



[AR + VR: Mixed Reality \(MR\) Camera](#) — — — Unity Asset that uses [AR Camera GYRO \(docs\)](#) and [Google Cardboard XR Plugin](#) (former Google VR SDK) to display 2D or 3D objects as though they were in the real world mixing Virtual Reality and Augmented Reality. It's Unity MR Camera for 80% of all Mobile Devices.



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Features of AR + VR: Mixed Reality (MR) Camera

Bring the enchanting Power of Mixed Reality into your amazing Game or App:

- ★ Cross-platform Mobile MR Camera: iOS, Android.
- ★ 3-minute installation for your own AR + VR Scene.
- ★ Covering a wide range of mobile devices.
- ★ [Google Cardboard XR Plugin](#) (former Google VR SDK) to implement Virtual Reality.
- ★ [AR Camera GYRO \(docs\)](#) to implement Augmented Reality.
- ★ No using of other AR Engines like Unity AR Foundation, ARCore, ARKit, Vuforia, etc.
- ★ Real-Time [AR Shadows \(docs\)](#).
- ★ Basic Editor Testing.
- ★ Gaze-based Reticle Pointer (2 Non-Animated States).



Mixed Reality adds virtual elements the physical world and surround you game objects being in full immersion with VR Headset.

Package Contains

All modules are designed independently to keep this asset extendable & easy to understand:

- ★ Demo of Interaction with Objects in Mixed Reality;
- ★ Separate Scene with Camera Permission Request using free [Native Camera](#);
- ★ [AR Camera GYRO \(docs\)](#);
- ★ [AR Shadow \(docs\)](#).

Tutorial



This is tutorial for New Version of Asset with Google Cardboard XR Plugin. Tutorial for deprecated version of asset with Google VR SDK you can only find inside target Unity Package.

Getting Started with AR + VR: Mixed Reality (Unity MR)

Folders & Files in package by default:

- ★ Makaka Games;
- ★ Plugins;
- ★ XR.

Steps



If you have any issues with the first launch then just Reach Support with Invoice Number and Get Help.

If you read this tutorial from PDF, first check the latest docs online to get actual information.

1

Create New Unity Project with Unity 2019.4.10.

2

Build Settings > iOS or Android > Switch Platform.

3

Download and import [AR + VR: Mixed Reality \(MR\)](#) into Unity.

1

Warning Windows:

1

Click "Import" to overwrite the Project Settings with predefined ones.

2

Click "Install/Upgrade" for [Package Manager](#) Dependencies.

4

Next Packages are provided with [Unity Package Manager](#), and they are already installed for this Asset by default. If packages are missing (Warning Window did not appear) then install them again with [Unity Package Manager](#):

1

[TextMesh Pro 2.1.1](#):

1

Always Required: Window > TextMeshPro > Import TMP Essential Resources;

2

[XR Legacy Input Helpers 2.1.4](#);

3

[XR Plugin Management 3.2.15](#);

- 5 Next Packages must be manually installed with [Git & Unity Package Manager](#):
 - 1 [Google Cardboard XR Plugin for Unity 1.2.0](#);
 - 2 [Native Camera 1.2.6](#).
- 6 Reopen Unity Project.
- 7 Open Scene: Makaka Games > MR > MR Camera > Scenes > Demo.
- 8 Test in the Unity Editor or Build for Mobile.

If you are new to [Google Cardboard XR Plugin](#) for Unity, [check following guide](#).



Each Unity Asset included in [AR + VR: Mixed Reality \(MR\)](#) has its own documentation in target folder or [on the website \(the latest docs\)](#).

Known Issues & Solutions

[Google Cardboard XR Plugin](#) is still under development. If you have any issues on its side then try to [Search Solutions on GitHub](#):



[The Same Image for Both Eyes on some devices.](#)

Testing

You can test the project in the Unity Editor this way:

- ★ Right Mouse Button for Camera Movement.
- ★ Left Mouse Button for Simulating of Pressing the Cardboard trigger button this frame
([Google.XR.Cardboard.Api.IsTriggerPressed](#)) — Tested for Screen Touches on Mobile Device.

Mobile Devices

“

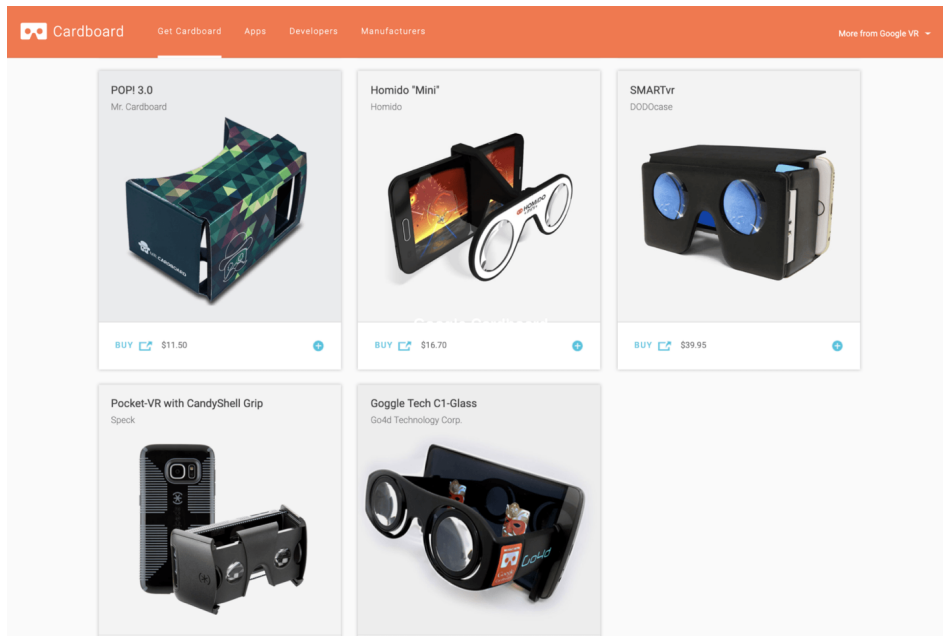
Real Testing is only on Real Device.

Tested with Smartphones & Google Cardboard with [Unity's Built-in Render Pipeline](#) (not [URP](#)):

- ★ iOS 14 on iPhone XS Max.
- ★ Android 10 on Samsung Galaxy A71.

Limitations

- ★ Hardware and Software Requirements are restricted by Requirements of [Google Cardboard XR Plugin](#).
- ★ Camera Rotation and Camera Movement are controlled only with [Google Cardboard XR Plugin](#).
- ★ UI Buttons on World Space Canvases must have [Box Collider](#).
- ★ Google Cardboard must have camera hole.



Google Cardboard for AR + VR with Camera Hole

Support

First, [read the latest docs online](#).

If it didn't help, [get the support](#).

Changelog

Check the current version on [Asset Store](#).

The latest versions will be added as soon as possible.

2.0:

- ★ Unity 2019.4;
- ★ [AR Shadow 1.4 \(docs\)](#);
- ★ [AR Camera GYRO 3.3 \(docs\)](#);
- ★ [Google Cardboard XR Plugin 1.2.0](#).