AR Camera GYRO 📱▦▦

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

AR Camera GYRO is a part of AR Basketball GO and AR Throw Ball.
Package contains demo with AR Shadow.

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

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

Contents

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.

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

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

Tested With

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

Download

Download AR Camera GYRO on Unity Asset Store

Tutorial: "How to transform your scene into Augmented Reality in 4 minutes with AR Camera GYRO?"

I used Unity 2017.3.1f & iOS 11.2 for this tutorial.
But you can also build it for Android.

1. Create New Unity Project.
2. Import AR Camera GYRO.
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 Gyroscope. Use this variable to access gyroscope.

GyroSupported

Is a gyroscope available on the device?

RotationFix

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. INPUT.GYRO is extremely laggy on Samsung Galaxy S6, S6 Edge and S8 with Android 7.0.
3. INPUT.GYRO.ATTITUDE returns acceleration's values: Fixed in Unity 2017.2.

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 docs.
If it didn't help, get the support.

Advantages

4 minutes installation for Your Scene.

Greater coverage of devices than ARKit, ARCore, Vuforia, etc.

Same AR as in Pokemon GO game.

Perfect

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

Get AR Assets for Unity
User Rating: 5(4 votes)