

# Tutorial – how to use Kinect with Unity

## Requirements:

1. Make sure, that you have installed the Unity Kinect Wrapper. (download [here](#))
2. Use the Kinect for Windows Runtime v1.8. (download [here](#))
3. Use also the Kinect for Windows SDK v1.8
  - 3.1 download [here](#)
  - 3.2 Click “continue”
  - 3.3 You don’t need to register (figure 1)

Register and receive the download:

- ☐ Yes, I want to register and receive the download.
- ☒ No, I do not want to register. Take me to the download.

figure 1 register for download

## How to use Kinect with Unity:

1. open unity
2. import the Unity Package of wrapper in Unity
  - 2.1 Assets > import package > custom package > ‘file’
3. If you want to use a real Kinect (< v 2.0)
  - 3.1 Setup Kinect (figure 3)
    - 3.1.1 Check if Use Emulator is unchecked in Kinect Preftab
    - 3.1.2 Check if Kinect Sensor Script is enabled
    - 3.1.3 The Sensor Height is the height of the physical Kinect above the ground
4. If you want to use the emulator:
  - 4.1 Check: Use the emulator is checked in ‘Kinect Preftab’ (figure 3)
  - 4.2 Then you have to select a recording, do this in the Emulator Settings (see figure 4) → Input File ... Filepath to the recording (if you don’t have a recording see point 5)

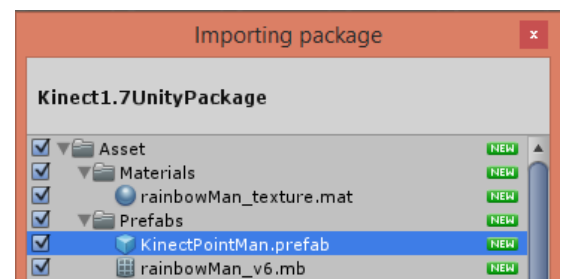


figure 2 import package

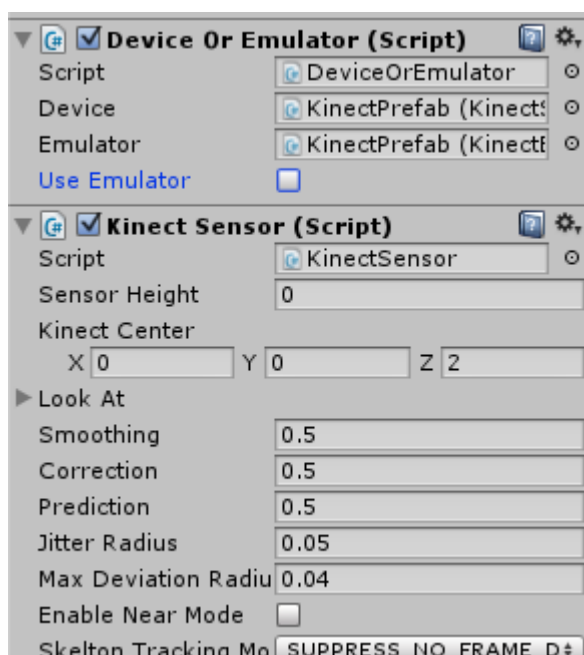


figure 3 kinect sensor setting

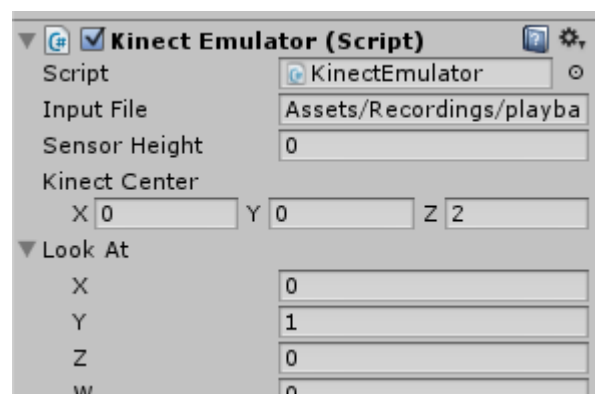


figure 4 emulator settings

5. if you don't have a recording you need a real Kinect 1 sensor and active the recorder script

- 5.1 Activate the recorder script (figure 5)

- 5.2 Connect the Kinect with your Computer

- 5.3 Run a Scene including (KinectPrefab, Kinect Point Main, Main Camera, and a Light)

- 5.3.1 Now you should see a skeleton with joints

- 5.3.2 Press F10 to start recording and F10 again to stop it

- 5.4 In the status you now see that a recording file is stored, you can now use this in the emulator

6. If you need a special mask for just showing some defined Points, add a mask for both hands

- 6.1 go to Assets > Script > Kinect > KinectModelControllers

- 6.2 open KinectPointController.cs

- 6.3 add your mask in "public enum BoneMask"

- 6.3.1 e.g. for both hands: Both\_Hands = Left\_Hand | Right\_Hand

7. select your mask

- 7.1 choose your mask (figure 6)

8. When you now press play, you should see just the selected Points, in this case booth hands (figure 7)

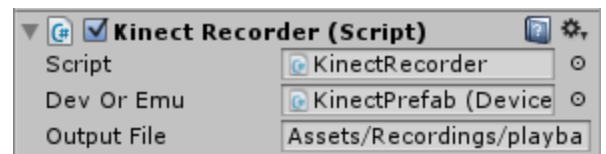


figure 5 recorder setting

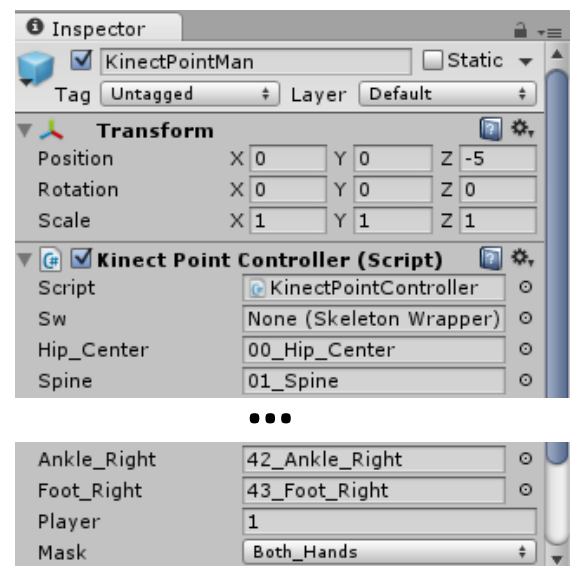


figure 6 add mask

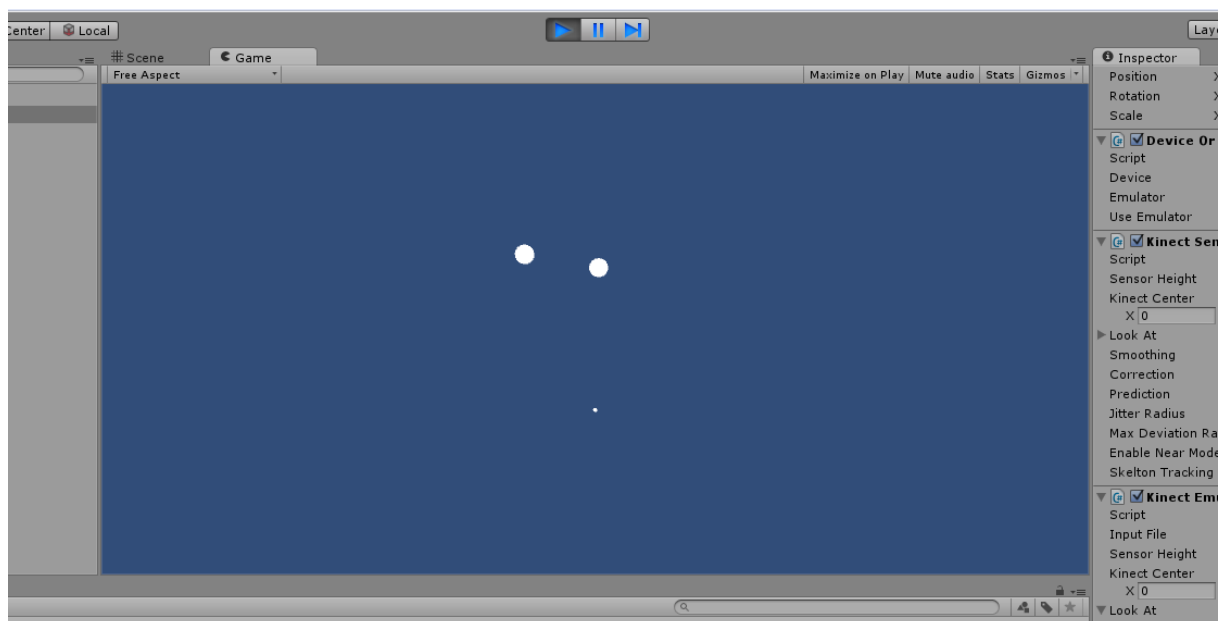


figure 7 result

## Caveats and Stuff

- Sometimes there are problems with the real Kinect. This will result in a the following failure:
  - NuilInitialize Failed. UnityEngine.Debug:Log(Object)KinectSensor:Awake() (at Assets/Script/Kinect/KinectWrapper/KinectSensor.cs:147)
  - (Also show in the status bar: NuilInitialize failed, Left bottom corner of unity)
  - If this occurs just reopen unity. Most of the times we get this error when a other app is connecting with the Kinect.
- If the playback of the recording didn't work – check the input file path of the emulator script