



Building Games - Using Unity for AR and VR

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- Talk-through and Walkthrough
- Machine Setup for Android and Unity development
- Revit Model Export
- Augmented Reality with Vuforia
- Virtual Reality with Google VR



1. Java Language Support

- Make sure you get the JDK

- <http://www.oracle.com/technetwork/java/javase/downloads/index.html>



2. Android Studio

- <https://developer.android.com/studio/index.html>



3. Unity Game Engine

- <https://unity3d.com/get-unity/download>





- Model Scale and Materials:
 - Use 'RosettaCube'
 - Materials will always be time consuming
 - Universal Material Converter by 3DStudio.nl
 - Scene Converter in 3D Studio Max
 - From scratch in Unity
- 'LOD' off, 'Without Boundary Edges' on





- <https://www.vuforia.com/>
- Use Built-In or Download & Install Unity Package
- Create Project and Licence Key on Vuforia Portal
- Create, download & install Target Database
- Import Model; Configure Application
- Build & Run



- Google VR is included in Unity
 - support is improved by Google VR Package
 - <https://github.com/googlevr/gvr-unity-sdk/releases>
- Compatibility issues occur from time to time





- Download & Install Google VR Unity Package
- Import and Locate Model
- Configure Application
- Build & Run





- Demonstration:
 - AR app creation
 - VR app creation



AR TOOLKIT 6
A DAQRI OPEN SOURCE PROJECT



wikitude
See more.

oculus



VIVEPORT

REVIT LIVE

Tango



ENSCAPE™



- Stand-alone Headsets
 - android
- Better Motion Tracking
 - with and without external sensors
- Better Spatial Audio,
 - Over, Under, Occluded
- WebVR (experimental)
- H&S warnings






- Deeper integration into existing platforms
 - Unity ARCore
- Environmental lighting
 - shadow casting?
- Better environmental awareness
 - without tango
- AR.js



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Thank you