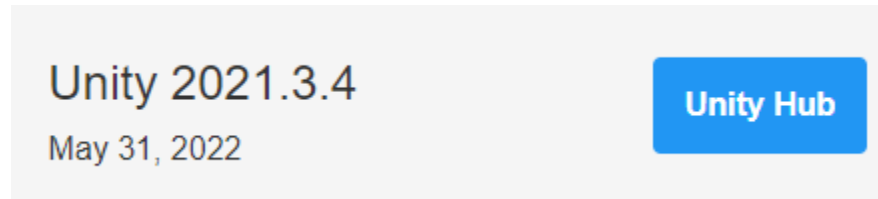


About

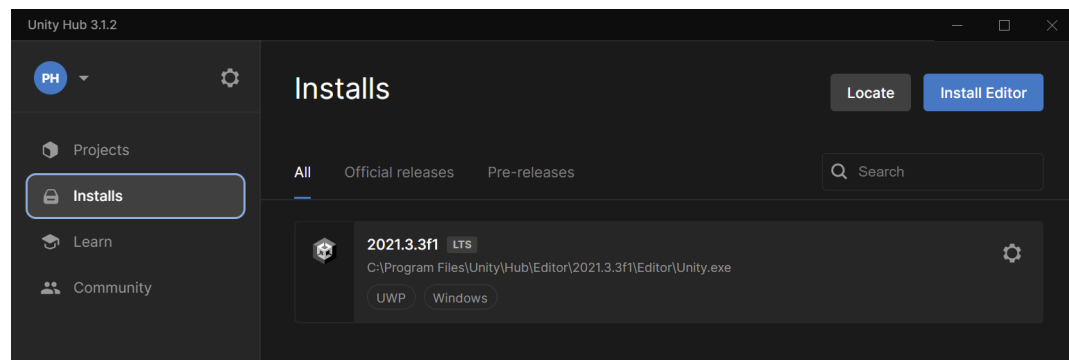
This guide will walkthrough how to set up Unity and run CLAWS' 2022-2023 software (NOVA) in your Unity editor.

Install Unity

1. Download Unity Hub
 - <https://unity3d.com/get-unity/download>
2. Create a Unity account if necessary
3. Install the appropriate version of Unity
 - We will use version [2021.3.4](#)



- Click on the Unity Hub install option
- You must use the same version (it will say 2021.3.4f once you install)
- Make sure to select to install [Visual Studio Community 2019](#) and [Universal Windows Platform Build Support \(if Windows\)](#)
- You should see your installed Unity version here:



Install Visual Studio

Note: You don't *need* Visual Studio, but you do need it for intellisense (Unity code completion). Thus, it's HIGHLY recommended to make learning easier and faster. (Unless you're able to get intellisense working some other way)

Note: If you have a Windows device, then get Visual Studio please. This will allow you to deploy our app to the HoloLens, which is necessary for efficient SW development.

Installation Instructions

- Install [Visual Studio Community 2019](https://visualstudio.microsoft.com/vs/older-downloads/) via this link if it's not already installed: <https://visualstudio.microsoft.com/vs/older-downloads/>
- Install the specific workloads/components mentioned in this link: <https://docs.microsoft.com/en-us/windows/mixed-reality/develop/install-all-the-tools>

- **Note:** If you already have Visual Studio installed, open [Visual Studio Installer](#) > [Modify](#) to add the workloads/components necessary
 - Make sure you don't miss these additional components as well within the UWP workload:

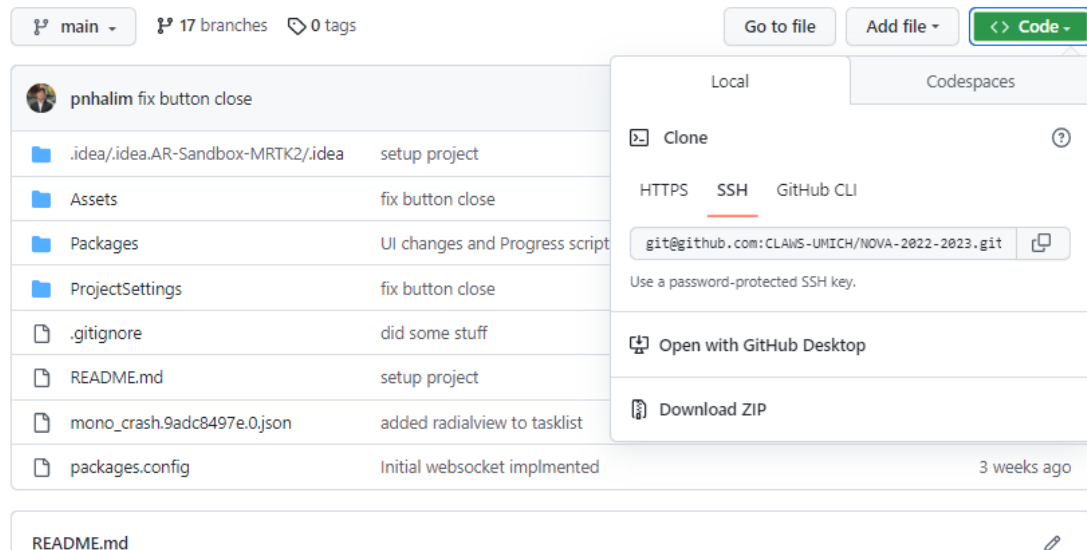
Within the UWP workload, make sure the following components are included for installation:

- *● Windows 10 SDK version 10.0.19041.0 or 10.0.18362.0, or Windows 11 SDK
- *USB Device Connectivity (required to deploy/debug to HoloLens over USB)*
- *C++ (v142) Universal Windows Platform tools (required when using Unity)*

- If you have a Mac, not all of these options will be available, so just install what is available

Get Project Files

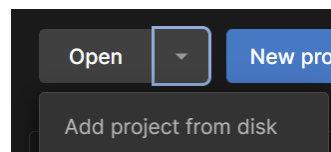
1. Go to this GitHub repo:
<https://github.com/CLAWS-UMICH/NOVA-2022-2023>
2. Copy the SSH link to clone the repo ([SSH Key Instructions](#)) ([Mac Instruction](#))



3. Open the terminal and type
 - `git clone ssh_link_you_copied_here`

Open Unity Project

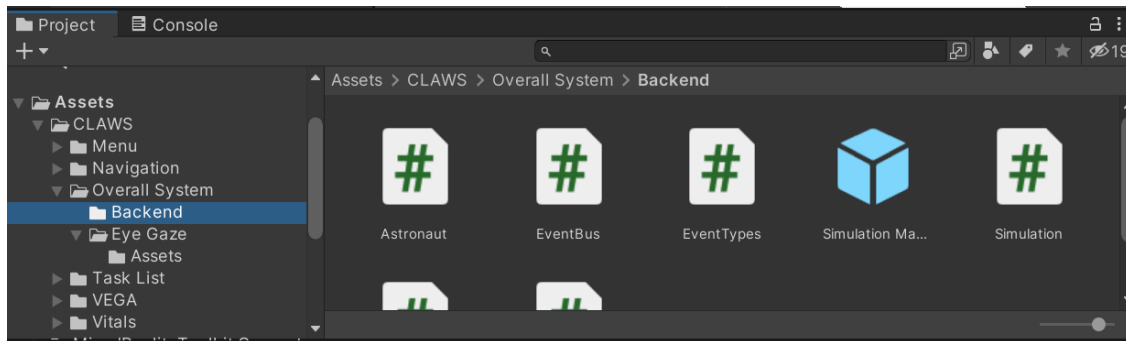
1. Open Unity Hub
2. In the top right, select Open > Add project from disk



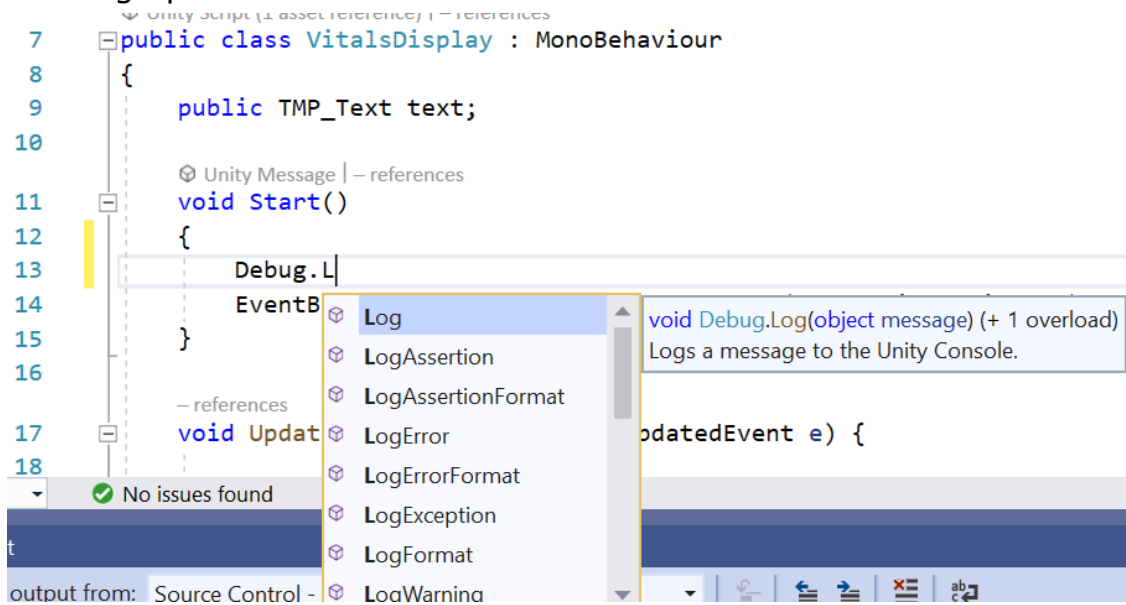
3. Select the folder you cloned from GitHub

Ensure Intellisense Works

1. Open any Unity project (like NOVA for example)
2. Go to Assets at the bottom and look for a script



3. Double click to open it
4. Start typing within a function and you should see a ton of options showing up



5. If you type Debug.L, there should be a lot of options you can choose from. If not, you do not have intellisense working

Troubleshooting Intellisense

1. If you are not using Visual Studio, try using it (installation instructions above)
2. Go to Visual Studio Installer and ensure the correct components are installed (especially the Game Development with Unity one)
3. Reset computer
4. <https://forum.unity.com/threads/intellisense-not-working-with-visual-studio-fix.836599/>
5. VSCode: <https://www.youtube.com/watch?v=ihVAKiJdd40>
6. <https://stackoverflow.com/questions/52189426/how-to-get-intellisense-in-visual-studio-code-for-unity-functions-names>

PS: Git LFS

Creating a new Unity project in Git:

Install Git LFS

- In Ubuntu or whatever terminal you'll use, type the following commands:
\$ curl -s
https://packagecloud.io/install/repositories/github/git-lfs/script.deb.sh
| sudo bash
\$ sudo apt-get install git-lfs

Let's try to avoid using Git LFS tho since we have to pay after a certain amount of usage