

# Microcontroller

Team Emertxe



# Tools required to be installed



- MPLAB X IDE (Development Environment)
- MPLAB® XC8 Compiler (Cross Compiler)
- PICSimLab Simulator (Simulating tool)



# Installing MPLAB X IDE



- **Step 1 - Download MPLAB X IDE v5.35**

- >Open any browser and search for MPLAB X IDE

- >Click on the very first link and download MPLAB X IDE v5.35 appropriate for your OS.

- > Otherwise click on the below link to download MPLAB X IDE v5.35 for windows OS.

<http://ww1.microchip.com/downloads/en/DeviceDoc/MPLABX-v5.35-windows-installer.exe>



# Installing MPLAB X IDE

- open the below link  
<https://www.microchip.com/development-tools/pic-and-dspic-downloads-archive>

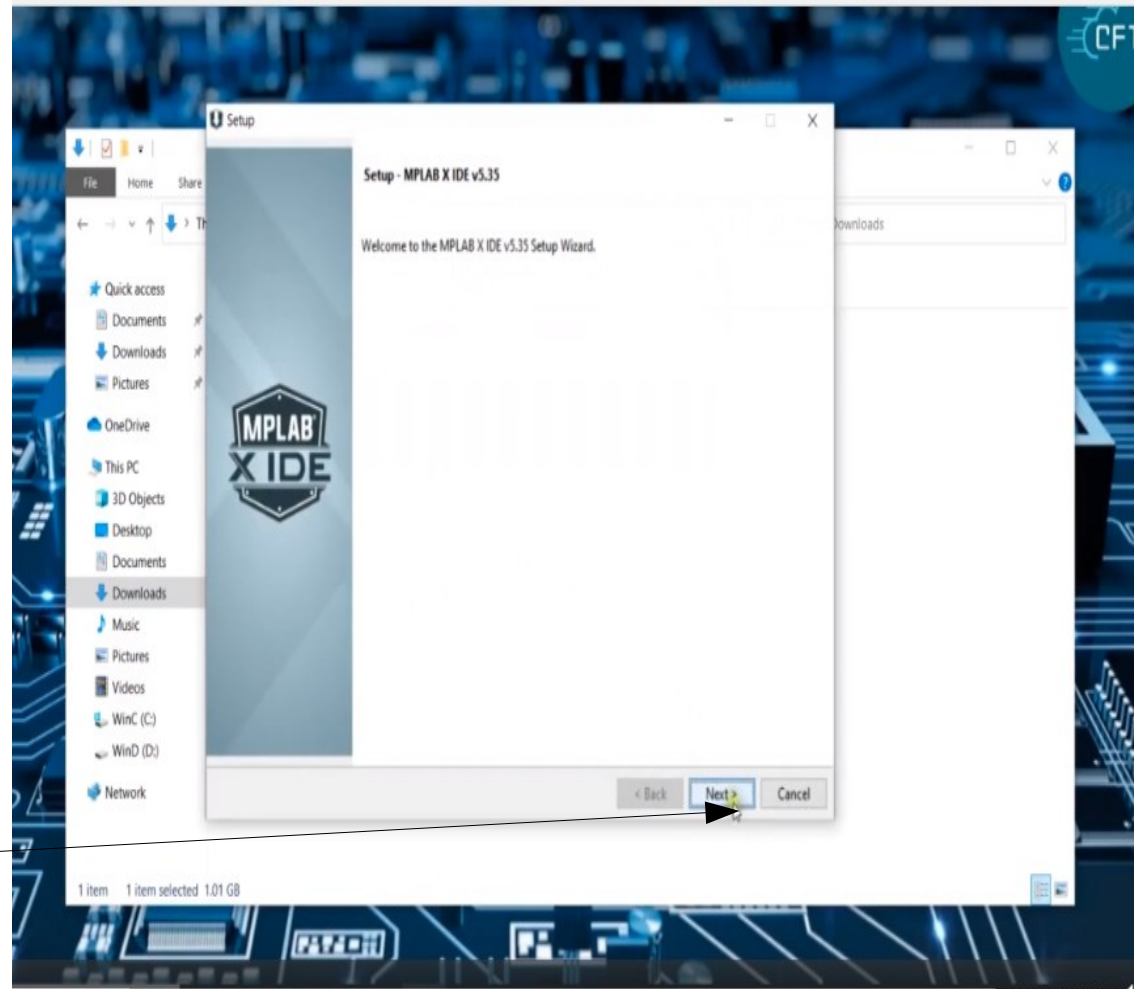
Click here

The screenshot displays the Microchip website's 'MPLAB X v5.35' page. The navigation bar includes links for Products, Solutions, Tools and Software, Support, Education, About, and Order Now. The main content area lists various MPLAB X versions from v5.05 to v5.40. A callout box labeled 'Click here' points to the 'MPLAB X v5.35' link. Below the list, there are sections for 'MPLAB IDE Archives' with columns for '16-bit Windows' and '32-bit Windows'. The '32-bit Windows' column shows 'MPLAB IDE v6.10' and a link to the installer. At the bottom, there are two taskbar icons labeled 'MPLABX-v5.....exe Cancelled'.

# Installing MPLAB X IDE

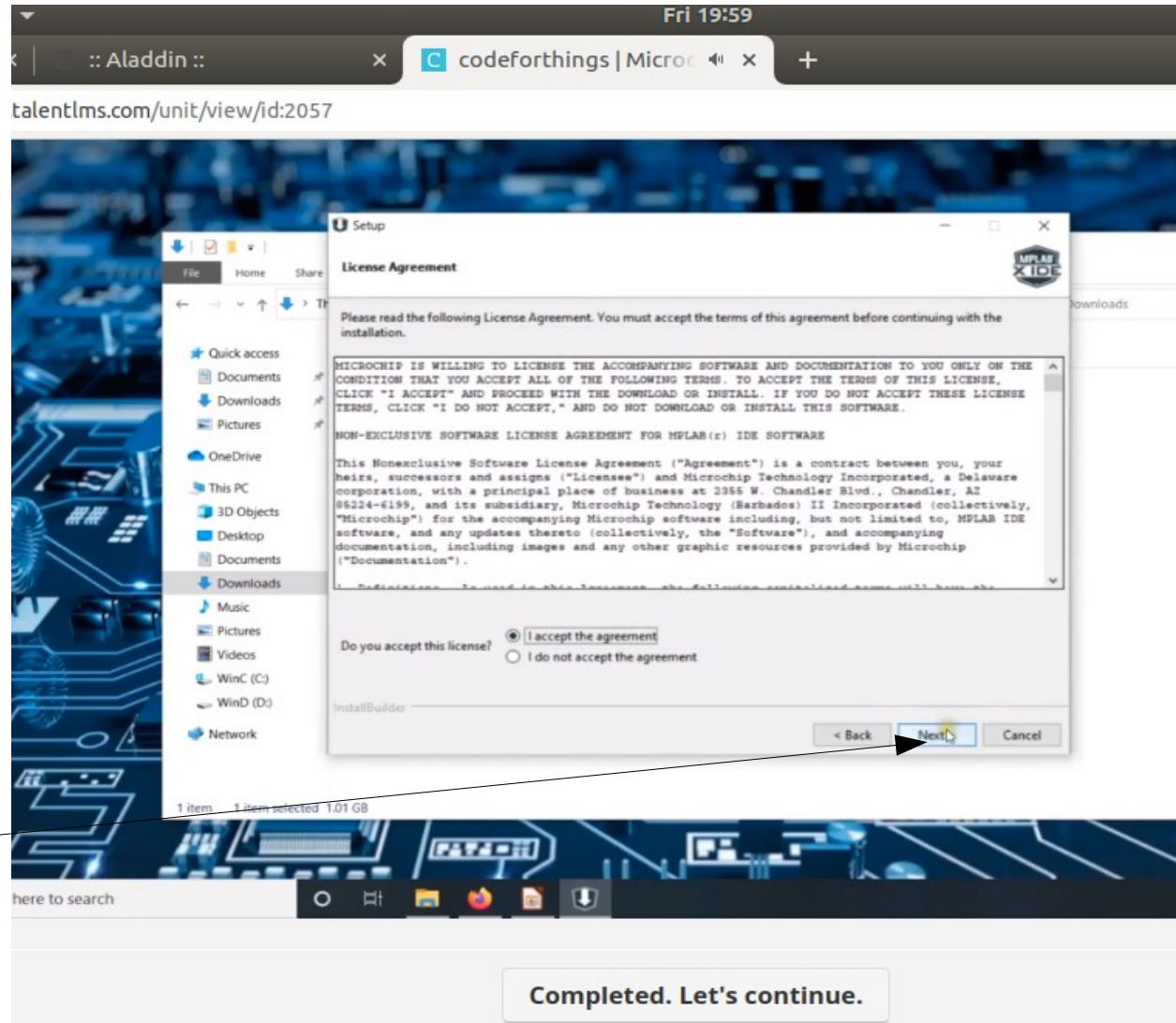
- > File size is 1.01 GB so it may take time to download
- > Once downloading is completed open the file from download directory
- > Click on next

Click on next



# Installing MPLAB X IDE

-> Accept the agreement and next

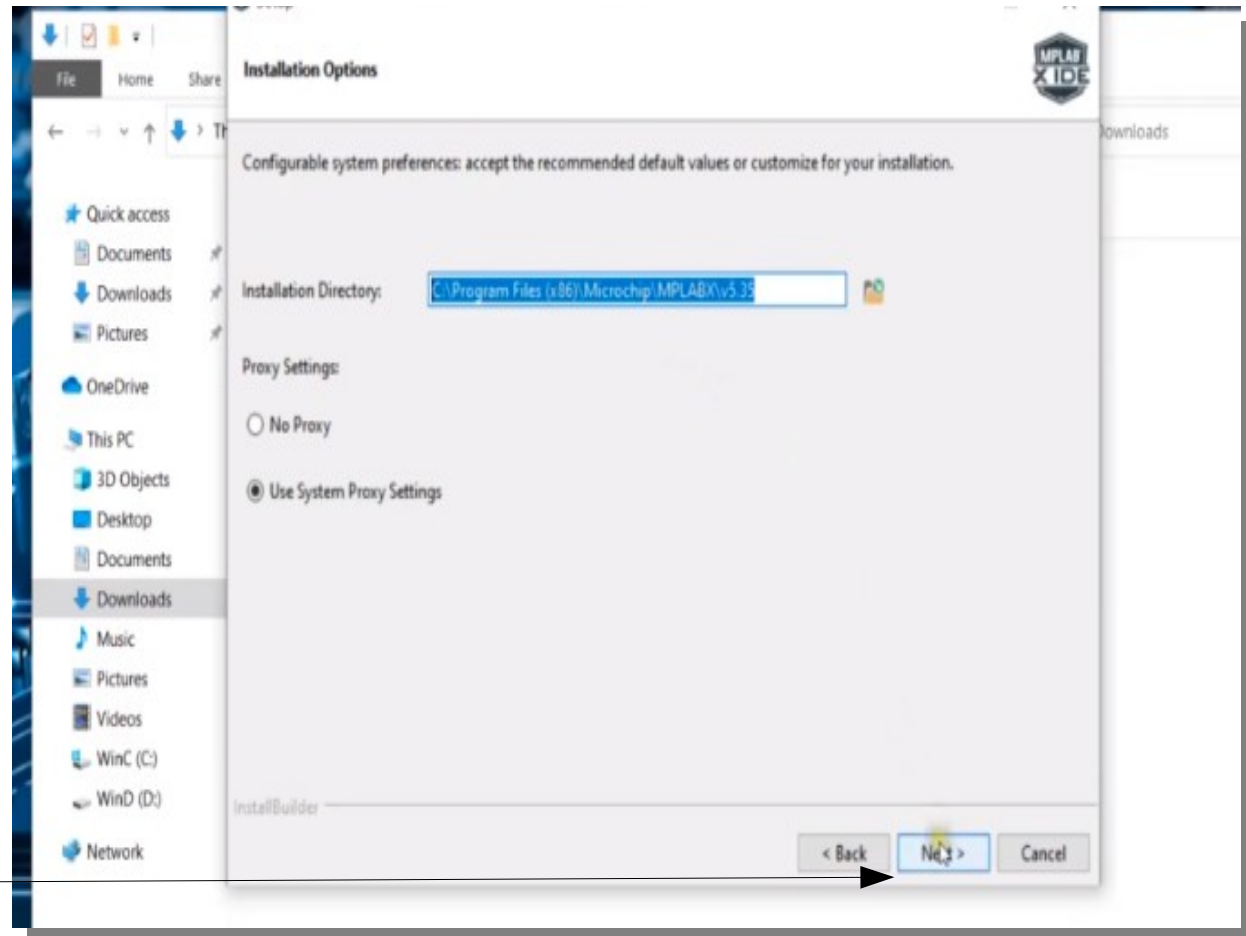


Click on next

# Installing MPLAB X IDE

-> Dont change anything here

Click on next

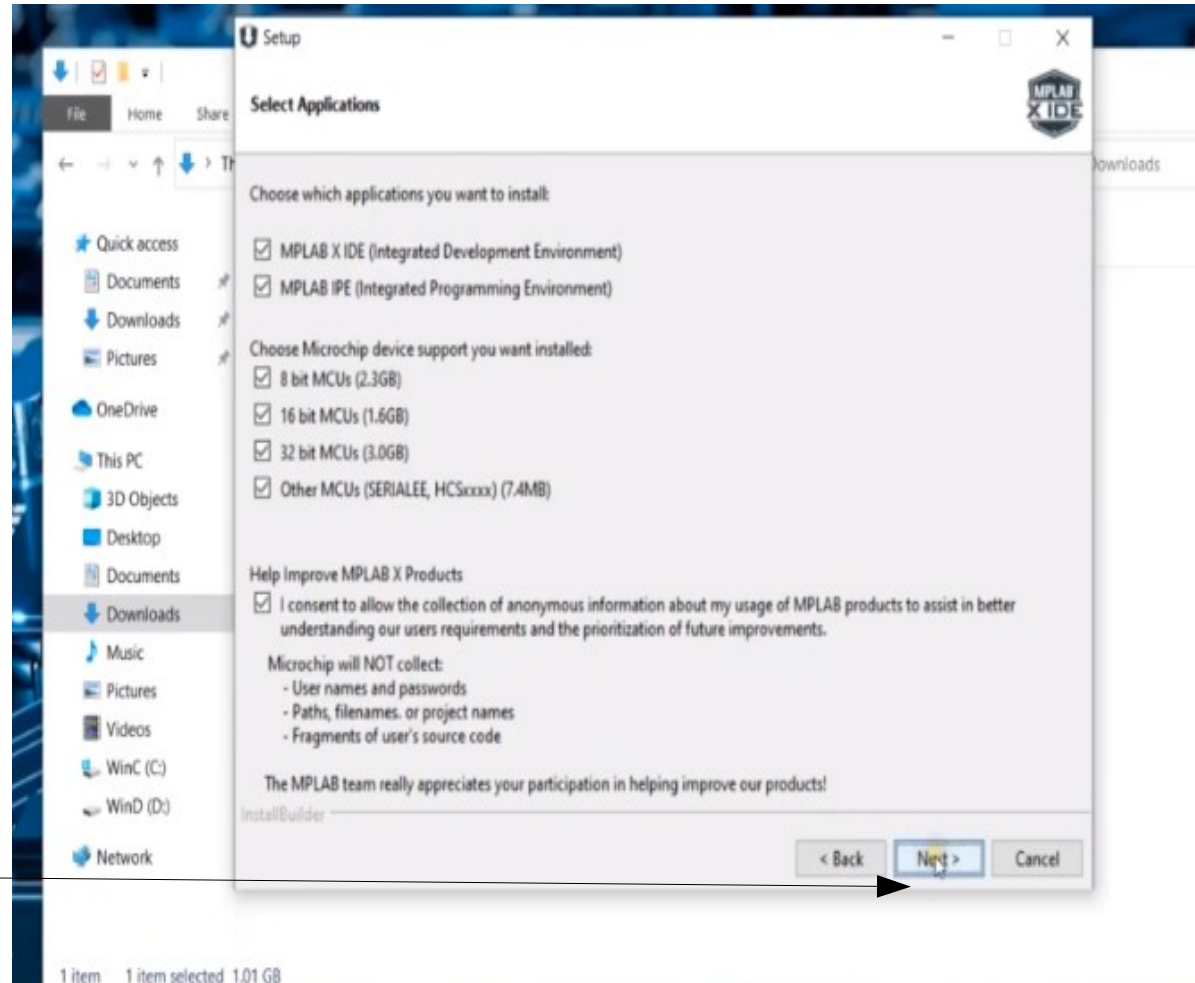




# Installing MPLAB X IDE

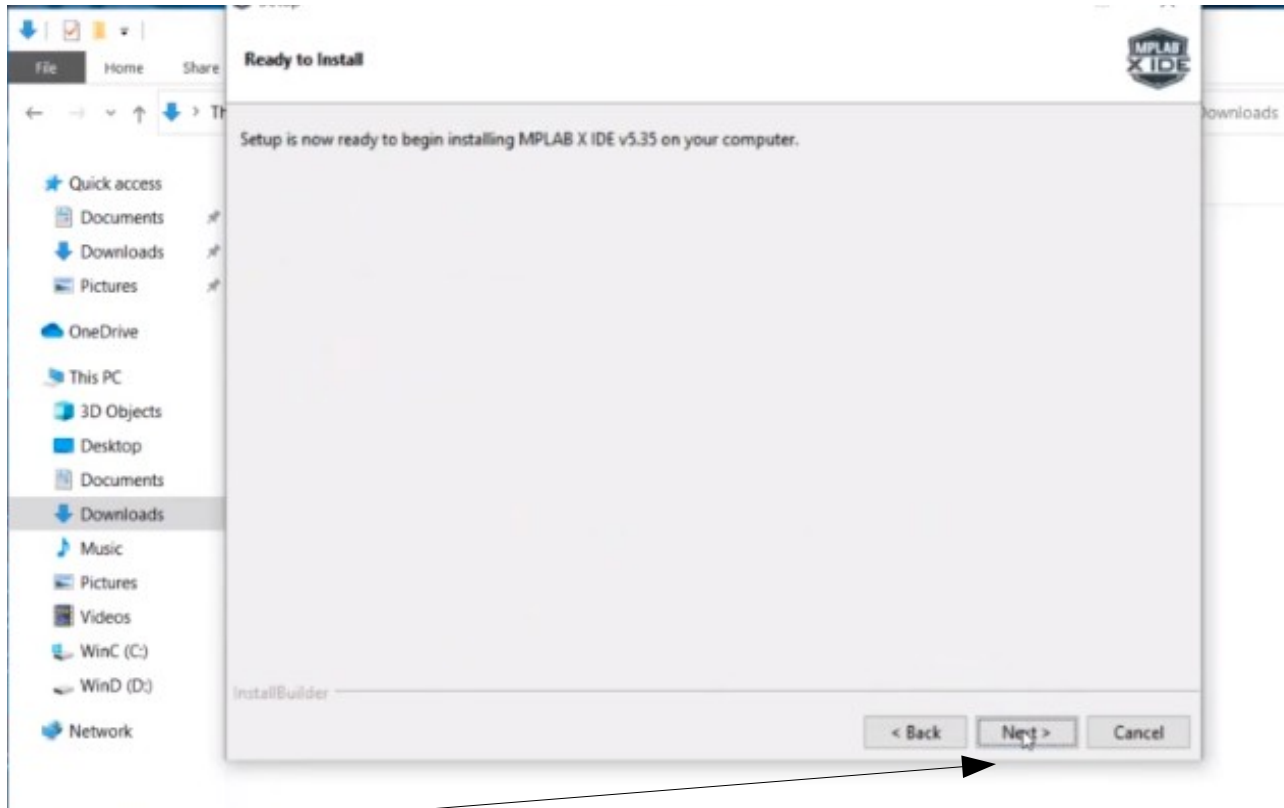
- > If 13GB memory is available in C disk need not change anything here.
- > If memory is not available then select only 8 bit.

Click on next



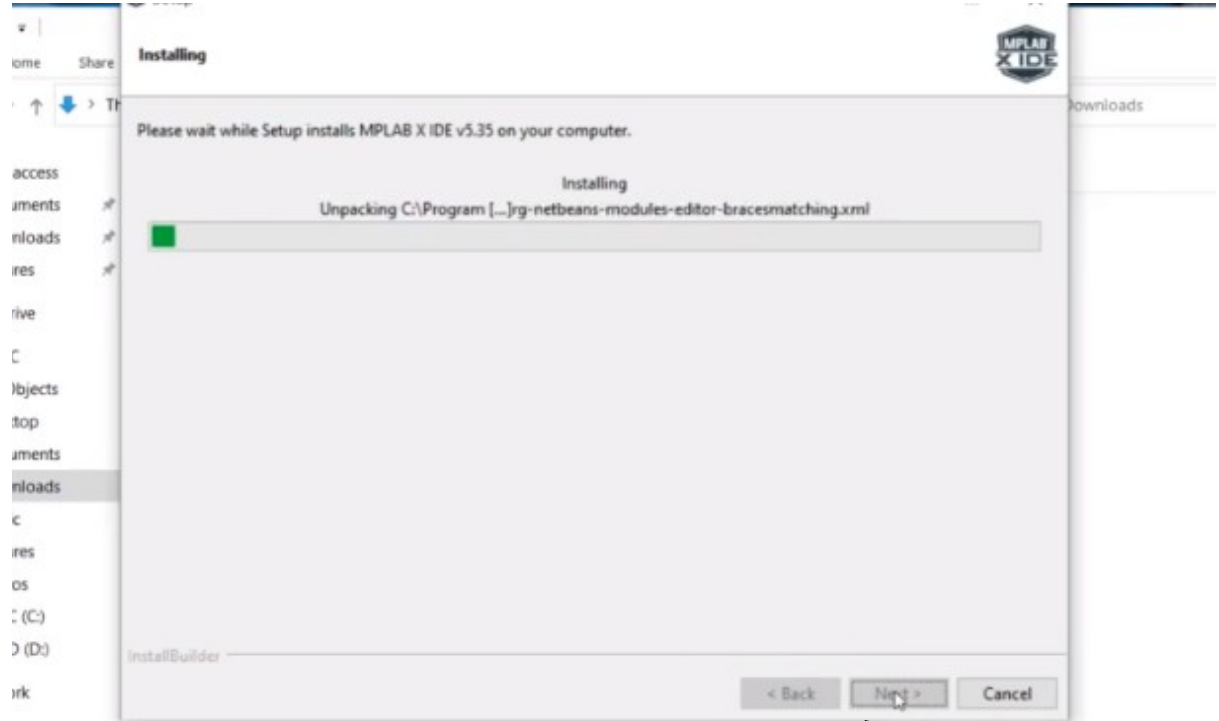


# Installing MPLAB X IDE



Click on next

# Installing MPLAB X IDE

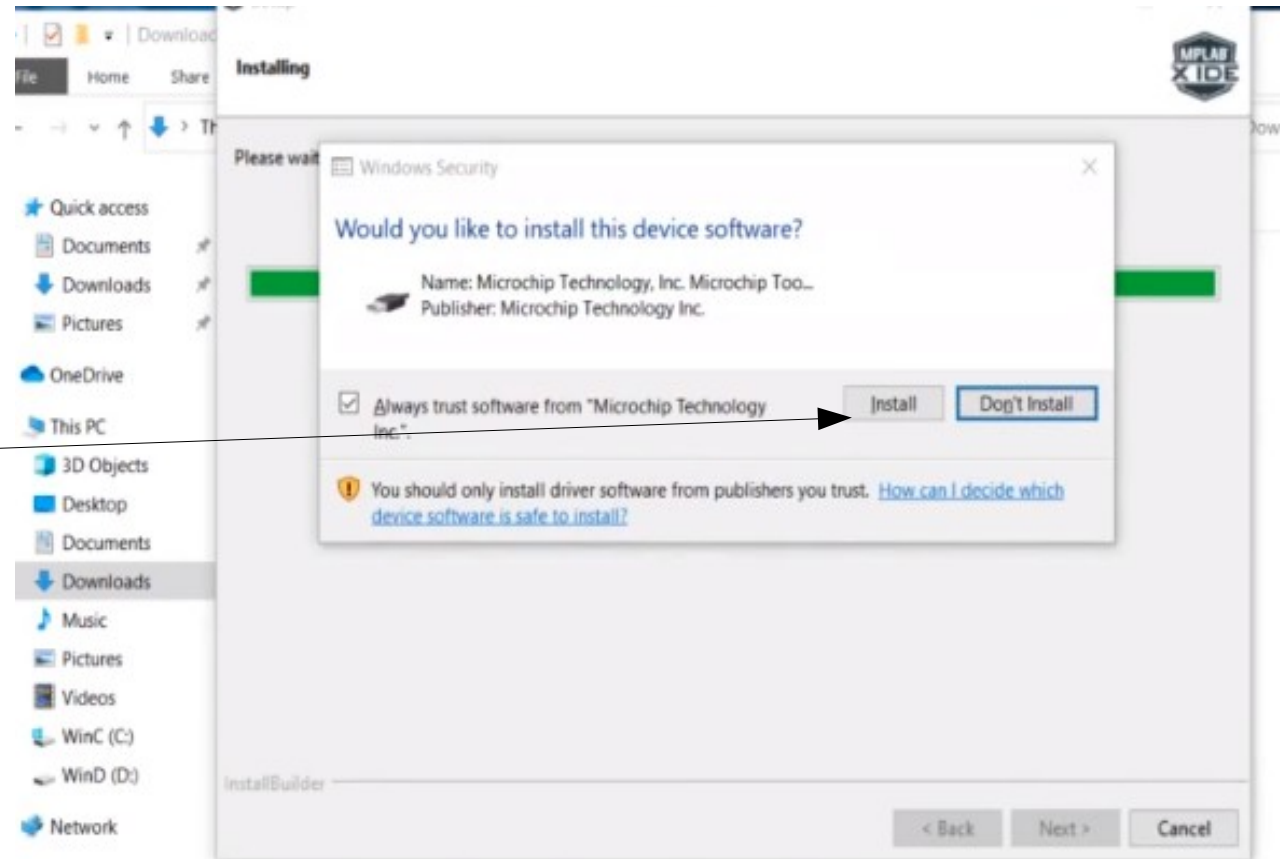


Click on next

# Installing MPLAB X IDE

-> Select install here.

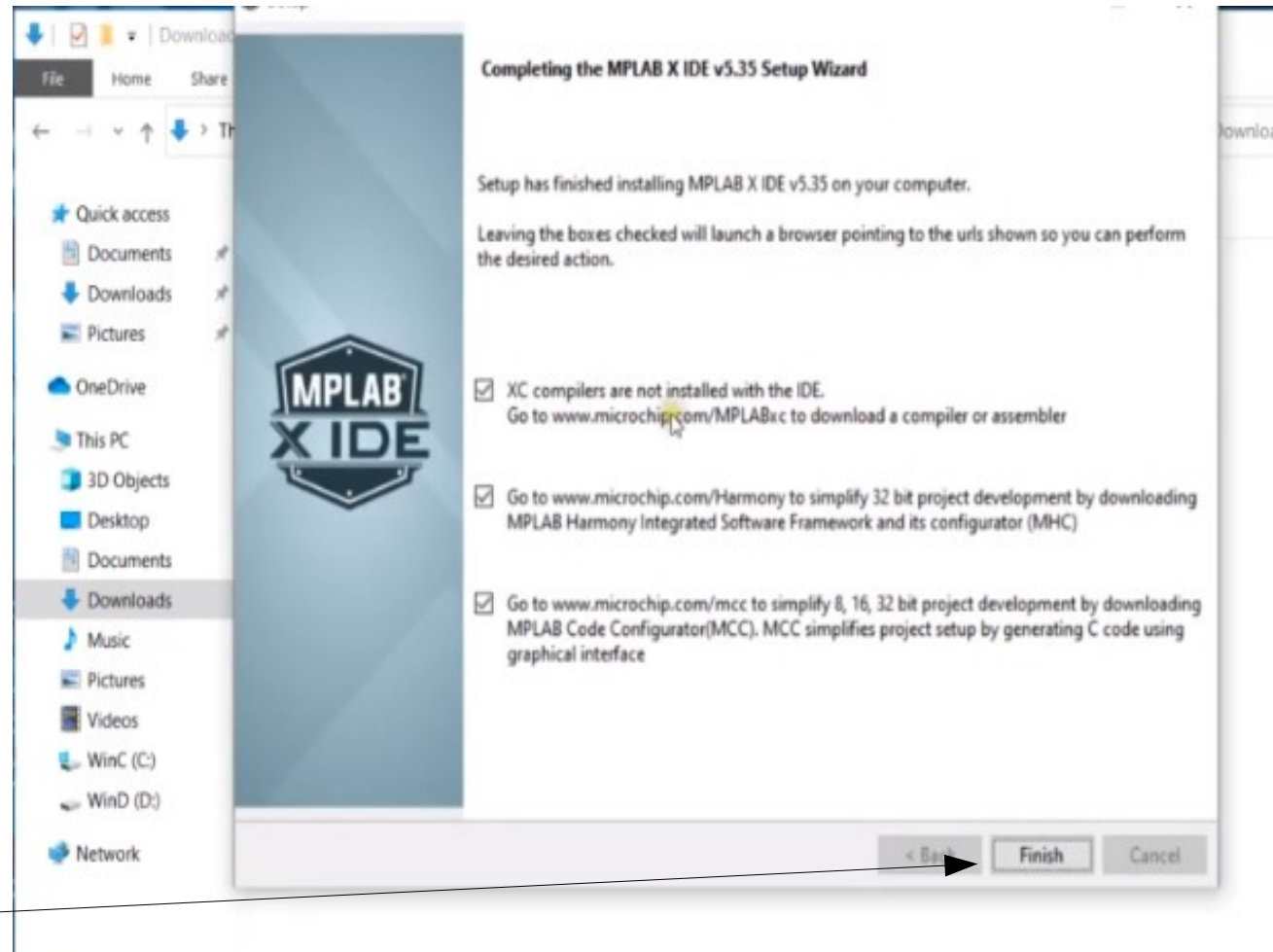
Click on install



# Installing MPLAB X IDE

- >MPLAB will be installed successfully
- >MPLAB icon will appear on the desktop

Click on finish

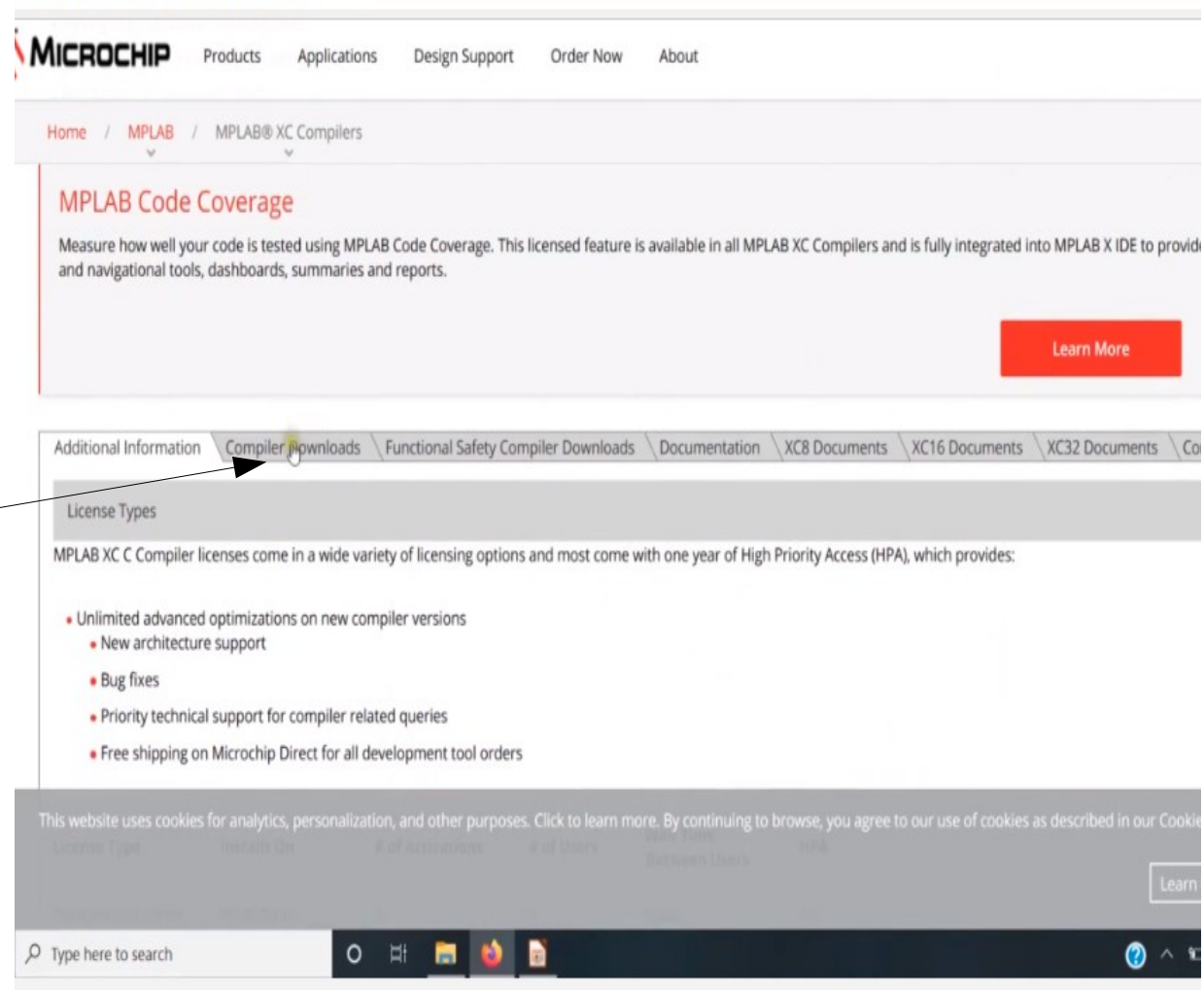


# Installing XC8

- > Open any browser and search for XC8 compiler
- > Click on the very first link by Microchip
- > Select compiler download option

Compiler downloads

things.talentlms.com/unit/view/id:2057



The screenshot shows the Microchip website's MPLAB XC Compilers page. The navigation bar includes links for Products, Applications, Design Support, Order Now, and About. The breadcrumb trail is Home / MPLAB / MPLAB® XC Compilers. The main heading is "MPLAB Code Coverage" with a subtext explaining its integration with MPLAB XC Compilers and IDE. A red "Learn More" button is present. Below this, a tabbed interface shows "Compiler Downloads" as the active tab. Under this tab, the "License Types" section describes the licensing options for MPLAB XC C Compiler, listing benefits such as unlimited advanced optimizations, new architecture support, bug fixes, priority technical support, and free shipping on Microchip Direct orders. A cookie consent banner is visible at the bottom of the page.

MICROCHIP Products Applications Design Support Order Now About

Home / MPLAB / MPLAB® XC Compilers

### MPLAB Code Coverage

Measure how well your code is tested using MPLAB Code Coverage. This licensed feature is available in all MPLAB XC Compilers and is fully integrated into MPLAB X IDE to provide and navigational tools, dashboards, summaries and reports.

[Learn More](#)

Additional Information **Compiler Downloads** Functional Safety Compiler Downloads Documentation XC8 Documents XC16 Documents XC32 Documents Co

#### License Types

MPLAB XC C Compiler licenses come in a wide variety of licensing options and most come with one year of High Priority Access (HPA), which provides:

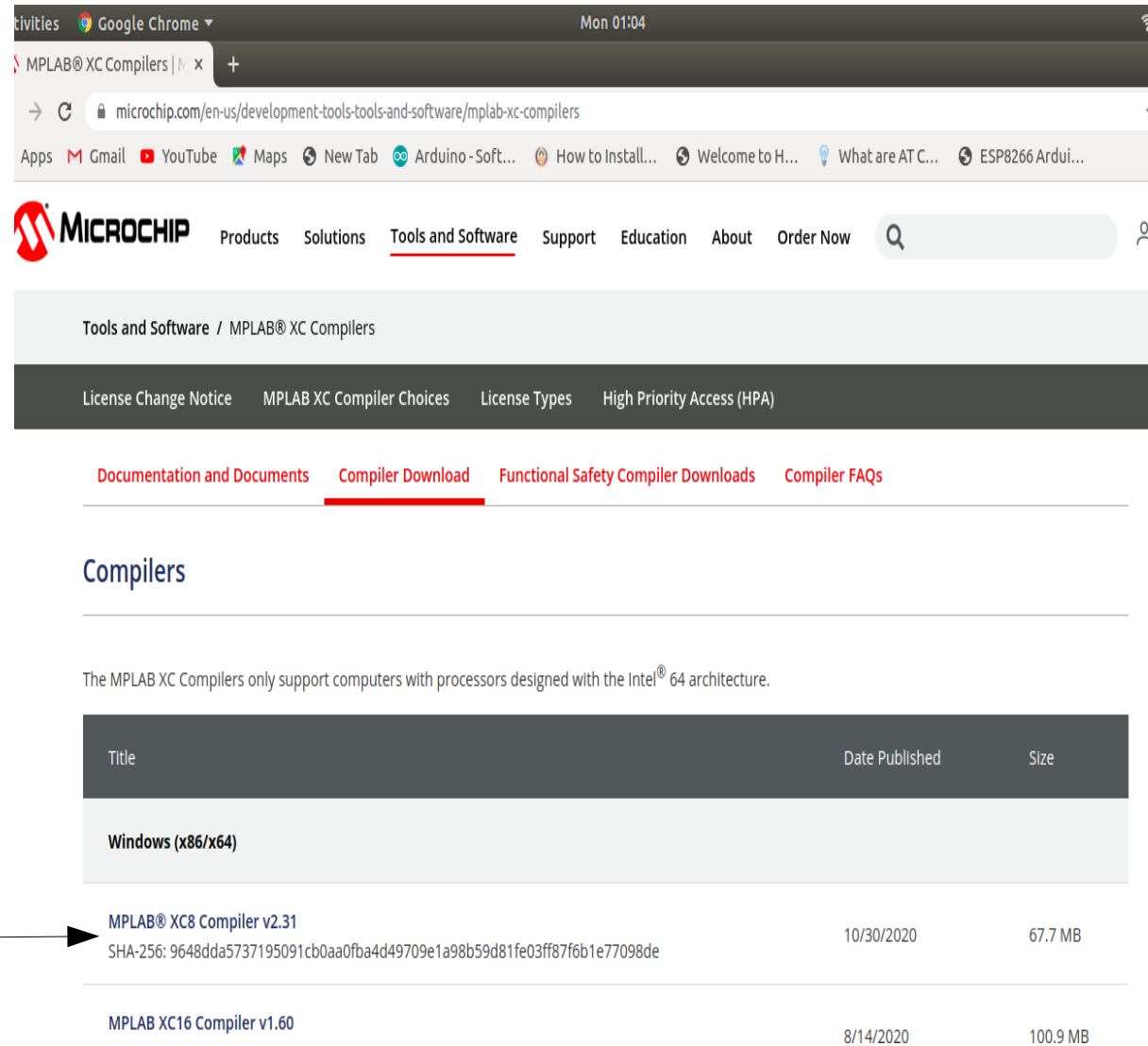
- Unlimited advanced optimizations on new compiler versions
  - New architecture support
- Bug fixes
- Priority technical support for compiler related queries
- Free shipping on Microchip Direct for all development tool orders

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Type here to search

# Installing XC8

-> Download the latest version



Microchip

Products Solutions Tools and Software Support Education About Order Now

Tools and Software / MPLAB® XC Compilers

License Change Notice MPLAB XC Compiler Choices License Types High Priority Access (HPA)

Documentation and Documents **Compiler Download** Functional Safety Compiler Downloads Compiler FAQs

## Compilers

The MPLAB XC Compilers only support computers with processors designed with the Intel® 64 architecture.

Title	Date Published	Size
<b>Windows (x86/x64)</b>		
<b>MPLAB® XC8 Compiler v2.31</b> SHA-256: 9648dda5737195091cb0aa0fba4d49709e1a98b59d81fe03ff87f6b1e77098de	10/30/2020	67.7 MB
MPLAB XC16 Compiler v1.60	8/14/2020	100.9 MB

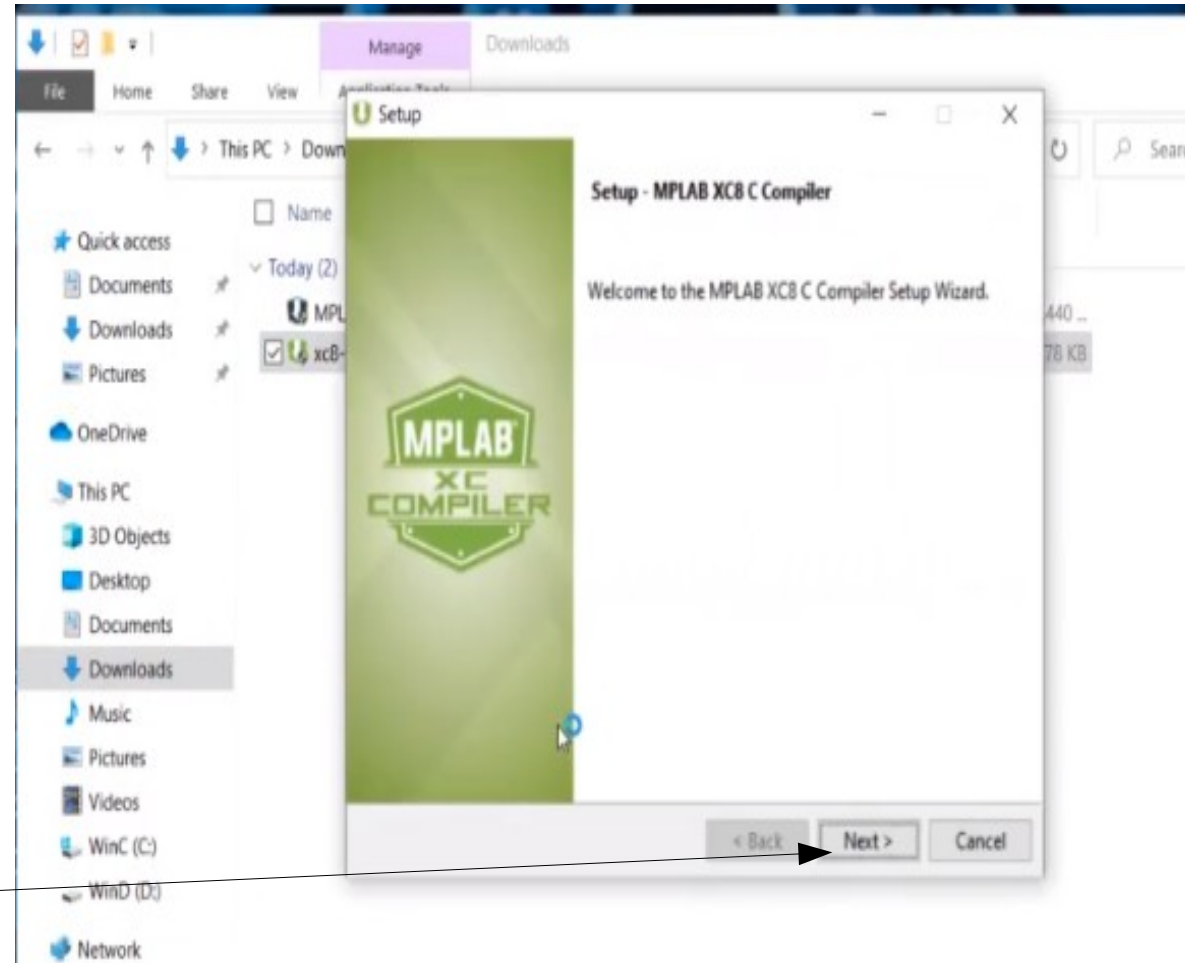
Download

# Installing XC8



- > Open the downloaded file from download directory and start installation
- > Click on next

Click on next





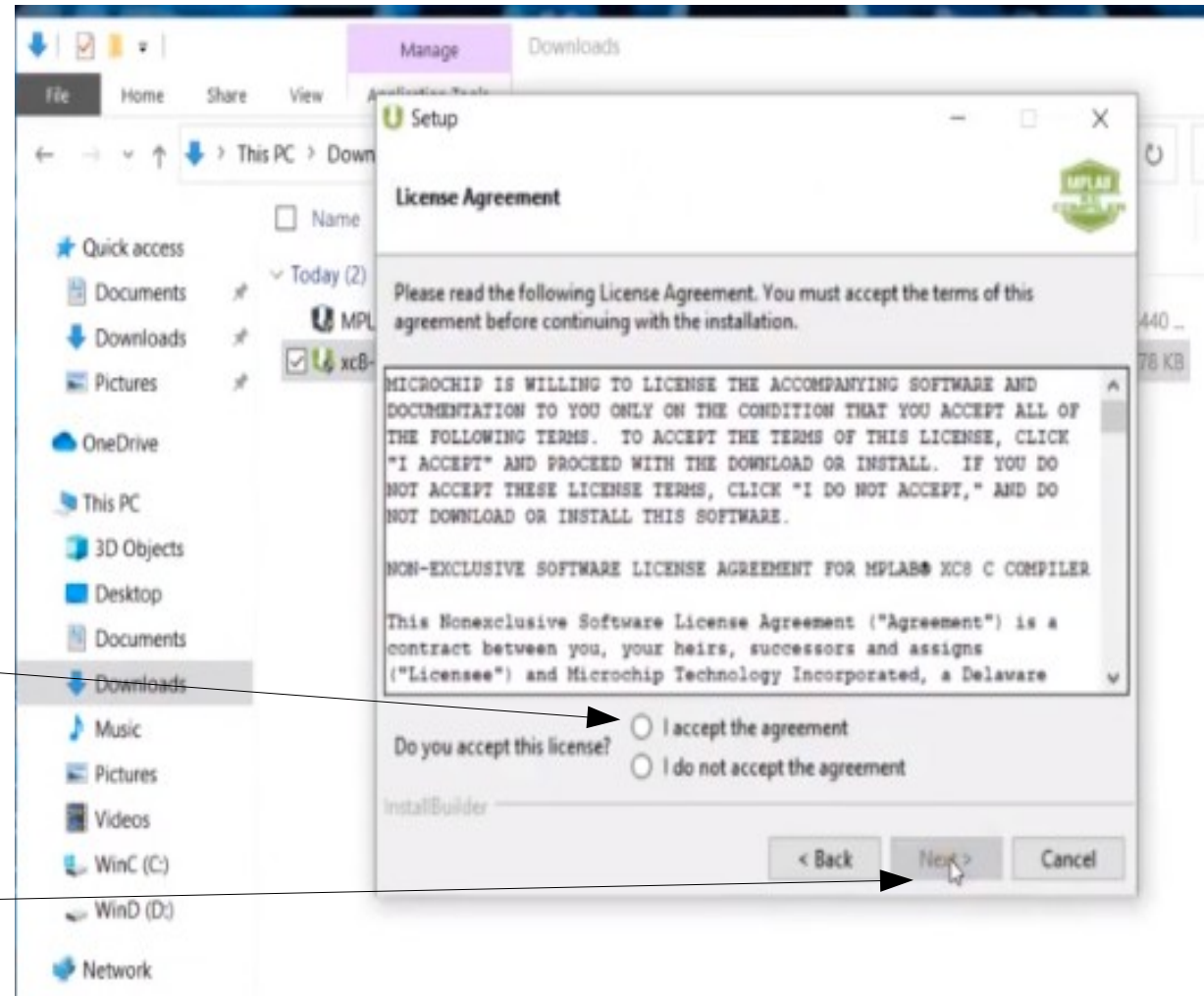
# Installing XC8



-> Accept the agreement  
and click on next

Accept the agreement

Click on next



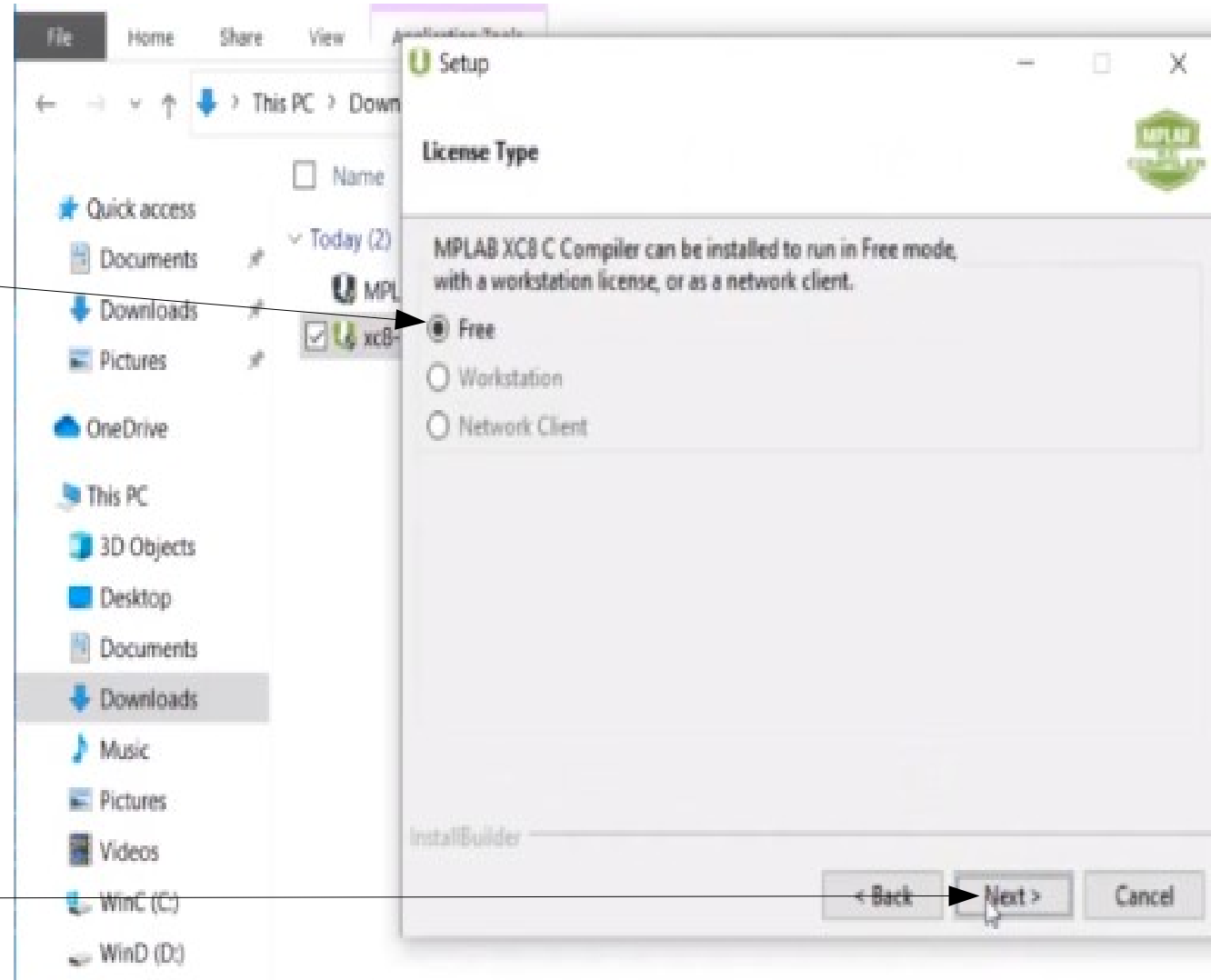
# Installing XC8



-> Select Free license

Free

Click on next

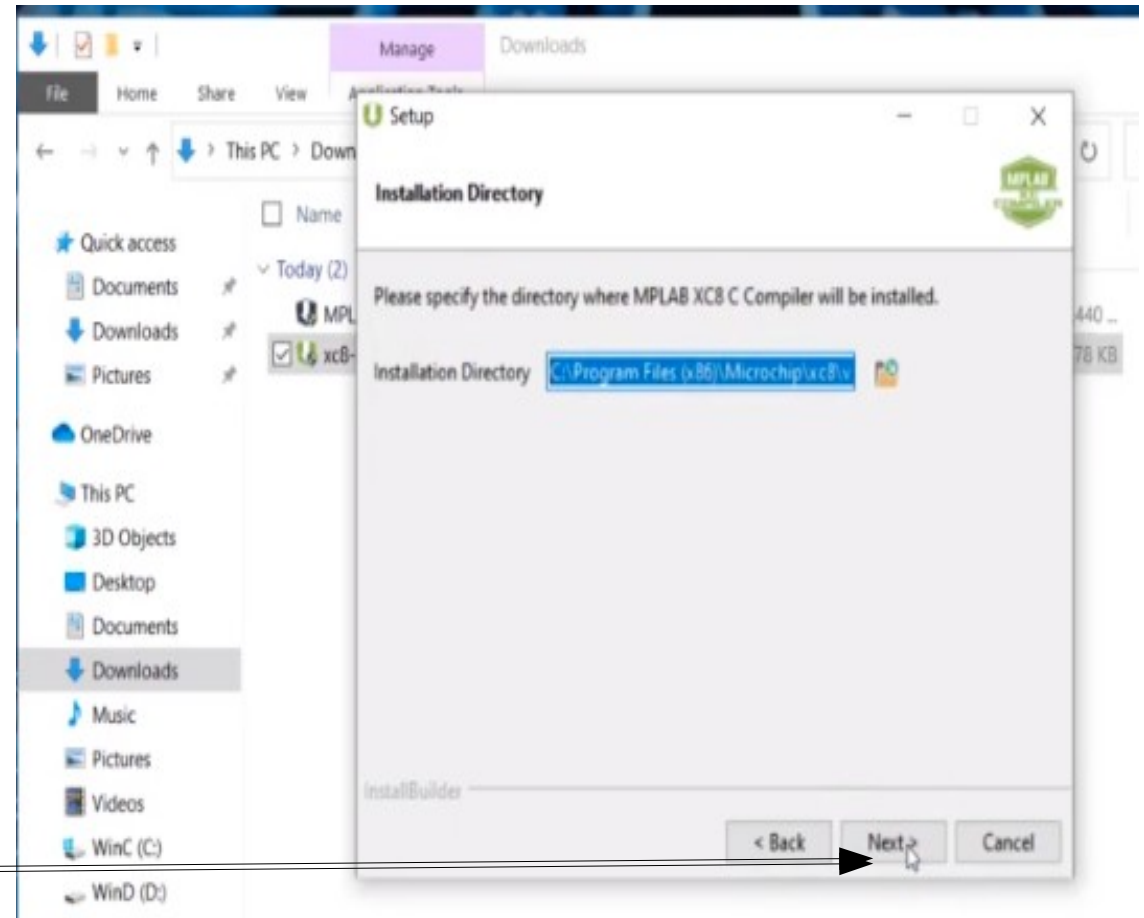


# Installing XC8



-> Click on next

-

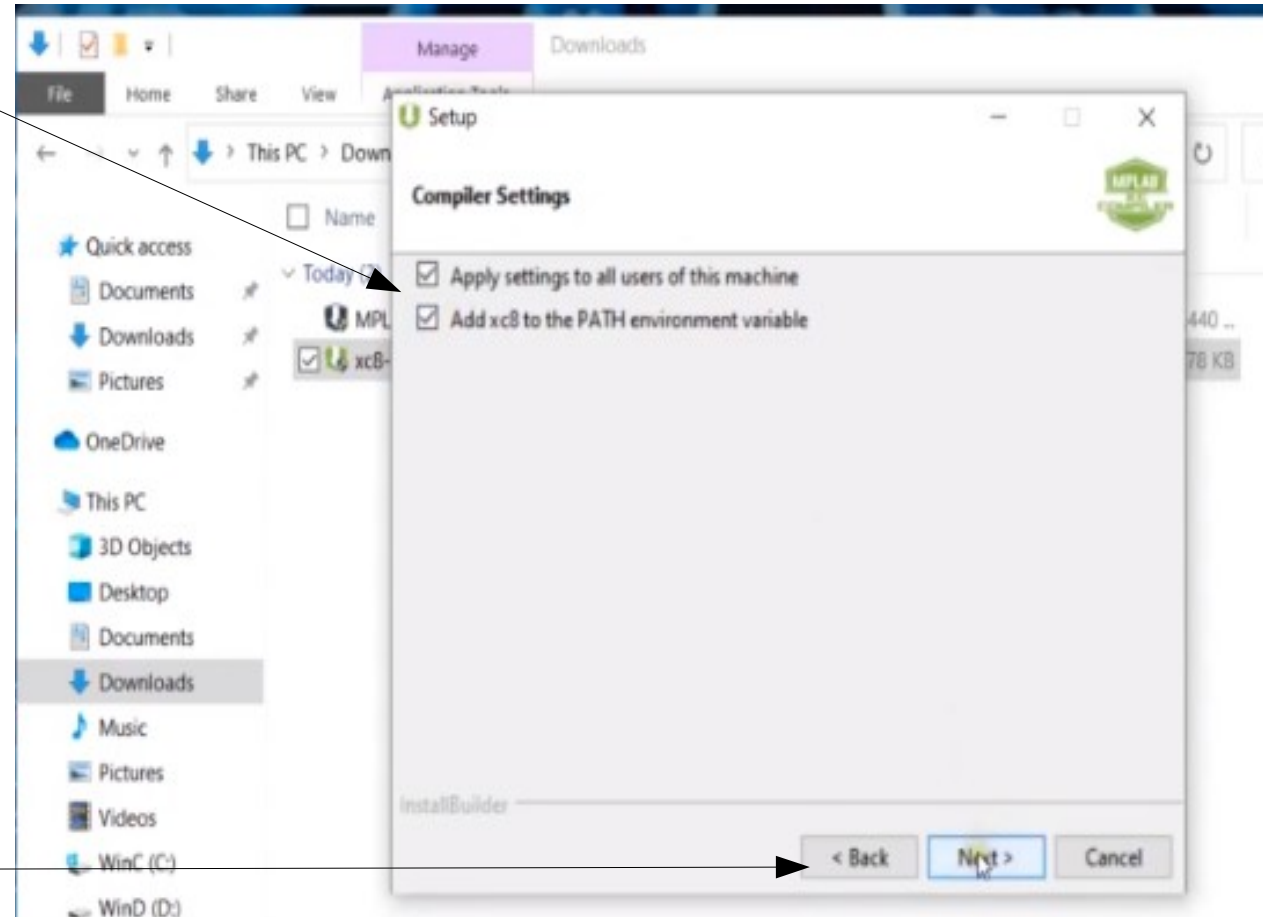


Click on next

# Installing XC8



-> Select both the compiler settings and click on next

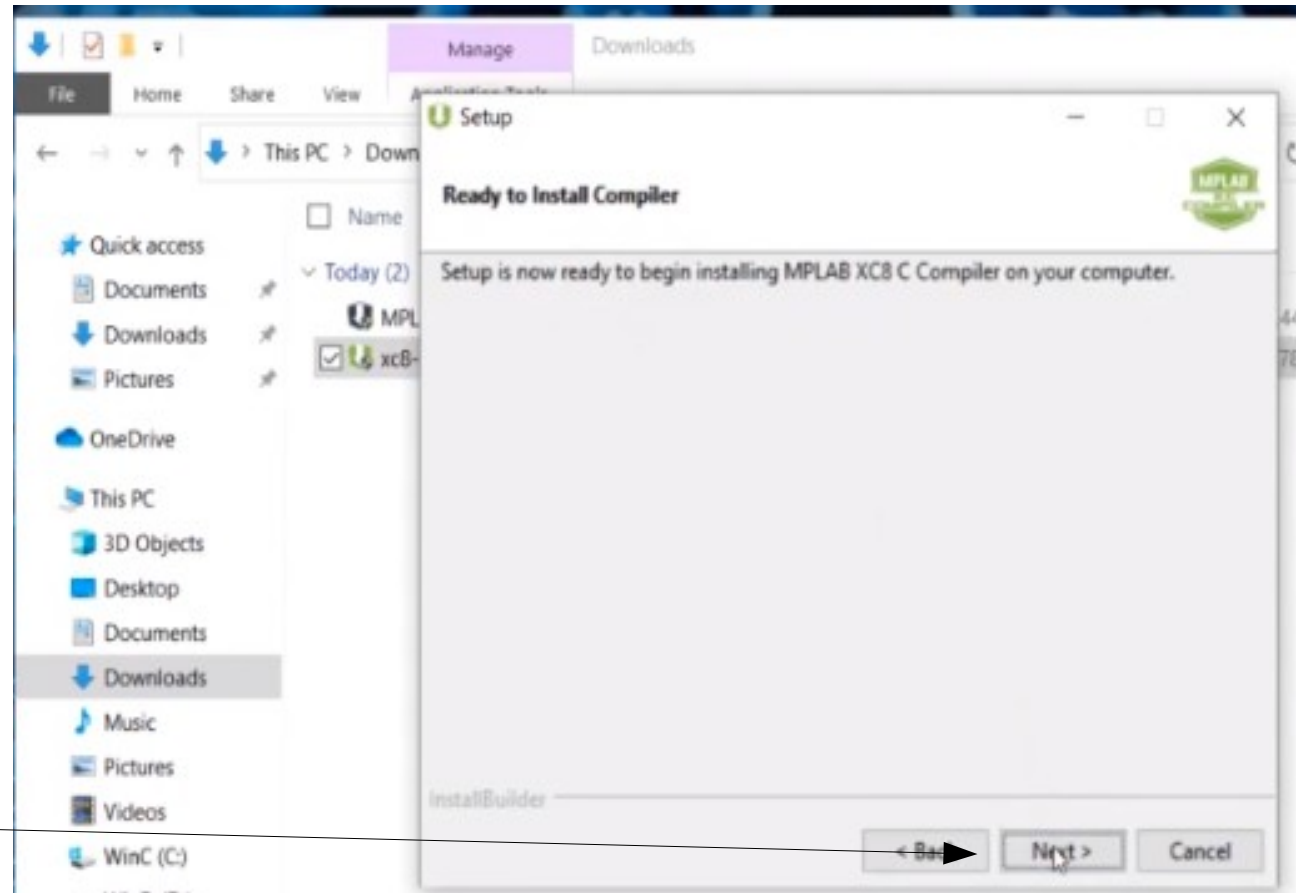


Click on next

# Installing XC8



-> Click on next



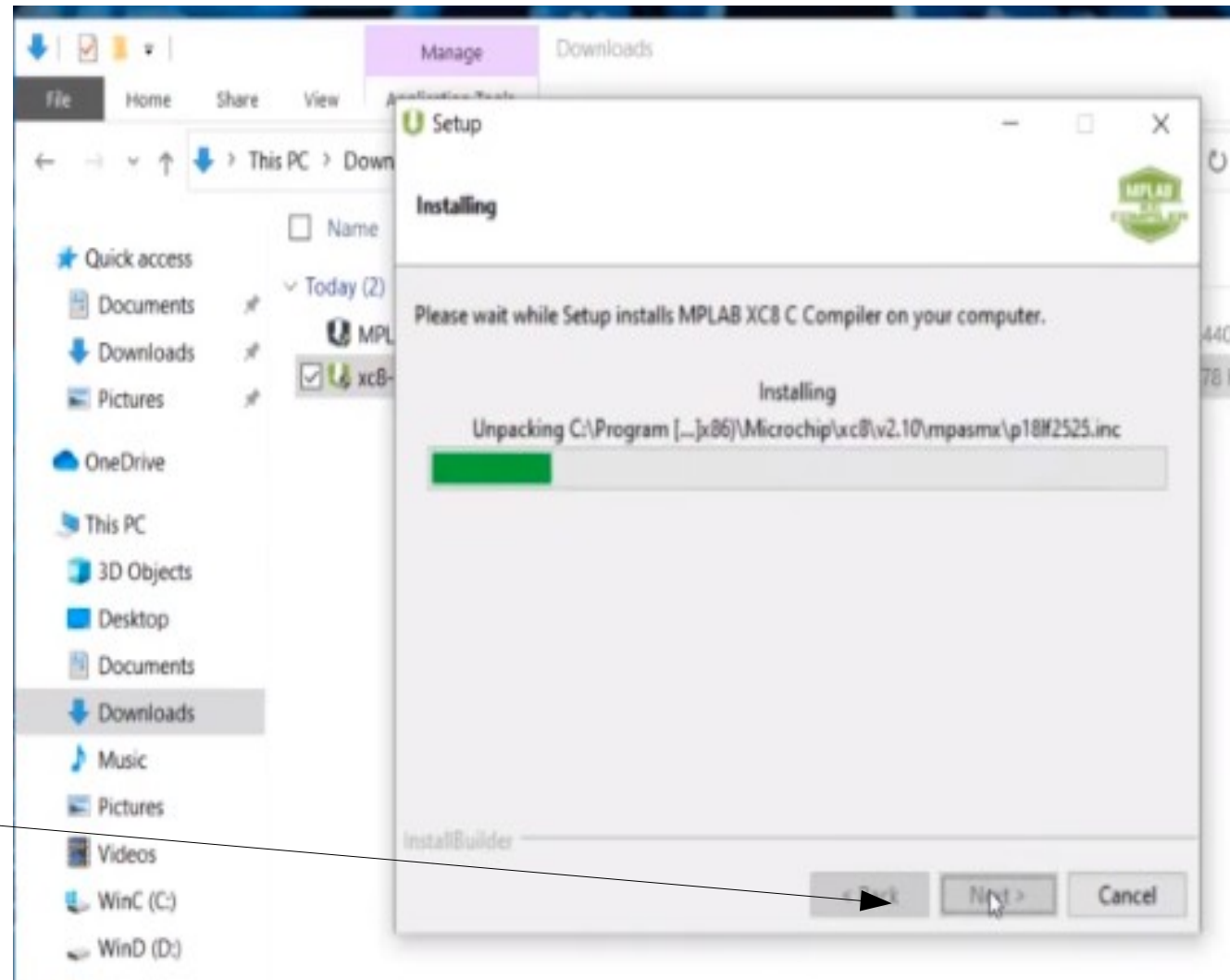
Click on next

# Installing XC8



-> Installation starts and later click on next

Click on next

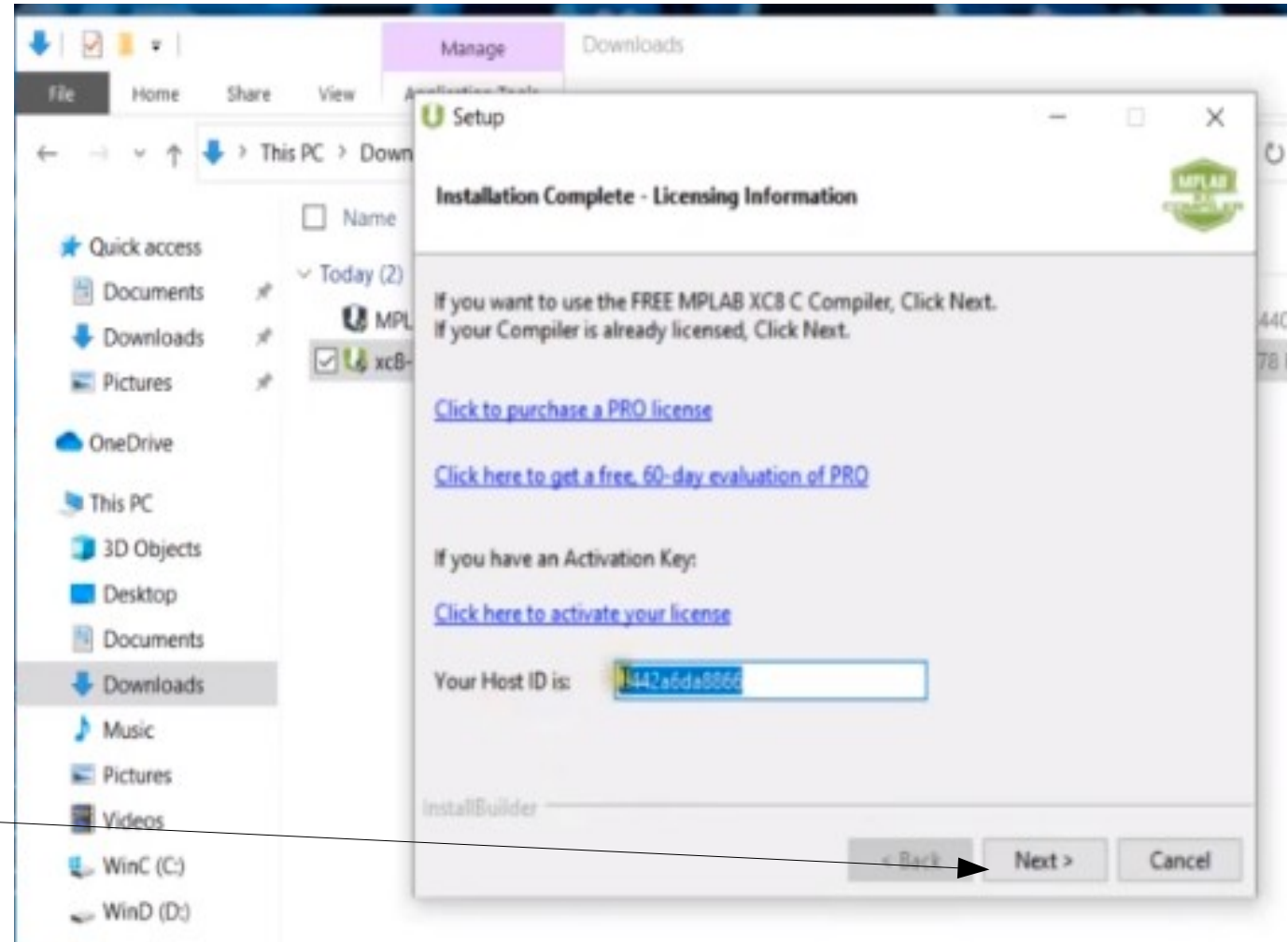


# Installing XC8



- > Click on next
- > XC8 compiler installed successfully

Click on next

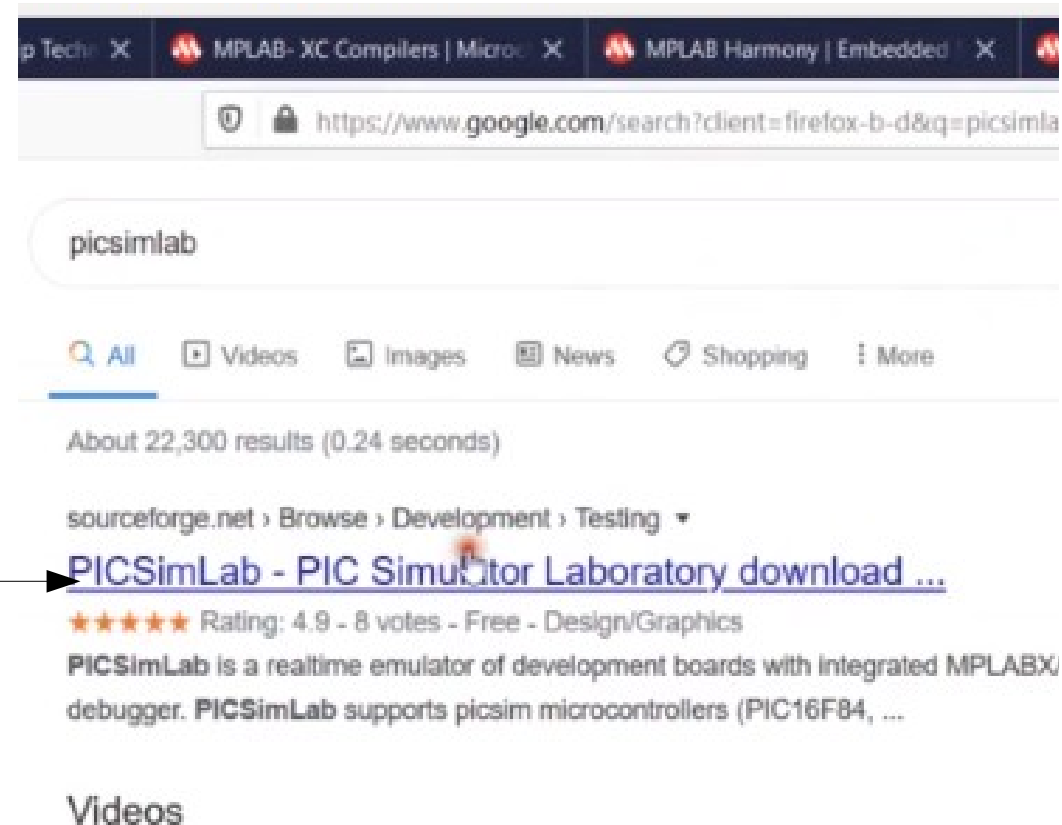




# Installing Picsimlab

- >Open any browser and search for Picsimlab.
- >Click on the very first link from sourceforge.net.

Link

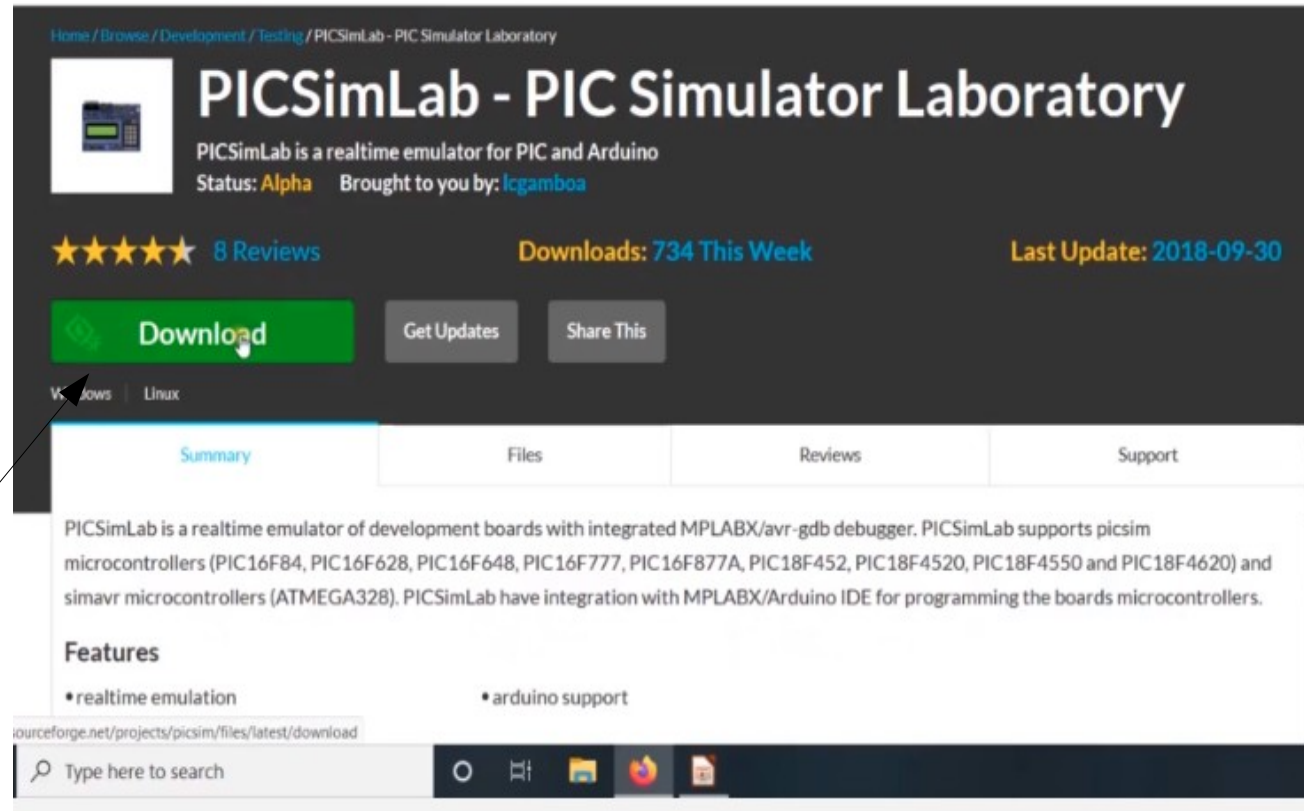


# Installing Picsimlab

> Click on Download

> If there is any issue in downloading change the browser and download

Download



The screenshot shows the SourceForge project page for PICSimLab. The page has a dark header with the project name "PICSimLab - PIC Simulator Laboratory" and a description: "PICSimLab is a realtime emulator for PIC and Arduino". It also shows the status as "Alpha" and the maintainer as "lcamboa". Below the header, there are statistics: "8 Reviews" (5 stars), "Downloads: 734 This Week", and "Last Update: 2018-09-30". A prominent green "Download" button is visible, with "Get Updates" and "Share This" buttons next to it. Below the buttons, there are tabs for "Summary", "Files", "Reviews", and "Support". The "Summary" tab is selected, showing a description of the emulator and its supported microcontrollers. A callout box with the word "Download" and an arrow points to the green "Download" button. The Windows taskbar is visible at the bottom of the screenshot.

Home / Browse / Development / Testing / PICSimLab - PIC Simulator Laboratory

## PICSimLab - PIC Simulator Laboratory

PICSimLab is a realtime emulator for PIC and Arduino  
Status: **Alpha** Brought to you by: [lcamboa](#)

★★★★★ 8 Reviews Downloads: 734 This Week Last Update: 2018-09-30

**Download** Get Updates Share This

Windows Linux

Summary Files Reviews Support

PICSimLab is a realtime emulator of development boards with integrated MPLABX/avr-gdb debugger. PICSimLab supports picsim microcontrollers (PIC16F84, PIC16F628, PIC16F648, PIC16F777, PIC16F877A, PIC18F452, PIC18F4520, PIC18F4550 and PIC18F4620) and simavr microcontrollers (ATMEGA328). PICSimLab have integration with MPLABX/Arduino IDE for programming the boards microcontrollers.

### Features

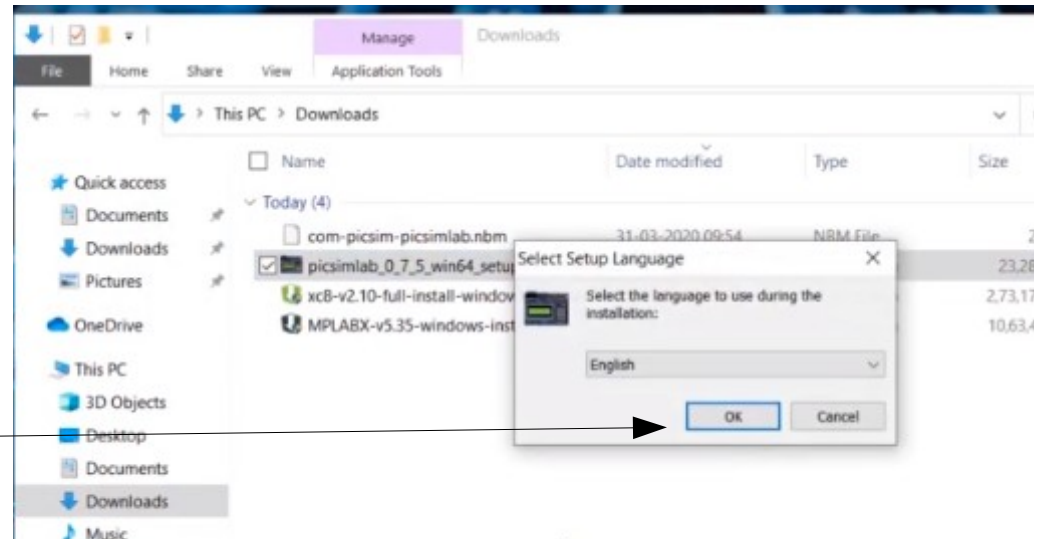
- realtime emulation
- arduino support

sourceforge.net/projects/picsim/files/latest/download

# Installing Picsimlab

>Open the picsimlab file from download directory and select OK

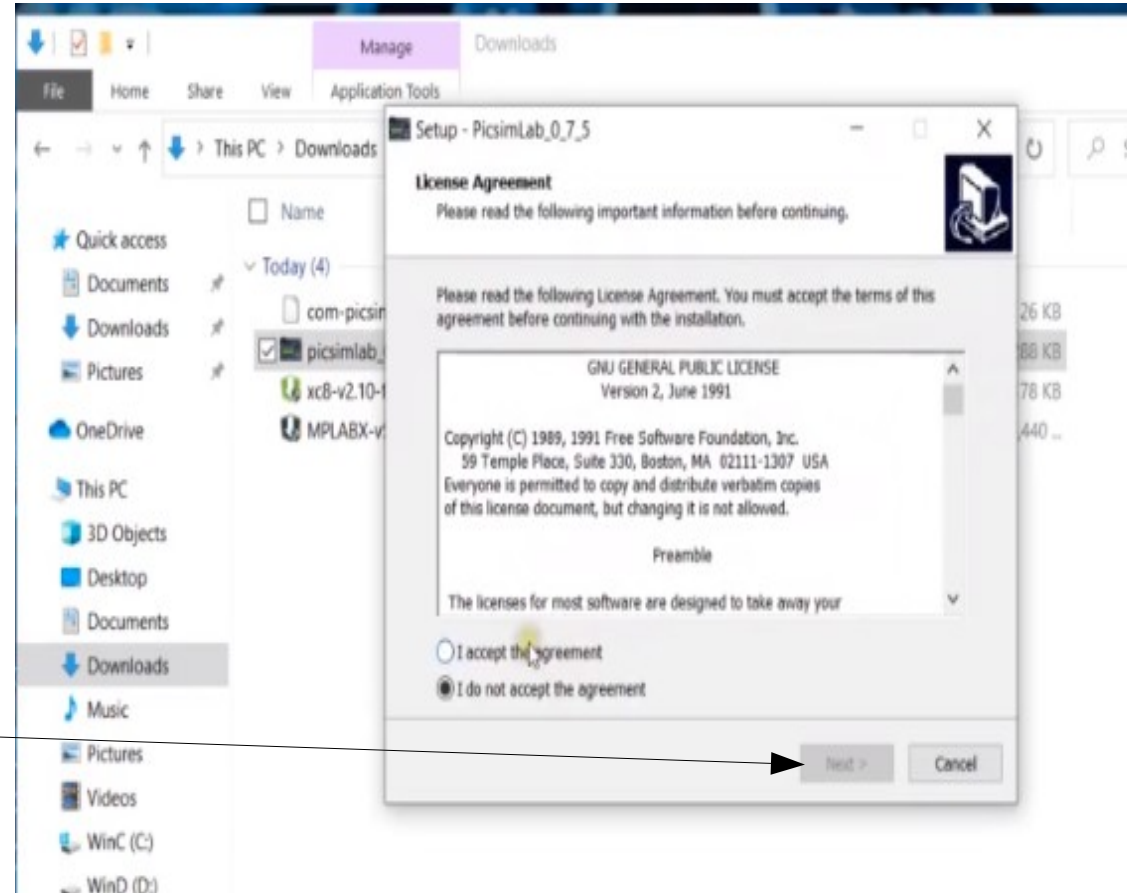
OK



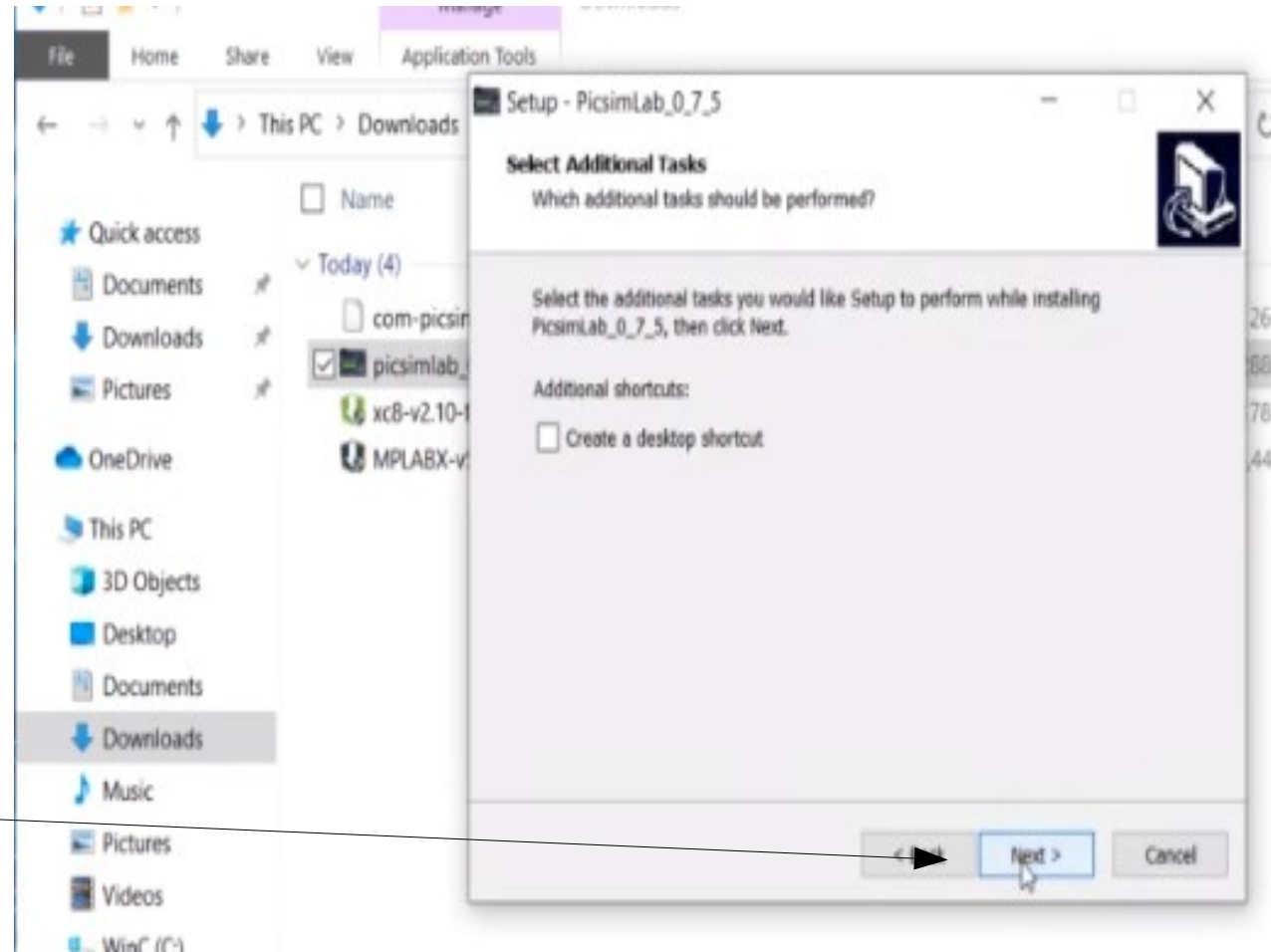
# Installing Picsimlab

>Accept agreement and click on next

Click on next



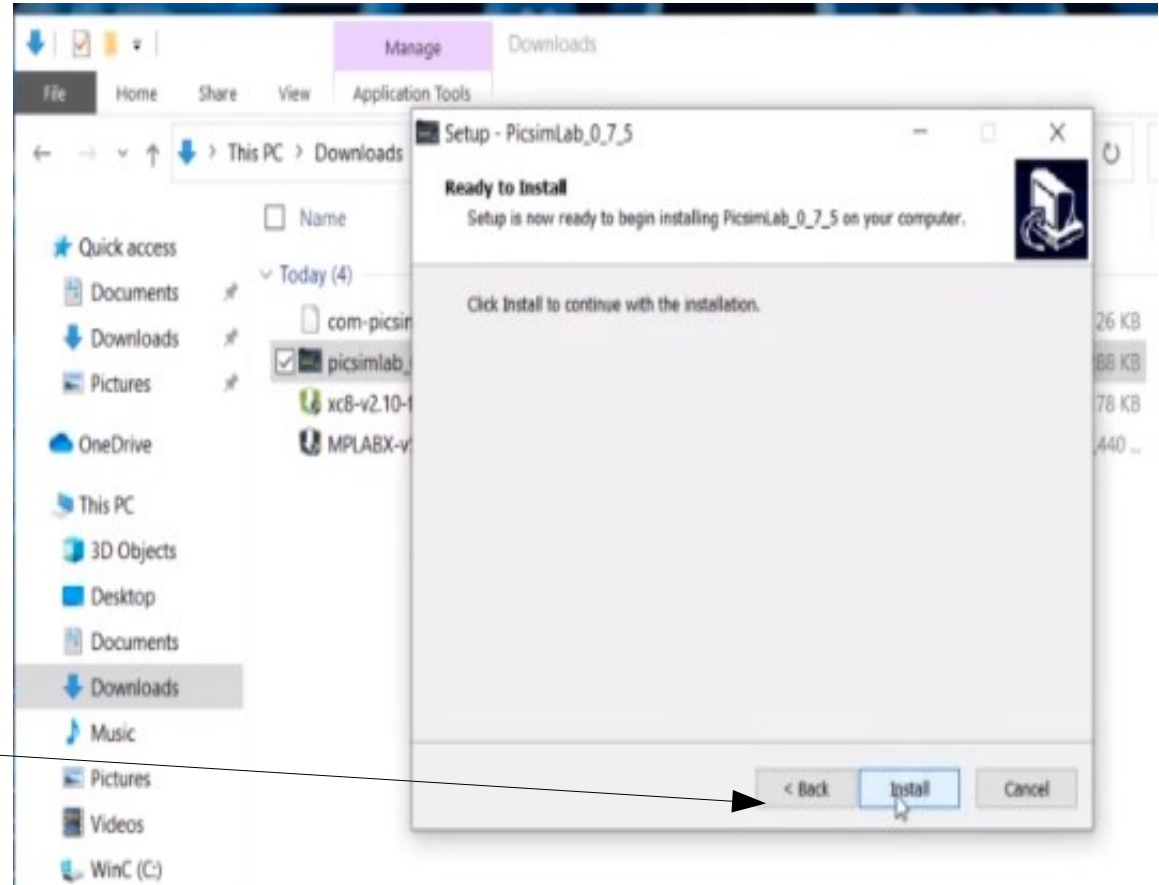
# Installing Picsimlab



# Installing Picsimlab

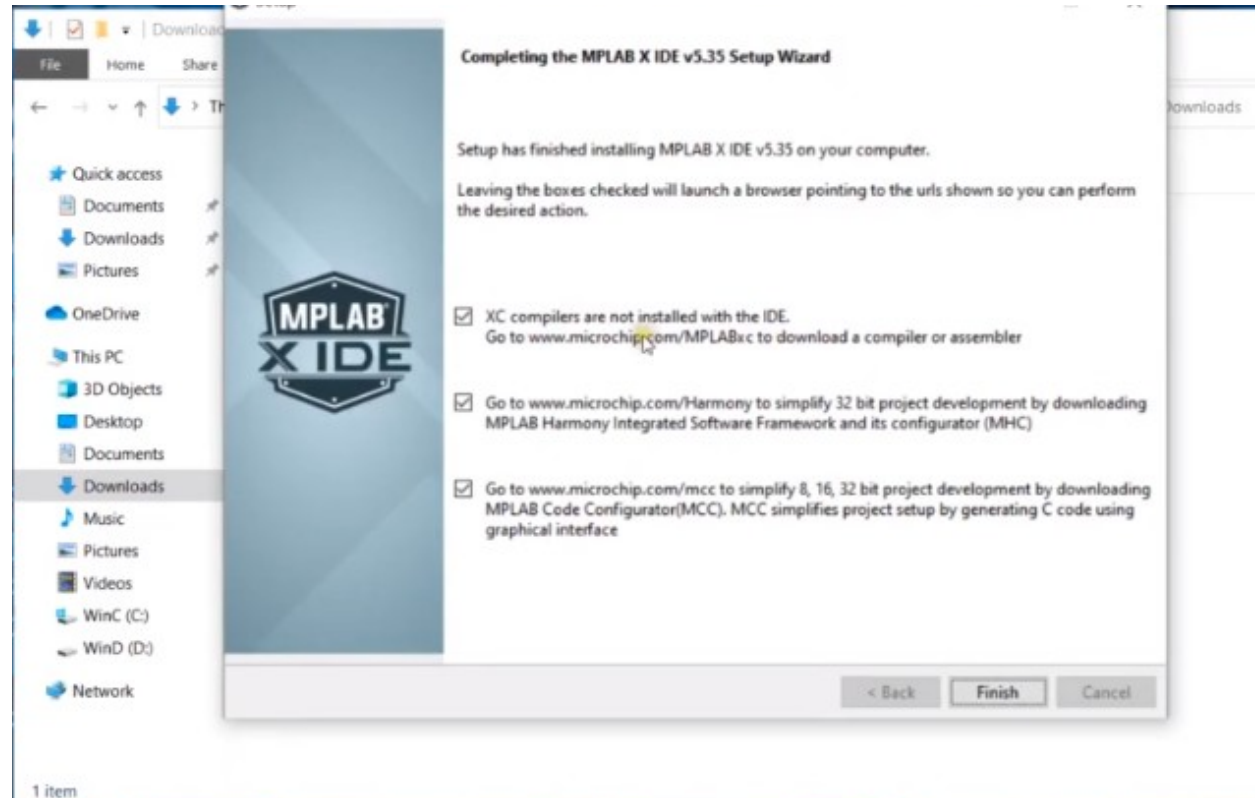
- > Click on install
- > Picsimlab installed successfully

Click on install



# Installing MPLAB X IDE

- > If 13GB memory is available in C disk need not change anything here.
- > I.



Click on next