Software Installation Tutorial for Windows for HaHa v3.0 Board

Contents
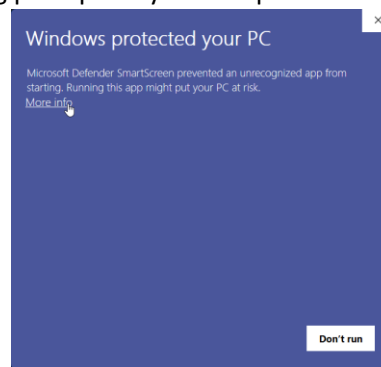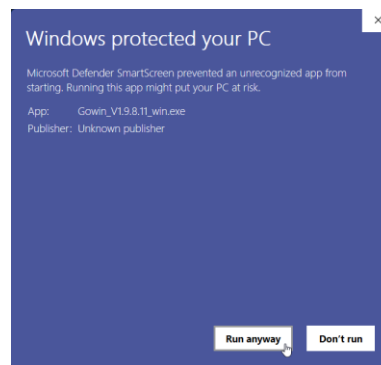
Instructor: Dr. Swarup Bhunia
Co-Instructor: Reiner Dizon-Paradis
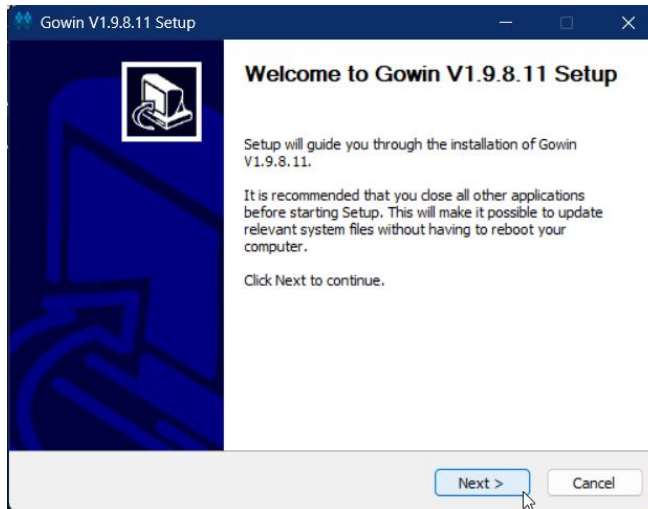
Install GOWIN FPGA Designer

1. Get a free license to use GOWIN FPGA Designer using link [1]. Please note that this will take one or more business days. You will need your computer's Ethernet/Wi-Fi MAC address.
   a. Use the command in Command Prompt: `ipconfig /all`
2. Go to link [2] and download the zip file. Unzip the installer.
   a. If you would like the latest version, go to link [3] and create a GOWIN account.
3. Open the GOWIN FPGA Designer installer. The following prompt may come up. Press **More Info**. Otherwise, proceed to Step 5.
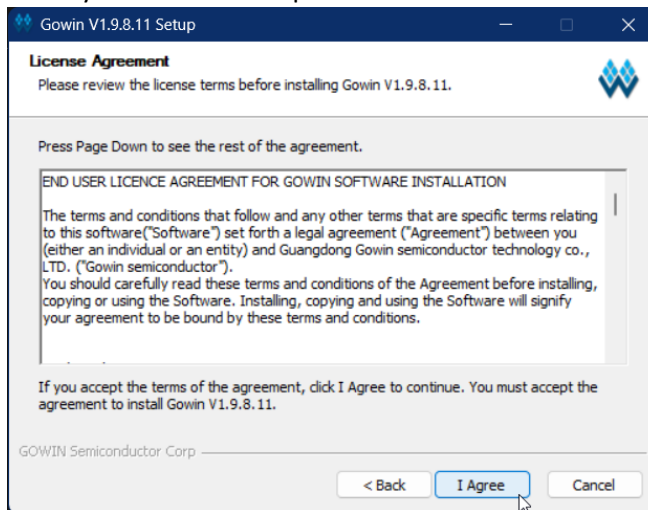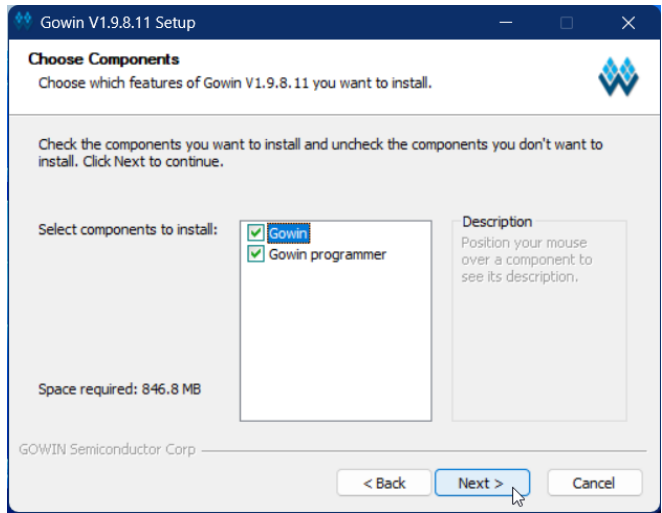

4. Click on **Run anyway**.

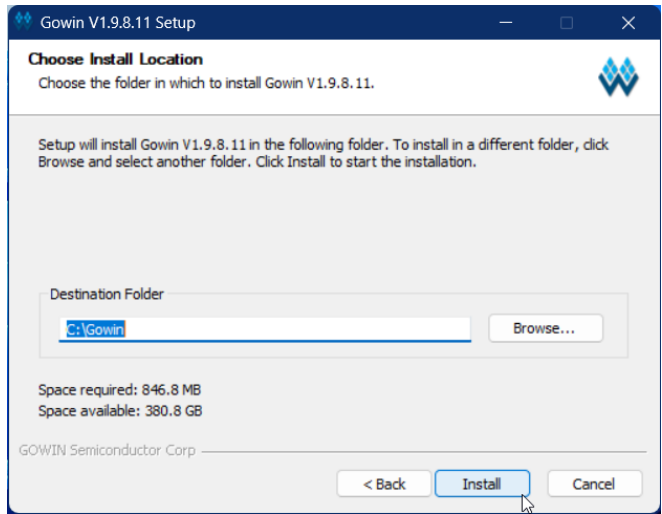5. Gowin installer will now open. Click **Open**.

6. Read the license agreement. Click **I Agree** button if you would like to proceed.
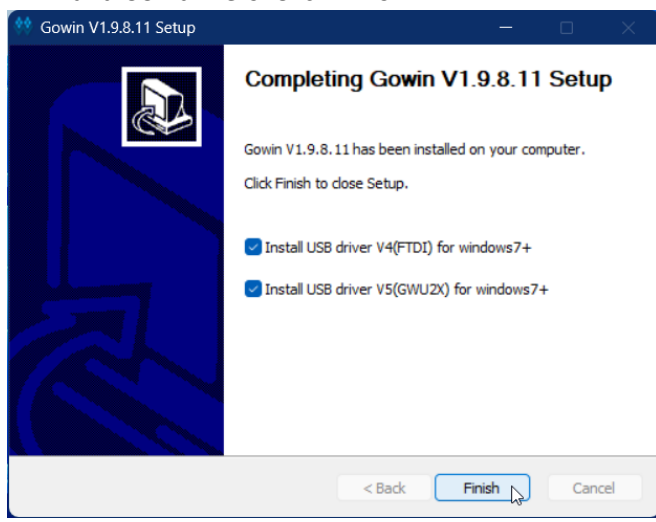
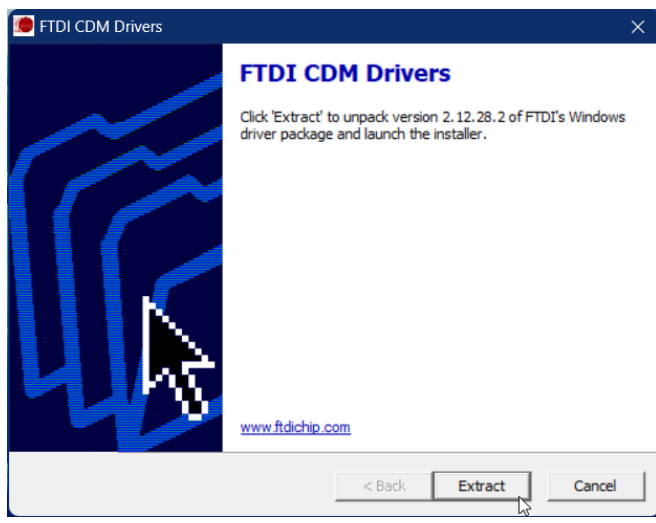7. Make sure all components below are checked. Press **Next >**.

8. Choose the installation location. You may leave this as it is. Click **Install**.
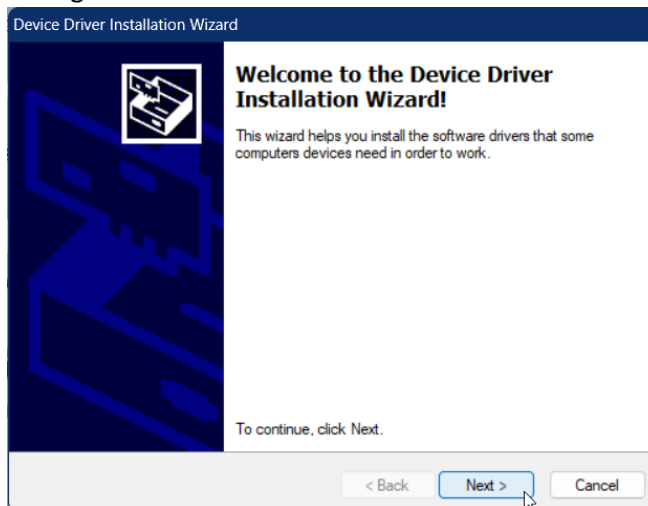
9. After installation, it will prompt you to install FTDI and USB drivers. Click **Finish**.
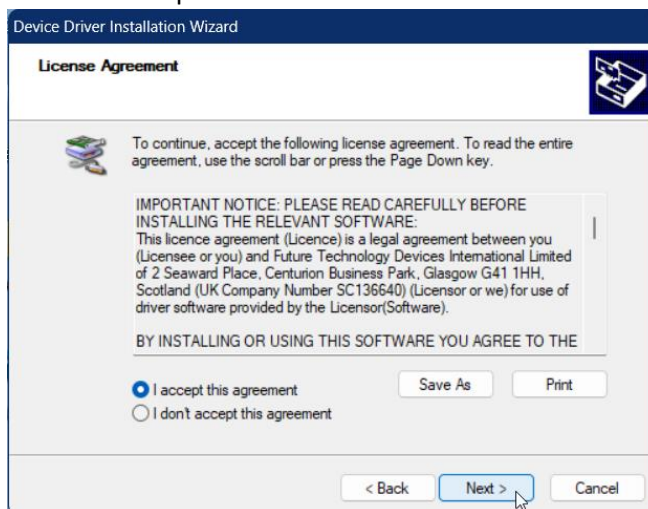

10. The UAC prompts for both FTDI and USB drivers will come up. For this tutorial, let's install the FTDI CDM drivers first. Find the window that looks like this. Click **Extract**.
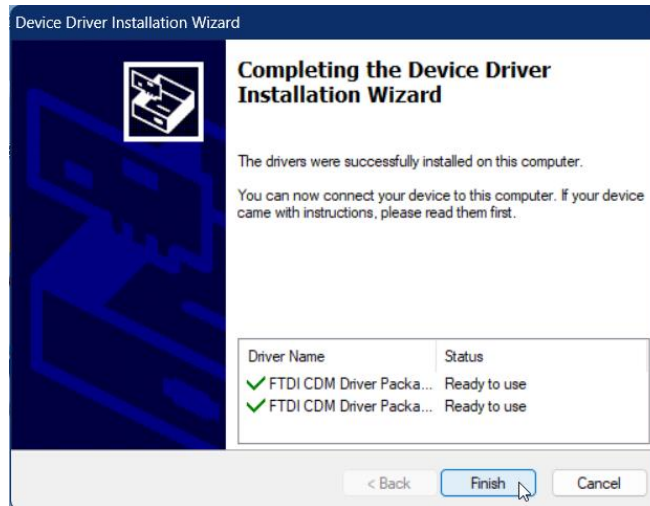
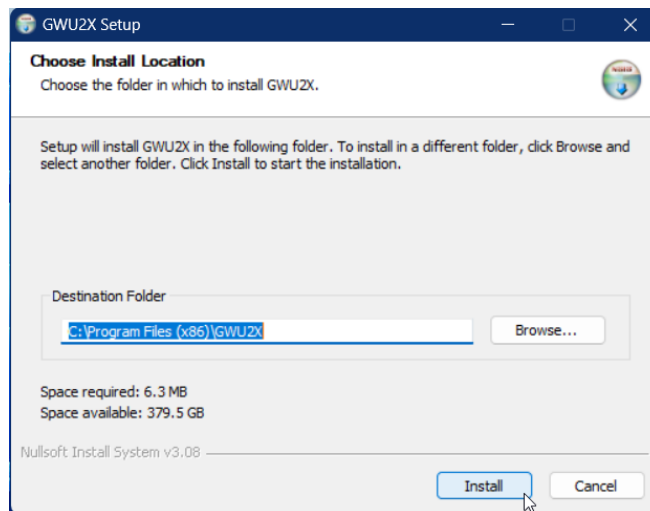11. A new window pops up that looks like the following. Click **Next**.

12. Read the license agreement. Click **Next** if you would like to proceed.
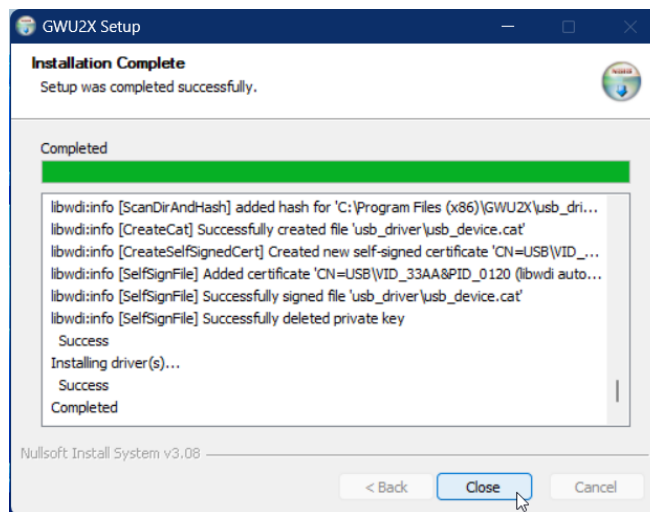
13. The FTDI drivers finished installing. Click **Finish**.

14. Find the other driver installation window, which looks like this. Click **Install**.
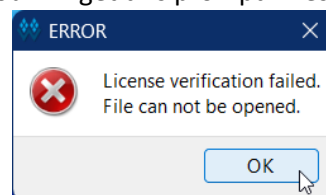
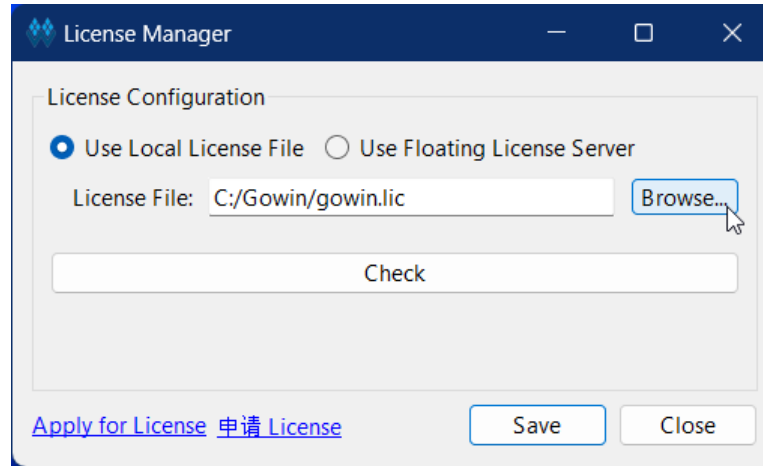15. The USB driver finished installing. Click **Close**.

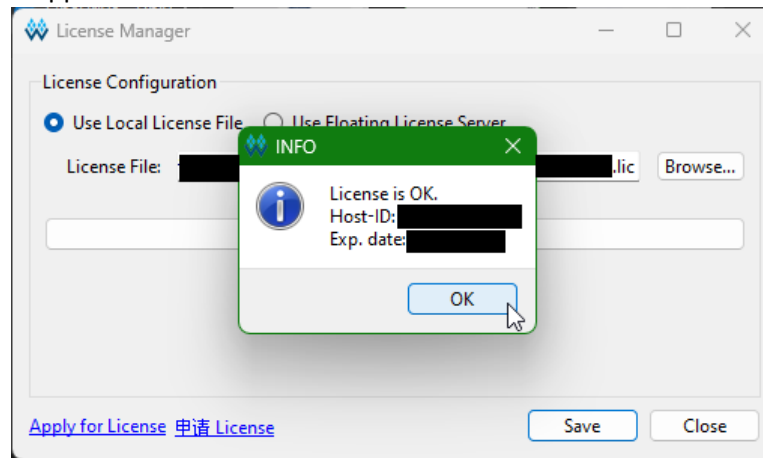16. Locate your installation of Gowin FPGA Designer and open it.

17. If this is your first installation of GOWIN FPGA Designer, you will get this prompt. Press **OK**.
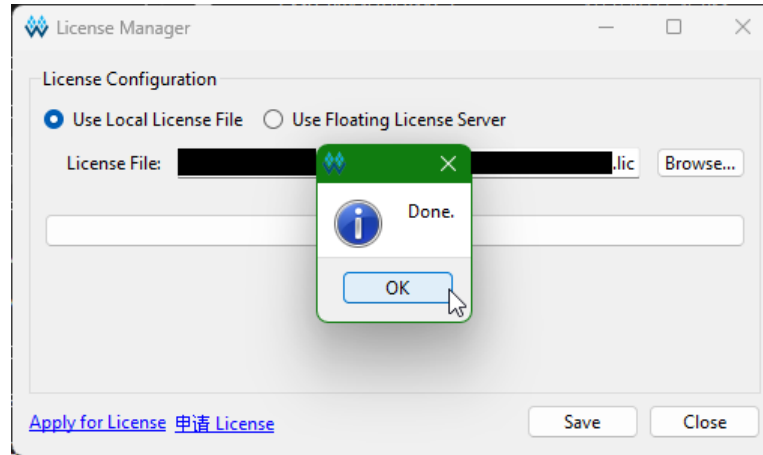
18. GOWIN License Manager will open. Click **Browse** to locate your local license file that was provided to you. Then, press **OK**.
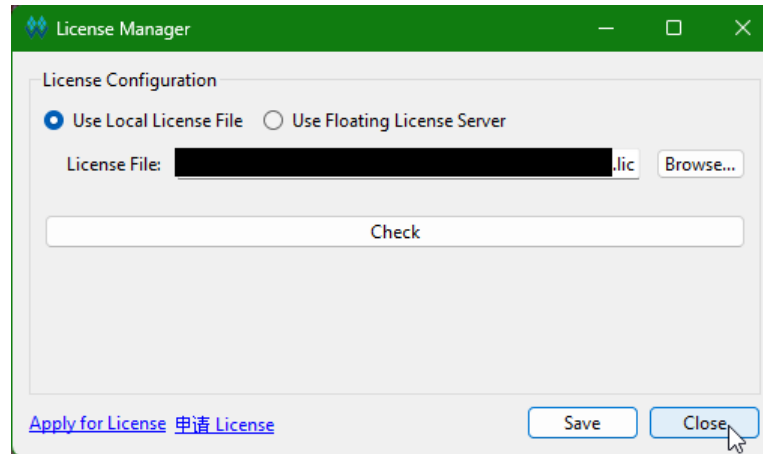

19. Press **Check**. Your license information will appear. Press **OK**.

20. Click **Save**. The following prompt will pop up. Press **OK**.

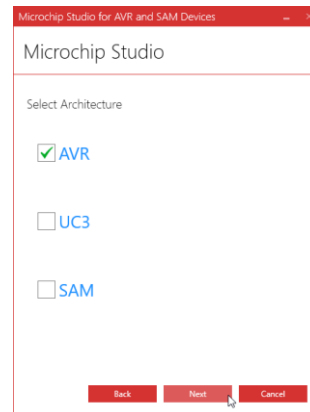21. Press **Close**. GOWIN FPGA Designer installation is now complete.
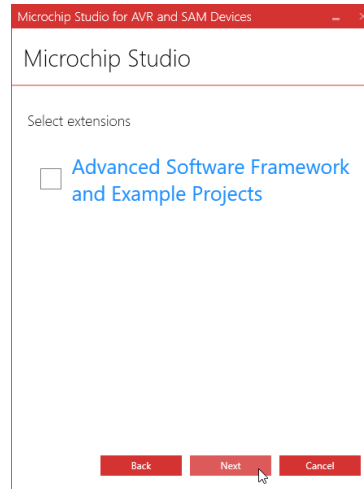
Install Microchip Studio

1. Go to link [4] and download the installer file.
    a. If you would like the latest version, go to link [5]
2. Open the Microchip Studio installer. Check the agreement statement if you would like to proceed. Optionally, you can opt out of anonymous information collection. Press **Next**.
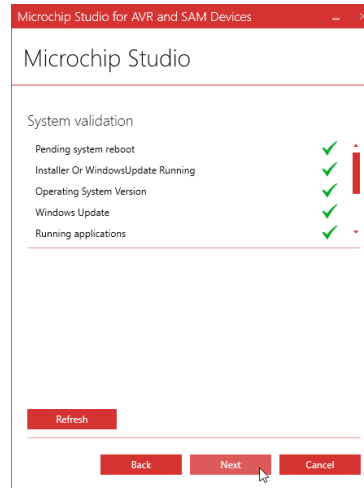

3. At a minimum, you need to check **AVR**. The rest is up to you. Press **Next**.

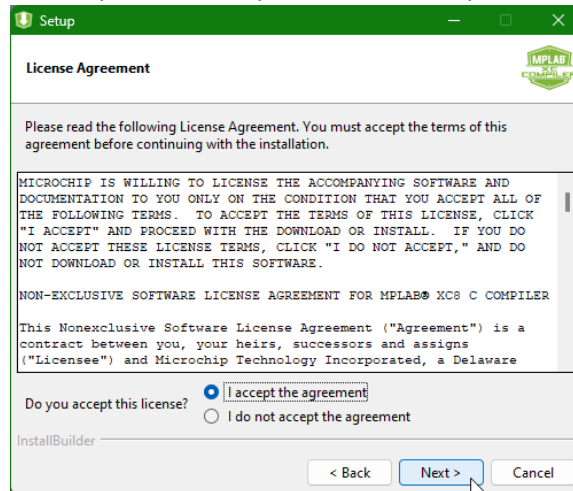4. The following extensions are optional. Press **Next**.

5. If any issues arises, this screen will let you know. Address all of them first. Afterwards, press **Next**.
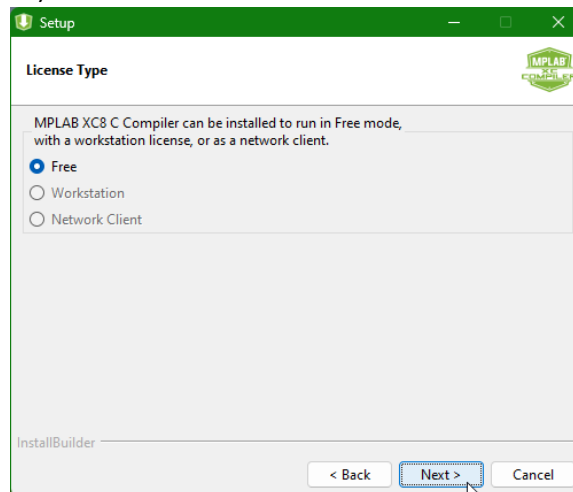
6. During installation, the installer will install some dependencies. The first of these is MPLAB XC8 compiler, which will not be used. However, Microchip Studio requires this. Press **Next**.
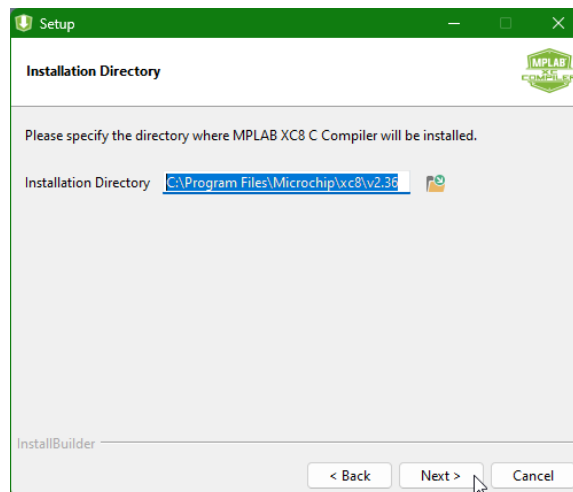

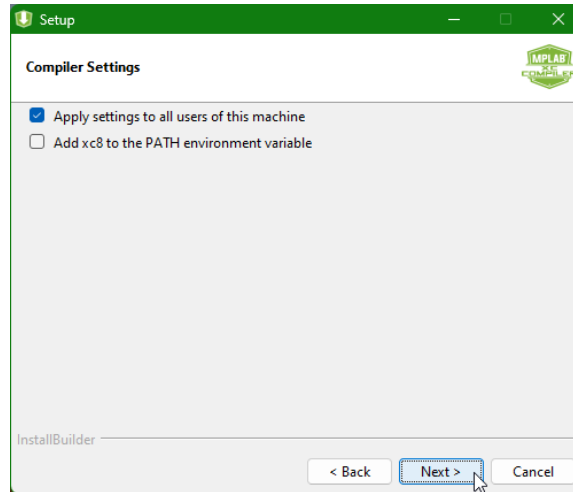7. Read the license agreement. Select the first button and press **Next** if you would like to proceed.

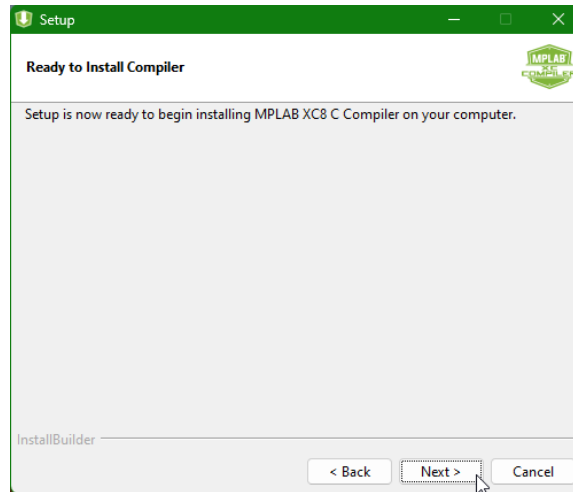8. There should only be one license type option (Free). Press **Next**.

9. Specify installation directory. You may leave it as it is. Press **Next**.
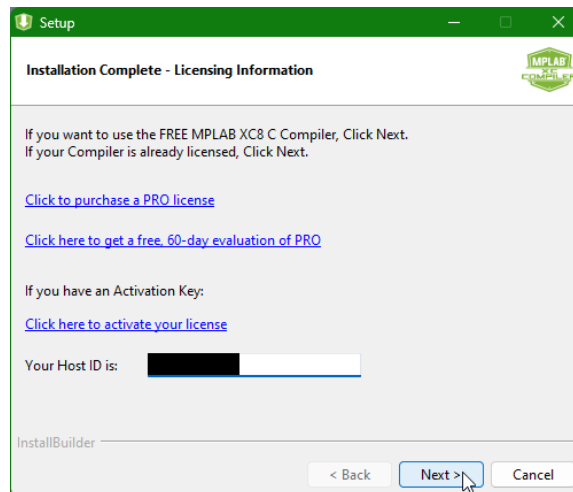
10. Leave the Compiler Settings as they are (see below). Press **Next**.
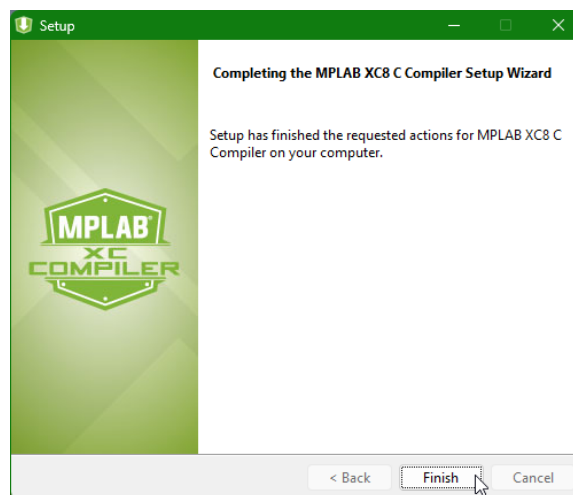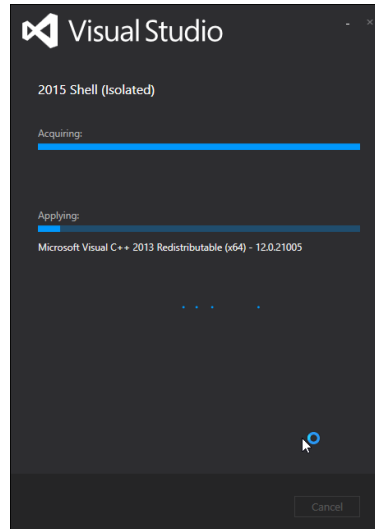

11. Press **Next**.

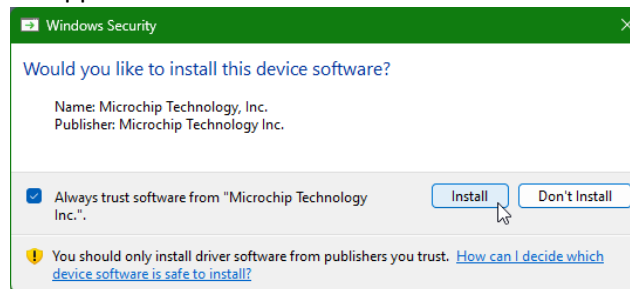12. MPLAB XC8 installation is complete. Press **Next**.
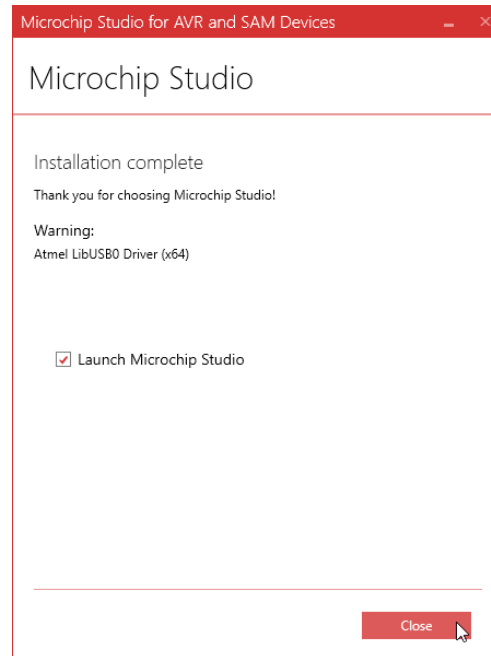

13. Click **Finish**.

14. Another prompt will show up for installing Visual Studio. This will be done automatically.

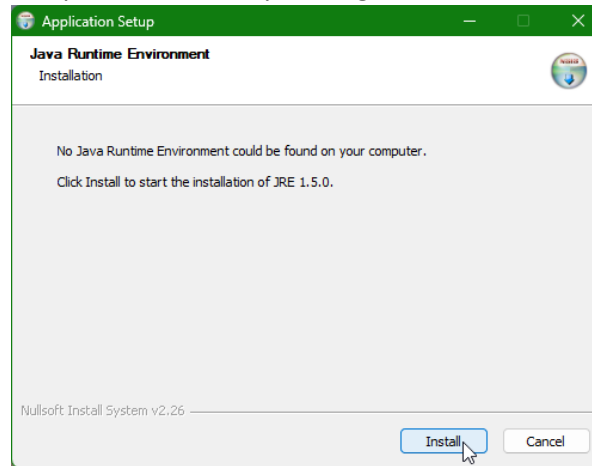15. A series of device driver installation prompts will appear. Press **Install** for all of them.

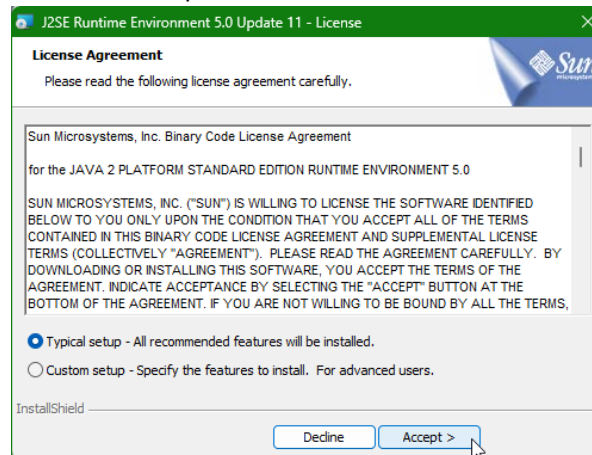16. Microchip Studio installation is now complete. Press **Close**.

Install Atmel FLIP

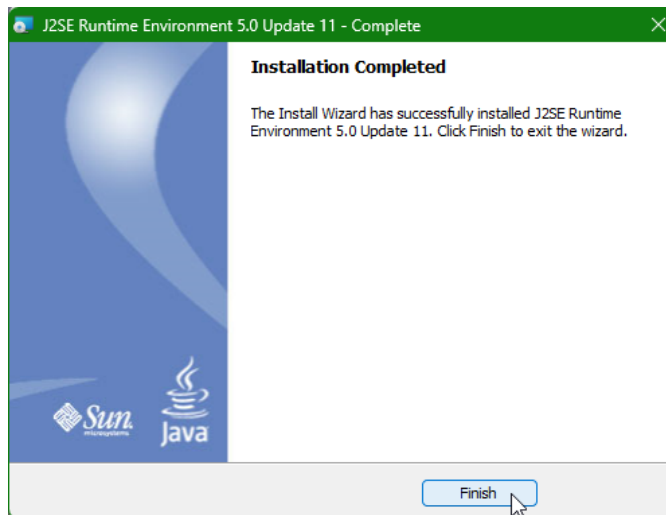1. Go to link [6] and download the installer file. If you would like the latest version, go to link [7]
2. Open the Atmel FLIP installer. If JRE is not installed, please install it by clicking **Install**. If it is already installed, proceed to Step 5.

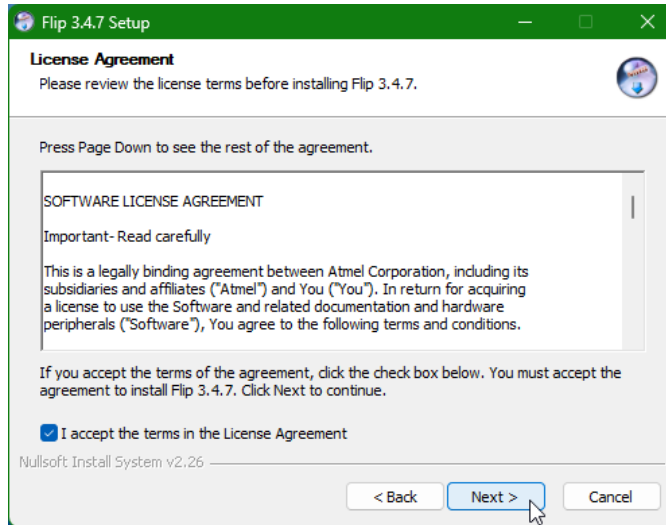3. Read the license agreement. Press **Accept** if you would like to proceed.

4. JRE is now installed. Click **Finish**.
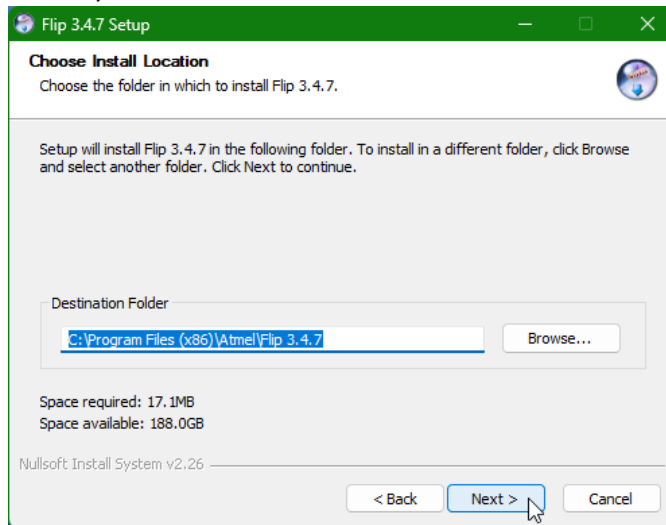

5. Atmel FLIP installer will start. Click **Next**.
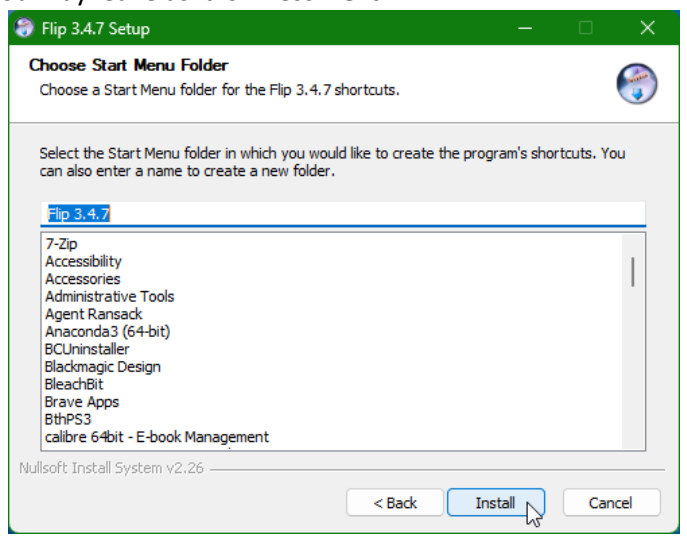
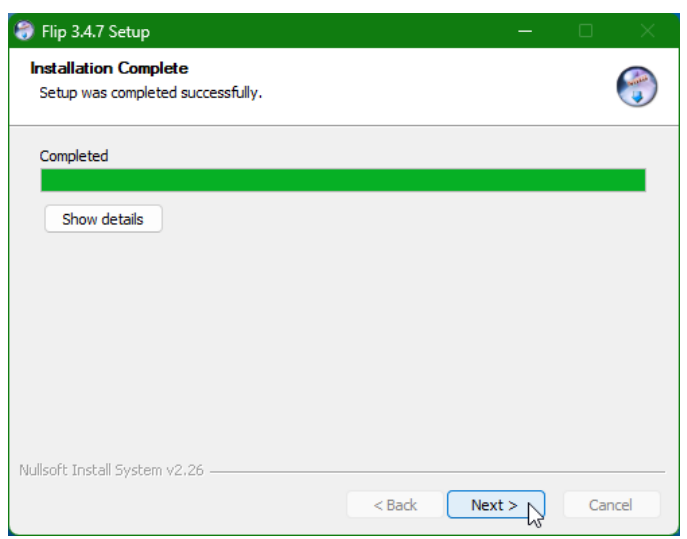6. Read the license agreement. Check the box and press **Next** if you would like to proceed.

7. Choose the Atmel FLIP installation location. You may leave as it is. Press **Next**.

8. Choose the Atmel FLIP Start Menu Folder. You may leave as it is. Press **Next**.

9. Atmel FLIP is now installed. Press **Next**.

10. Press **Finish** to close the installation wizard.
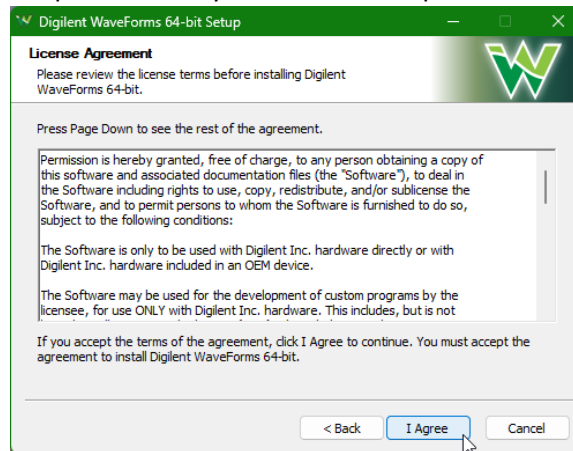
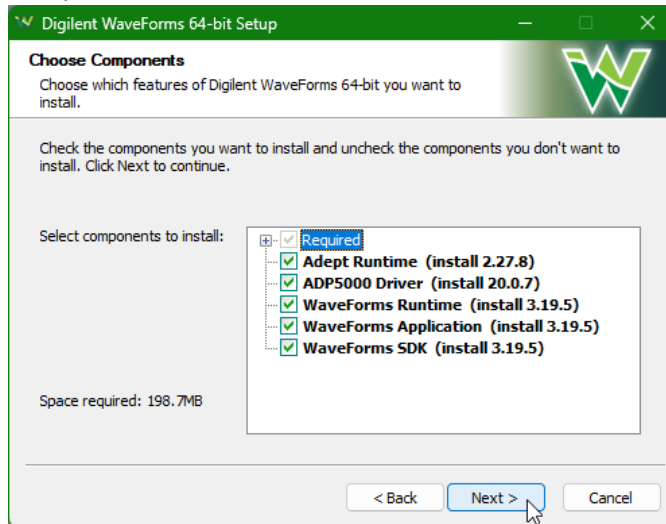# Install Digilent Waveforms (Only if you have AD2 board)

1. Go to [8] and download the installer file. If it does not, go to [9] and provide your information to get the download link.
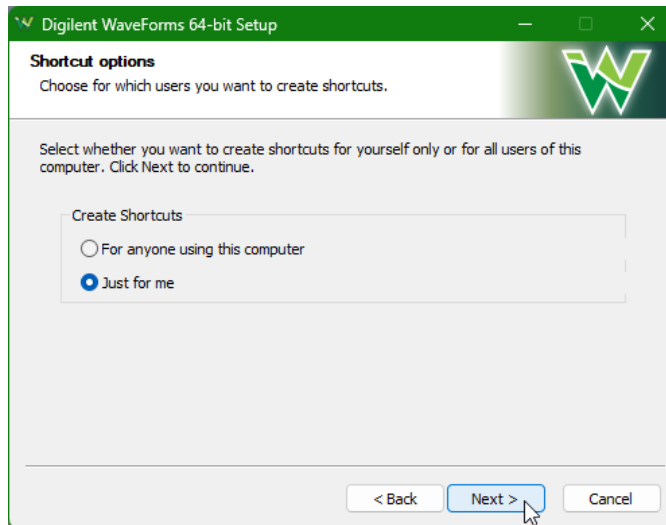2. Open the Digilent Waveforms installer. Click **Next**.

3. Read the license agreement. Check the box and press **Next** if you would like to proceed.
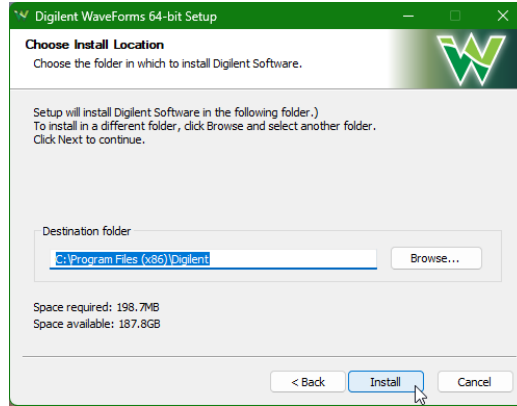
4. Choose the installation components. You may leave it as it is. Click **Next**.
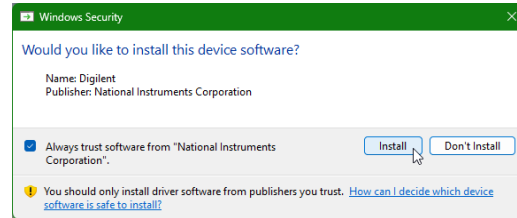

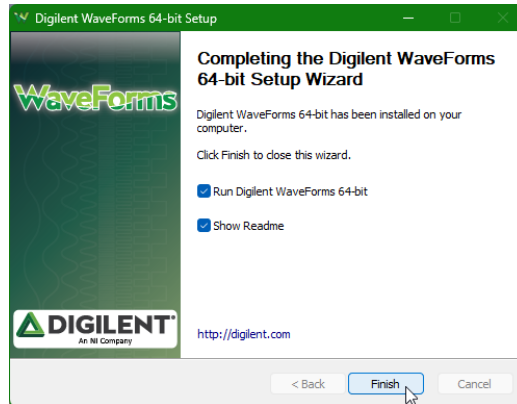5. Select a shortcut option. You may leave it as it is. Press **Next**.

6. Specify the installation location. You may leave it as it is. Press **Install**.

7. During installation, a device driver installation window will pop up. Press **Install**.

8. Waveforms installation is done. You can change the options below or leave as it is. Press **Finish**.

📄 References

[1] https://www.gowinsemi.com/en/support/license/

[2] https://cdn.gowinsemi.com.cn/Gowin_V1.9.8.11_win.zip

[3] https://www.gowinsemi.com/en/support/download_eda/

[4] https://ww1.microchip.com/downloads/aemDocuments/documents/DEV/ProductDocuments/SoftwareTools/as-installer-7.0.2594-full.exe

[5] https://www.microchip.com/en-us/tools-resources/develop/microchip-studio

[6] https://ww1.microchip.com/downloads/aemDocuments/documents/DEV/ProductDocuments/SoftwareTools/JRE-Flip-Installer-3.4.7.112.exe

[7] https://www.microchip.com/en-us/development-tool/flip

[8] https://mautic.digilentinc.com/asset/110:waveforms-windows-64-bit-download

[9] https://mautic.digilentinc.com/waveforms-download