UMKC

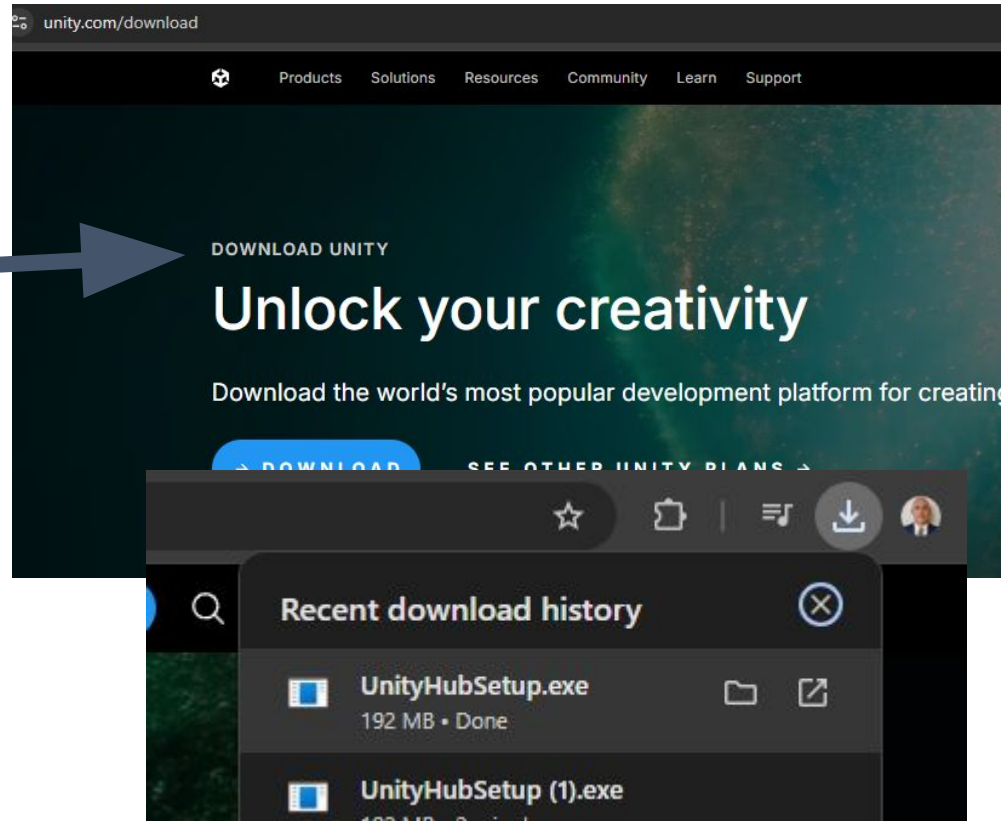
COESC AI+AR/VR Day 1 Tutorial

Spring 2025

Luke Miller

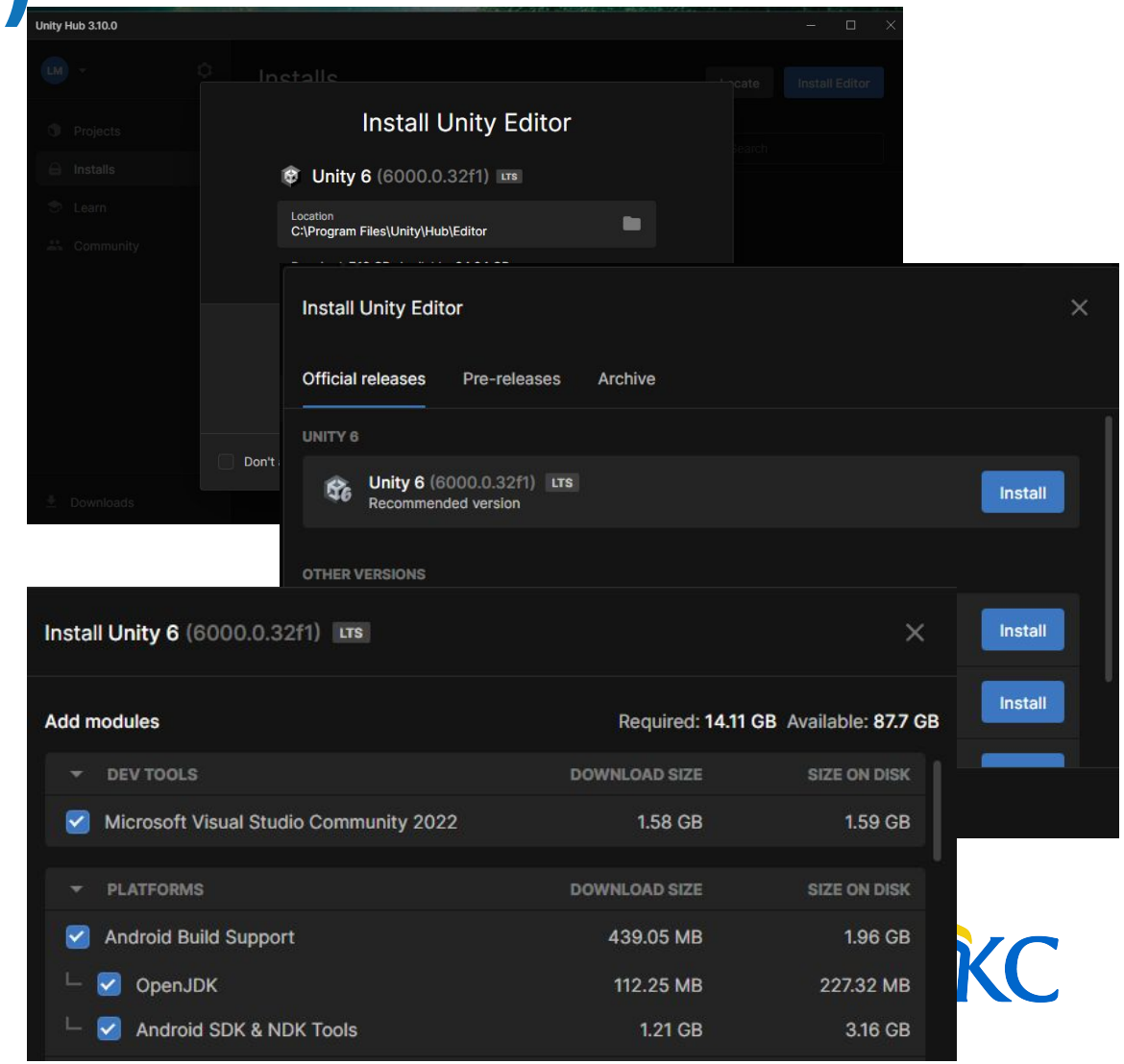
Install UnityHub (Not for COESC course)

- Included for your reference - Unity already installed for this course.
- Go to https://unity.com/download
- Click Download
- Run UnityHubSetup.exe
- If necessary, allow access. Agree to terms, and Install



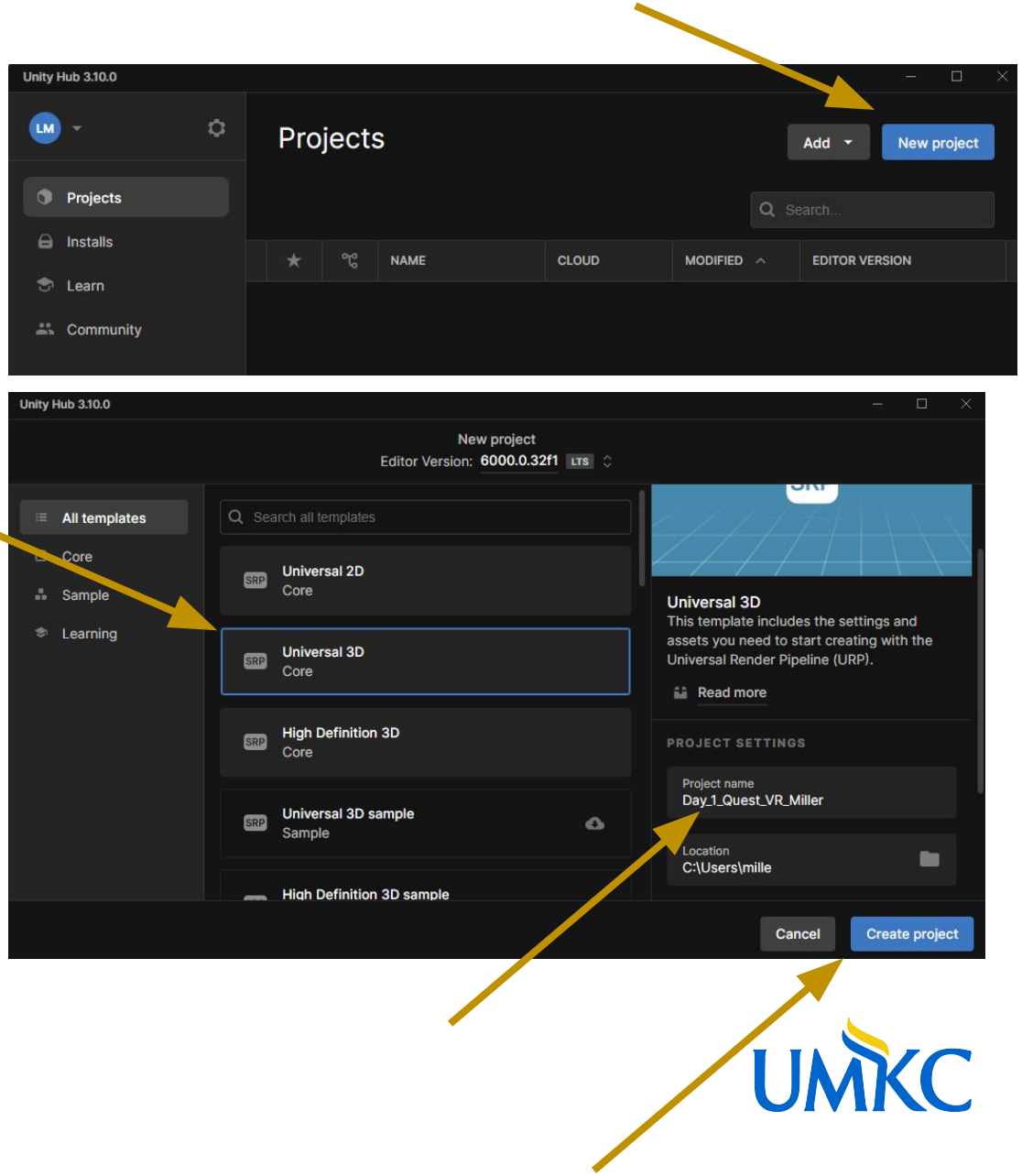
Install Unity Editor (Not for COESC course)

- Launch Unity Hub - It should prompt you to install Unity Editor
- Add Android Build Support - If you already have Unity Installed, we will include instruction on how to add this later.
- Agree to terms and install

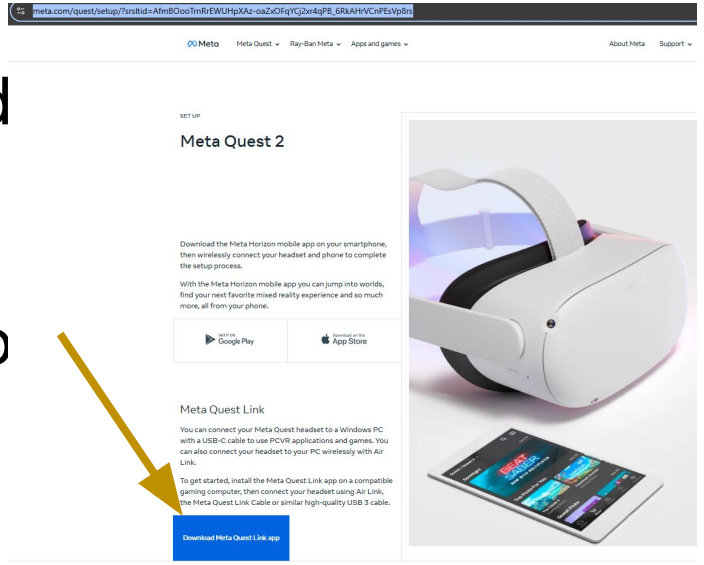


Create a New Project

- Click "New project"
- Click "Universal 3D"
- Give your project a name
- Click "Create project
- Unity Editor should Launch



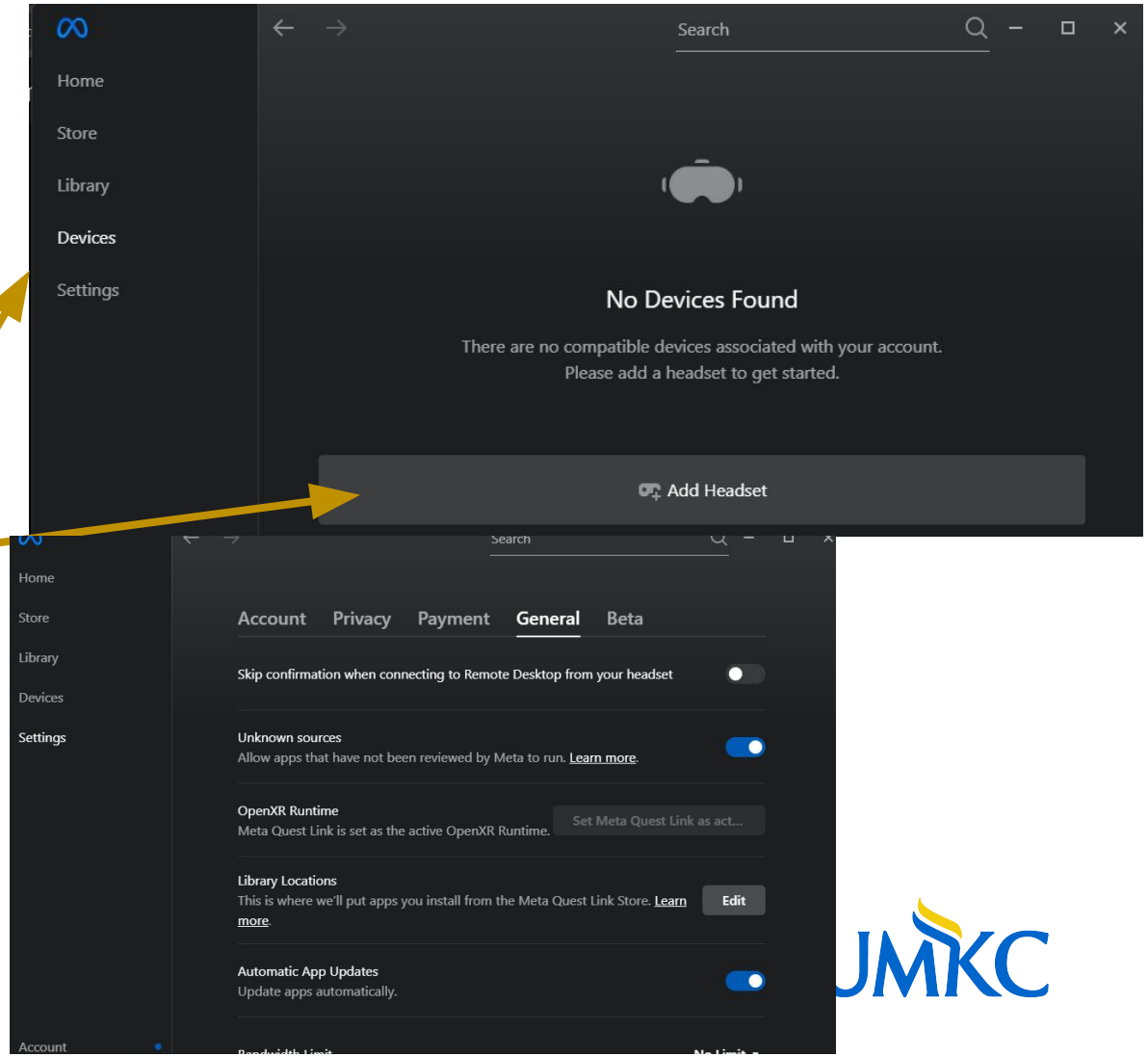
Install Oculus Link (Not for COESC course)



- Go to the Meta Website and download Oculus Link App.
- Run OculusSetup.exe from the downlo folder.
- Click "Get Started", "Agree", "Install Now
- If necessary, create a Meta account, otherwise, login.
- While here sign up as a Meta Quest Developer

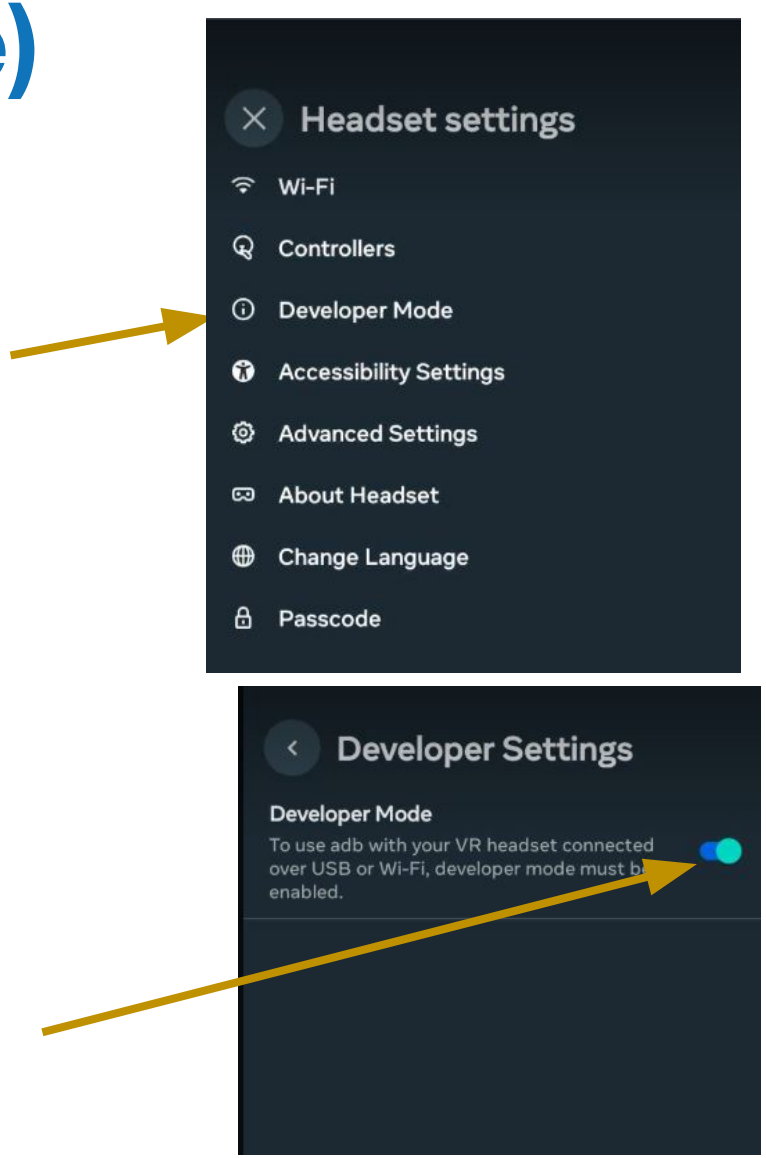
Add Headset to Oculus Link

- Power on headset and connect it to the computer with the Link Cable (you need very good WiFi for AirLink, not recommended)
- Select "Devices", "Add Headset"
- Select Settings, General
- Set Meta Quest as OpenXR Runtime



Enable Developer Mode on Mobile App (Not for COESC course)

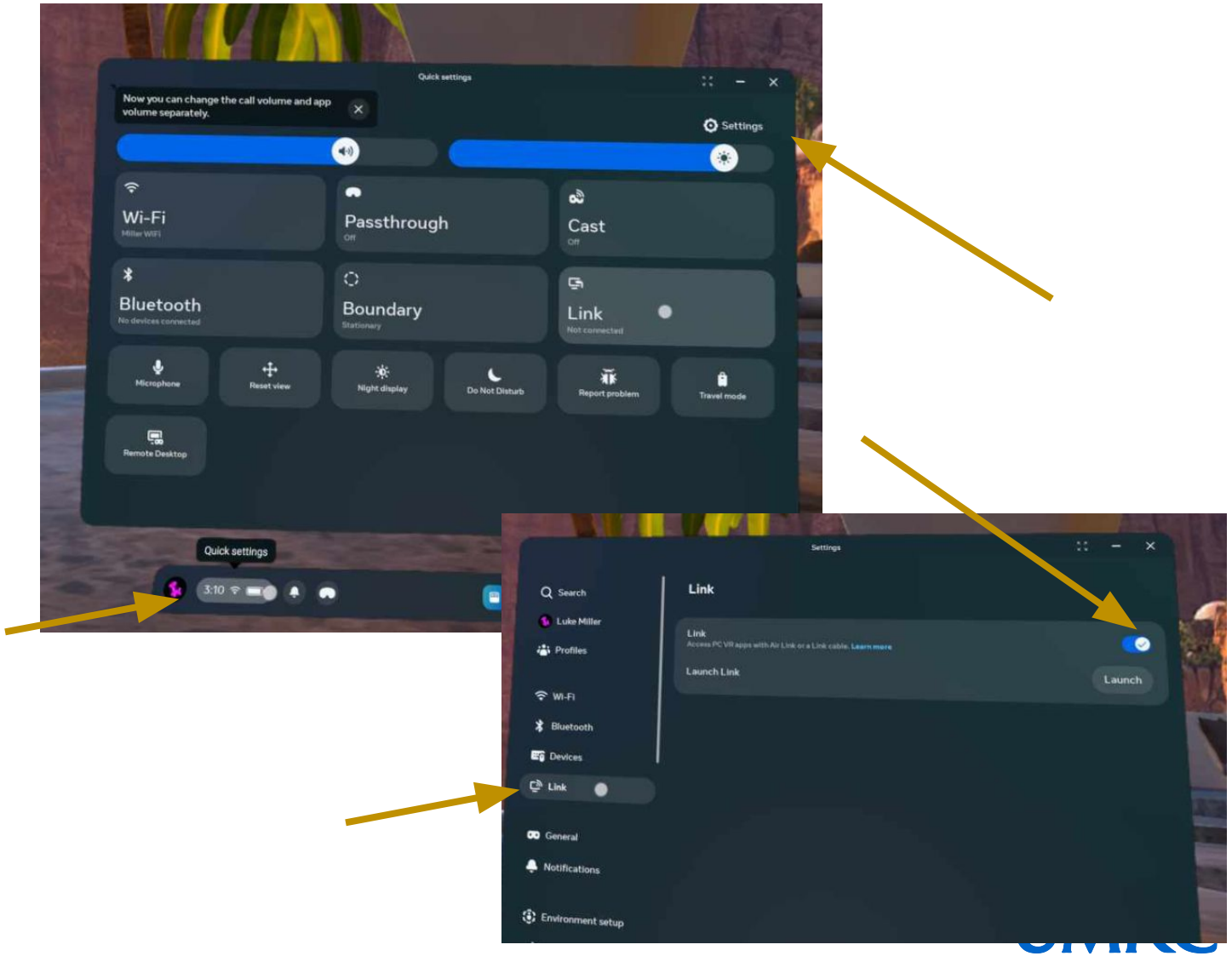
- Open the Mobile App associated with the headset
- Open Headset settings
- Select Developer Mode
- Enable



UMKC

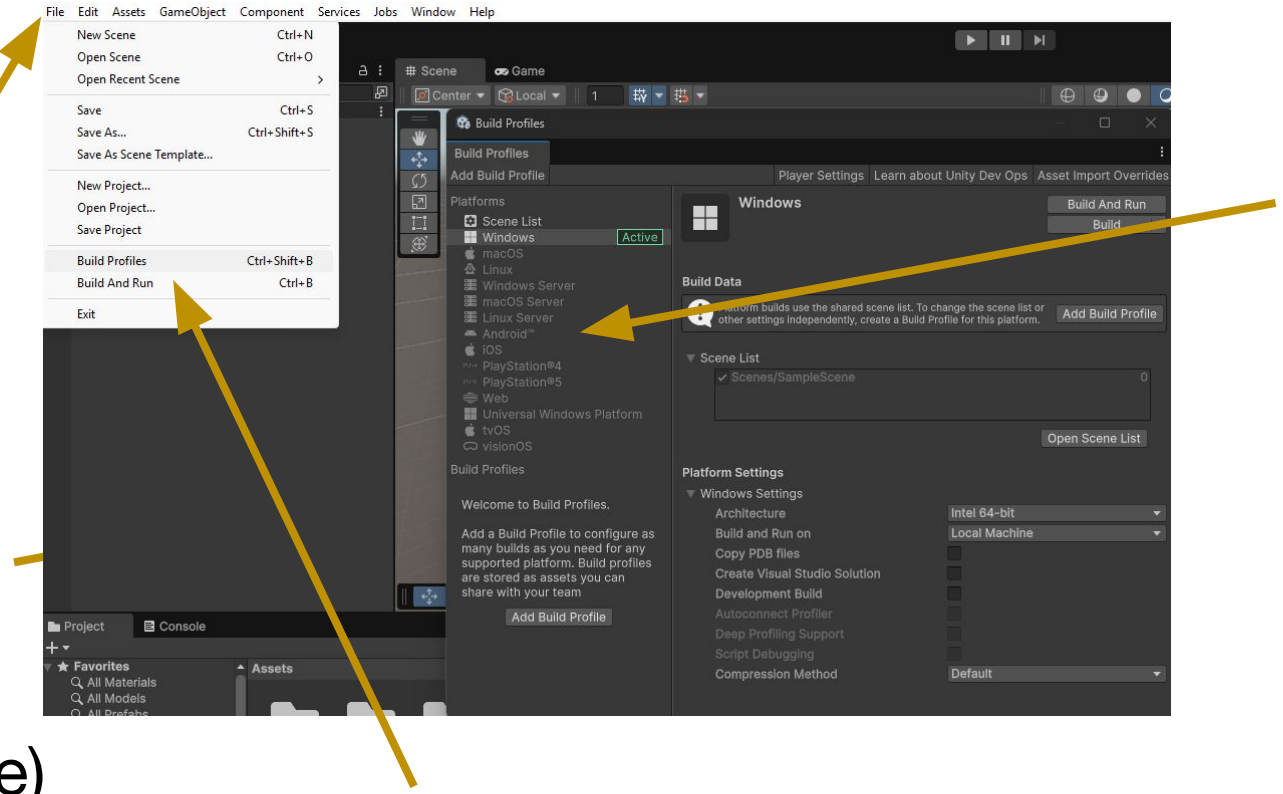
Ensure Link is Enabled on Headset

- Open Quick Settings
- Select Settings
- Select Link
- Enable



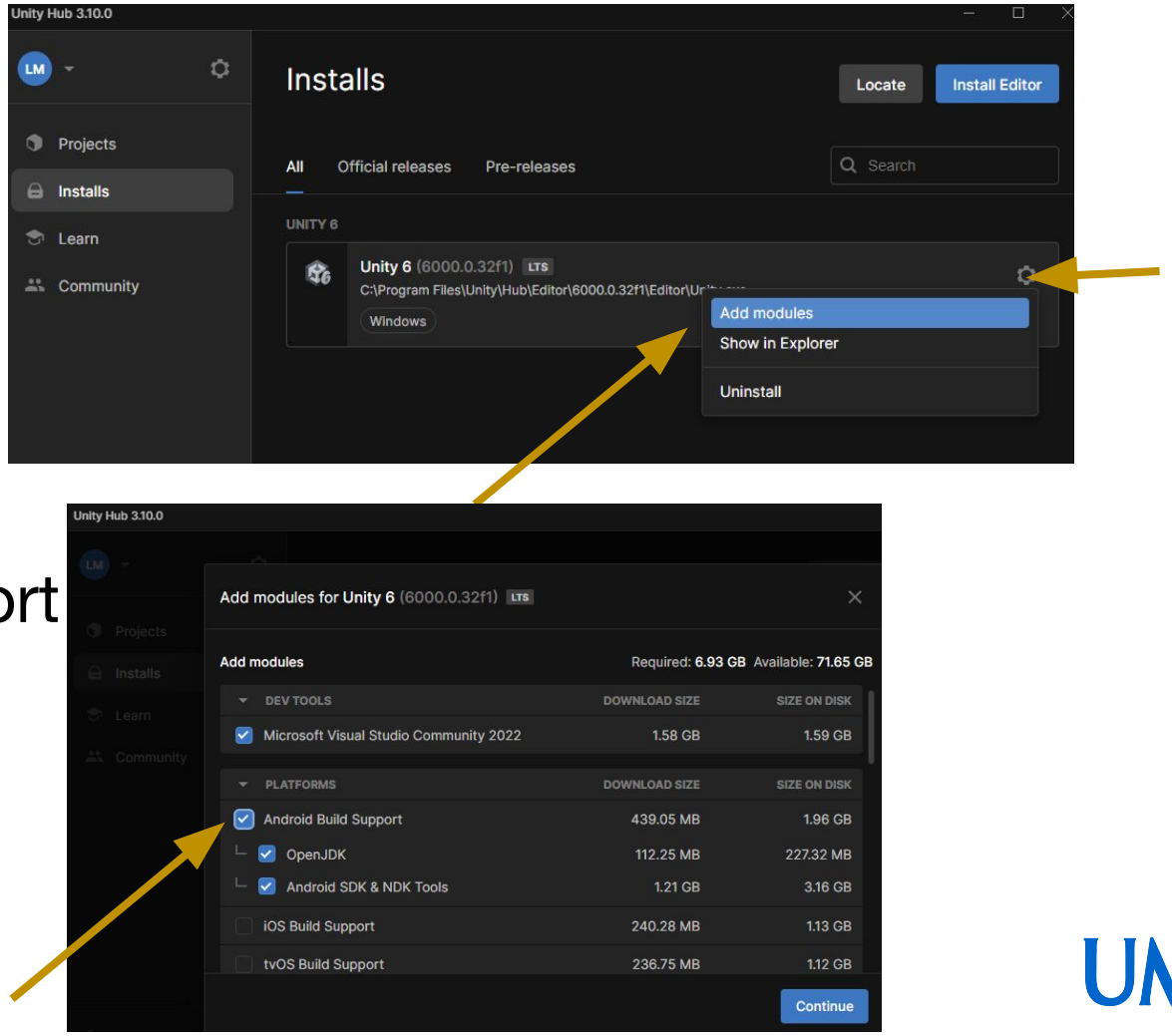
Ensure Android Modules are Installed

- In Unity Editor:
- Select File
- Build Profiles
- Ensure Android is selectable
- If not, install Android Build Support (Next Slide)



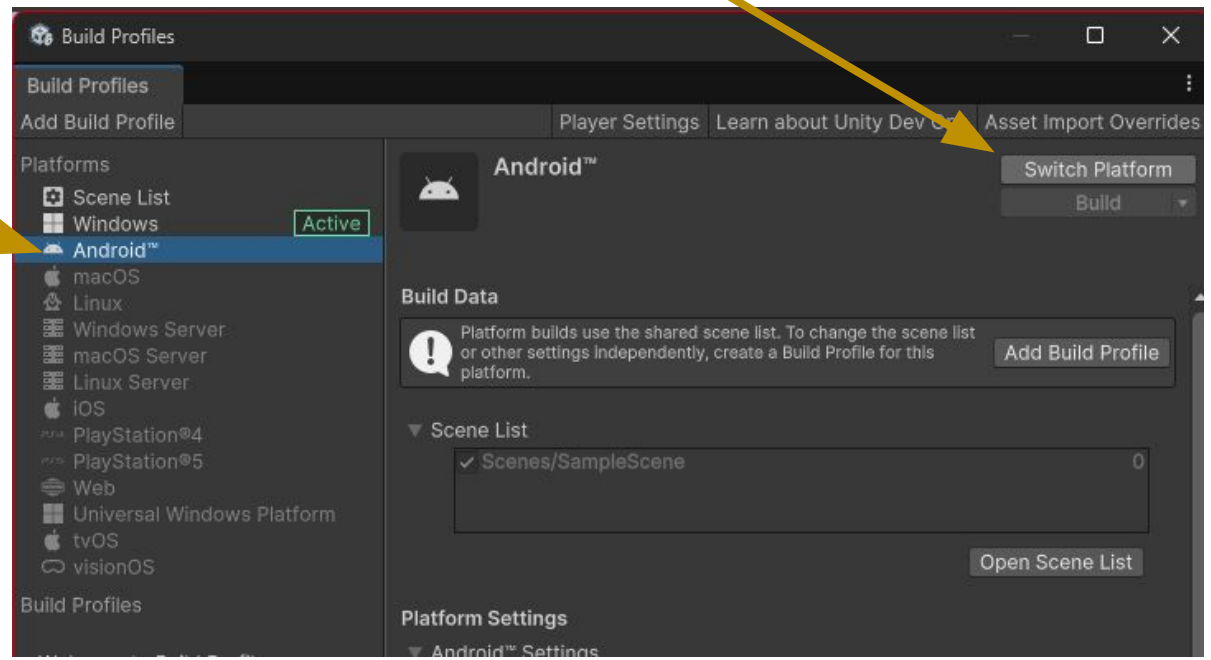
Adding Android Modules to Unity Editor (Not for COESC course)

- In Unity Hub:
- Select Installs
- Click the Gear Icon
- Select "Add Modules
- Select "Android Build Support
- Continue
- Agree to terms and Install



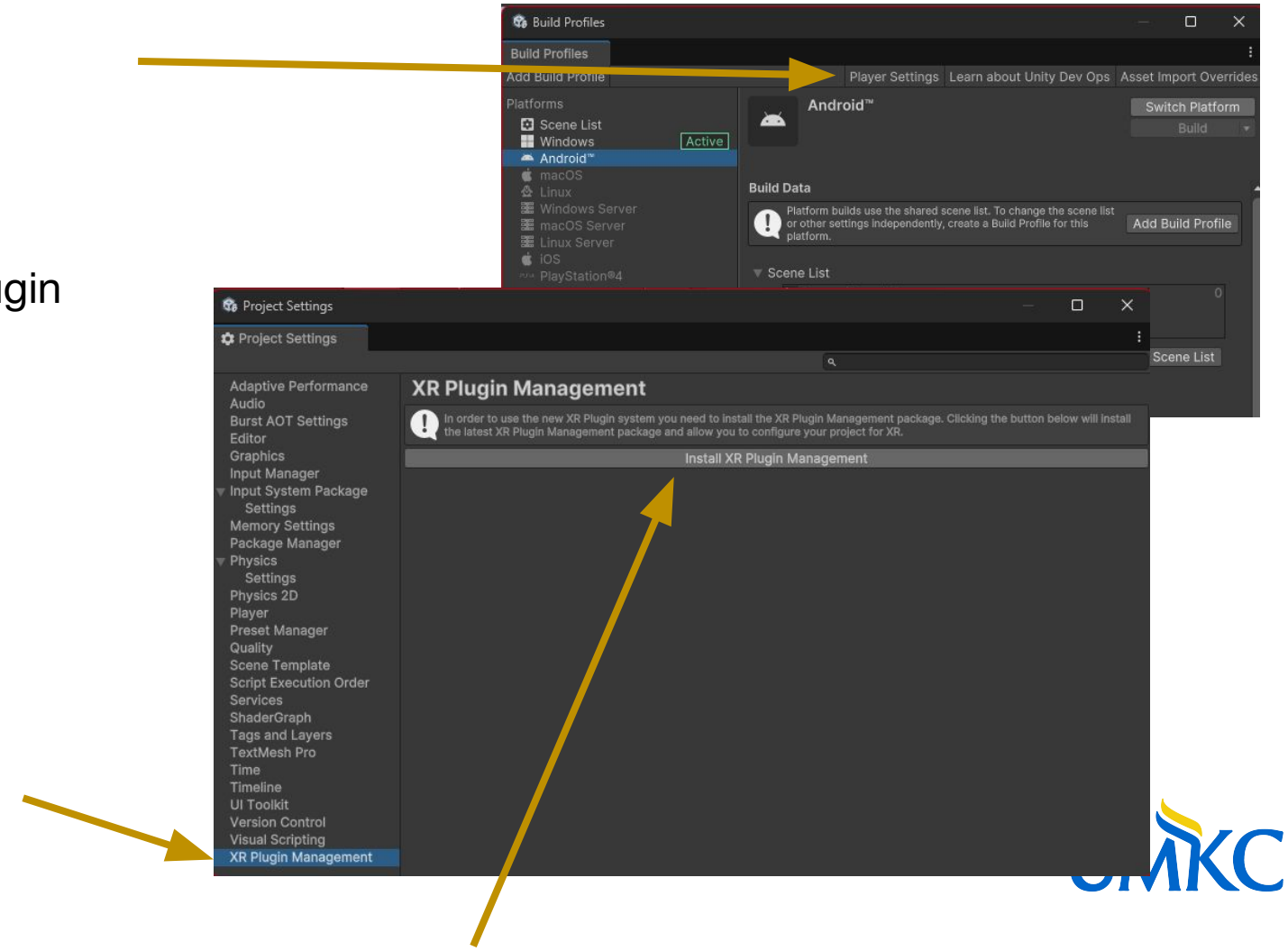
Switch Platform to Android

- In Build Profiles:
- Android
- Switch Platform



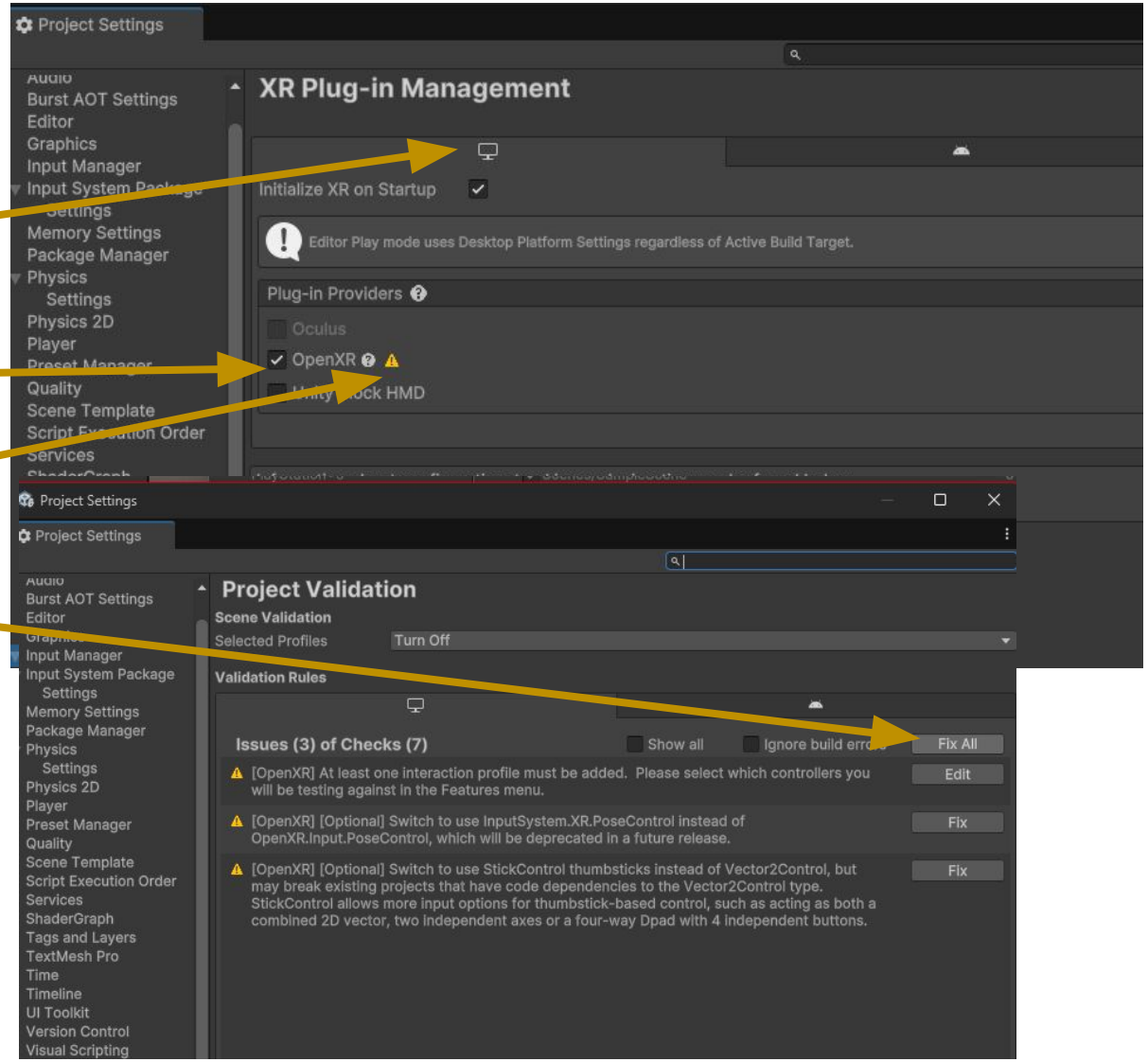
Install XR Plugin Management

- In Build Profiles:
- Select Player Settings
- In Player Settings:
  - Scroll down and select XR Plugin Management
  - Select Install



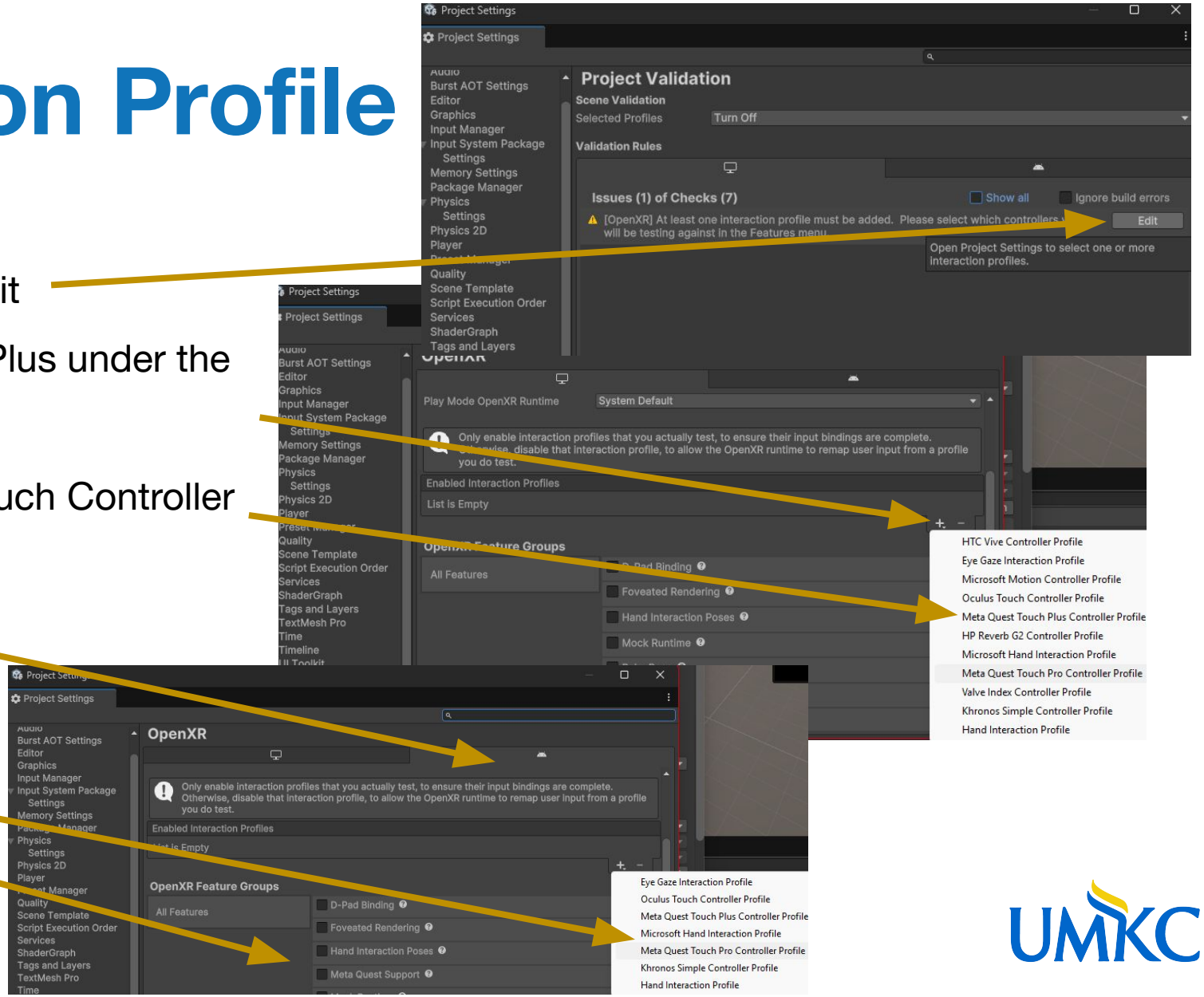
Configure XR

- Select PC tab
- Select Open XR - Unity will install
- After Installation, select warning.
- In the new, Project Validation Window, Select Fix All



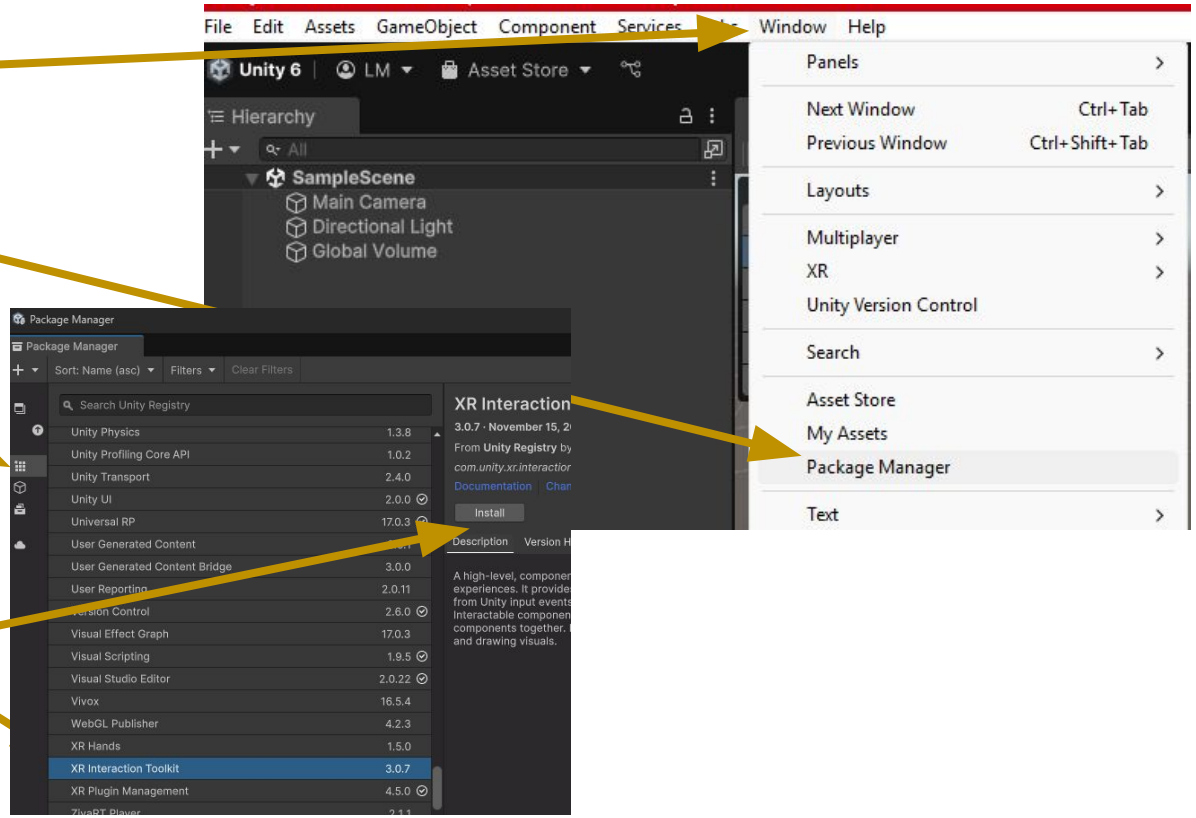
Add Interaction Profile

- You will still have to add an an interaction profile, select edit
- In the new Window, Click the Plus under the Interaction Profiles
- Select the "Meta Quest Pro Touch Controller Profile
- Select the Android Tab
- add the Meta Quest Pro Touch Controller Profile
- Select Meta Quest Support



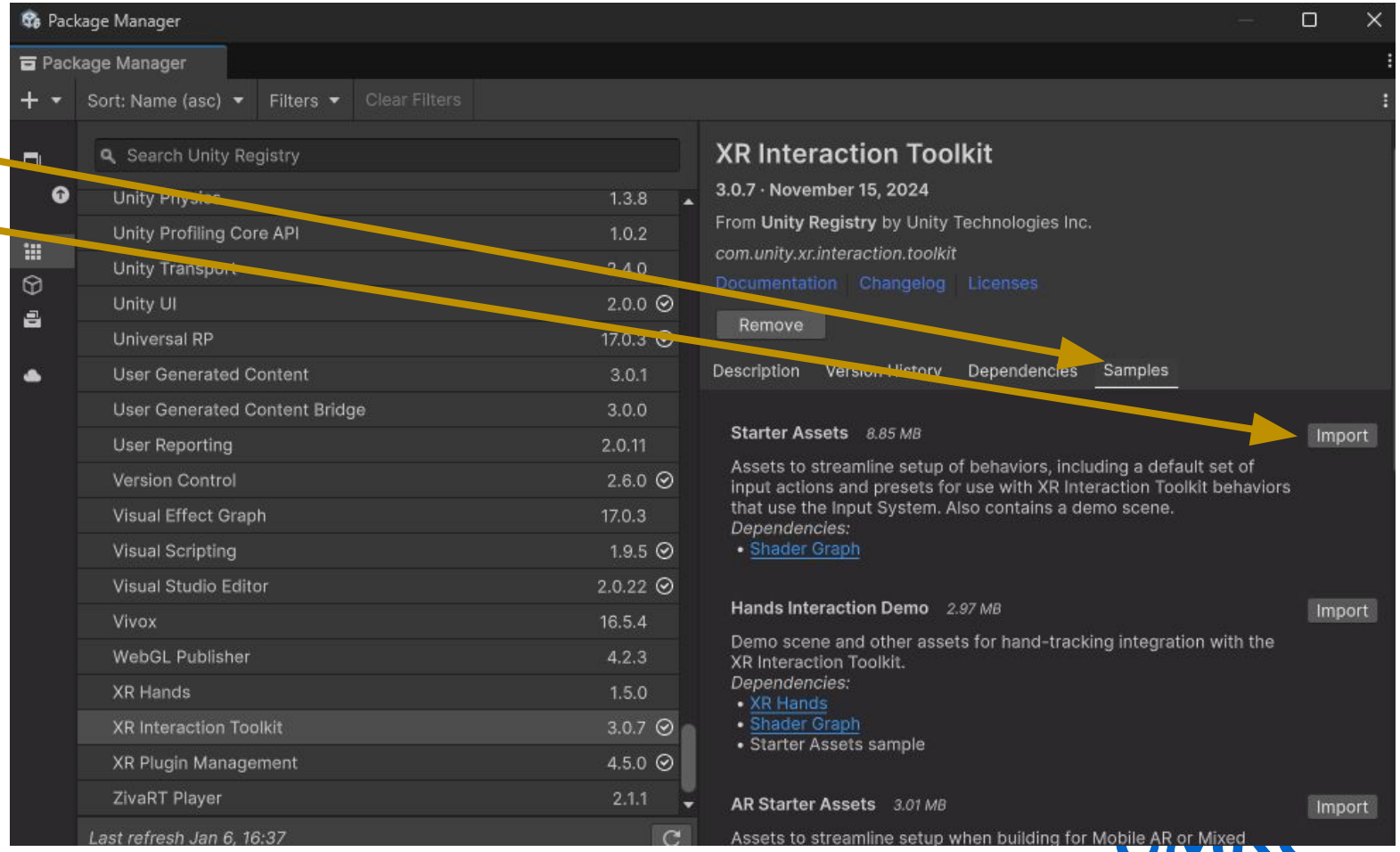
Install XR Interaction Toolkit

- Select Window
- Select Package Manager
- Select Unity Registry
- Scroll down and select XR Interaction Toolkit
- Install



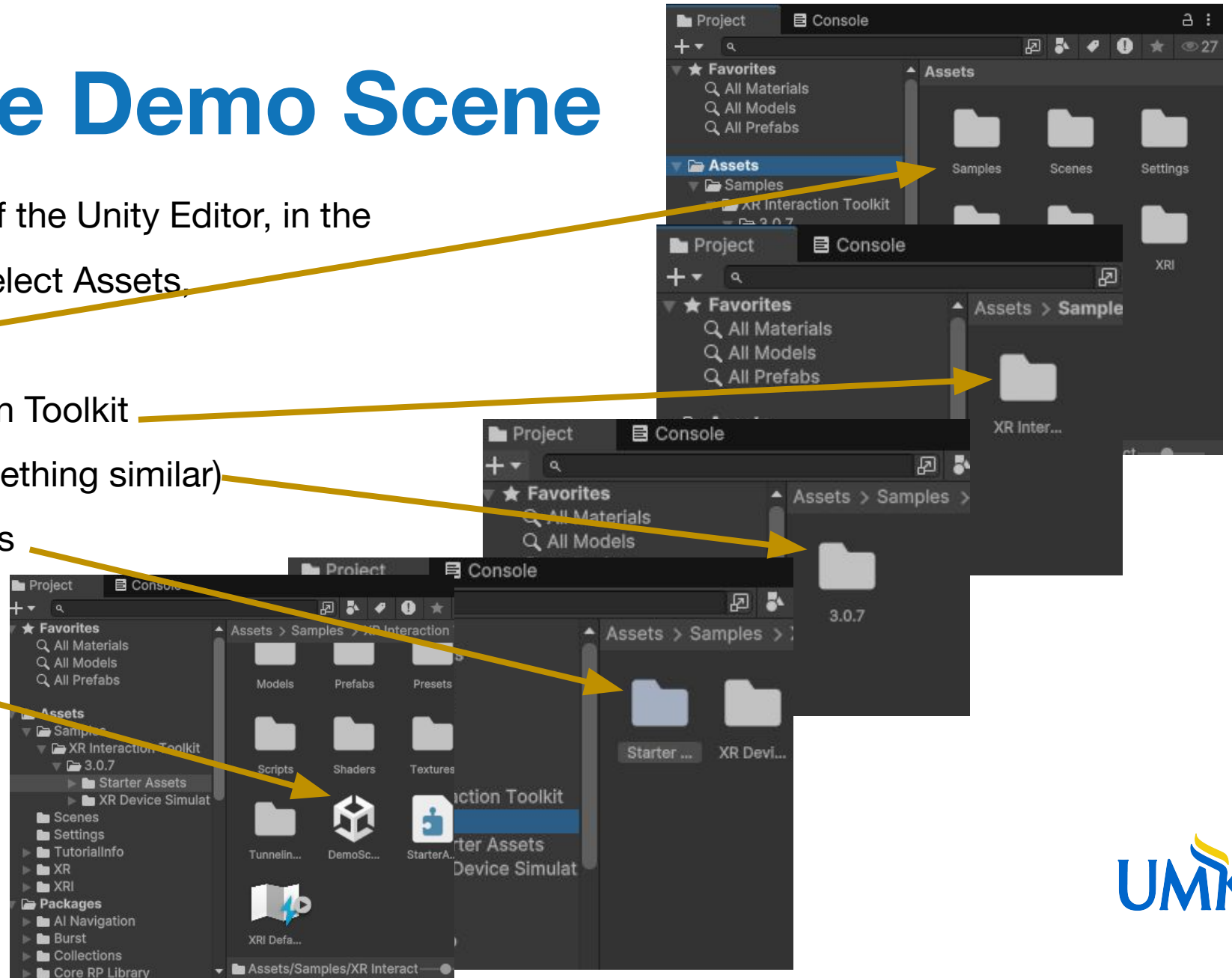
Import XR Samples

- In the same Window
- Select Samples
- Import Starter Assets
- XR Device Simulator is also useful, but not required here



Create the Demo Scene

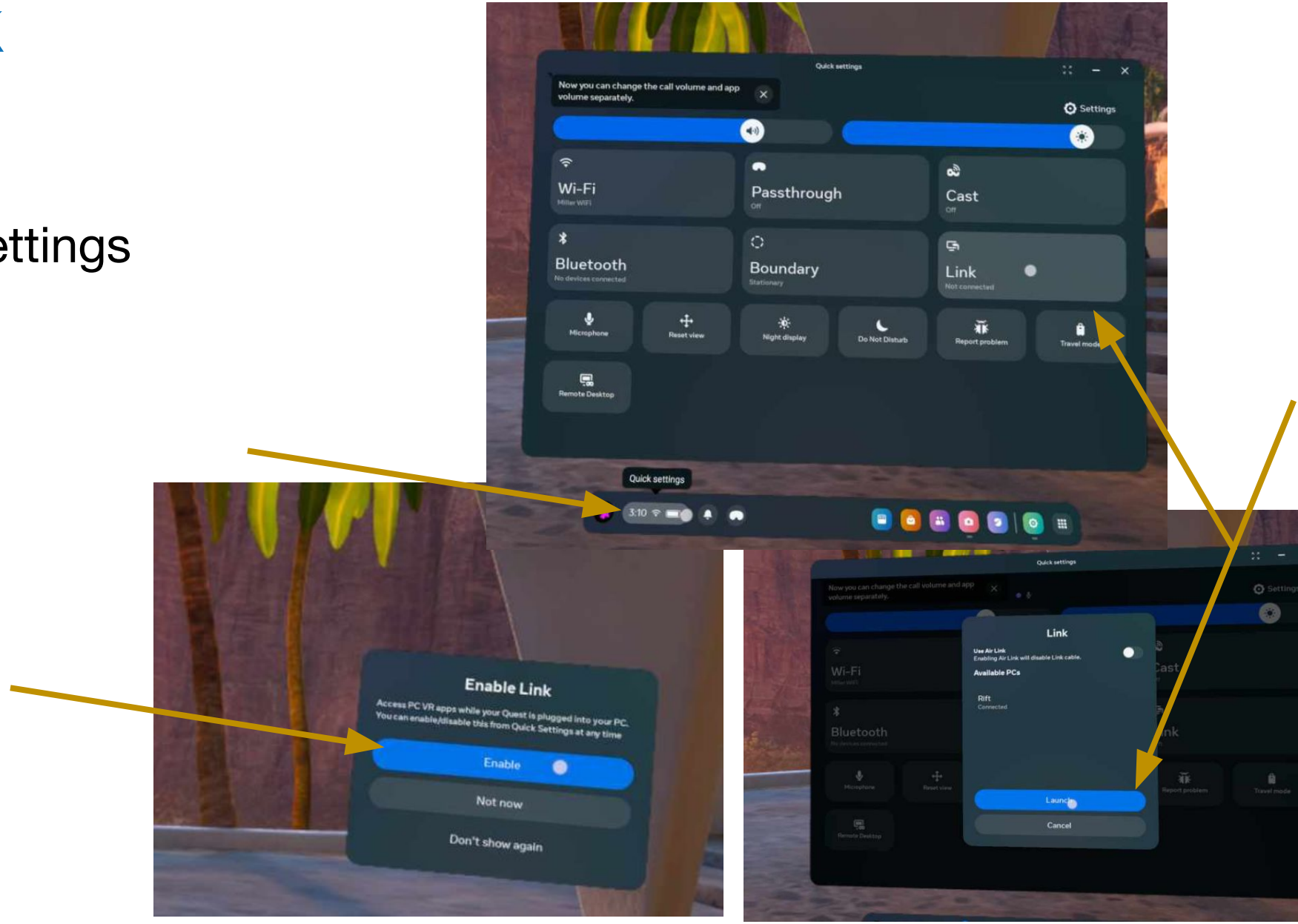
- On the main page of the Unity Editor, in the Projects Window, select Assets, then Samples
- Select XR Interaction Toolkit
- Select 3.0.7 (or something similar)
- Select Starter Assets
- Double click Demo Scene



UMKC

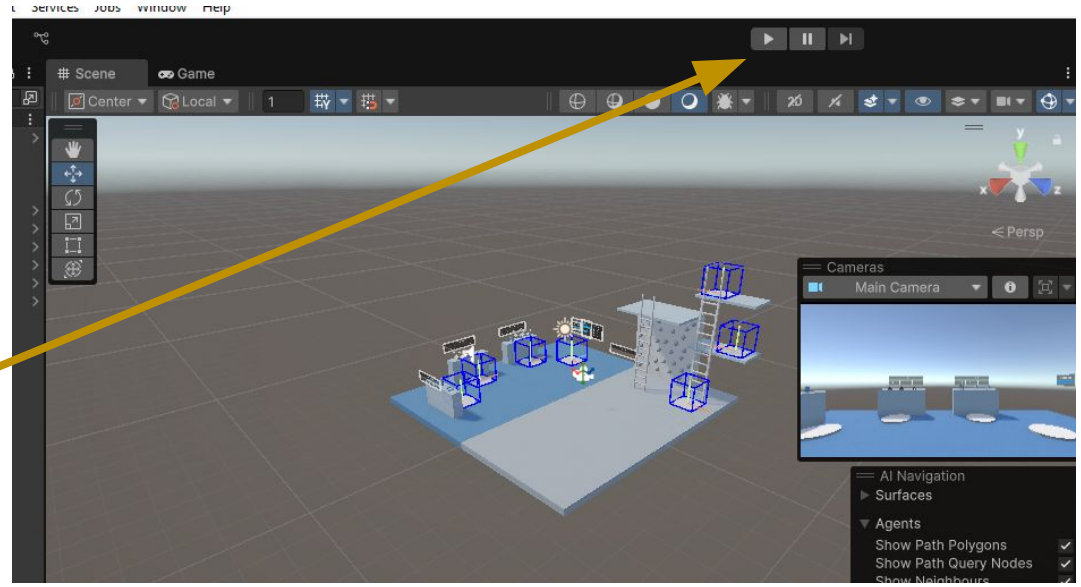
Turn on Link on Headset

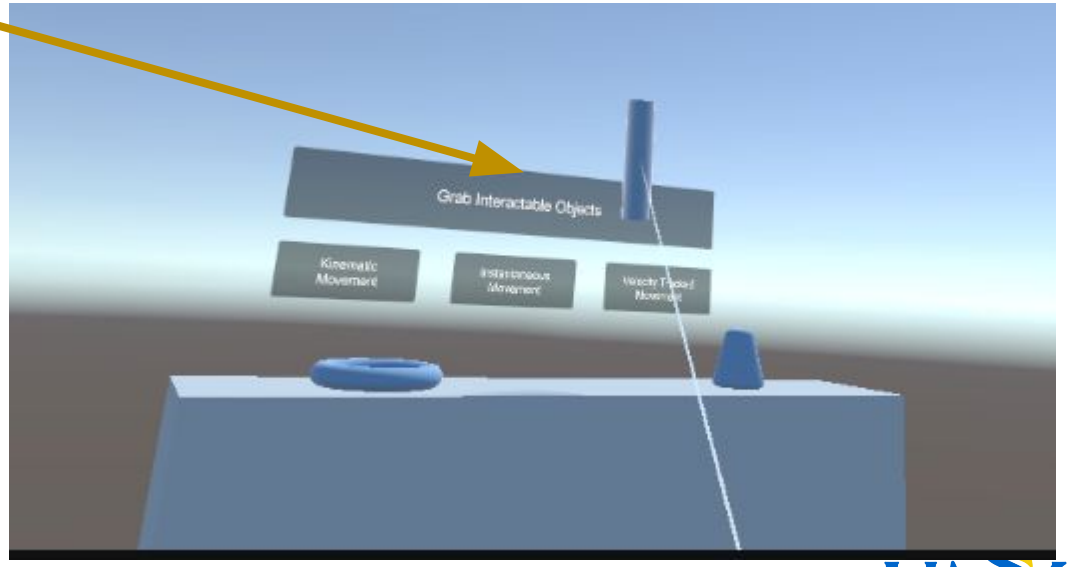
- Click on Quick Settings
- Select Link
- Click Enable
- Launch



Test Scene

- Peek under headset and press play to text the scene.
- Text out the scene, interact with objects, have fun.
- Press Stop in Unity when done

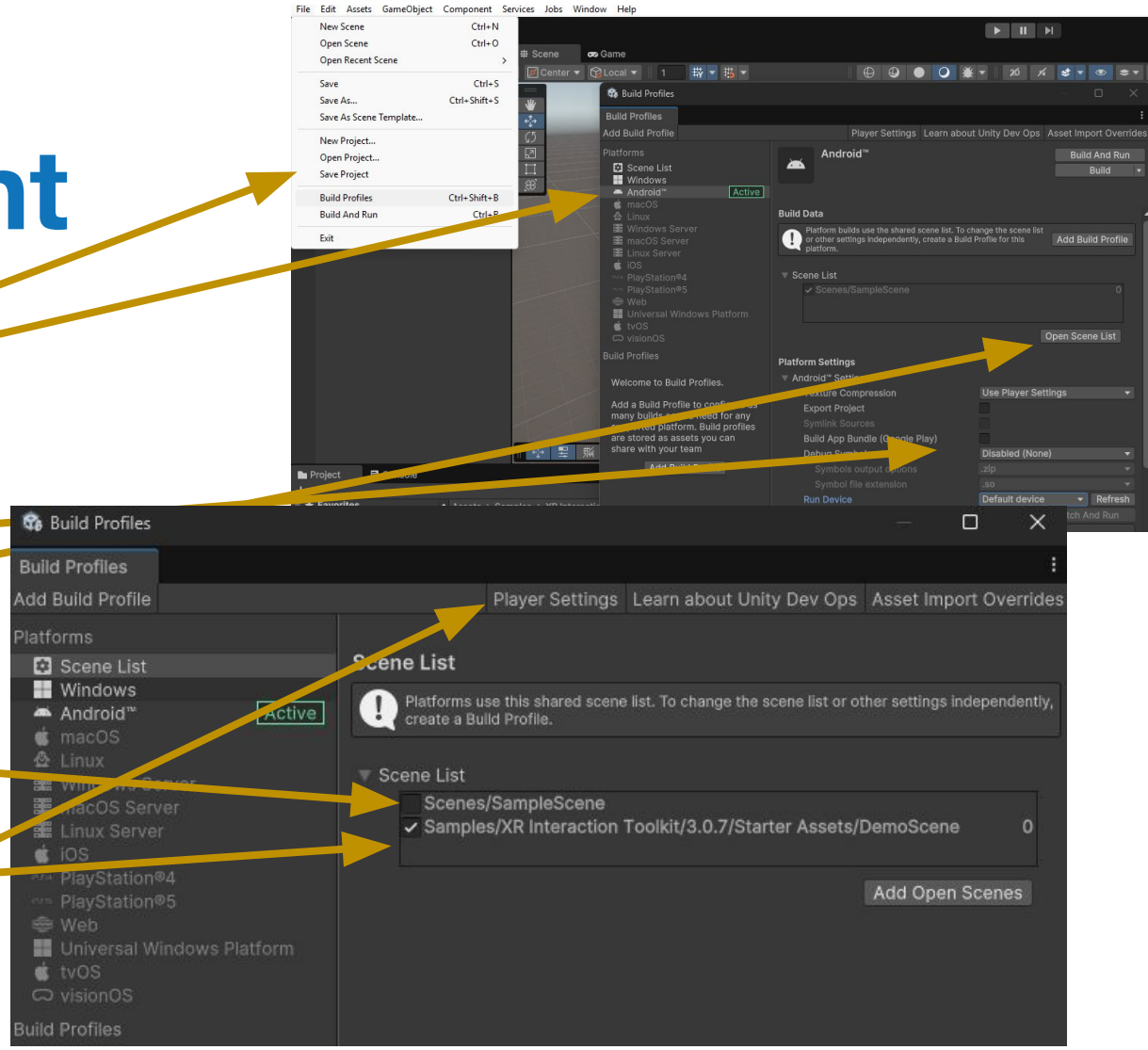




UMKC

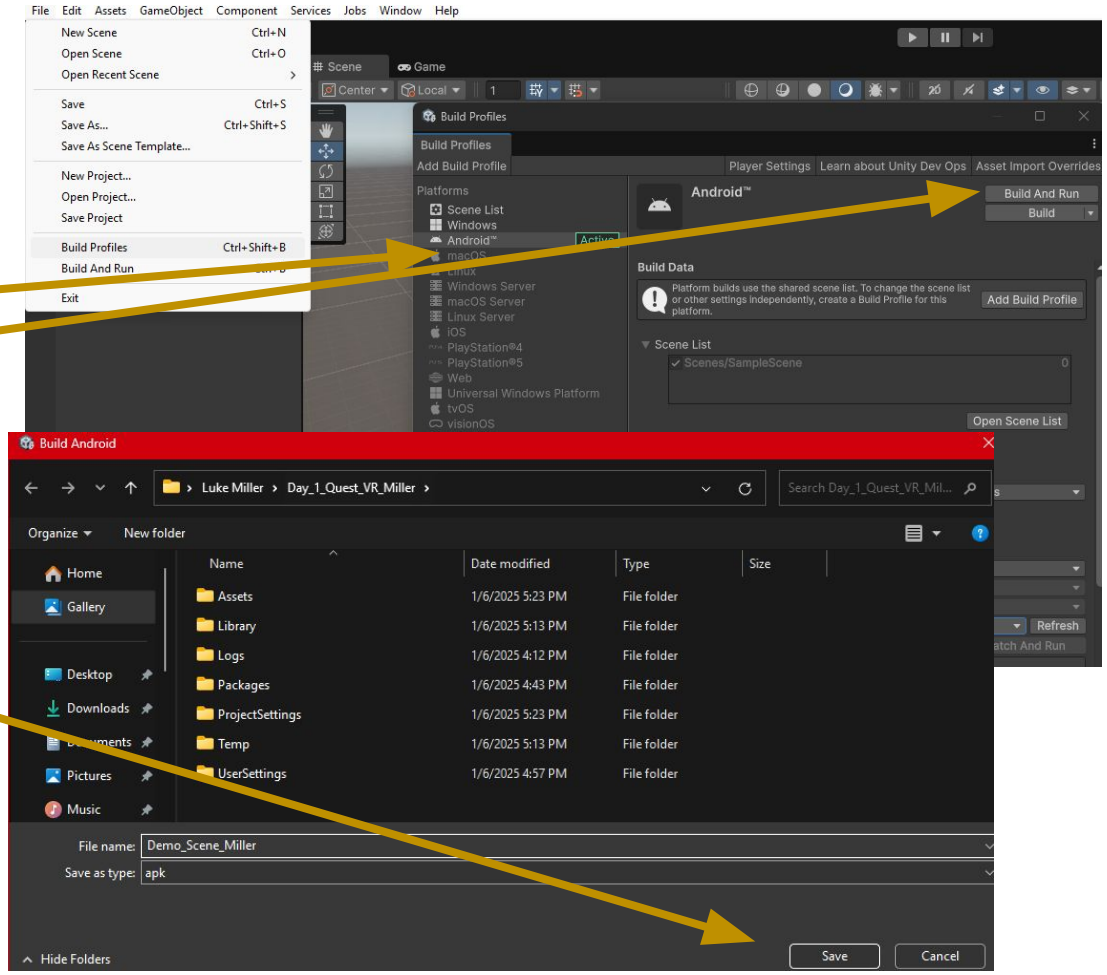
Setup for Deployment

- In Unity, Select File, Build Profiles
- Ensure Android is Active
- Select Default Device, and change to Oculus
- Select Open Scene List
- Deselect the Sample Scene Unity started us with
- Select the Demo Scene we added
- Select Player Settings
- Under Other Settings, Scroll Down to "Minimum API Level", Select API Level 29



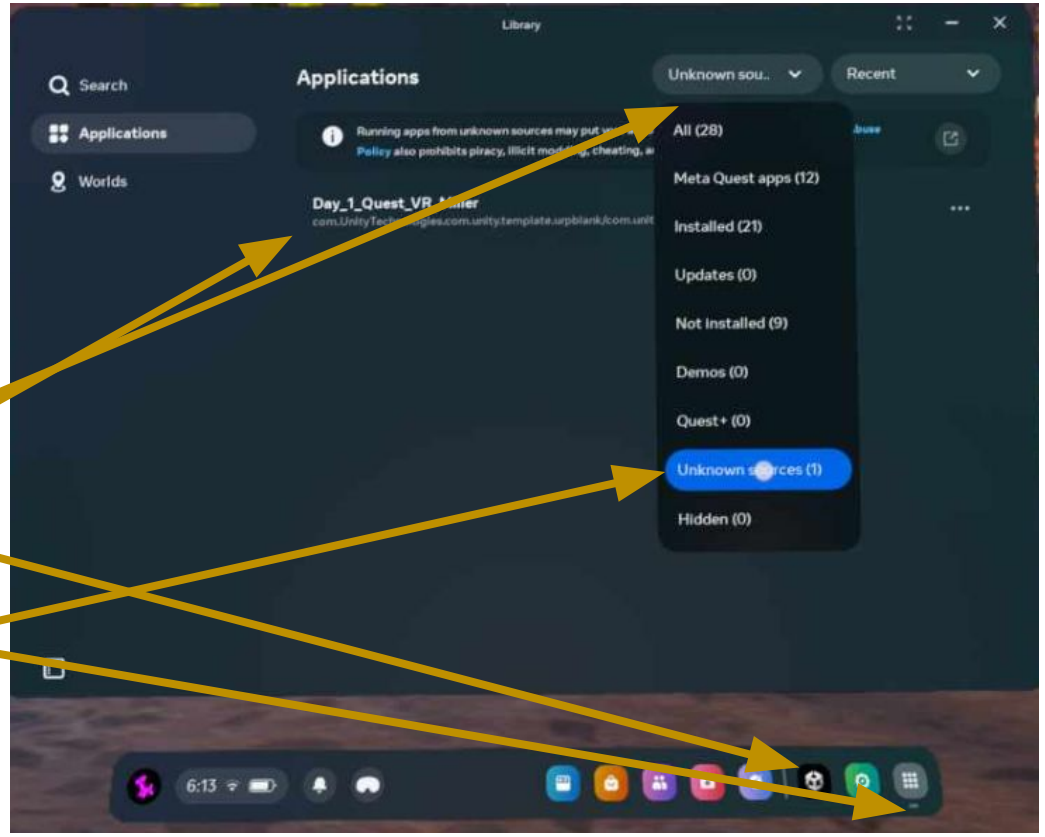
Setup for Deployment

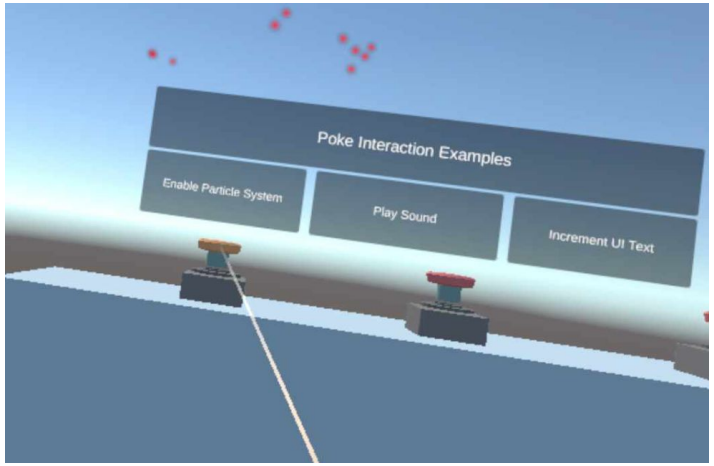
- Select Android
- Click Build and Run
- Name the Build and save
- If you get an error about input handling, just click yes to ignore
- After building, It should automatically run. Test it and exit.



Test while Link disconnected

- Game will likely be in task bar
- If not:
  - Open your Applications
  - Select Source,
  - Select Unknown
  - Open App
- Test the App





UMKC