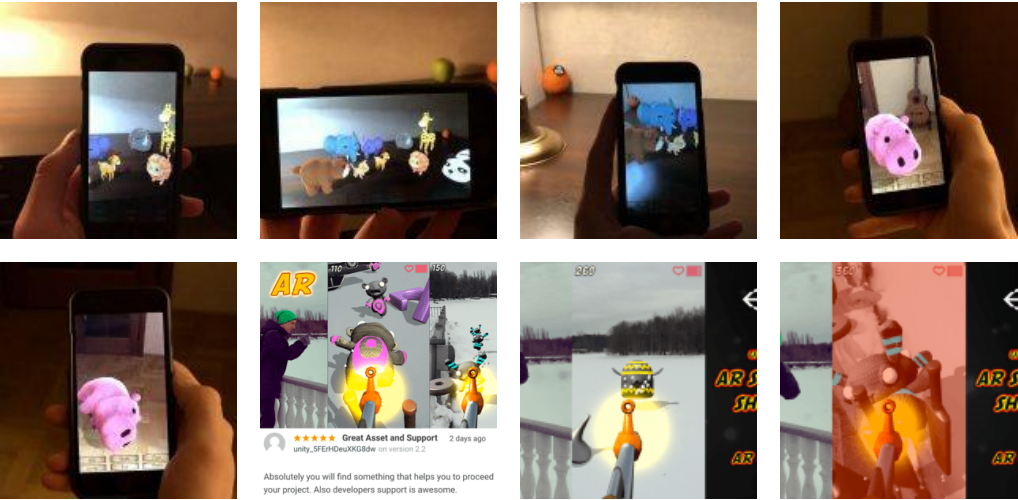


AR Camera GYRO

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AR Camera GYRO — Unity Asset that uses camera and gyroscope on the player’s mobile device to display 2D or 3D objects as though they were in the real world.

Cross-platform mobile gyroscopic camera implements markerless augmented reality (AR) by using a gyroscope sensor (like Pokemon GO).



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AR Camera GYRO and ARKit, ARCore



There is no integration with ARKit & ARCore.

Unity AR Camera GYRO operates with gyroscope without surface detection to cover a wider range of mobile devices than ARKit & ARCore.

Read more about [Top AR Engines for Unity.](#)

Features of AR Camera GYRO

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

- ★ 2 modes with Auto Rotation: Portrait, Landscape.
- ★ 3 minutes installation for your own AR Scene.
- ★ Same AR as in [Pokemon GO game](#).
- ★ Covering a wide range of mobile devices.
- ★ No using of other AR Engines like ARCore, ARKit, etc.
- ★ Real-Time [AR Shadows \(docs\)](#).

Package is a part of Unity Assets

[AR Basketball GO](#).

AR Basketball GO 🏀 Augmented Reality for Unity – ...



[AR Survival Shooter \(docs\)](#).

AR Survival Shooter 🎯 Augmented Reality for Unity ...



[AR Throw Ball](#).

Package Contains

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

★ Demo with [AR Shadow \(docs\)](#).

Gyro vs. Accelerometer

90% of all mobile devices have an accelerometer and video camera but only 20% have a gyroscope.

If you want greater coverage of devices, but less accuracy and stability, use [AR Camera ACCELEROMETER \(docs\)](#).

If you want greater accuracy and stability, use [AR Camera GYRO \(docs\)](#).

You can also try to use both cameras for different cases.

Limitations

Different devices have different gyroscopes, and therefore different deviations and drifts.

Drift is natural for gyroscope sensor.

Tested with Devices

Mobiles:

- ★ iOS on iPhone 6.
- ★ Android on Samsung Galaxy S7, Lenovo A606.

Tablets:

- ★ UWP on Microsoft Surface Pro 5, Acer Switch 5.

Tutorial

How to transform your scene into Augmented Reality with AR Camera GYRO?

Getting Started with AR Camera GYRO in Unity 📱 🖱️ ...



I used Unity 2018.3 & iOS 12 for this tutorial.
But you can also build it for Android.

- 1 Create New Unity Project.
- 2 Import [AR Camera GYRO \(docs\)](#).
- 3 Import Your Scene.
- 4 Switch to a Target Platform.
- 5 Open Your Scene.
- 6 Prepare Your Scene.
 - 1 Create Game Object called "GameWorld" to conveniently move the environment of your scene.
 - 2 Move all environment into "GameWorld" Game Object.
 - 3 Delete the Main Camera.
 - 4 Drag new instances of prefabs into "GameWorld" Game Object: "ARDirectionalLight" & "ARGround".
 - 5 Delete your "ground", position and scale "ARGround" for AR Shadows.
 - 6 Delete your main Directional Light.
 - 7 Drag a new instance of prefab into the scene: "ARCameraGYRO".
 - 8 Position & Rotate "GameWorld" Game Object so that the environment could be seen in the Game View.

7

Customize Quality Settings.

1

Edit > Project Settings > Quality > Default Quality > High.

2

Pixel Light Count = 1.

3

Realtime Reflection Probes = false.

4

Billboards Face Camera Position = false.

5

Shadow Resolution = Very High Resolution.

6

Shadow Projection = Close Fit.

7

Shadow Distance = 400.

8

Customize Player Settings.

1

Bundle Identifier = your.own.name.

2

Camera, Location & Microphone descriptions > Any.

3

Target minimum iOS Version > convenient for your phone.

9

Build And Run.

10

If you faced the problem in Xcode then indicate your Team for successfully deploying.

11

Enjoy.

Script Manual

ARCameraGYRO prefab & GyroCameraControl.cs

ARCameraGYRO prefab has main camera control script:
GyroCameraControl.cs.

GyroCamera

Camera for virtual world rotating depending on the gyro data.

OnGyroIsNotSupported

You can assign a function (in the inspector) to be executed if the gyroscope is not supported by your smartphone.

Gyro

Interface into the Unity Gyroscope. Use this variable to access gyroscope.

GyroSupported

Is a gyroscope available on the device?

RotationFix

```
1 rotationFix = new Quaternion (0f, 0f, 1f, 0f);
```

It corrects a position of the camera every Update () call.

Known issues

Unity AR bugs: Gyroscope

- 1 [INPUT.GYRO.ATTITUDE returns zero values on Motorola Moto G4 and G5.](#)
- 2 [Fixed in Unity 2018.2: INPUT.GYRO is extremely laggy on Samsung Galaxy S6, S6 Edge and S8 with Android 7.0.](#)
- 3 [Fixed in Unity 2017.2: INPUT.GYRO.ATTITUDE returns acceleration's values.](#)

Your actions

Vote on these issues and comment them.

It's important for Unity Team, so users should pay them attention to the situation.

Black screen on iOS

You just need to fill Camera Usage Description in Unity Editor.

Go to Unity Editor > Player Settings > iOS > Other Settings > Camera Usage Description > Fill it (any note for your app).

Support

First of all, [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.

3.0:

- ★ Unity 2018.3 version;
- ★ [AR Shadow 1.3](#) version ([docs](#));
- ★ Fix low FPS in Unity Editor.

2.0:

- ★ ARCameraGYRO prefab (with all stuff inside);
- ★ Screen Message: "Your device does not support gyroscope";
- ★ [AR Shadow](#) ([docs](#)) (Without Vuforia packages);
- ★ [Publisher Window](#) ([docs](#));
- ★ Unity 2017.3.1;
- ★ AR Background => as independent module;
- ★ New Docs;
- ★ GyroCameraControl.cs not related with GameWorld GameObject.

