

CV VTuber Example 1.0.4

WebGL support
iOS & Android support
Windows10 UWP support
Win & Mac & Linux Standalone support
Support for preview in the **Editor**
Work with Unity Free & Pro

System Requirements

Build Win Standalone & Preview Editor : Windows8 or later
Build Mac Standalone & Preview Editor : OSX 10.9 or later

The execution of this asset is required "[OpenCV for Unity](#)" and "[Dlib FaceLandmark Detector](#)".

Features:

- CVVTuberExample(Computer Vision Virtual YouTuber Example) is an example project of controlling 3D humanoid model (Mecanim Humanoid, ["Unity-chan!" Model](#), [VRM Model](#), [Live2DCubism2 Model](#), [Live2DCubism3 Model](#)) using WebCamTexture. You can control the head orientation and the facial expression of the 3D humanoid model using WebCamTexture only.
- The head orientation and face expression are controlled by the following procedure.
 1. **WebCamTextureMatSourceGetter** - Convert WebCamTexture to OpenCV's Mat class.
 2. **DlibFaceLandmarkGetter** - Detect a face landmark points from OpenCV's Mat class.
 3. **DlibHeadRotationGetter** - Estimate head orientation from face landmark points.
 4. **HeadRotationController** - Control the head orientation of the 3D model using the estimated head orientation.
 5. **HeadLookAtIKController** - Set Animator.SetLookAtPosition() method using the estimated head orientation.
 6. **DlibFaceBlendShapeController** - Control the face BlendShape of the 3D model using the face landmark point.

Basic Examples:

- WebCamTexture CV VTuber Example
- VideoCapture CV VTuber Example

Advanced Examples: (require add-ons setup)

- UnityChan CV VTuber Example
- VRM CV VTuber Example
- Live2DCubism2 CV VTuber Example
- Live2DCubism3 CV VTuber Example (Cubism 3.0 SDK It corresponds Unity The version will be 2018.x)

[Official Site](#) | [ExampleCode](#) | [Android Demo](#) | [WebGL Demo](#)

Version changes:

1.0.4 [Common]Updated for OpenCV for Unity v2.3.4. [Common]Added Live2DCubism3CVVTuber Example.

1.0.3 [Common]Updated for Dlib FaceLandmark Detector v1.2.6. [Common]Refactored the script.

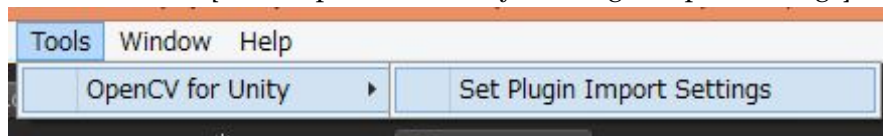
1.0.2 [Common]Updated for OpenCV for Unity v2.3.3.(This asset requires OpenCVforUnity 2.3.3 or later.) [Common]Updated for Dlib FaceLandmark Detector v1.2.5.(This asset requires Dlib FaceLandmark Detector 1.2.5 or later.)

1.0.1 [Common]largely changed the folder structure of asset package.(If there is a previous version of CVVTuberExample in the project, please delete the CVVTuberExample folder first and then import the new version.) [Common]Added WebCamTextureCVVTuberExample, VideoCaptureCVVTuberExample, UnityChanCVVTuberExample, VRMCVVTuberExample and Live2DCubism2CVVTuberExample.

1.0.0 Initial version

Quick setup procedure to run the Basic Example scenes:

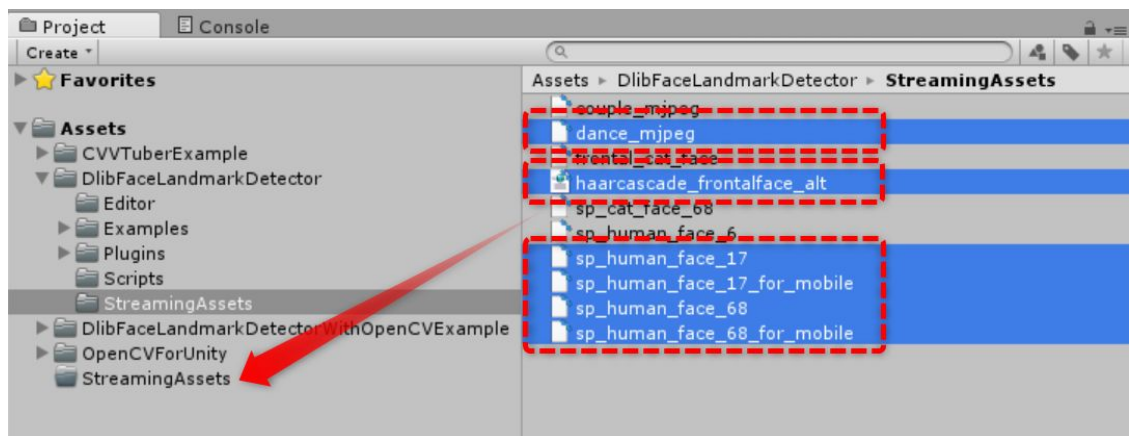
1. Import "[CVVTuberExample](#)". (If there is a previous version of CVVTuberExample in the project, please delete the CVVTuberExample folder first and then import the new version.)
2. Import "[OpenCVForUnity](#)".
3. Import "[Dlib FaceLandmark Detector](#)".
4. Select MenuItem[Tools/OpenCV for Unity/Set Plugin Import Settings].



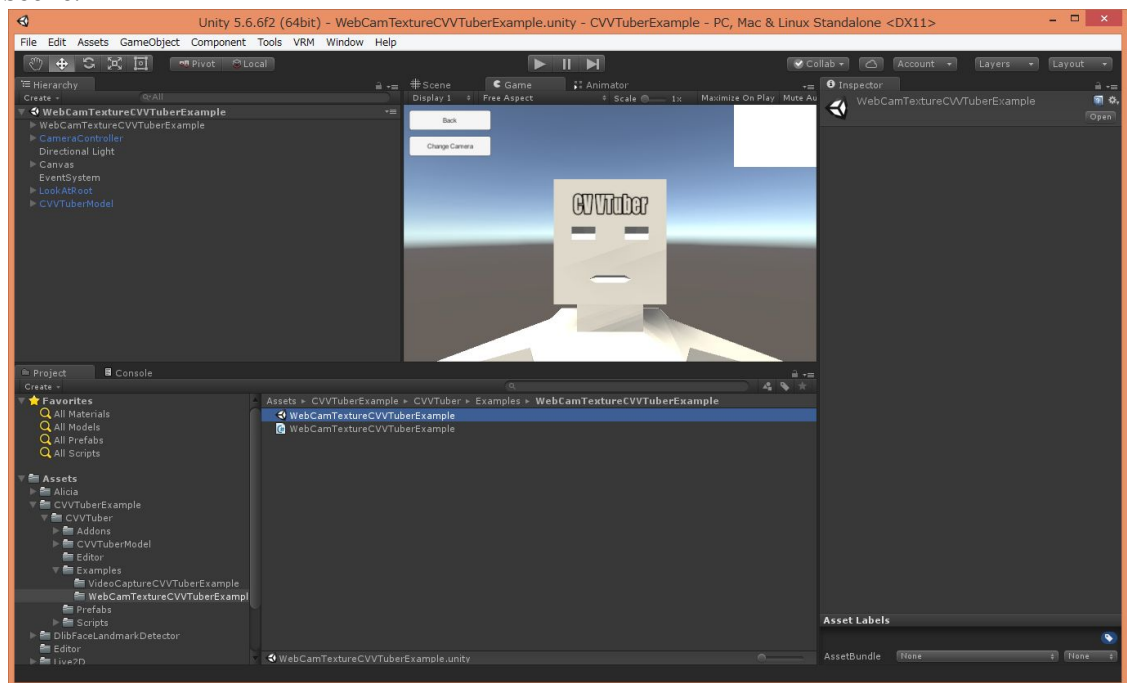
5. Select MenuItem[Tools/Dlib FaceLandmark Detector/Set Plugin Import Settings].



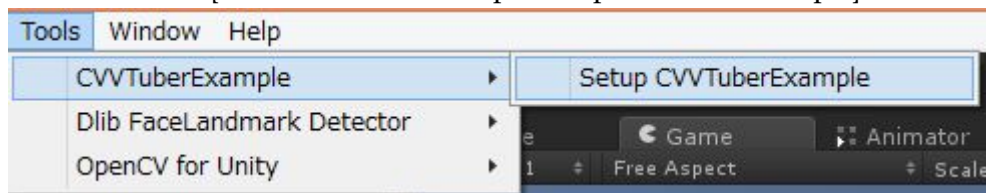
6. Move the "DlibFaceLandmarkDetector/StreamingAssets/dance_mjpeg.mjpeg", "DlibFaceLandmarkDetector/StreamingAssets/haarcascade_frontalface_alt.xml", "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_17.dat", "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_17_for_mobile.dat", "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_68.dat" and "DlibFaceLandmarkDetector/StreamingAssets/sp_human_face_68_for_mobile.dat" to the "Assets/StreamingAssets/" folder.



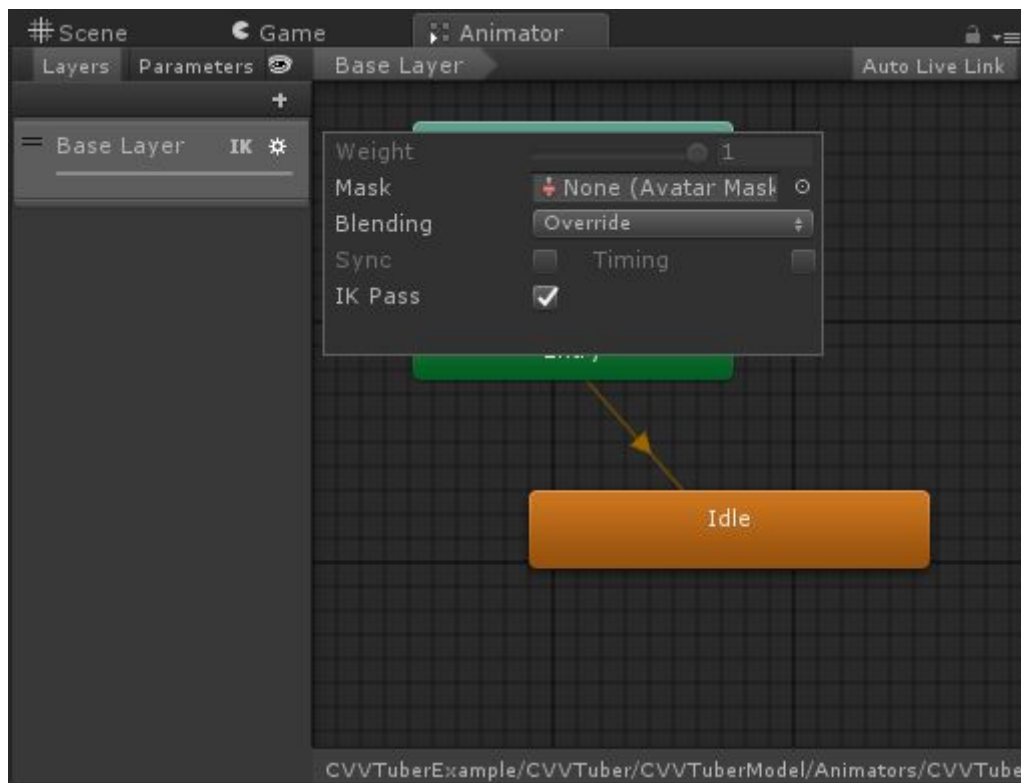
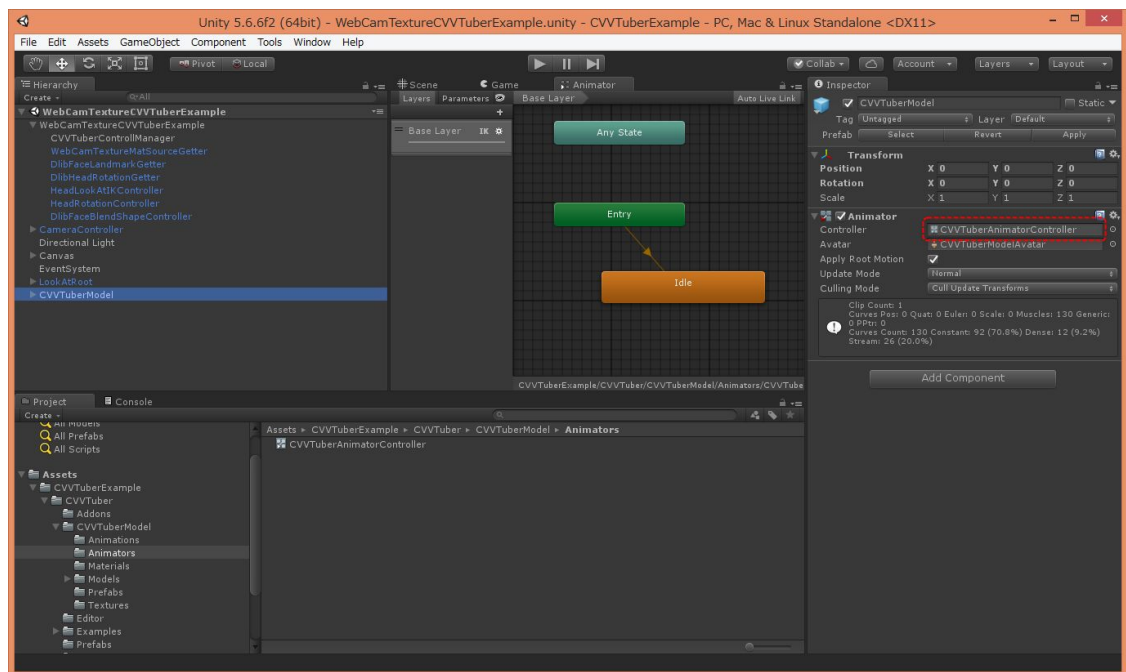
7. Open
“Assets/CVVTuberExample/CVVTuber/Examples/WebCamTextureCVVTuberExample”
scene.



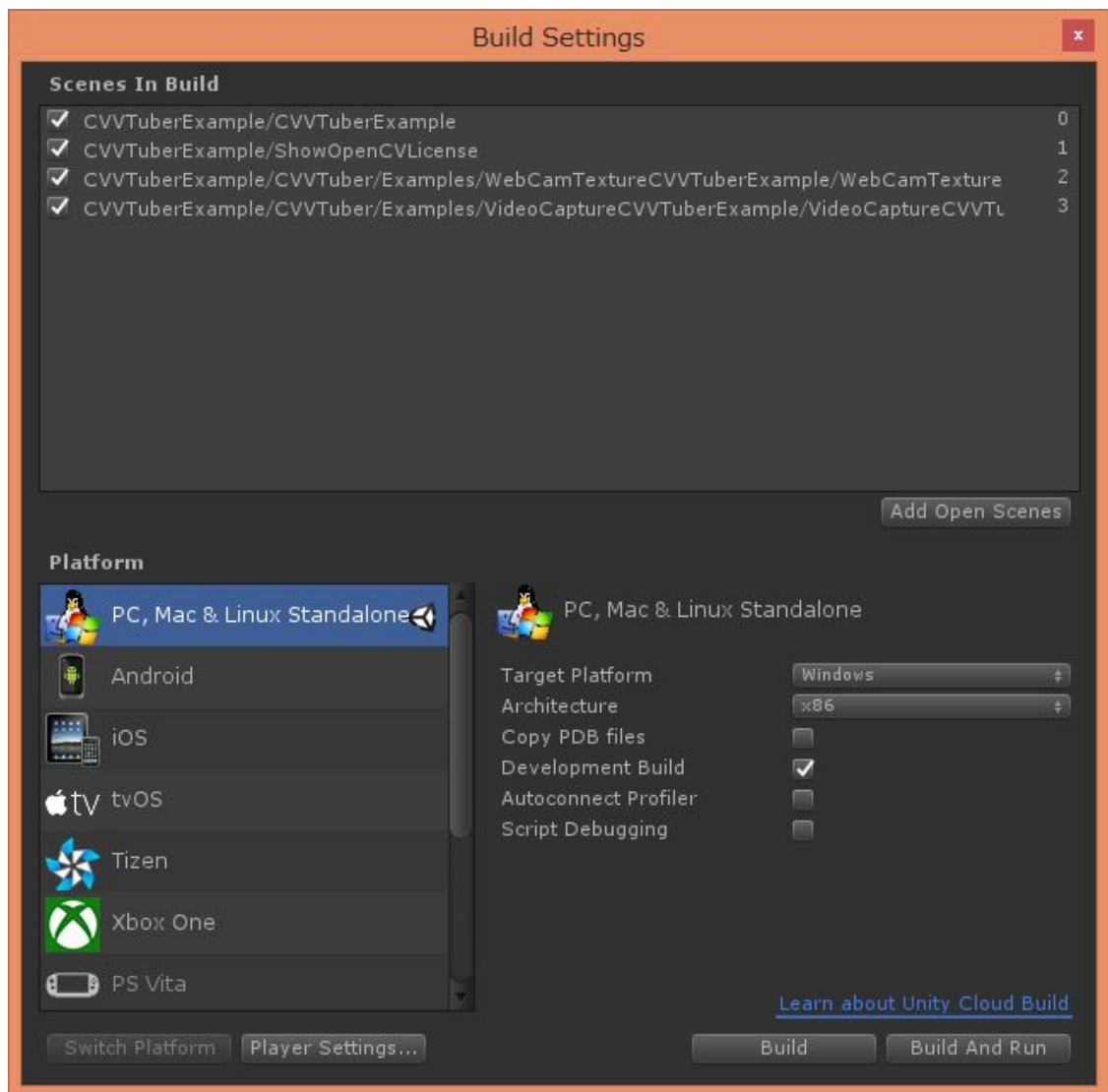
8. Select MenuItem[Tools/CVVTuberExample/Setup CVVTuberExample].



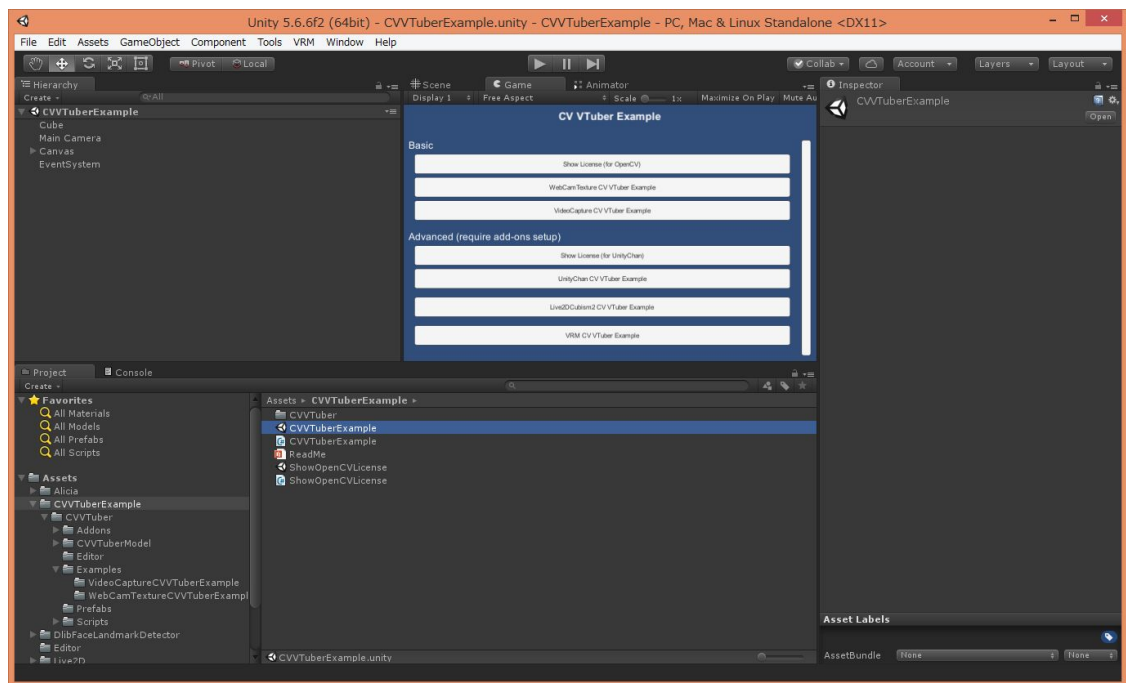
9. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of “Base Layer”.



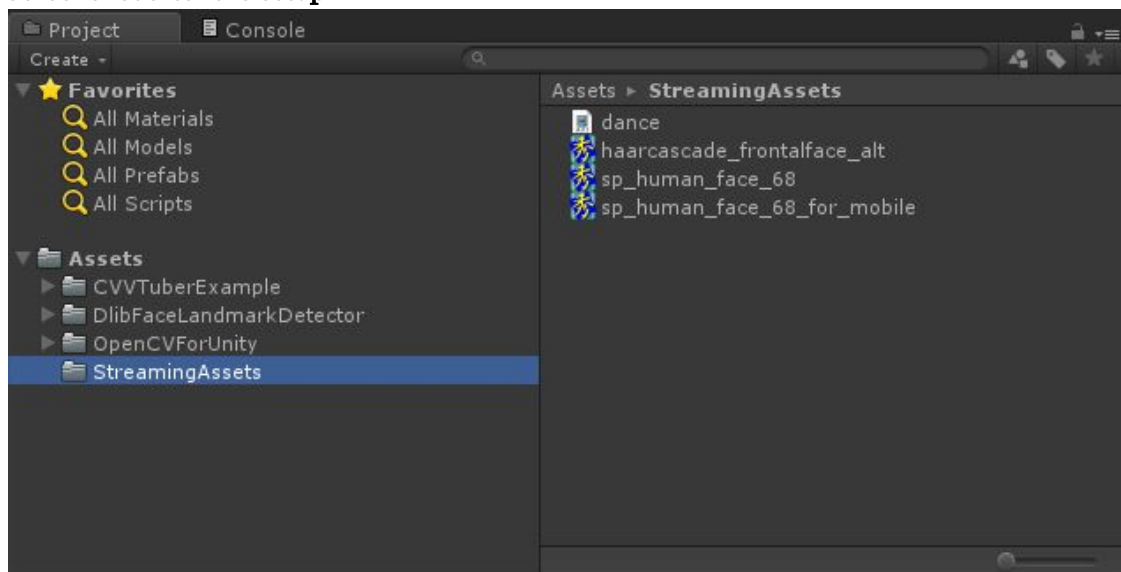
10. Add all of the “***.unity” in the “CVVTuberExample/” folder to [Build Settings] – [Scene In Build].



11. Run the CVVTuberExample scene.



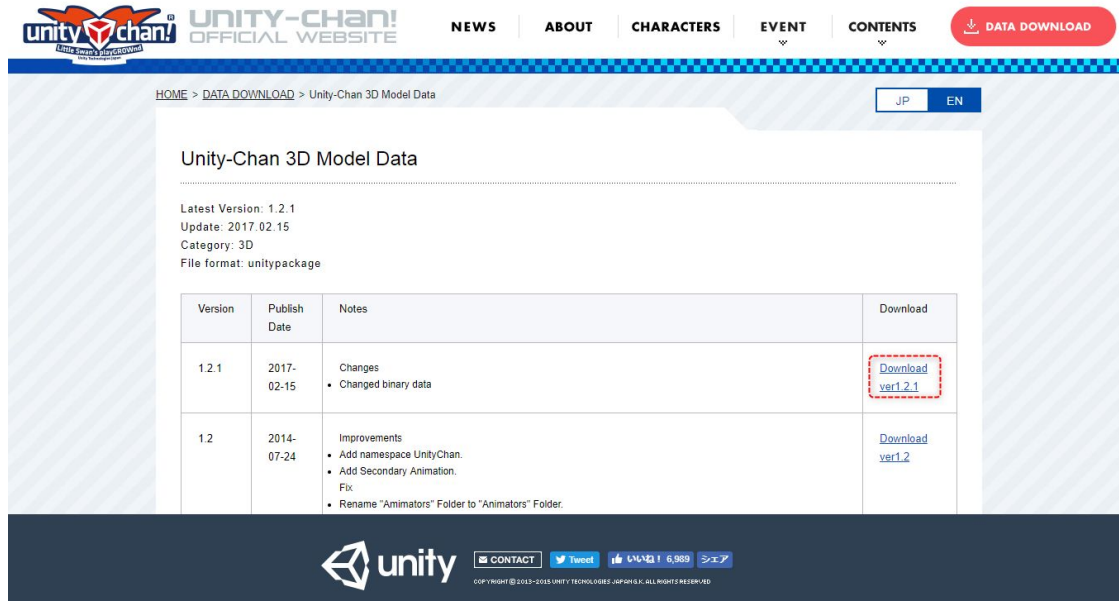
Screenshot after the setup



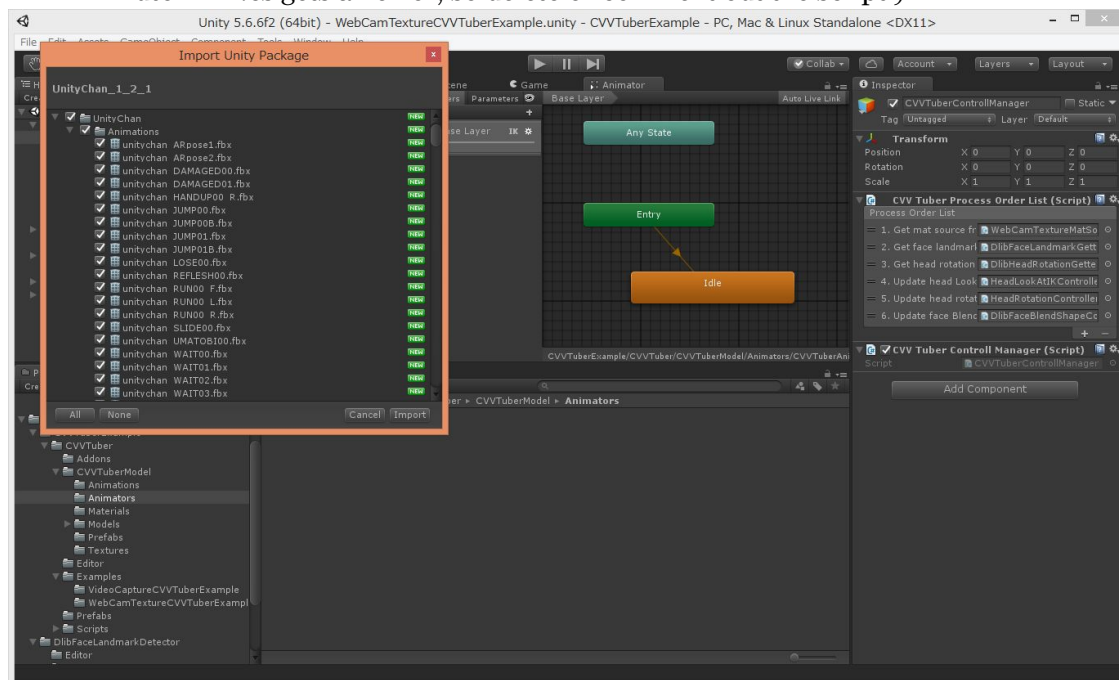
*In this example, a model set up with a general Mecanim Humanoid is also available.

Quick setup procedure to run the UnityChanCVVTuberExample scene:

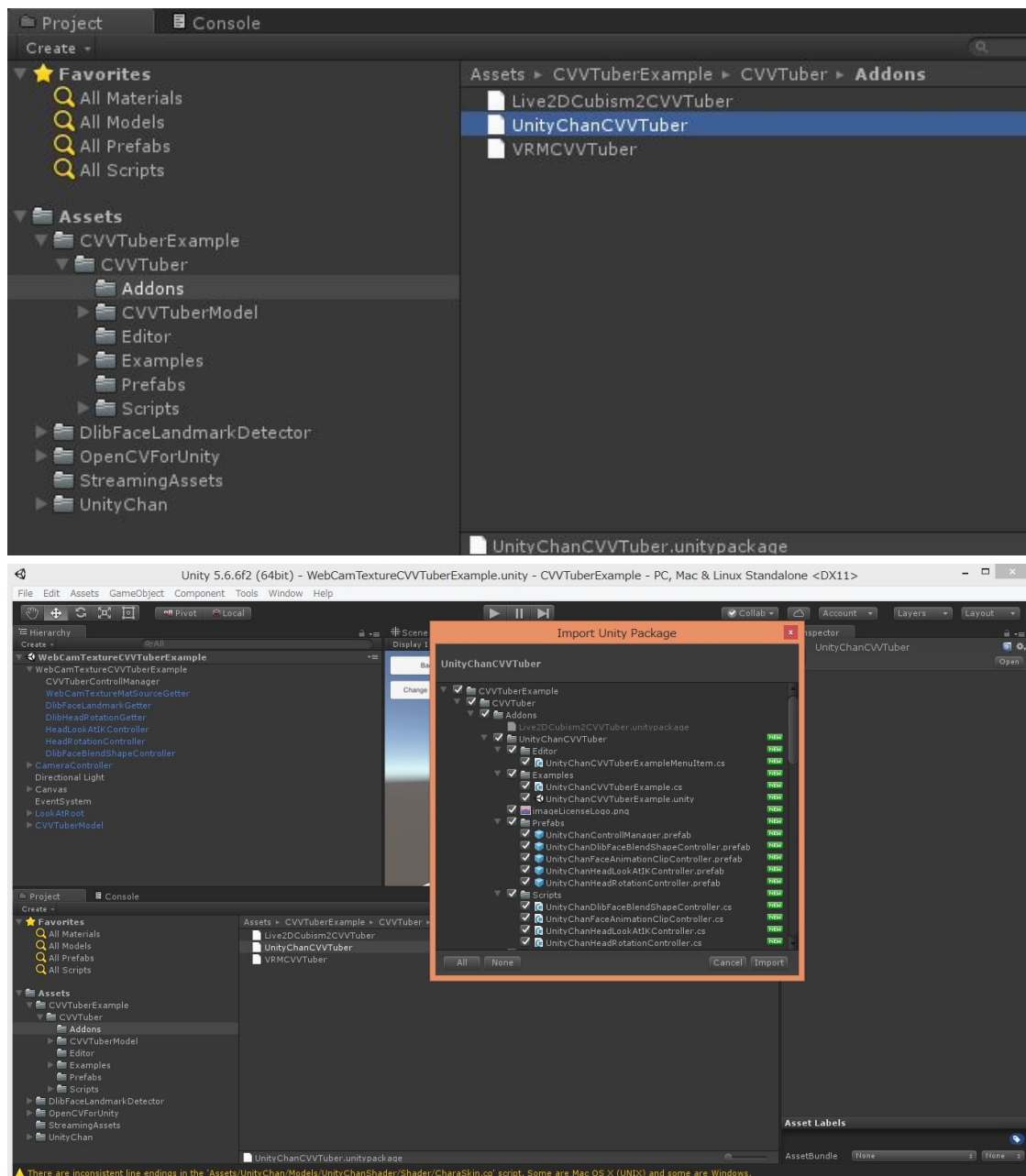
1. Download “Unity-Chan 3D Model Data ver1.2.1” from [Unity's official site](#).



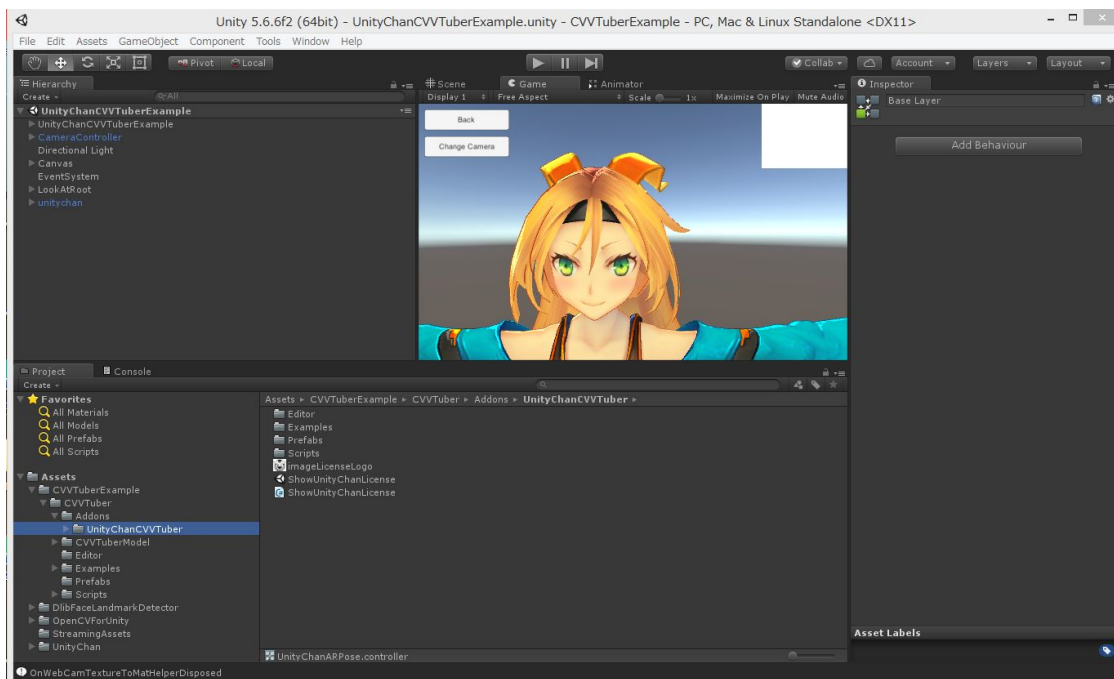
2. Import “UnityChan_1_2_1.unitypackage”. (Depending on the version of Unity, AutoBlink.cs gets an error, so delete or comment out the script)



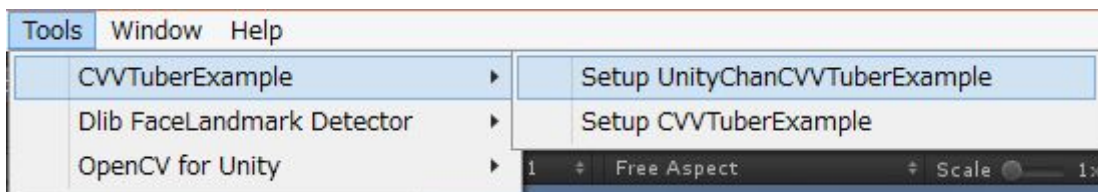
3. Import
“Assets/CVVTuberExample/CVVTuber/Addons/UnityChanCVVTuber.unitypackage”.



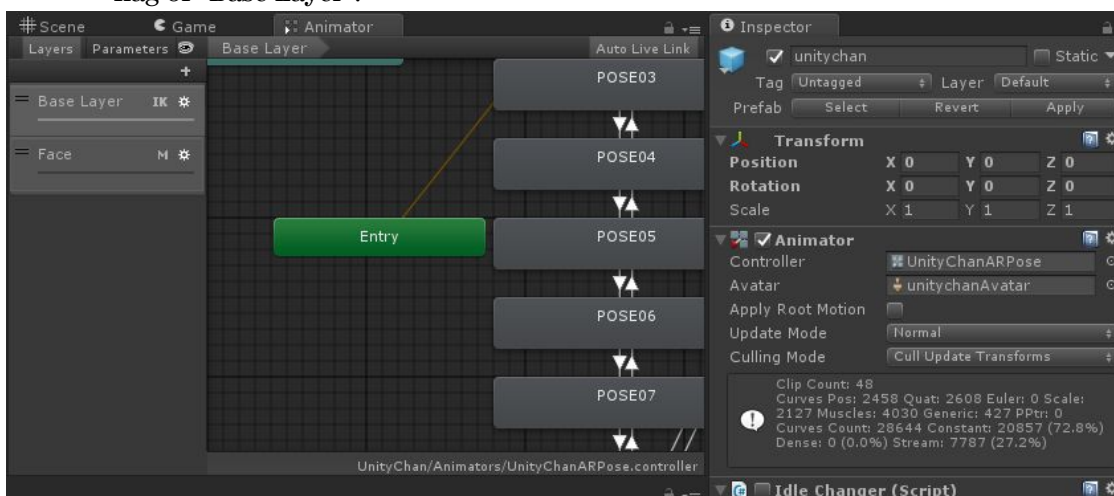
4. Open "Assets/CVVTuberExample/CVVTuber/Addons/UnityChanCVVTuber/UnityChanCVVTuberExample.unity" scene.

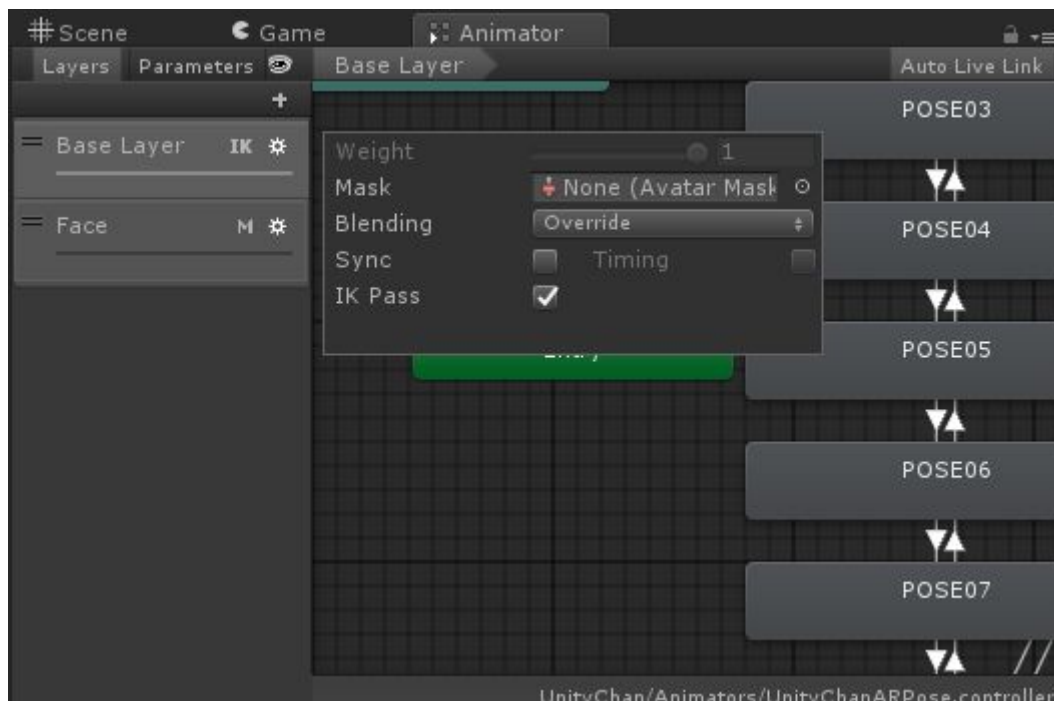


5. Select MenuItem[Tools/CVVTuberExample/ Setup UnityChanCVVTuberExample].



6. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of "Base Layer".

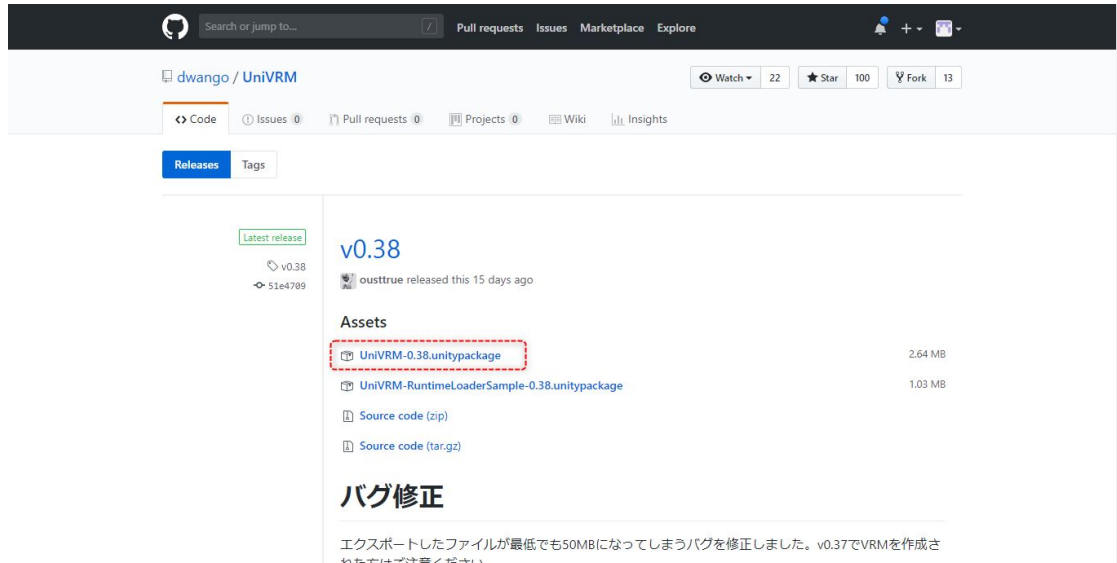




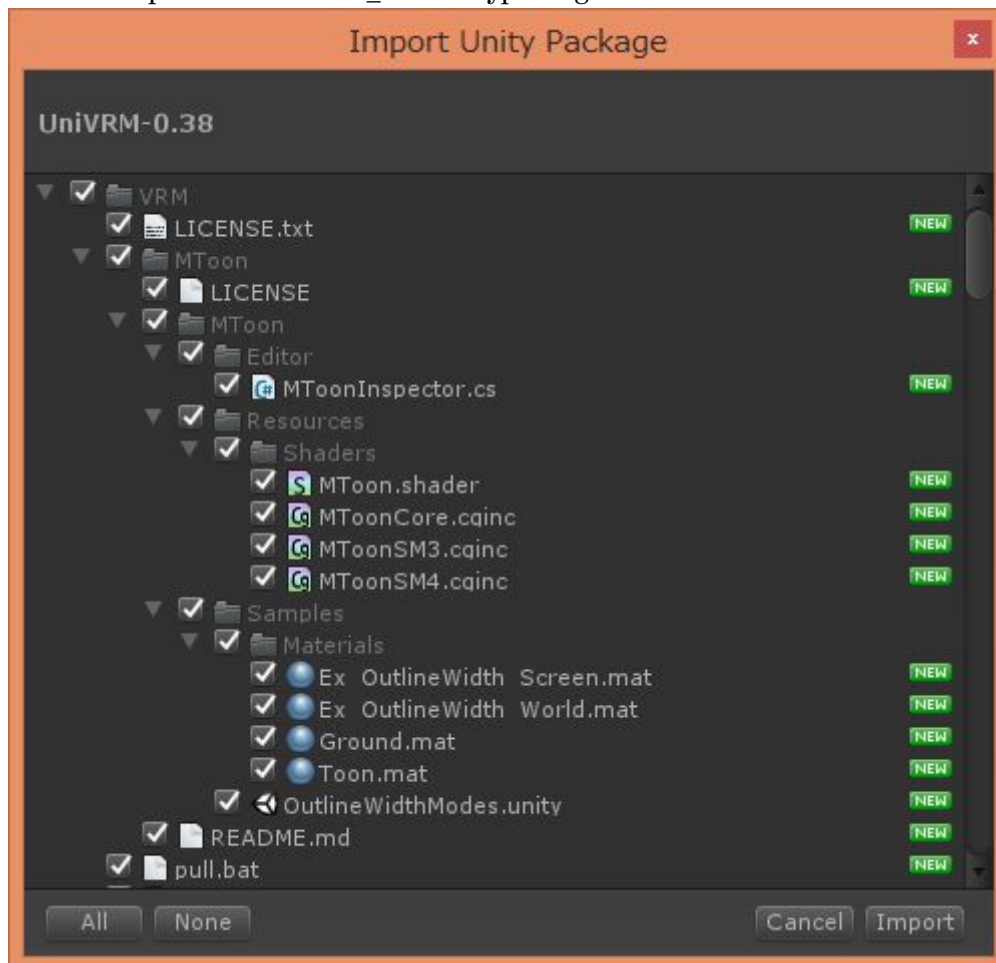
***In this example, a model set up with UnityChan format is also available.**

Quick setup procedure to run the VRMCVVTuberExample scene:

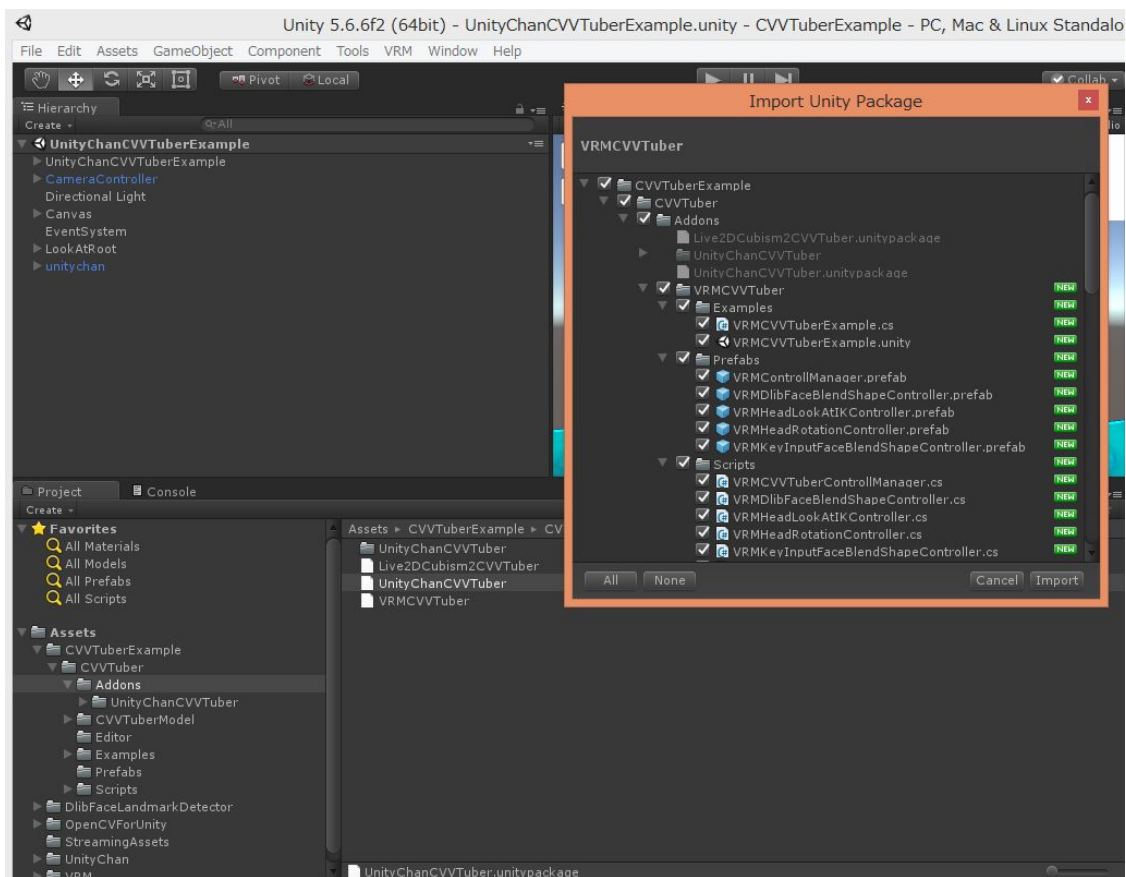
1. Download UniVRM-0.49_43af.unitypackage from [GitHub dwango/UniVRM](https://github.com/dwango/UniVRM).



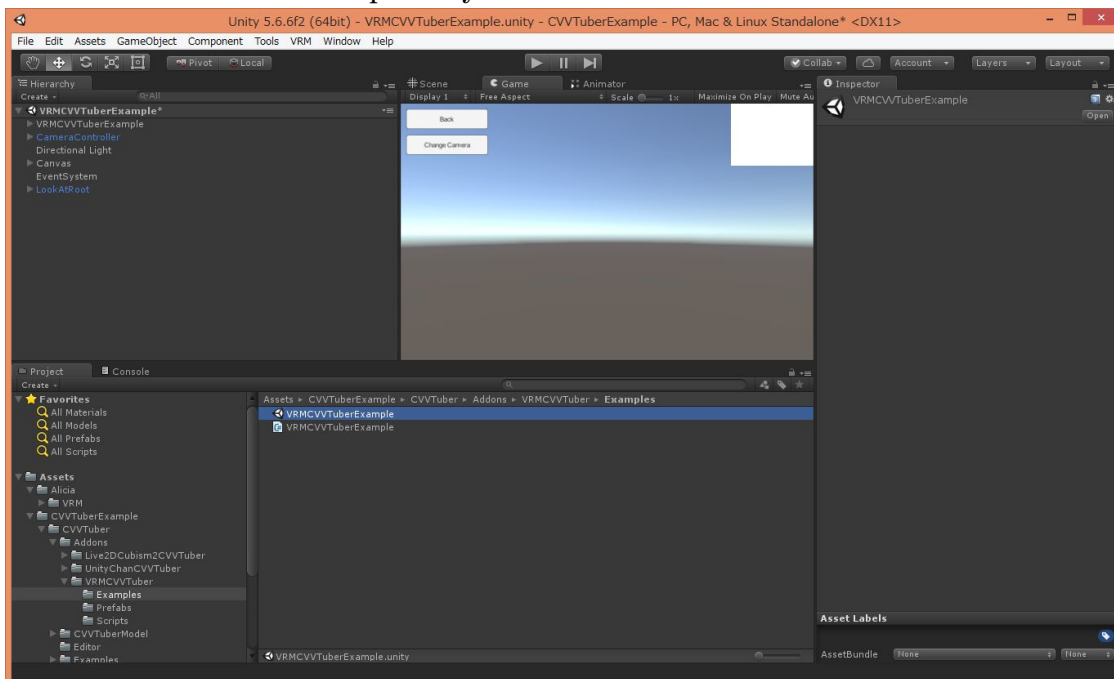
2. Import UniVRM-0.49_43af.unitypackage.



3. Import "Assets/CVVTuberExample/CVVTuber/Addons/VRMCVVTuber.unitypackage".



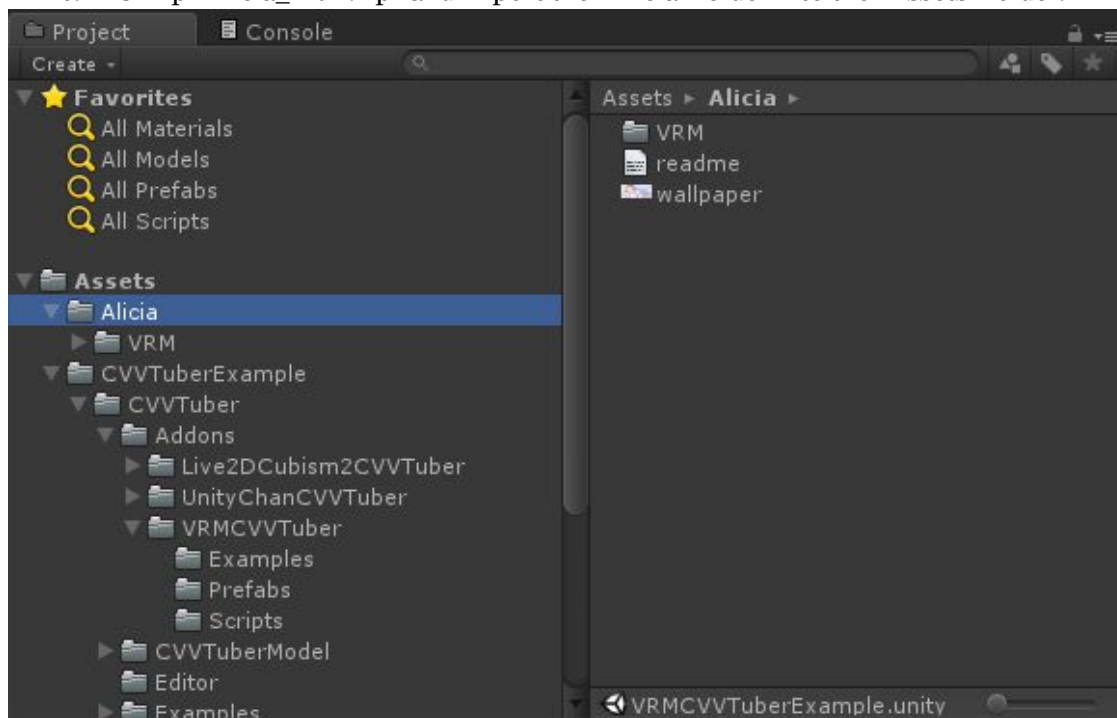
4. Open “Assets/CVVTuberExample/CVVTuber/Addons/VRMCVVTuberExamples/VRMCVVTuberExample.unity” scene.



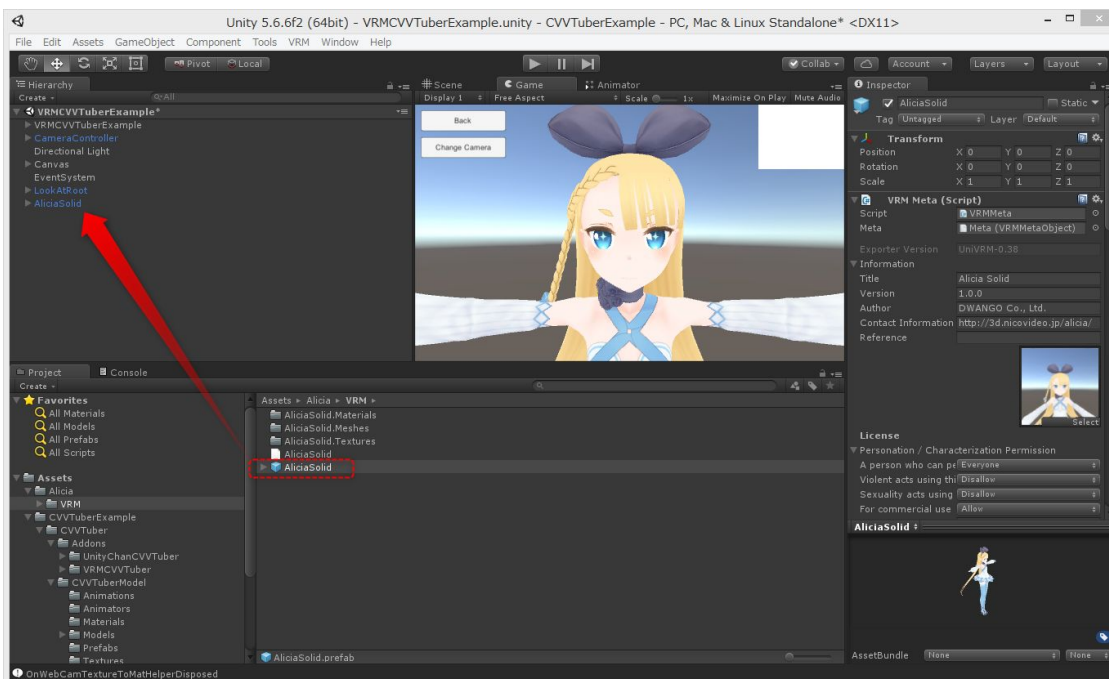
5. Download “ニコニ立体ちゃん(VRM)” from [ニコニ立体](#).



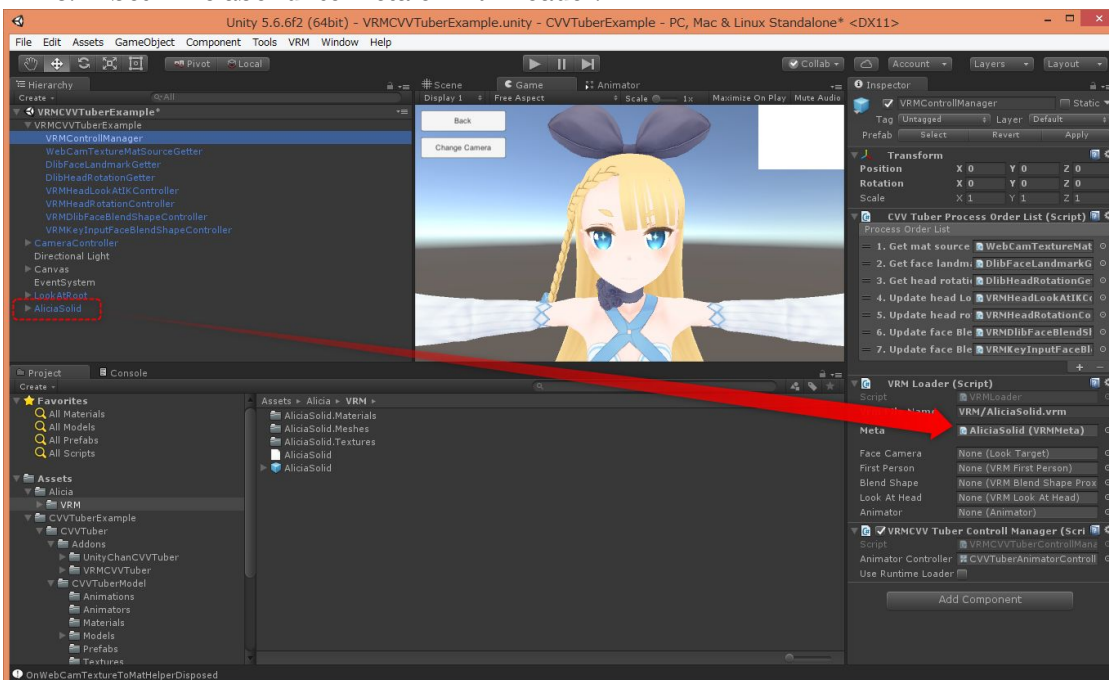
- Unzip “Alicia_VRM.zip” and import the “Alicia” folder into the “Assets” folder.



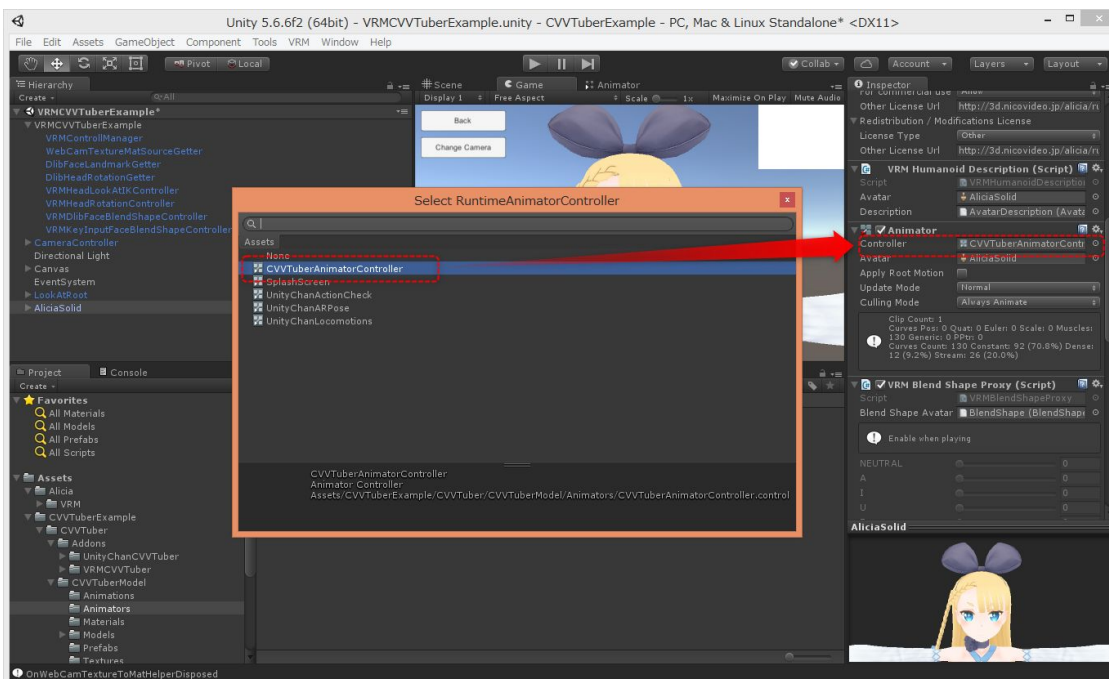
- Drag and drop “Assets/VRM/Alicia Solid.prefab” into the “VRMCVVTuberExample” scene.



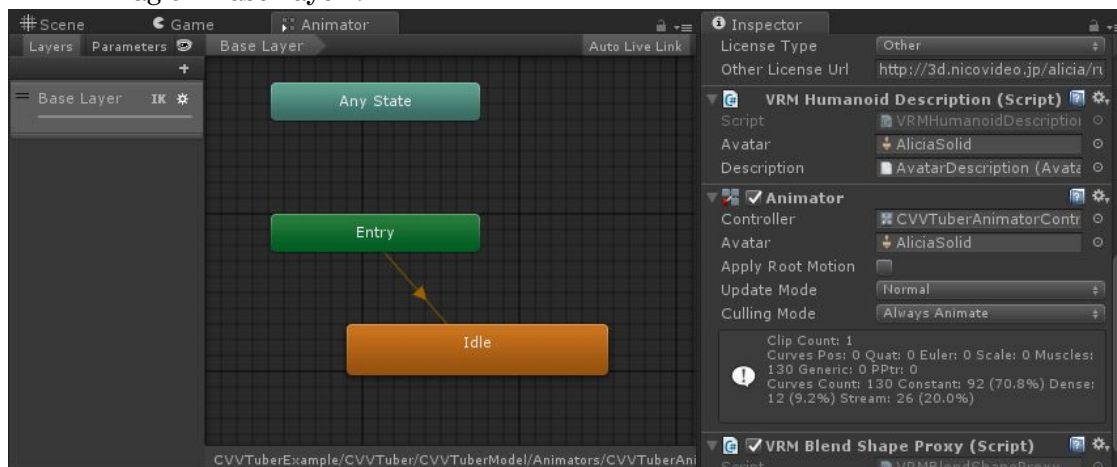
8. Set "AliciaSolid" to Meta of VRMLoader.

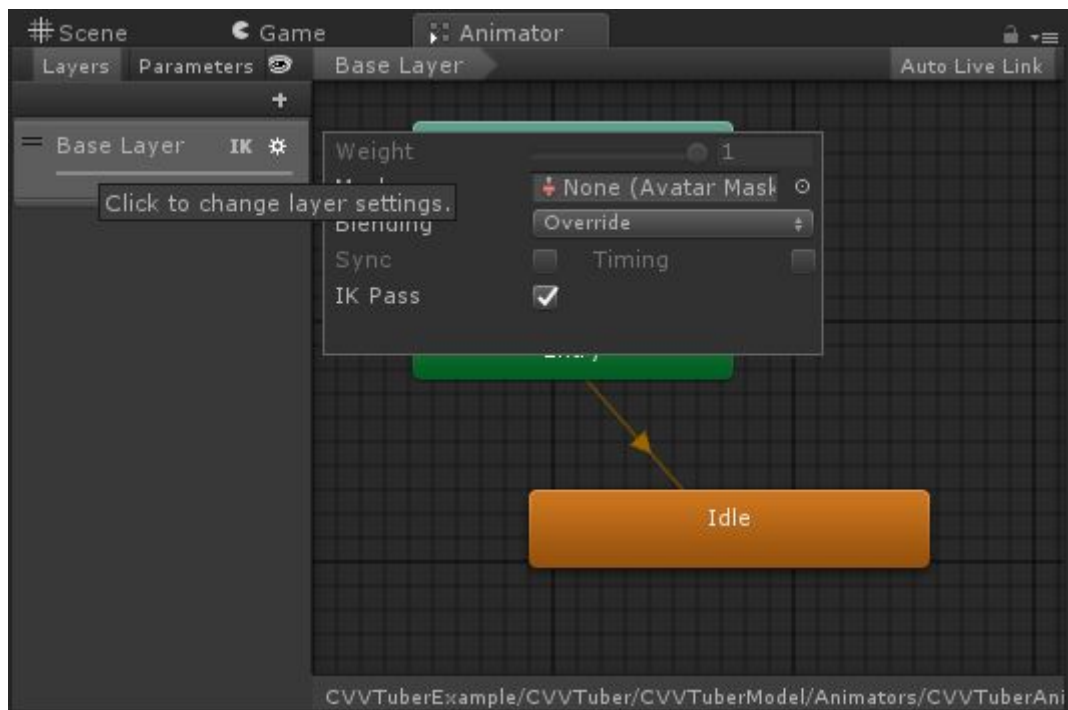


9. Set "CVVTuberAnimatorController" to Controller of AliciaSolid's Animator.



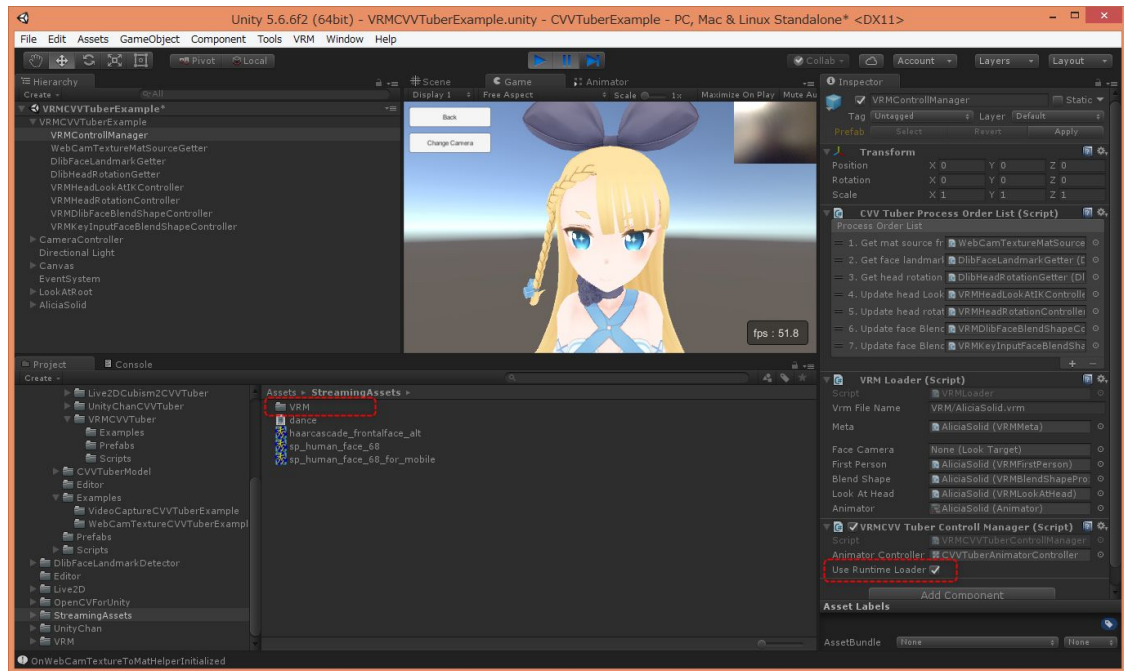
10. Click on CVVTuberAnimatorController to open the Animator window. Enable IK Pass flag of “Base Layer”.





***In this example, a model set up with VRM format is also available.**

***If you set the file name (eg "VRM/AliciaSolid.vrm") to VrmFileName of VRMLoader and set useRuntimeLoader of VRMCVVTuberControlManager to true, Load the VRM model in the StreamingAssets folder at runtime.**

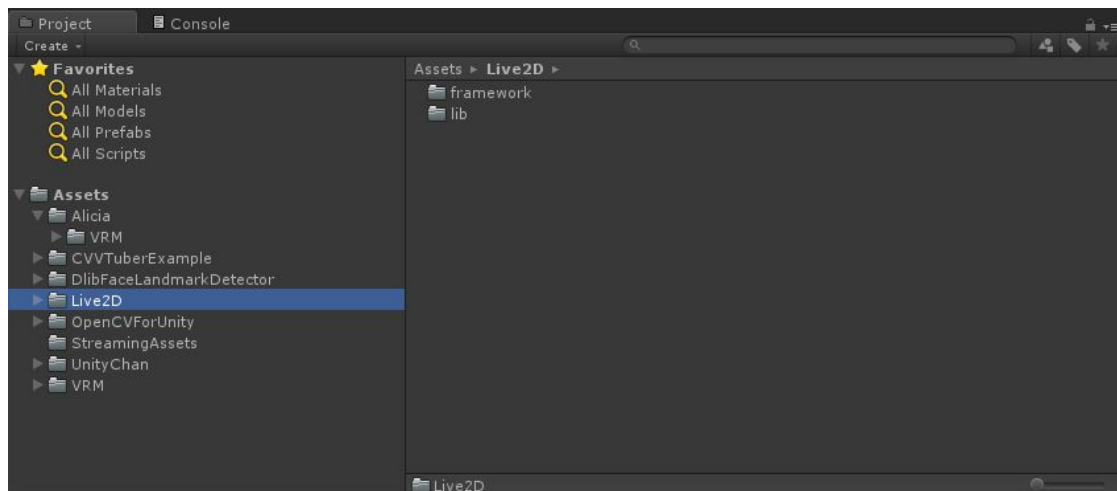


Quick setup procedure to run the Live2DCubism2CVVTuberExample scene:

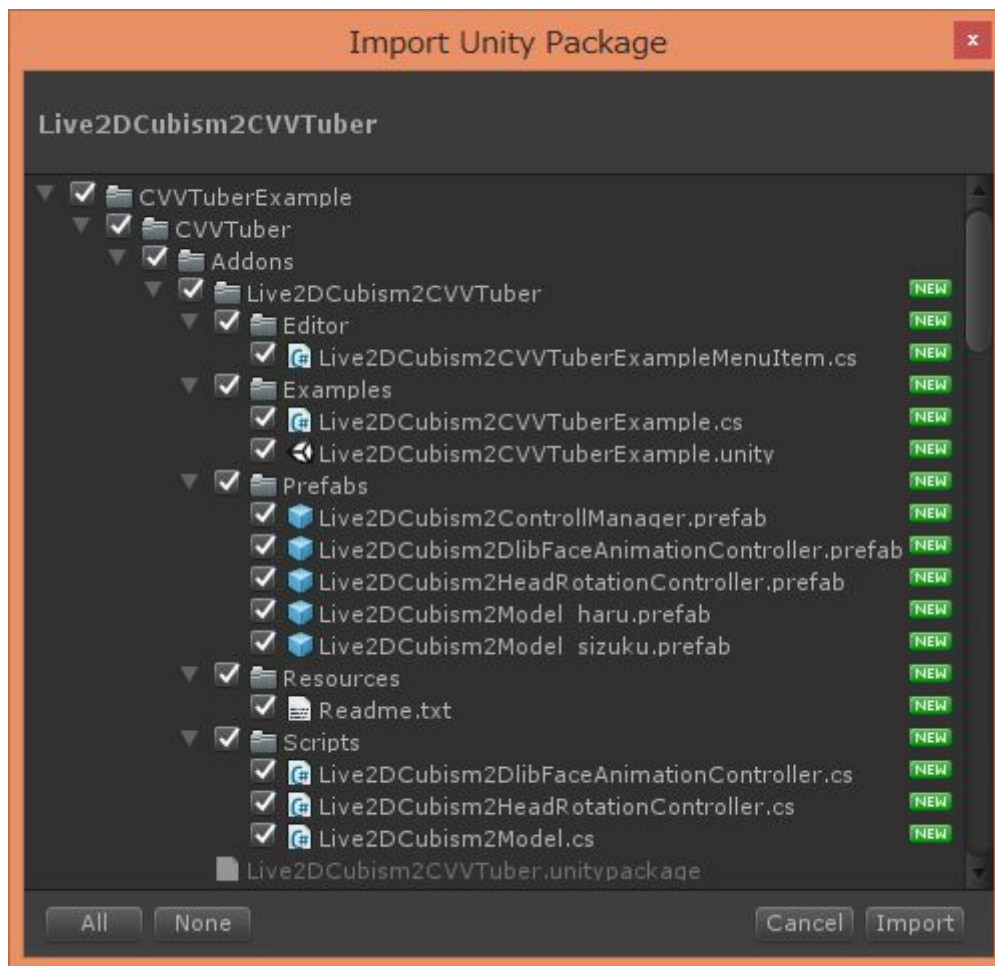
1. Download “Live2D Cubism 2 SDK v2.1.04_2.zip” from [Live2D site](#).



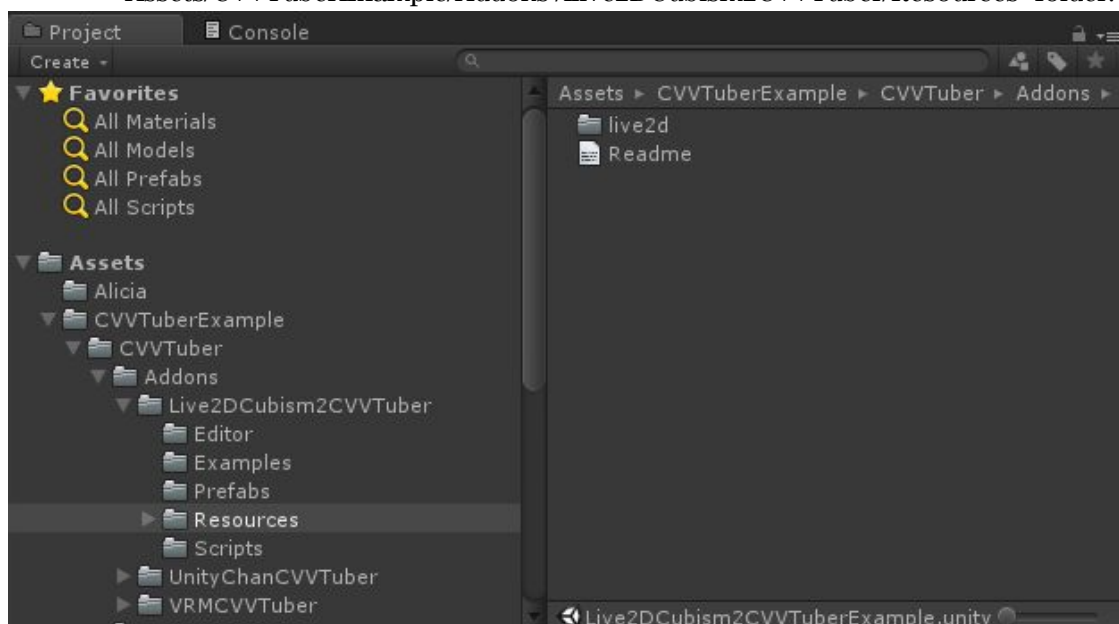
2. Unzip “Live2D_SDK_Unity_2.1.04_2_en.zip” and import the “framework” folder and “lib” folder into the "Assets/Live2D” folder.



3. Import “Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism2CVVTuber.unitypackage”.

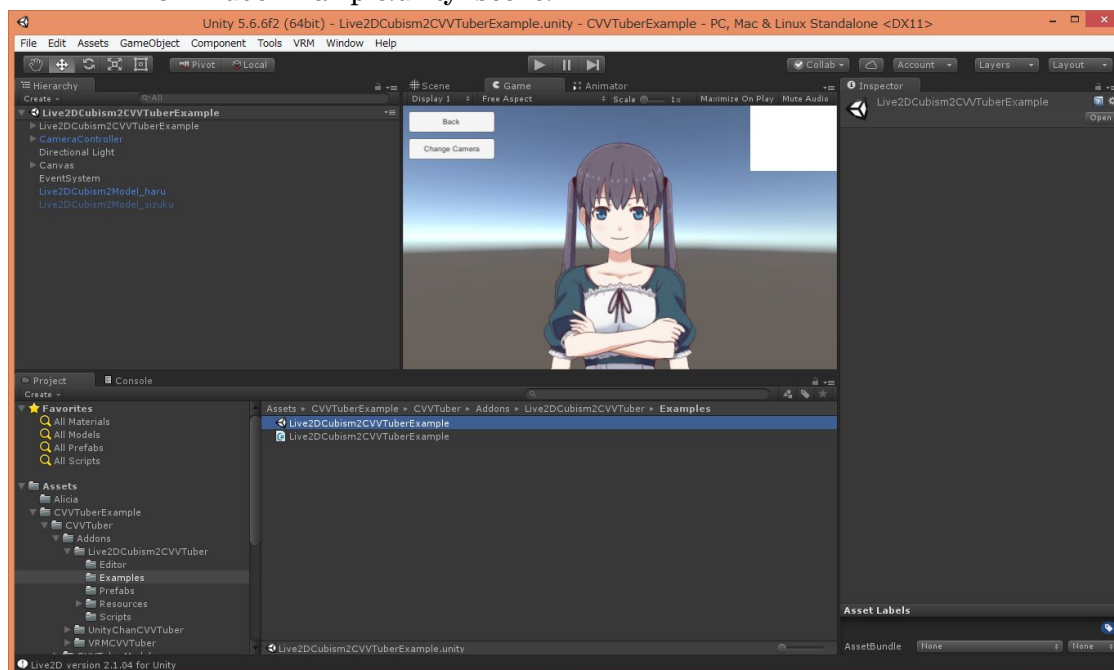


4. Copy the "sample/SampleApp1/Assets/Resources/live2d" folder of SDK to the "Assets/CVVTuberExample/Addons /Live2DCubism2CVVTuber/Resources" folder.

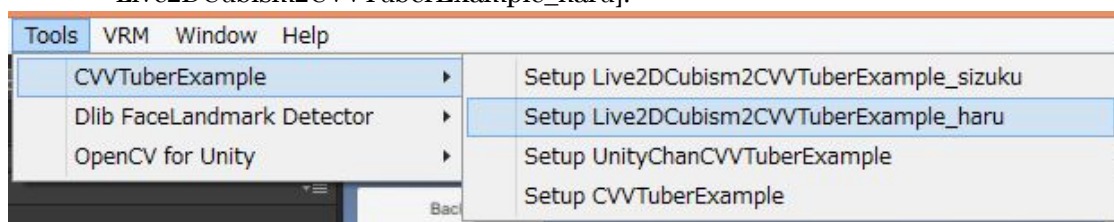


5. Open
"Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism2CVVTuber/Live2DCubis"

m2CVVTuberExample.unity” scene.



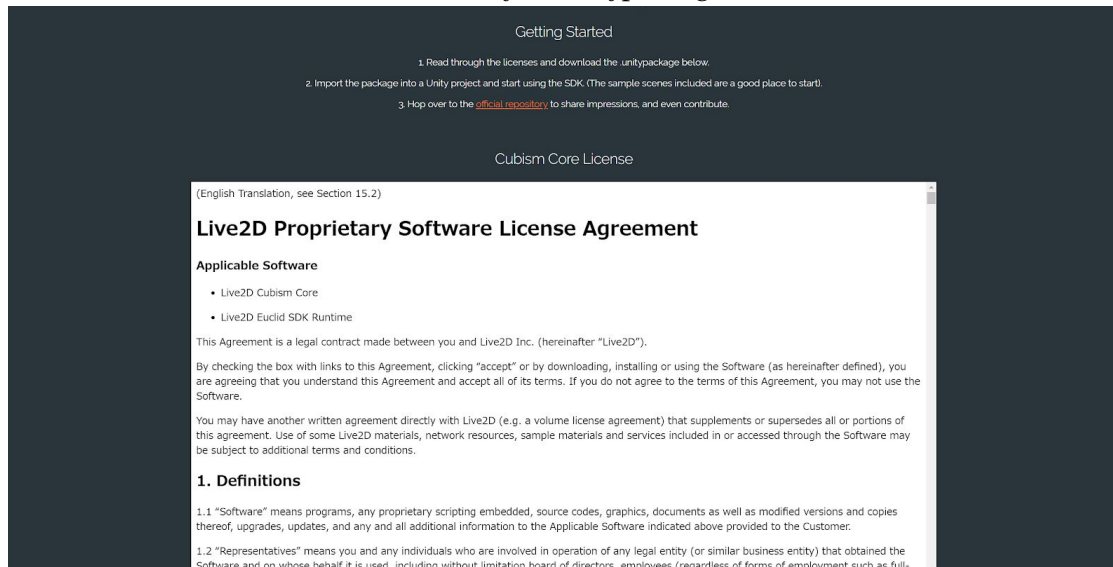
6. Select MenuItem[Tools/CVVTuberExample/ Live2DCubism2CVVTuberExample_haru]. Setup



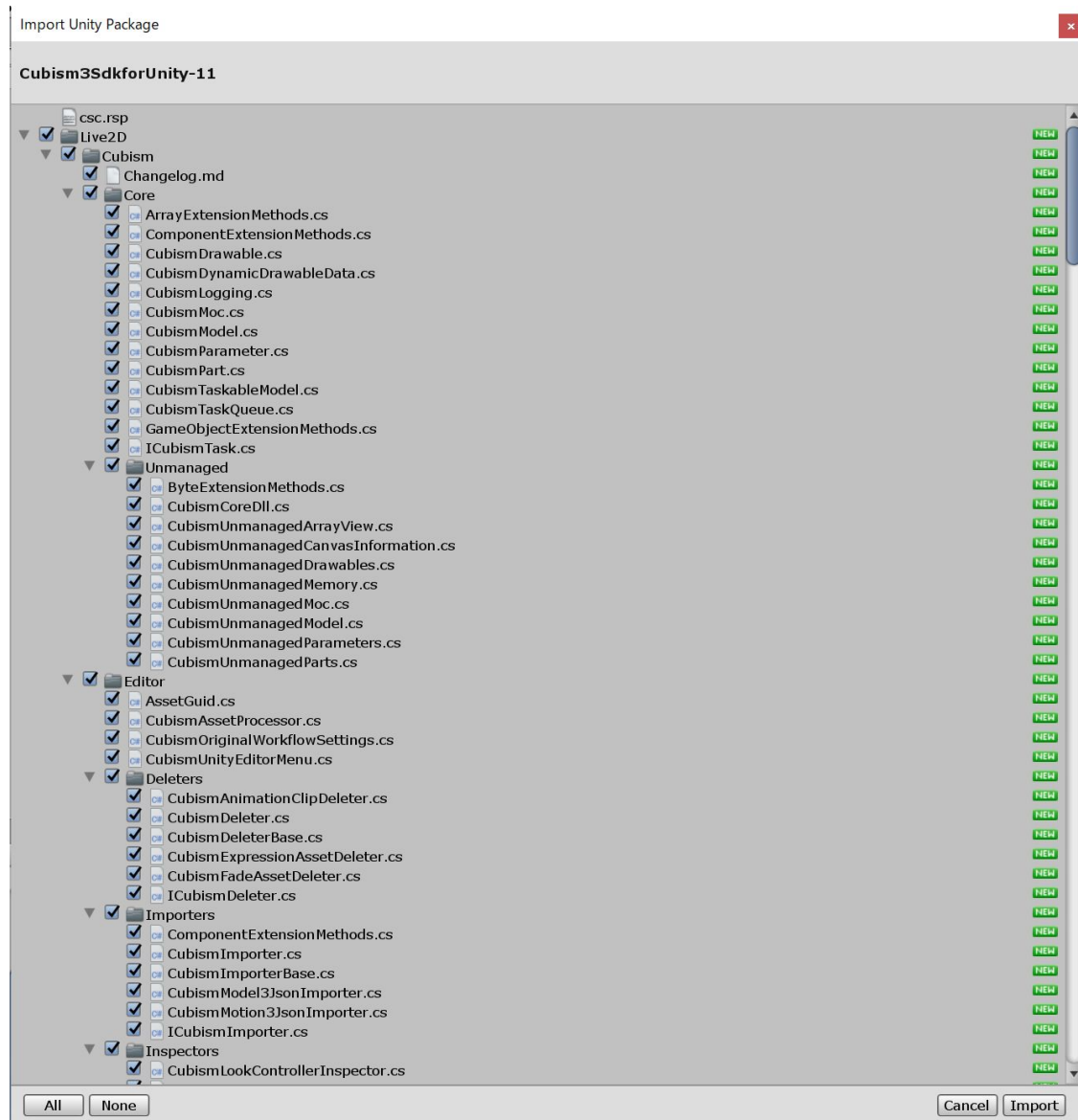
- *In this example, a model set up with Live2DCubism2 format is also available.
- *Live2DCubism2 and Live2DCubism3 cannot co-exist because of SDK namespace conflicts.

Quick setup procedure to run the Live2DCubism3CVVTuberExample scene:

1. Download “Cubism3SdkforUnity-11.unitypackage” from [Live2D site](#).



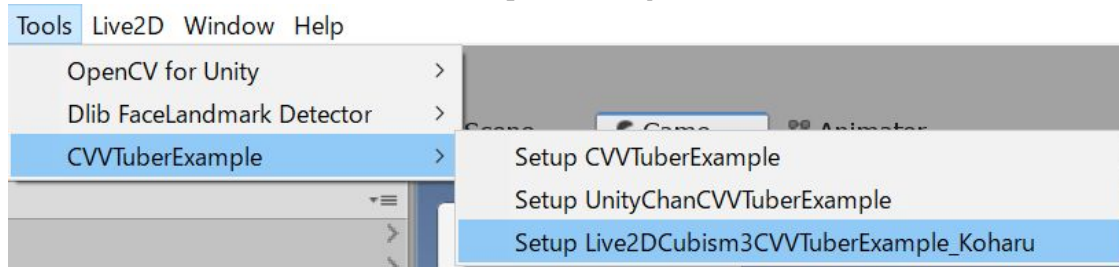
2. Import Cubism3SdkforUnity-11.unitypackage.



3. Import
"Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism3CVVTuber.unitypackage".
4. Open
"Assets/CVVTuberExample/CVVTuber/Addons/Live2DCubism3CVVTuber/Live2DCubism3CVVTuberExample.unity" scene.

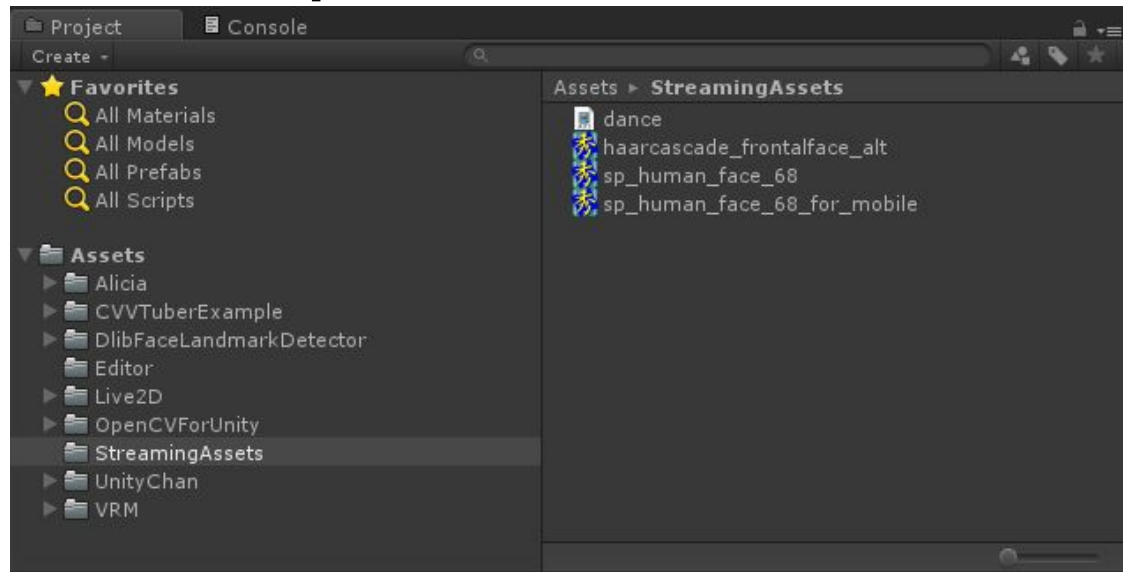


5. Select MenuItem[Tools/CVVTuberExample/
Live2DCubism3CVVTuberExample_koharu]. Setup



- *In this example, a model set up with Live2DCubism3 format is also available.
- *Cubism 3.0 SDK It corresponds Unity The version will be 2018.x.
- *Live2DCubism2 and Live2DCubism3 cannot co-exist because of SDK namespace conflicts.

Screenshot after the setup



Q & A

Q1. HeadLookAtIkController does not work.

A1. Animator is not set to target of HeadLookAtIkController, or IK Pass of Base Layer of AnimatorController is not set to true.

Or AnimatorController is not set in the model's Animator.

Q2. HeadRotationController does not work.

A2. HeadRotationController target is not set. (Usually, set the Bone of the Head part)

Q3. The direction of rotation of HeadLookAtIkController or HeadRotationController is wrong.

A3. Please adjust invertAxis and rotateAxis settings.

*** When creating and publishing an application using this asset, please check the licenses and terms of use of SDK or 3D model.**