CC4 Project.

Content:

🛠️ Software/Hardware specification;

Version 2022.3.39.f1

VR Headset: Meta Quest 3

Character Creator: v4.52

iClone: v8.52

🛠️ Preparing Unity project for Character Creator 4;

Step 1. Download Auto SetUp for Unity.

YouTube Setup Tutorial

URP

download ZIP.file

HDRP

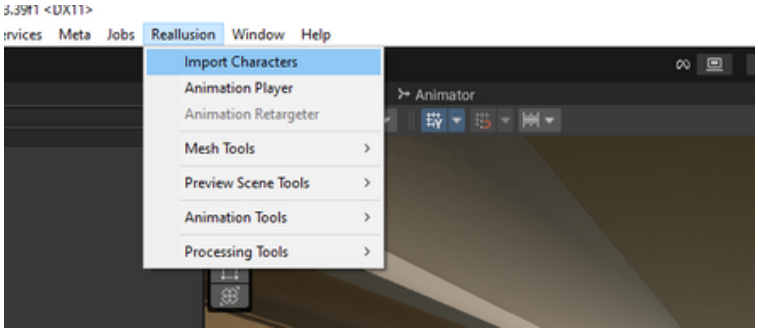
download ZIP.file

**The Unity HDRP template can be used with the Meta Quest 3 headset via link cable for VR experiences (tutorial HDRP VR project for Meta Quest 3)*

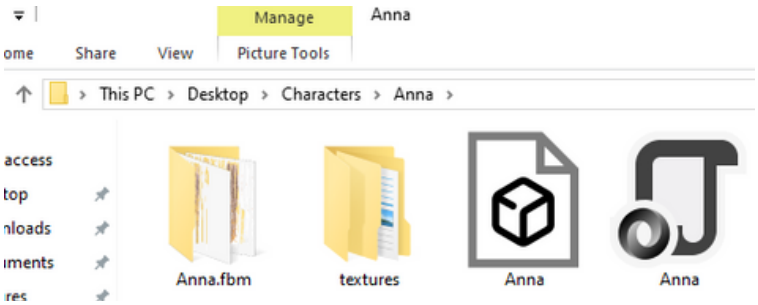
! Please ensure that the release version of the package you are downloading is compatible with the Unity version of your project.

Step 2. Transfer Character Creator models.

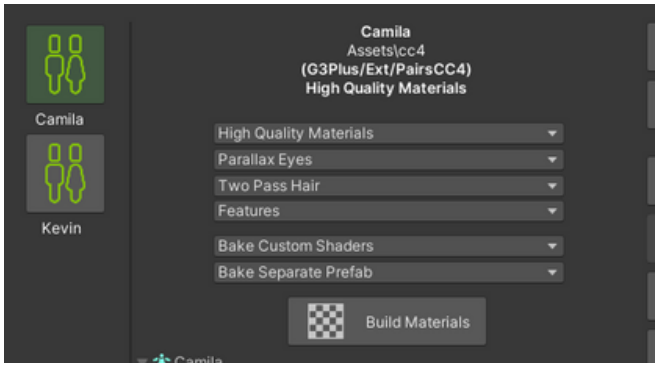
YouTube tutorial



Create a folder for the character in your project, and then drag and drop all 4 files into it.



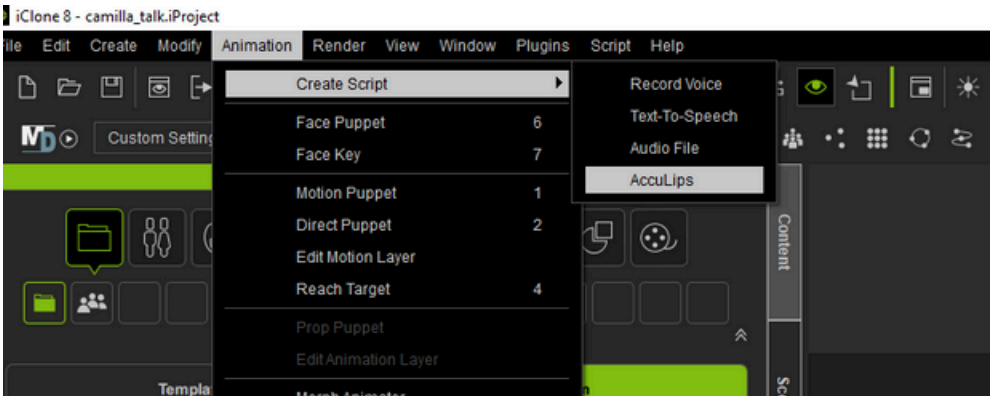
In the menu shown below, click 'Build Materials'



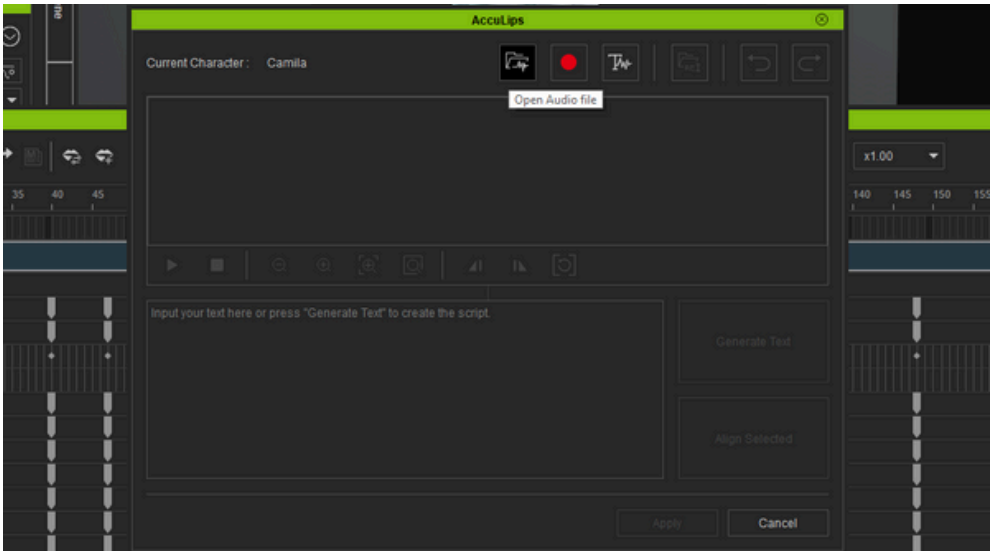
! Important: If you are working in a URP project, ensure that the 'Tessellation' option under the Features menu is unchecked; otherwise, it may cause material errors.

🛠️ LipSync in iClone8;

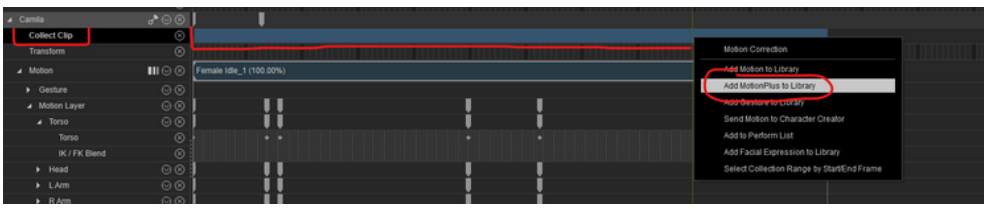
1. Open your project from CC4/iClone8 or import a 3D model
2. Select the model you want to animate and use the "AccuLips" feature to create lip-sync animation



3. Upload the audio file containing the character's speech
   - Click "Generate Text" to create a transcript
   - Review and correct any mistakes in the text
   - Click "Apply" to finalize



4. Prepare your animation for transfer to CC4
   - On the timeline, locate the "Collect Clip" track
   - Click and drag the cursor to cover the entire animation
   - Right-click the highlighted section and select "Add MotionPlus to Library"
   - Choose a folder to save your project



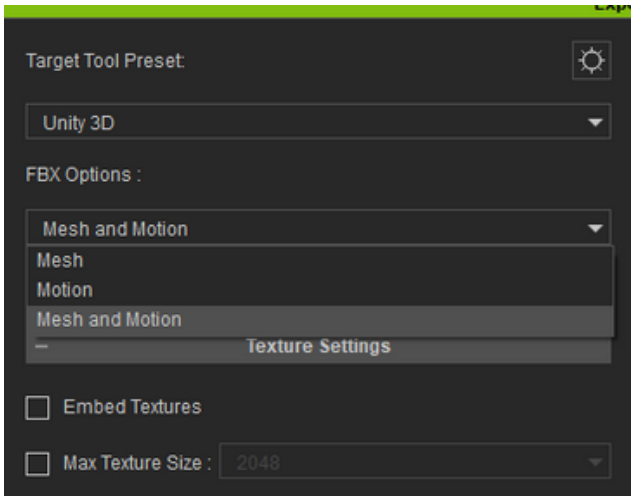
To render the final animation file for use in Unity, import the "MotionPlus" file into CC4

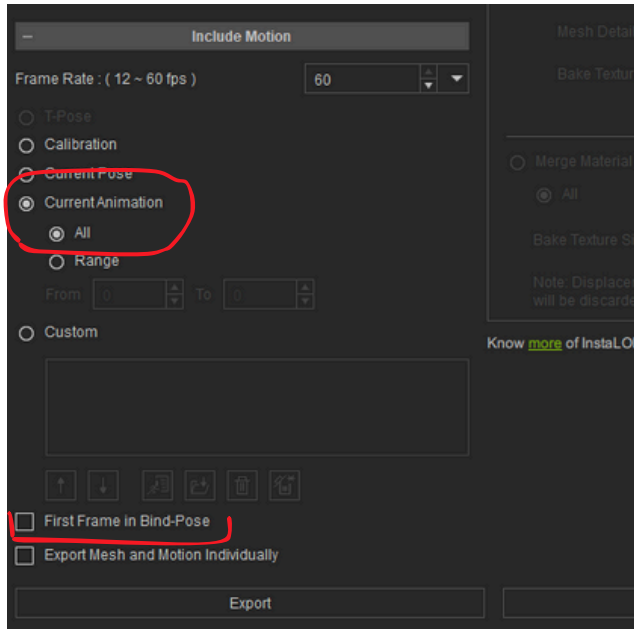
**Refer to the section "Transferring Animation from CC4/iClone8 into Unity" for detailed steps*

🛠️ Transfering animation from CC4/iClone8 into Unity;

From CC4 to Unity

- Go in CC4 software and choose character that you want to transfer to Unity
- Add the animation that you want this character to have if needed
- Go to **File → Export → FBX → Clothed Character**
- Adjust your settings by selecting the target game engine and file type to save



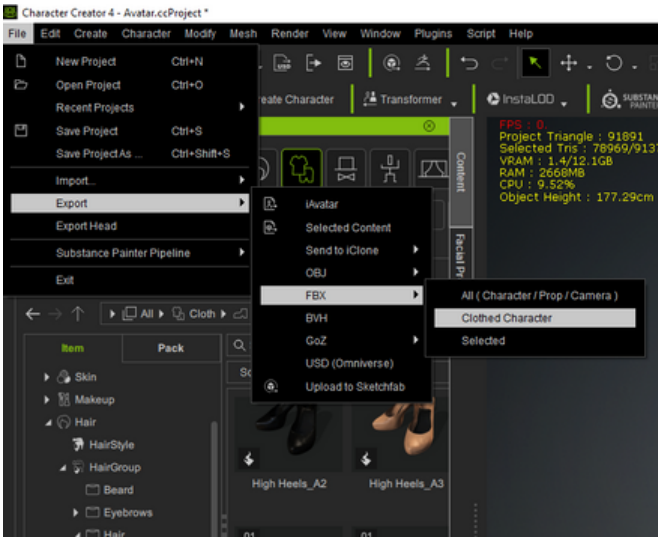


**Example showcasing how to transfer character + animation*

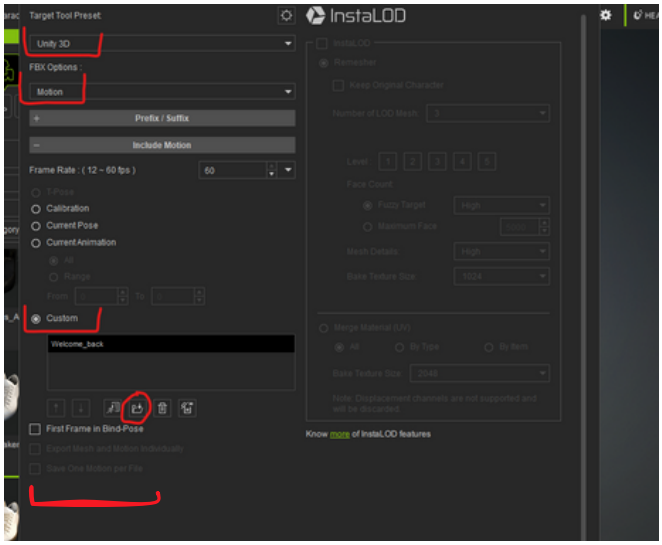
! Important: When you transferring Mesh activate function “delete hidden faces”

From iClone8 to Unity

- Go in CC4 software and choose any character (the specific character doesn't matter as you only need the animation file)
- Select the character
- Go to **File → Import**, then select the **MotionPlus** file you previously saved using iClone8
- When you applied animation on character, follow the steps shown bellow

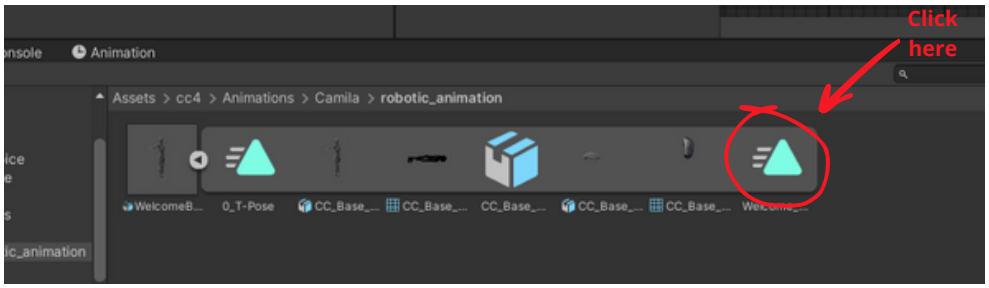


- Adjust your settings by selecting the target game engine and file type to save
- Choose the "**Custom**" setting and upload your “**MotionPlus**” file
- Click Export to finalize

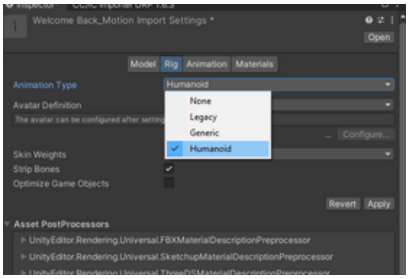


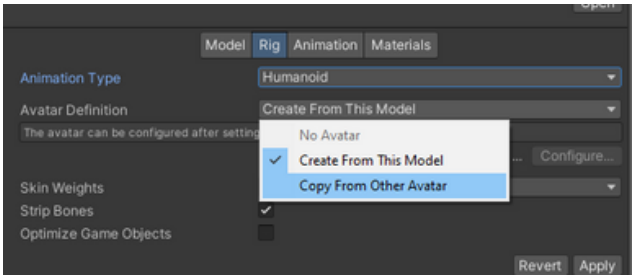
🛠️ Setting up animation from CC4 into Unity;

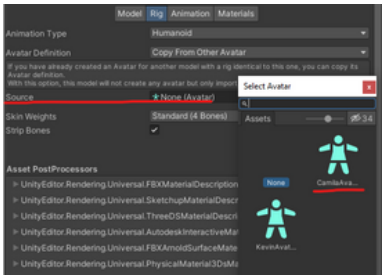
1. Create a new folder in your Unity project for animation files
2. Drag and drop the rendered file from CC4 into this folder (select the specific file you need as shown in the picture below)



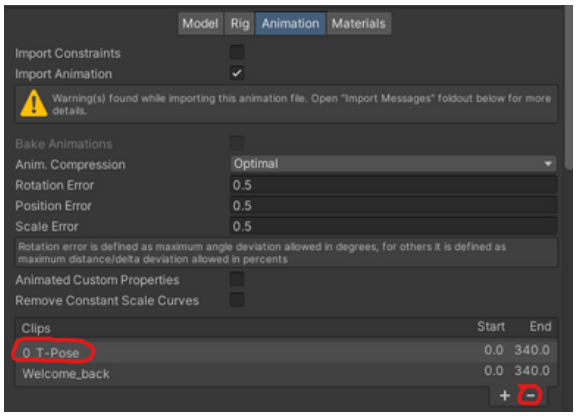
3. Select the file, then:
   - Edit the Animation Rig section by adjusting the Type and Definition settings (refer to the picture for details)
   - Click Apply after making the changes







4. Go to the Animation section and delete the T-Pose from the animation list



5. Create an Animator for your character:
   - Navigate to **Window → Animation → Animator**
   - Attach the Animator to your character
   - Drag and drop the fixed animation clip into the Animator window

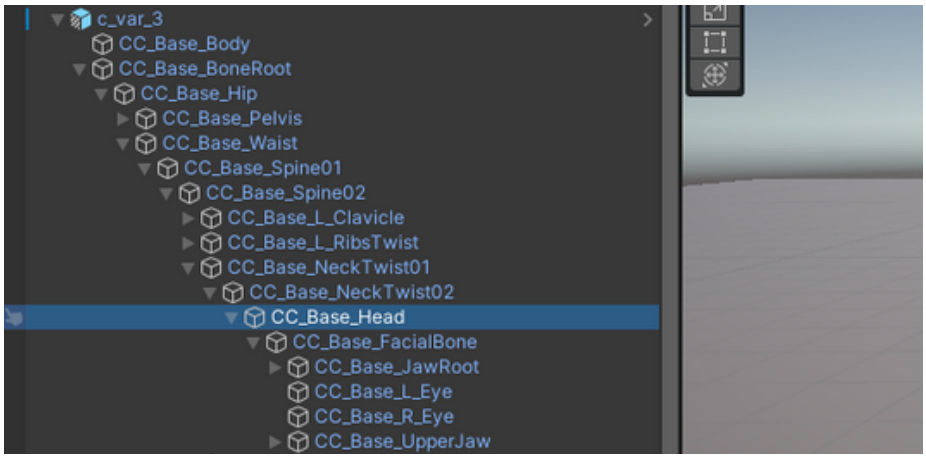
🛠️ Character head movement tracking player;

YouTube Setup Tutorial

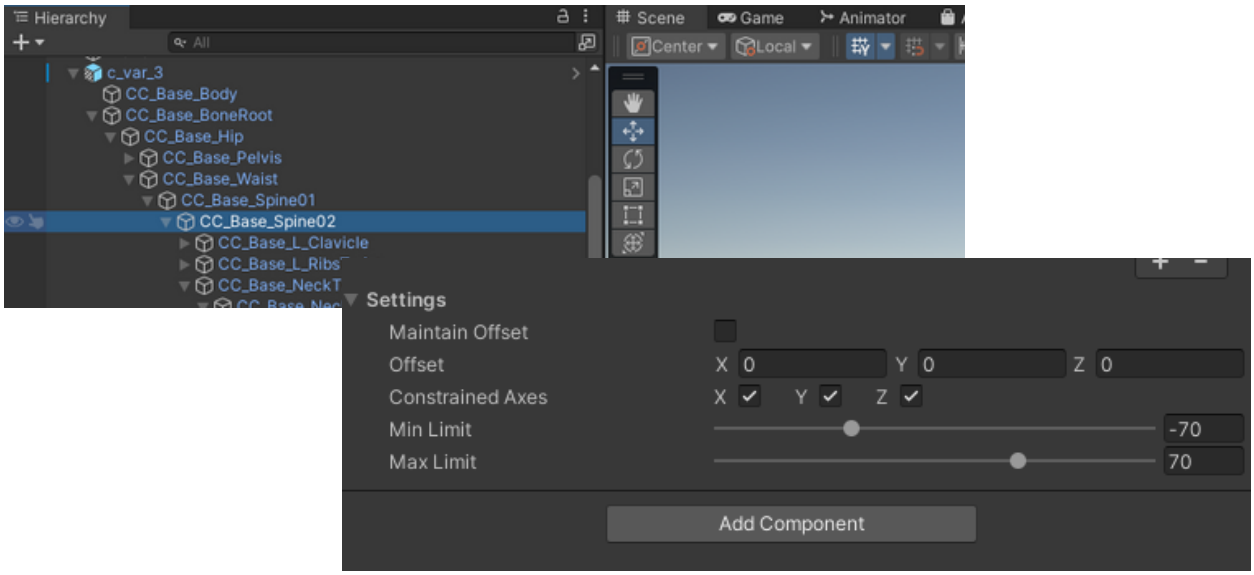
1. **Install Animation Rigging Package:**
- Open Unity's Package Manager
- Search for "Animation Rigging" and install it

2. Add Rig Builder Component:
- On the character, add a **Rig Builder** component.
- Create an empty GameObject as a child of the character for rigging, and name it "Rig."

3. Create and Configure a Rigs:
- Inside the "Rig", create a new empty GameObject and name it (e.g., *"HeadAim"*)
- Add a **Multi-Aim** Constraint to the *"HeadAim"*
- Assign the head bone of the character's rig as the constrained object



**Optional: Repeat this step for the "Base_spine" bone to add slight torso rotation. Adjust the torso's settings for smooth movement and natural blending with the head.*



4. Create a Target GameObject:
- Add an empty GameObject in the scene to serve as the target.
- Position it relative to the character appropriately.
- Make this **target a child of the camera**, ensuring the character follows the camera's direction.

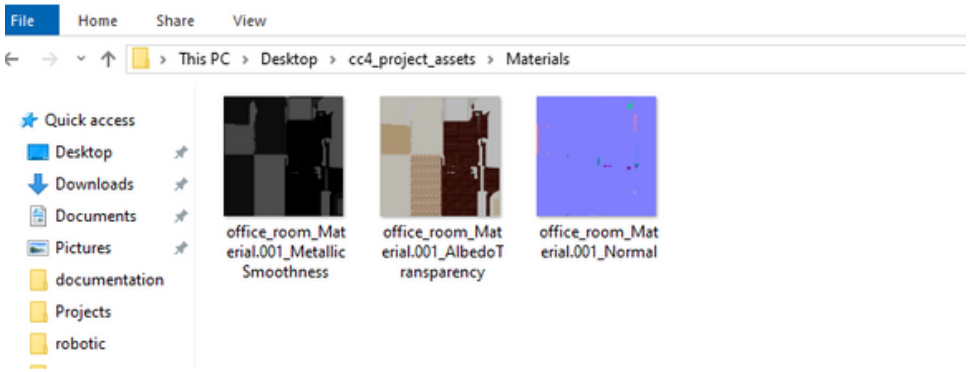
`🔊 Audio;`

Robotic audio generated using this Voice Generator

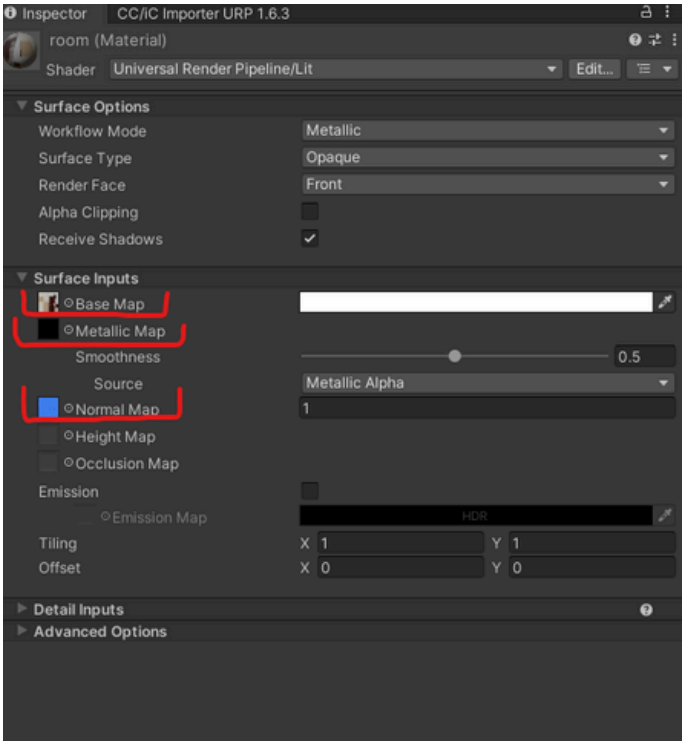
- 👧Female voice: Google UK English Female;
- 👴Male voice: Google UK English Male;

🎨 Using Premade Materials (from Substance Painter) in Unity;

1. Create a new folder in your Unity project for materials
2. Create a new material in Unity
3. Drag and drop the material textures (e.g., Albedo, Metallic, Normal) into the folder.



4. Click on the material's circle icon. In the Inspector assign textures as follows:
   - Albedo → Base Map
   - Metallic → Metallic
   - Normal → Normal Map (click Fix Now when prompted).



5. Once all textures are assigned, drag and drop the material onto your object in the scene