

Step #1: Install MPLAB

You need to download the software to program a PIC microcontroller using C. There are two programs you need. One is MPLAB which is used to program PICs. If you only download this program you can program PICs, but you'll have to use assembly code. The other program is a compiler that lets you program in C (much easier than assembly).

MPLAB download:

MPLAB IDE is a software program that runs on a PC to develop applications for Microchip microcontrollers. It is called an Integrated Development Environment, or IDE, because it provides a single integrated “environment” to develop code for embedded microcontrollers.

Get MPLAB off the Microchip website:

<http://www.microchip.com/>

Click on the “MPLAB® IDE” link
(left hand side of the screen in the Design section)

Go to the bottom of that page to find the Downloads. You will be downloading MPLAB IDE. I recommend downloading the latest full release version which (on 12/2/11) was:

MPLAB IDE v8.80

Unzip/extract the zip file using WinRAR to your computer.

Close the unzip program (do not run the setup .exe file from within WinRAR) and go to the folder containing the files.

Run the setup.exe by double clicking.

During the installation of MPLAB, accept all of the defaults.

Use the recommended location for MPLAB. Destination Folder “C:\Program Files\Microchip\”

Eventually you’ll get to a pop-up box asking about installing a HI-TECH C Compiler Do not install that compiler. We use a different C Compiler that we’ll install in the next step.

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Step #2: C-18 Compiler for Academic Use:

So ready for program installation number 2! Assuming you want to program the microcontroller in C you'll need this one.

Get the MPLAB C-18 Lite Compiler off the Microchip website:
<http://www.microchip.com/>

Click on the "Development tools" link (just below where you clicked for the MPLAB IDE)

In the Software area, click on:

"Compilers"

On the next page, scroll down to find and click on "MPLAB C Compiler for PIC18 MCUs"
Find where it says:

Special free versions for [academic use are available here](#).

You want to install the [MPLAB C for PIC18 v3.40 in LITE mode](#)

Yes. You need to register first. Sorry. Create an account and do the email verification bit.

Once logged in you can finally download the newest version of the C compiler for PIC18s.

On 12/2/11 the newest version was "mplabc18_v3.40_windows_lite.exe"

I think this one is more like 75 Mb-- only a fraction of the size of the previous install. This one at least is just an .exe that you can run directly (instead of having a zip file like MPLAB).

Accept the license and all of the defaults during the installation.

Click finish!

Done! We'll play with these programs in the video lecture.