

# Xilinx Vivado installation tutorial

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# Intro. to Xilinx Vivado

- The tool which we used in this class was usually Modelsim, but it is currently unavailable due to US federal regulations. We don't know when it will be available again. As a result, we choose to use Xilinx Vivado this semester.
- Xilinx Vivado is a design suite for Xilinx FPGA design flow. It has many functions to implement a design entry on a FPGA, and supports many simulation types. In this course, we only need to use the behavioral simulation to complete the homework.

# Note

- Xilinx Vivado is the same as Modelsim, which they only support Windows and Linux operating systems. For those who use **MAC OS**, we recommend you to install **virtual machine** with Windows or Linux OS and install Xilinx Vivado.
- The following installation tutorial is for Windows. You can install it on Linux OS, too.

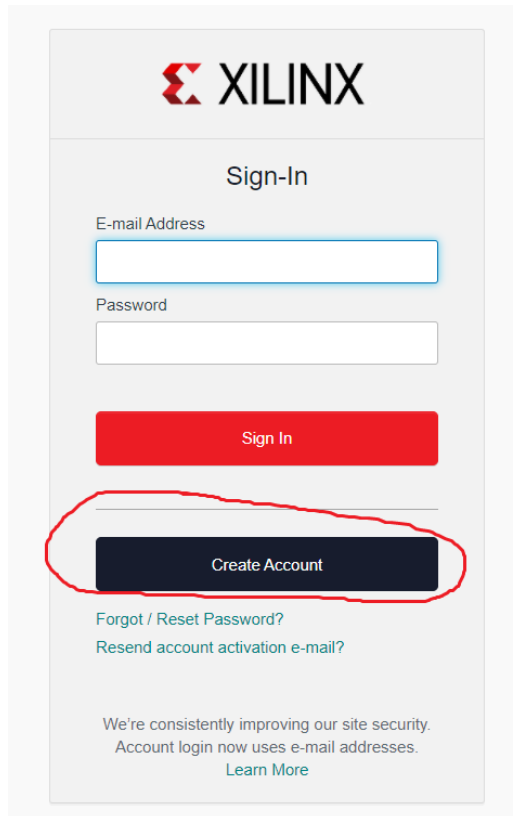
# Step1

- Goto

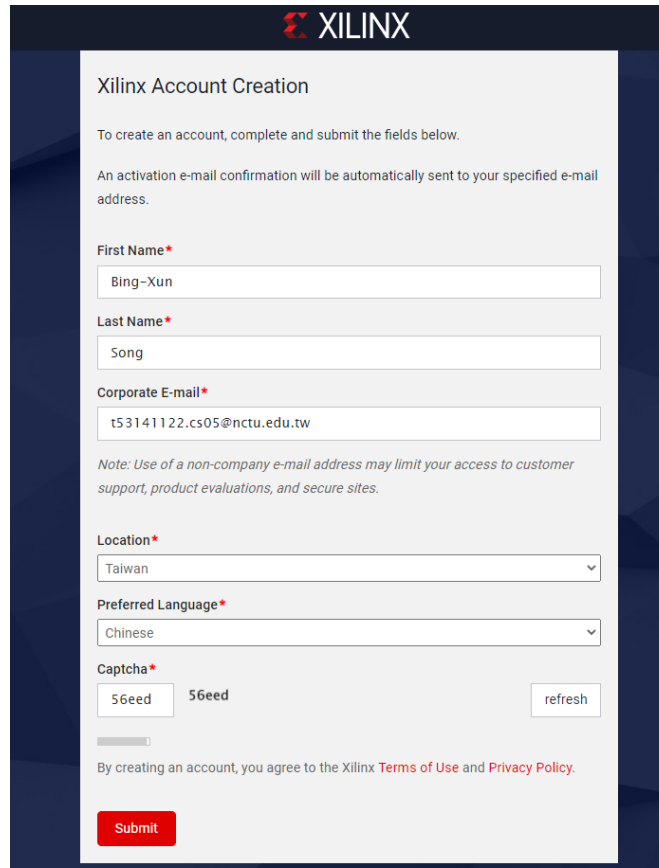
<https://www.xilinx.com/support/download/index.html/content/xilinx/en/downloadNav/vivado-design-tools/2020-2.html>

# Step2

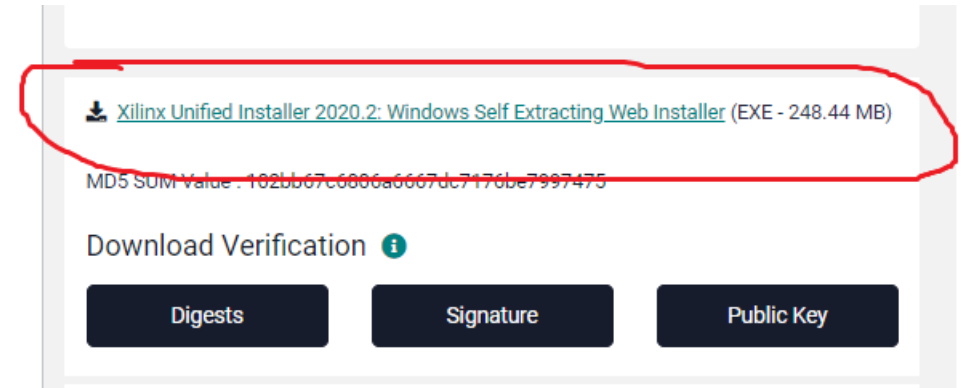
- Create and active an account, and download the Xilinx Unified Installer 2020.2: Windows Self Extracting Web Installer.



The Xilinx Sign-In page features the Xilinx logo at the top. Below it, the 'Sign-In' section contains input fields for 'E-mail Address' and 'Password'. A red 'Sign In' button is positioned below these fields. A dark blue 'Create Account' button is located further down and is circled in red. At the bottom, there are links for 'Forgot / Reset Password?' and 'Resend account activation e-mail?'. A footer note mentions site security improvements and provides a 'Learn More' link.



The Xilinx Account Creation page is titled 'Xilinx Account Creation' and includes instructions to complete the form for account creation. It contains several input fields: 'First Name' (filled with 'Bing-Xun'), 'Last Name' (filled with 'Song'), 'Corporate E-mail' (filled with 't53141122.cs05@nctu.edu.tw'), 'Location' (a dropdown menu set to 'Taiwan'), and 'Preferred Language' (a dropdown menu set to 'Chinese'). There is also a 'Captcha' section with a '56eed' input field and a 'refresh' button. A red 'Submit' button is at the bottom. A note at the bottom states: 'By creating an account, you agree to the Xilinx Terms of Use and Privacy Policy.'



This page displays the download link for the 'Xilinx Unified Installer 2020.2: Windows Self Extracting Web Installer (EXE - 248.44 MB)'. The link is circled in red. Below the link, the 'MD5 SUM Value' is shown as '102bb67c6886a6667dc7176be7997475'. The 'Download Verification' section includes an information icon and three buttons: 'Digests', 'Signature', and 'Public Key'.

# Step 3

- Get US Government Export Approval

U.S. Government Export Approval

- U.S. export regulations require that your First Name, Last Name, Company Name and Shipping Address be verified before Xilinx can fulfill your download request. [Please provide accurate and complete information.](#)
- Addresses with Post Office Boxes and names/addresses with Non-Roman Characters with accents such as grave, tilde or colon **are not supported** by US export compliance systems.

First Name\*

Bing-Xun

Last Name\*

Song

Business E-mail\*

Company Name\*

National Yang Ming Chiao Tung University

Please enter the name of your business or institution.

Address 1\*

East Dist., Hsinchu City 300045, Taiwan (R.O.C.)

Address 2

Location\*

Taiwan

State/Province

City\*

Hsinchu

Postal Code

Phone

Job Function\*

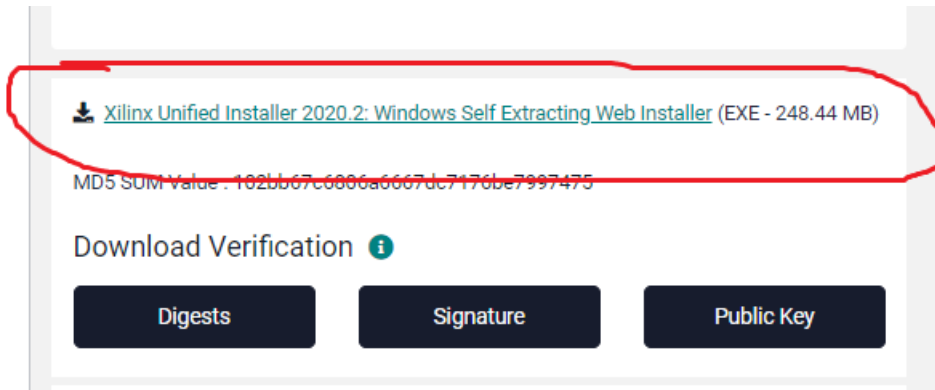
Student

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# Step 4

- If it doesn't start downloading, close the page and press the link, fill the approval again.



U.S. Government Export Approval

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First Name\* Bing-Xun Last Name\* Song

Business E-mail\* t53141122.cs05@nctu.edu.tw

Company Name\* National Yang Ming Chiao Tung University  
Please enter the name of your business or institution.

Address 1\* East Dist., Hsinchu City 300045, Taiwan (R.O.C.)

Address 2

Location\* Taiwan State/Province

City\* Hsinchu Postal Code

Phone

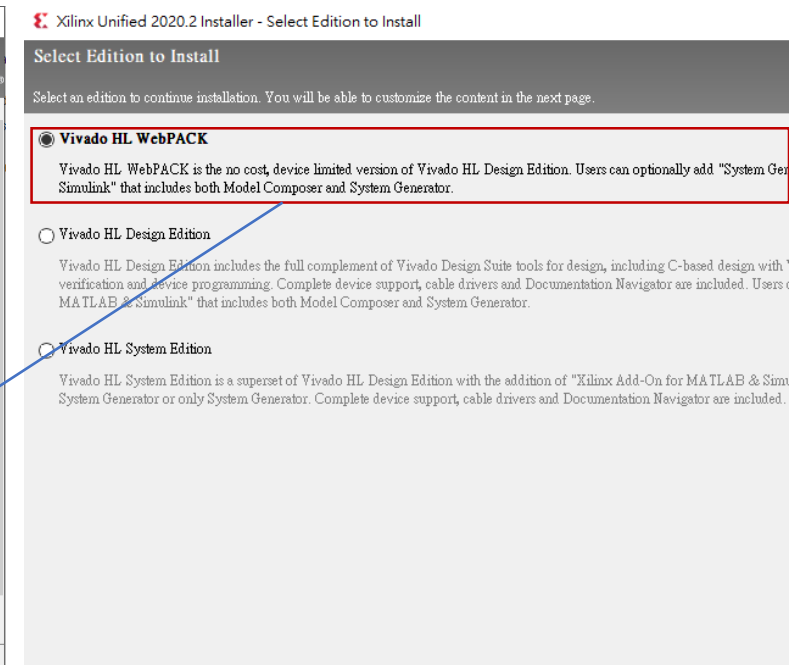
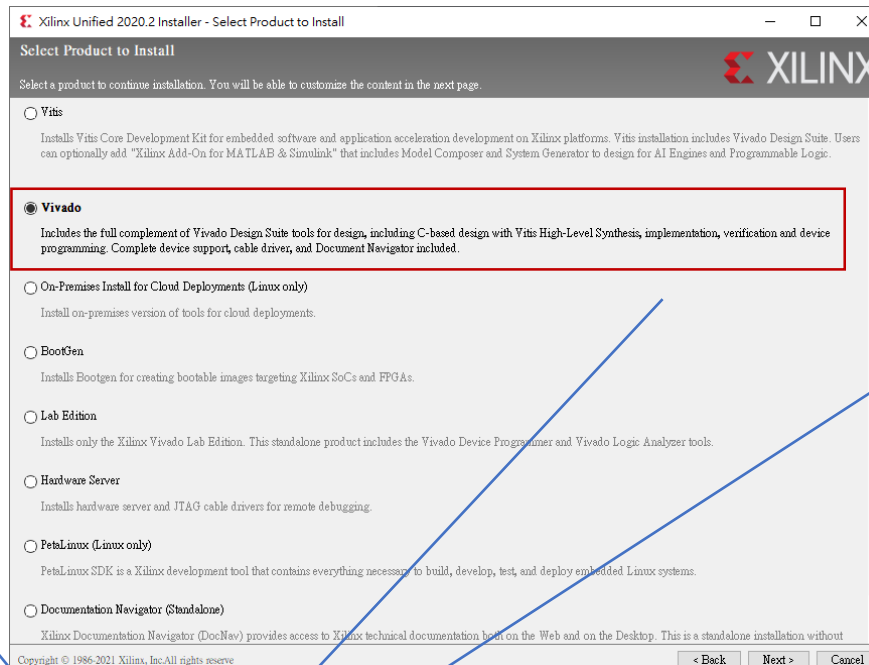
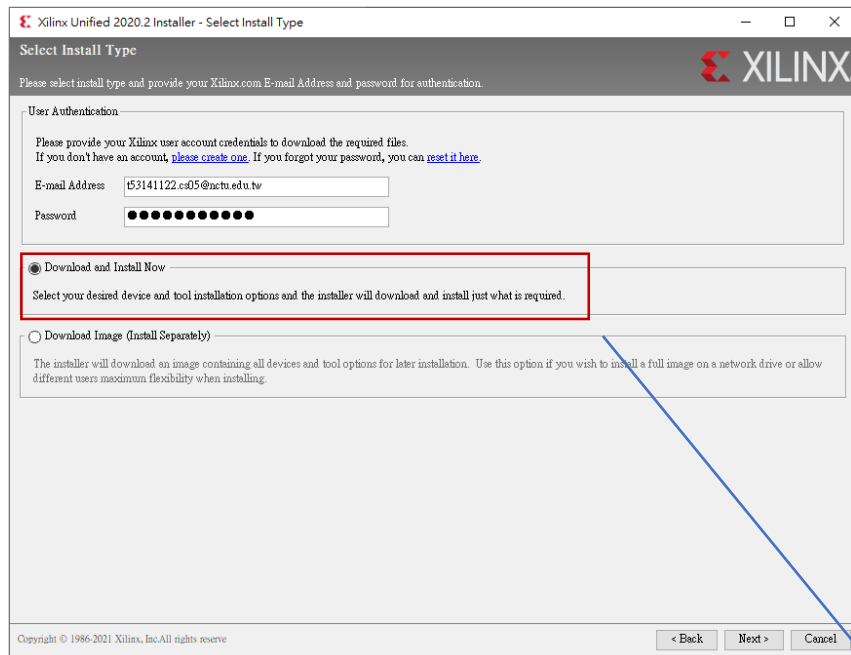
Job Function\* Student

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# Step 5

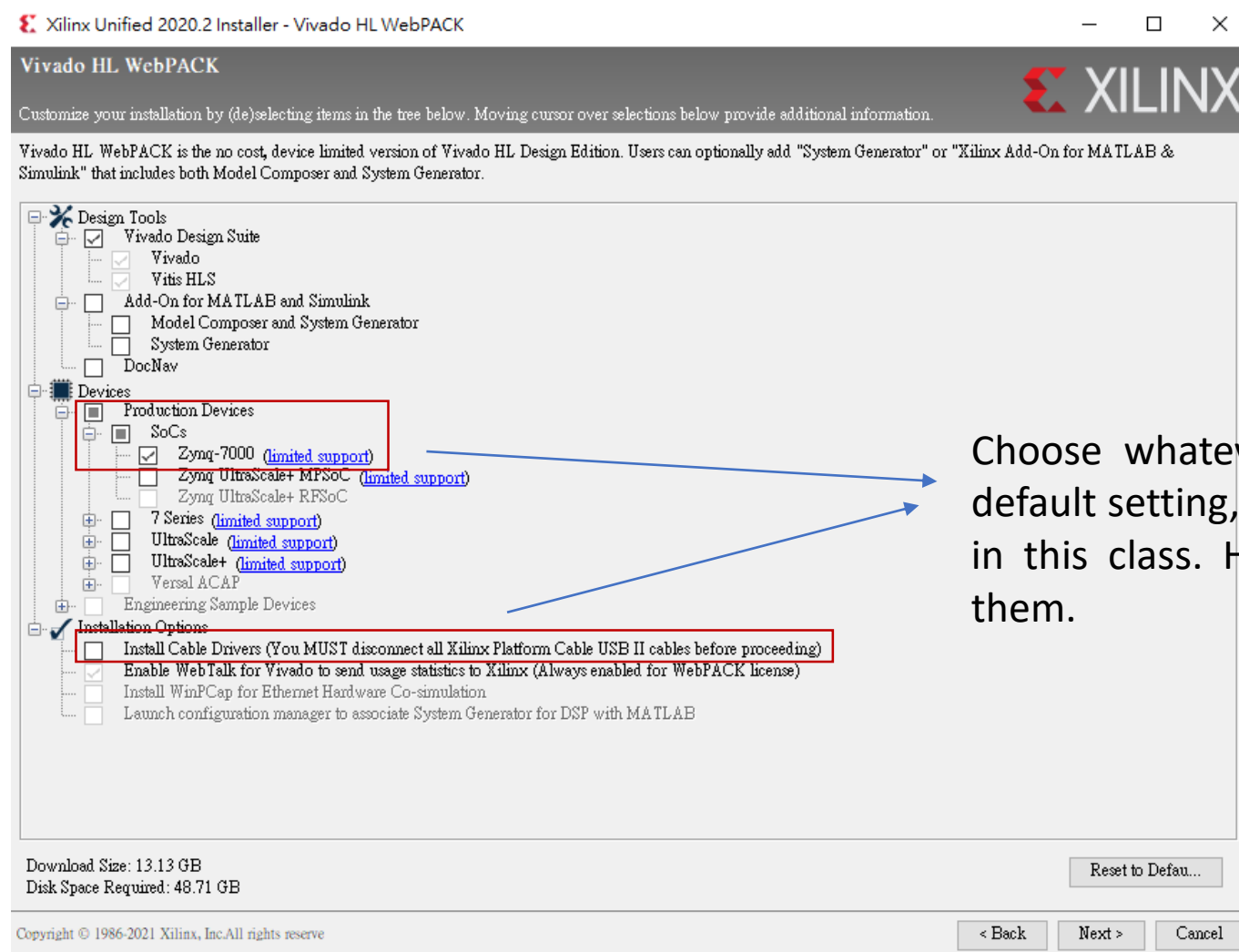
- Execute the file you download and choose the option like the following pictures.



Must choose



- We only need behavioral simulation function, so you can pick the device arbitrarily. Here I select Zynq-7000.



Choose whatever you want, even the default setting, but we don't need them in this class. Hence, I disable most of them.

- You can decide your own installation directory.

**Xilinx Unified 2020.2 Installer - Accept License Agreements**

Accept License Agreements

Please read the following terms and conditions and indicate that you agree by checking the I Agree checkboxes.

**Xilinx Inc. End User License Agreement**

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By checking "I Agree" below, I also confirm that I have read [Section 13 of the terms and conditions](#) above concerning WebTalk and have been afforded the opportunity to read the WebTalk FAQ posted at <https://www.xilinx.com/products/design-tools/webtalk.html>. I understand that I am able to disable WebTalk later if certain criteria described in Section 13(c) apply. If they don't apply, I can disable WebTalk by uninstalling the Software or using the Software on a machine not connected to the internet. If I fail to satisfy the applicable criteria or if I fail to take the applicable steps to prevent such transmission of information, I agree to allow Xilinx to collect the information described in Section 13(a) for the purposes described in Section 13(b).

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**Xilinx Unified 2020.2 Installer - Select Destination Directory**

Select Destination Directory

Choose installation options such as location and shortcuts.

**Installation Options**

Select the installation directory:

C:\Xilinx

**Installation location(s)**

C:\Xilinx\Vivado\2020.2

C:\Xilinx\Vitis\_HLS\2020.2

**Download location**

C:\Xilinx\Downloads\Vivado\_2020.2

**Disk Space Required**

Download Size:	13.13 GB
Disk Space Required:	48.71 GB
Final Disk Usage:	30.09 GB
Disk Space Available:	337.89 GB

**Select shortcut and file association options**

☒ Create program group entries

Xilinx Design Tools

☒ Create desktop shortcuts

☒ Create file associations

Apply shortcut & file association selections to:

☒ Current user

☐ All users

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## Step 6

- Finally, wait the installer to install the software. Note that the installer needs to take much time to install it.

# QA

- If you have any question, feel free to ask us via email or post on the Facebook discussion forum (prefer).