

Checklist for setting up a new project in MPLAB X IDE:

Create & setup new project:

1. Open up MPLAB, go to FILE > New Project
2. In the pop up window, select Microchip Embedded and Standalone Project. Click on Next.
3. In the next window, select the chip you are using. In our case, the PIC16F1455. Click on Next.
4. We will use no debug header, so in the next window in the drop down menu, make sure it is set to “none” and click Next.
5. Select which kind of programmer you are using. In our case, the PICKIT 3. Click on Next.
6. Select which compiler you want to use. If later on you wish to advance to programming in C, then you would select the C compiler. Right now we're using assembly, so we select Microchip Assembler – MPASM. Click on Next.
7. You are now asked where you want to save your project. Select a folder and give your project a name. *Avoid spaces in your names.* Make sure the “Set as Main Project” check box is checked. Click on Finish.

Setting up your program:

1. In the upper left window you have three tabs. Select the “Projects” tab if it is not selected already. Your projects will appear in that window. Find the project you just created and click on the plus symbol beside it to expand and see your list of project components such as Header files, Important files, linker files, and SOURCE FILES. RIGHT click on “Source Files” and select NEW> AssemblyFile.asm A window will pop up asking what you want to name your new assembly file. You can leave it as the default or give it a name, just avoid spaces in the name. Click on Finish.
2. RIGHT click on your project name and select Properties from the pop-up menu (right at the bottom). This will bring up the properties pop-up window.
3. In the pop-up window you have a window on the left and a pane on the right. In the left window, click on PICKIT 3. In the right hand pane, there is a drop-down menu at the top labeled “Option Categories.” Click on the drop down menu and select “Program Options”. In the options below it, you will see a check box for “Enable Low Voltage Programming.” Make sure that is checked.
4. Click again on the Option Categories drop-down menu and select “Power.” In the pane below it, check the box next to “Power target circuit from PICKIT 3” and change the voltage to 4.5 volts. Note: as explained in the lessons, you may have to turn this voltage down even lower. Just change the voltage to whatever has been working for you.
5. In the left hand pop-up window, click on mpasm (Global Options), bringing up those options in the right hand pane. You'll see a check box for “Build in absolute mode,” make sure it is checked. Click on Okay.

Checklist complete