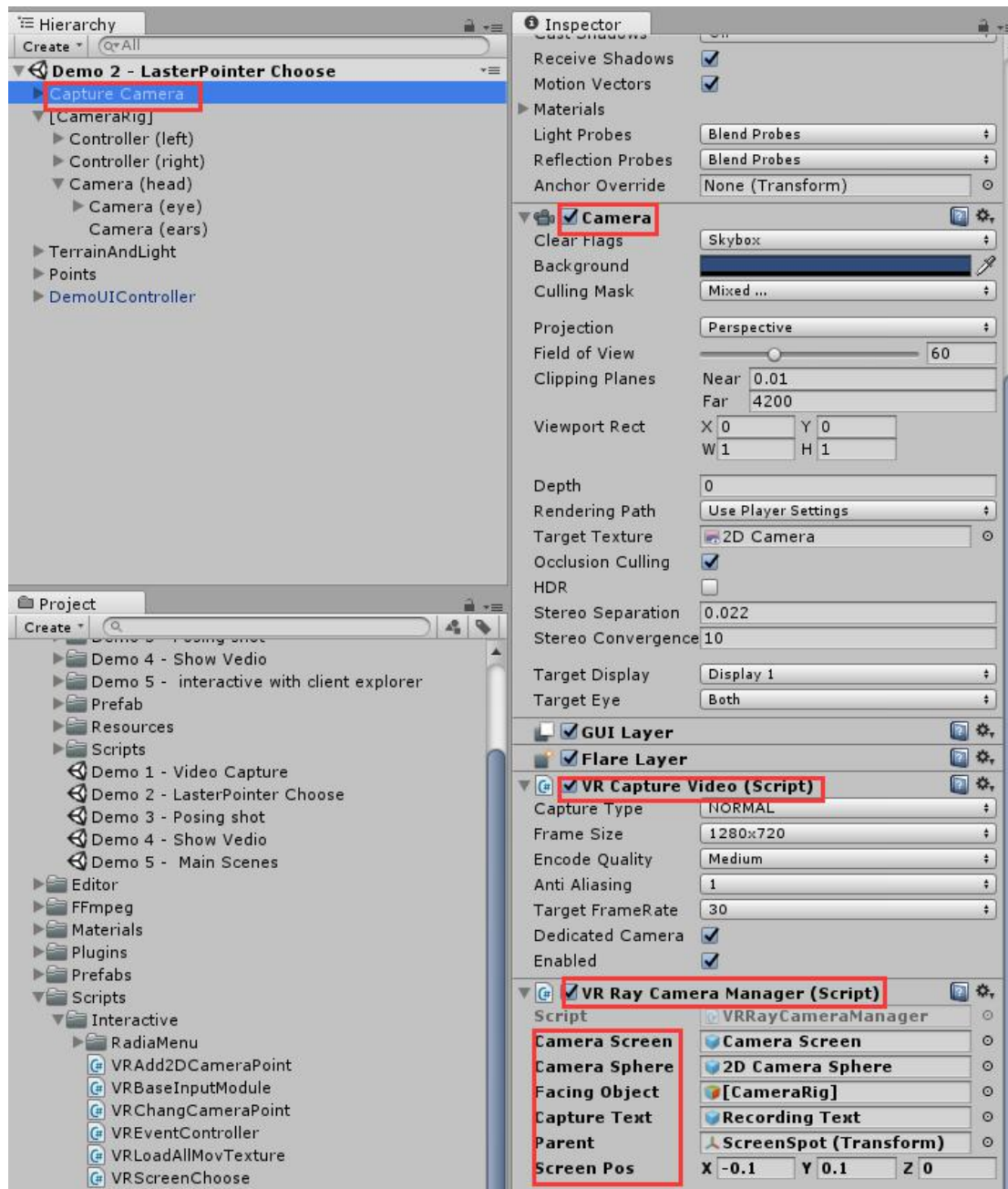
- Attach **VREventController** and **VRUIController** under the prefab of the SteamVR controller .



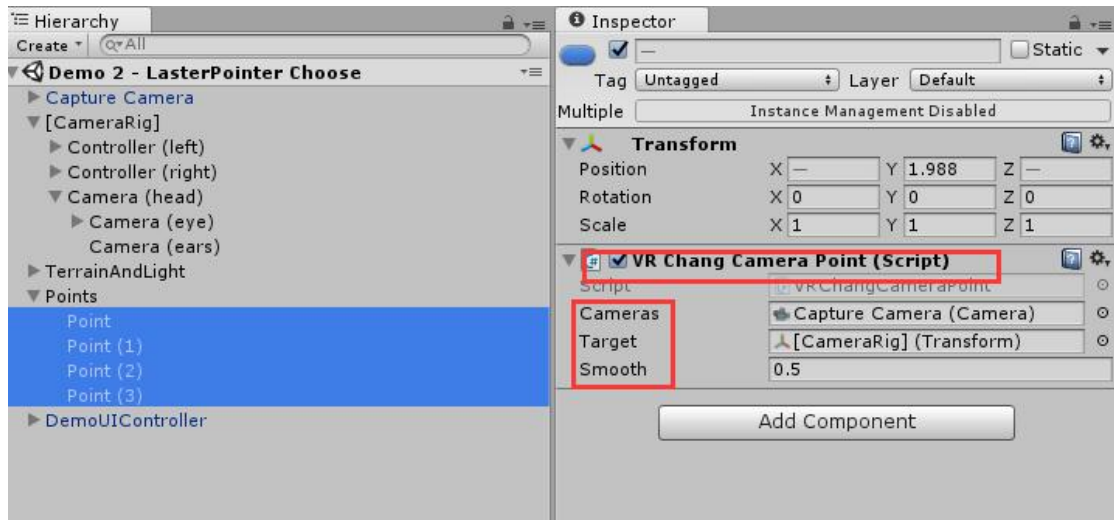
- Attach **VRCaptureAudio** to SteamVR ear controller.



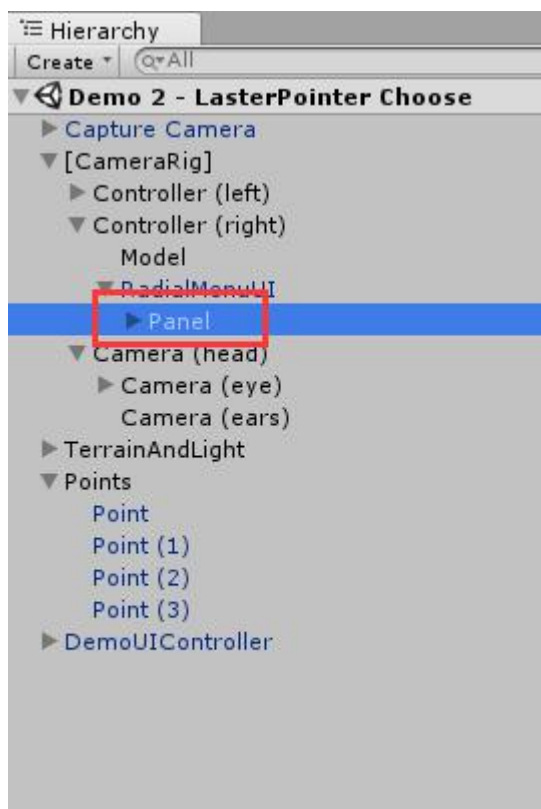
- Camera prefab setting.

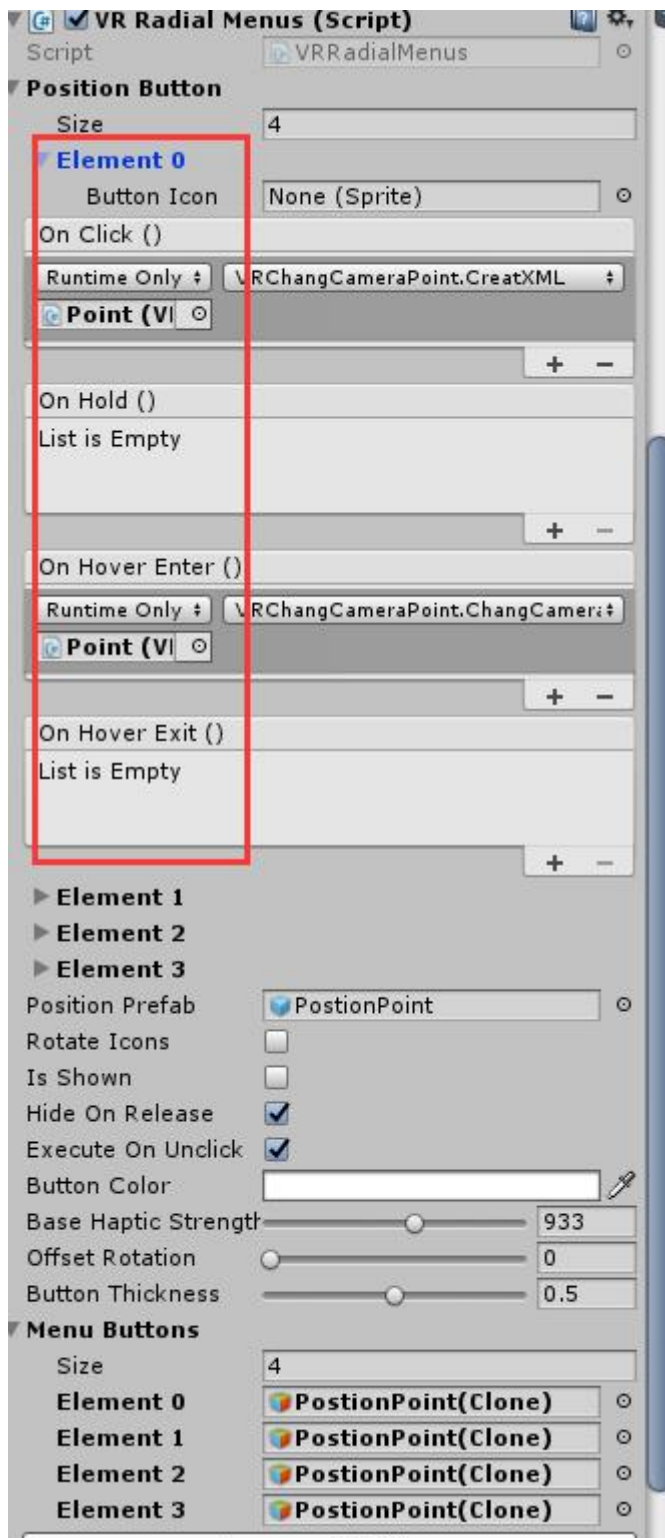


- Add recording **Point**, set **Point** attribute.

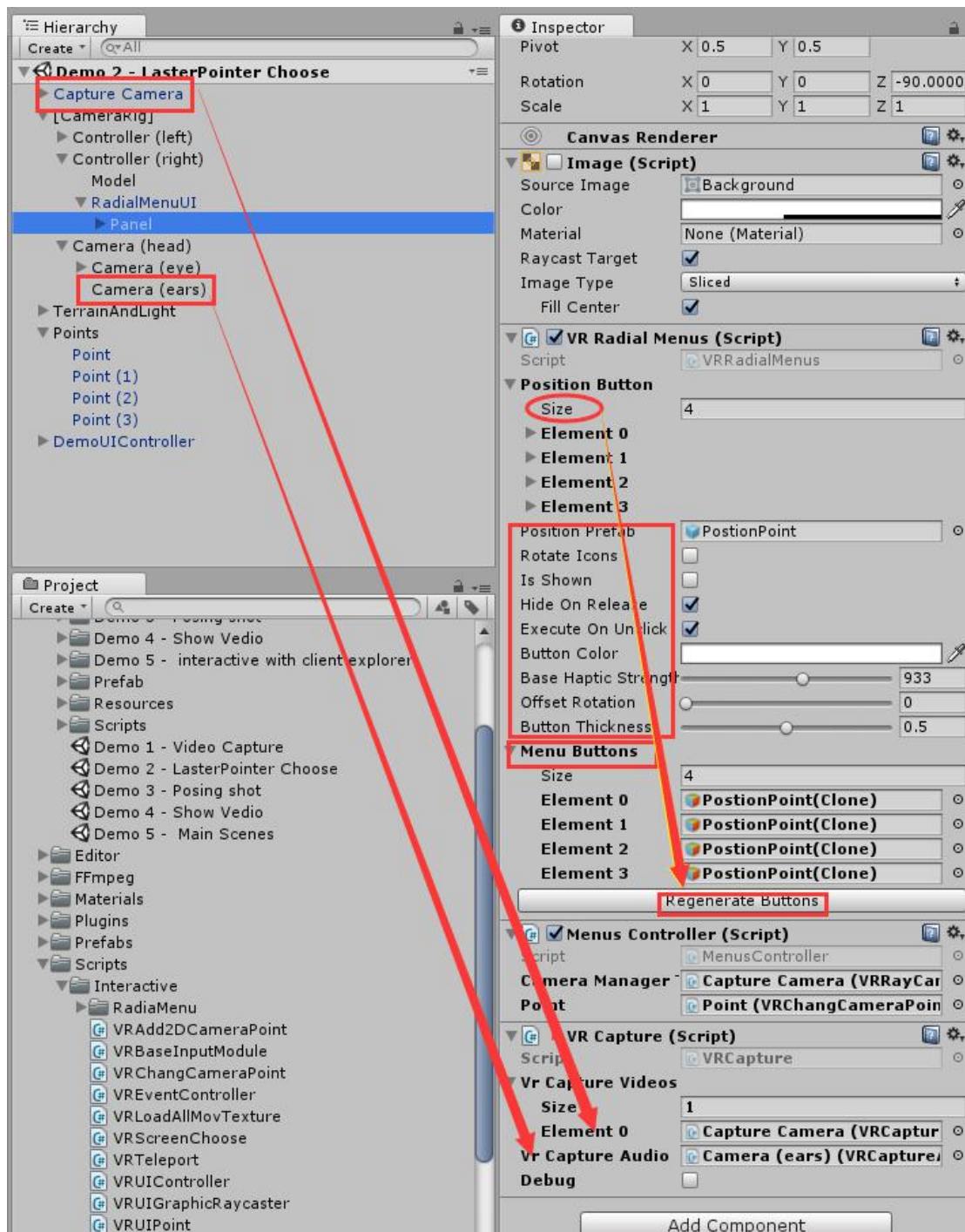


- Then add **RadialMenuUI** prefab, set prefab attribute.





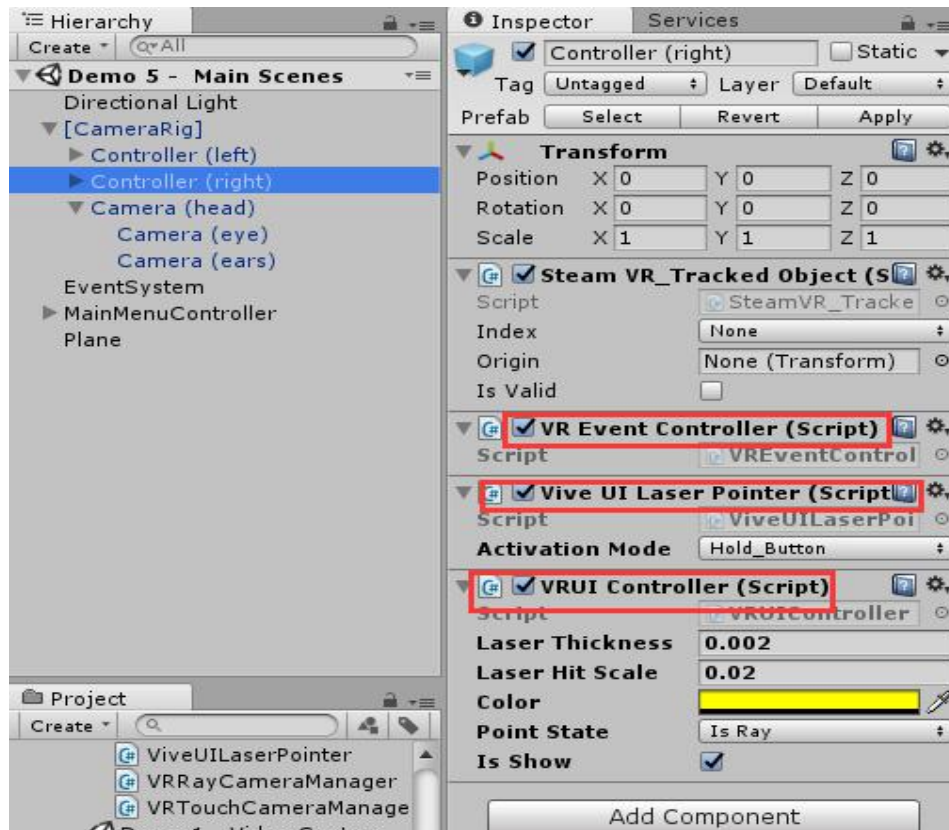
- Set trigger events.



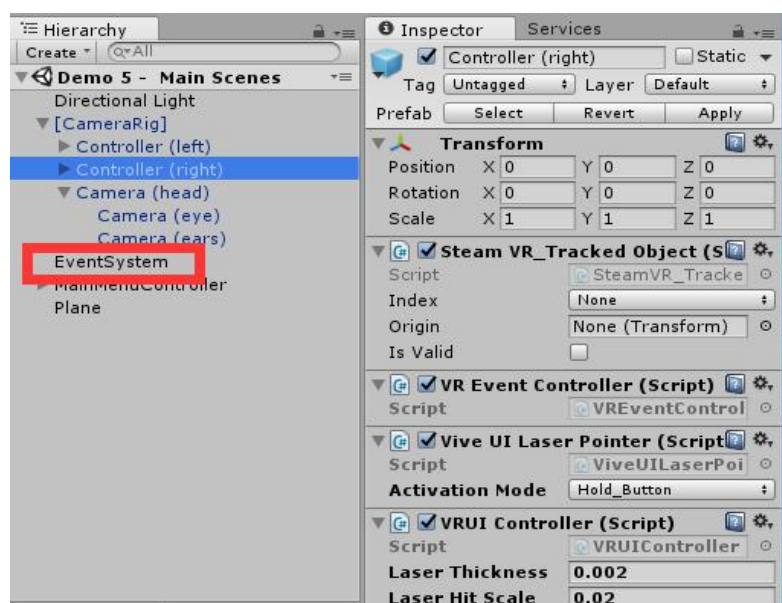
- After setting done, please click "**Regenerate Buttons**".
- Then you are ready to go, enjoying!

About UGUI Interaction

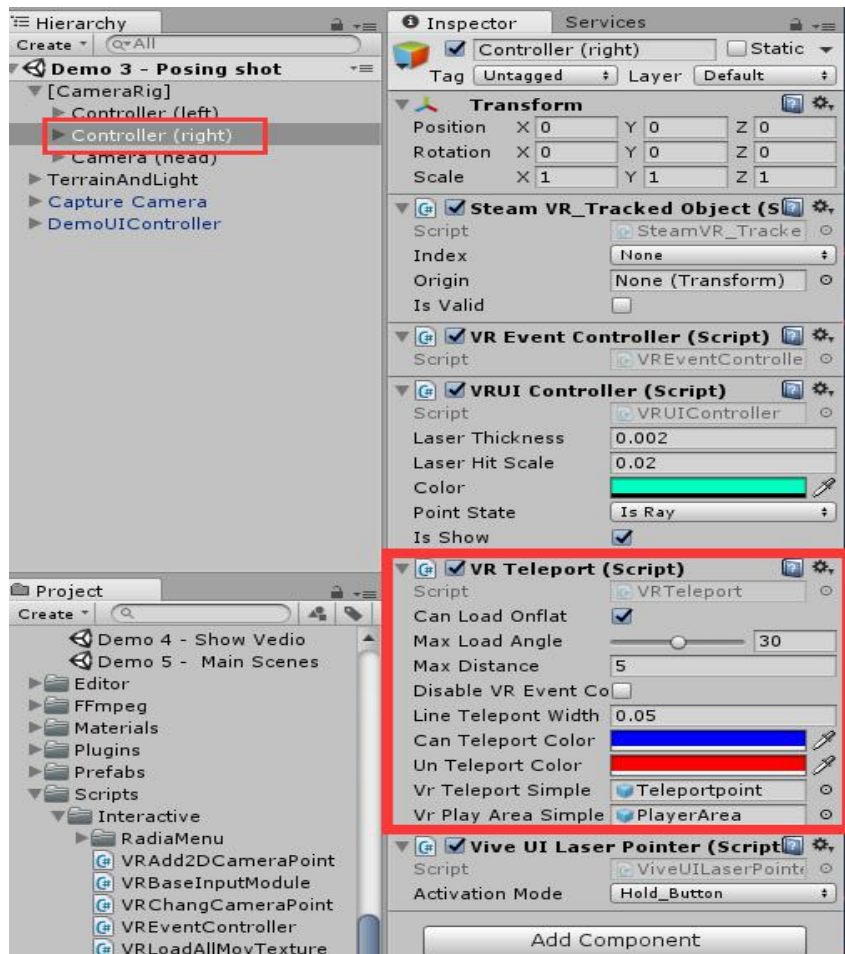
- Attach **VREventController** **ViveUILaserPointer** and **VRUIController** under the prefab of the SteamVR Controller .



- **EventSystem** is required in UGUI interaction.



- You can also use **Teleport** script.



6.Suggestions and Opinions

If you have any feedback to VR Capture plugin, please email us directly through **dev@rockvr.cn**, your suggestion will be very valuable to us. If you plan integrate a plugin into your game, please contact us and we will provide more help to let you share your awesome game more efficient.