



MCDEV Development Kit Programming Manual with PICkit 3

1 Introduction

This document is intended to give you the necessary information about how to program PIC18F8722 on the MCDEV Development Kit.

You should have MPLAB X IDE installed on your system to be able to work with this manual.

2 Programming

2.1 Step-0

Make sure that programmer/debugger selection switch on the MikroBoard is at EXT position as illustrated in Figure 1 and the STANDALONE jumper on the MikroBoard is removed.



Figure 1: Programmer/debugger selection switch on the MikroBoard.

2.2 Step-1

Connect the USB cable to the PICkit 3 and then to the PC (Figure 2).



Figure 2: USB port of the PICkit 3.

2.3 Step-2

Now, we need to connect PICkit 3 to the MikroBoard by using the cable shown in Figure 3. This cable connection is important otherwise you will get a connection error. Try to find the correct connection to program your device properly.

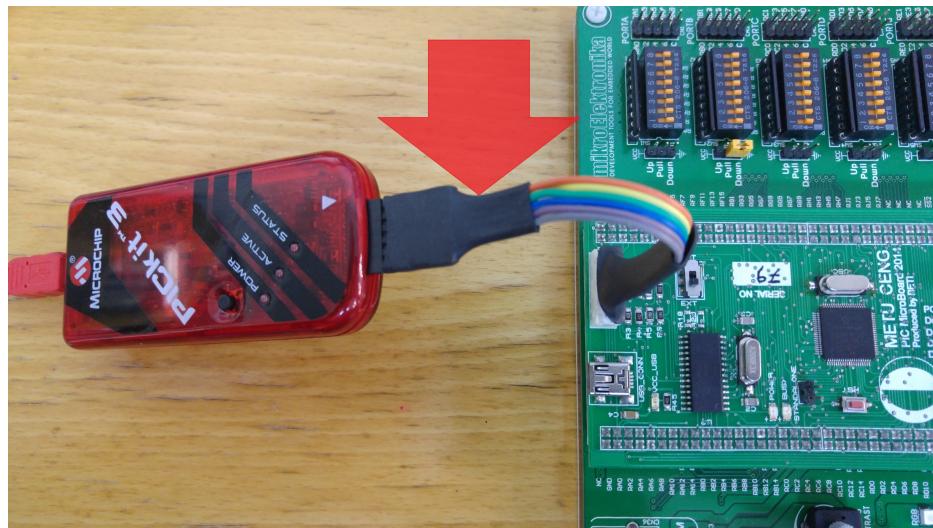


Figure 3: The connection between PICkit 3 and the MikroBoard.

On the MikroBoard side, you should consider the connection points that can be seen in Figure 4.

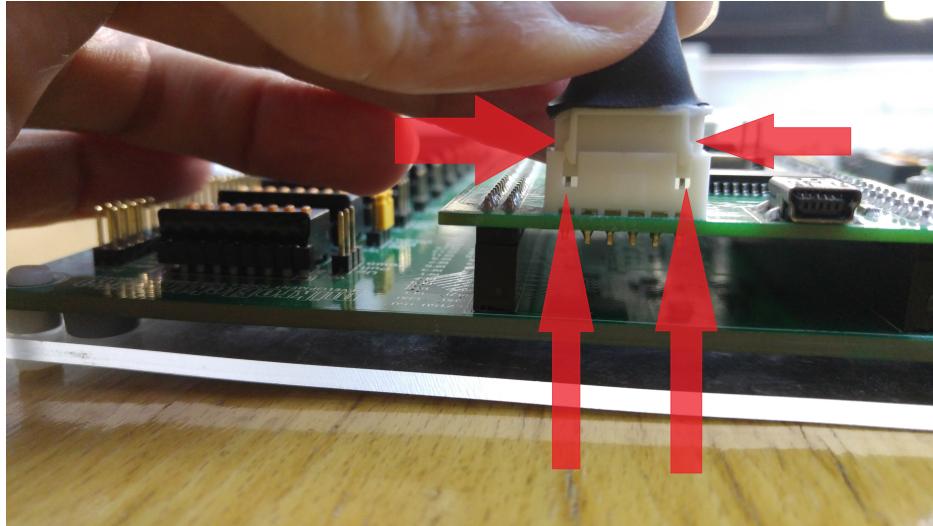


Figure 4: PICkit 3 connection points on MikroBoard side.

2.4 Step-3

Now, we need to turn on the power of the board. You can use the power supply module of the UNI-DS6 or you can use the USB connection on the MikroBoard as you can see in the Figure 5 and the Figure 6.



Figure 5: MikroBoard USB connection.

If you want to use the power adaptor of MCDEV kit to power the board, you should connect the power adaptor as seen in Figure 6 in Step-1 just before powering on the board using the power switch.



Figure 6: Powering the main board using power adaptor.

Then, power on the board using the power switch of the main board seen in Figure 7.



Figure 7: Power switch of the main board.

2.5 Step-4

Open MPLAB X IDE, and click the new project button. Select the highlighted choices seen in Figure 8, then click the next button.

2.6 Step-5

As seen in Figure 9,

- Click the browse button, and specify the path of the hex file,
- Choose the device as PIC18F8722,
- Select the Hardware Tool as PICkit 3 → SN:BURxxxxxxxxx. Then click the next button.

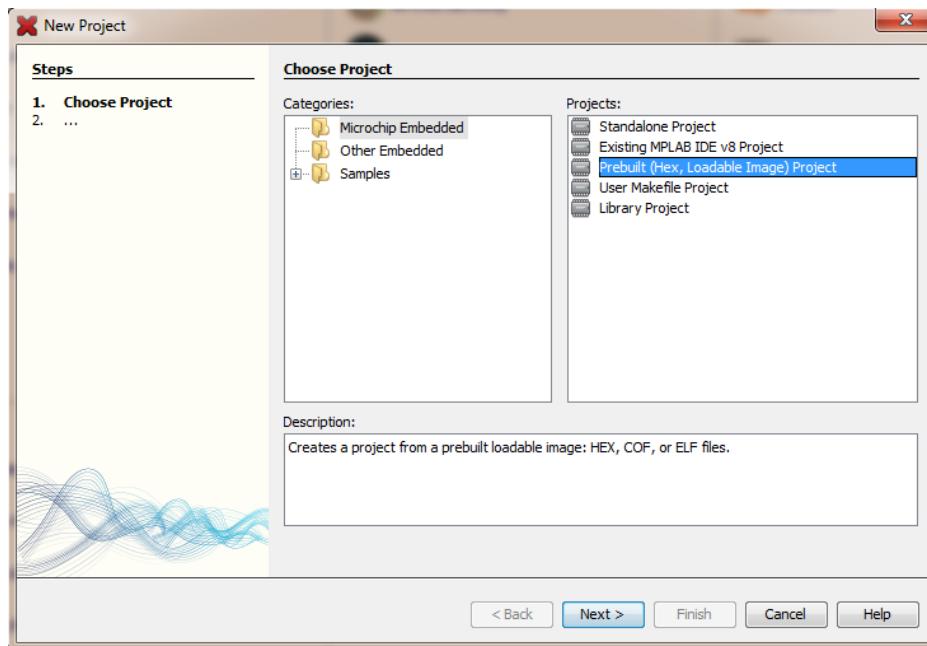


Figure 8: New Project menu in MPLAB X IDE.

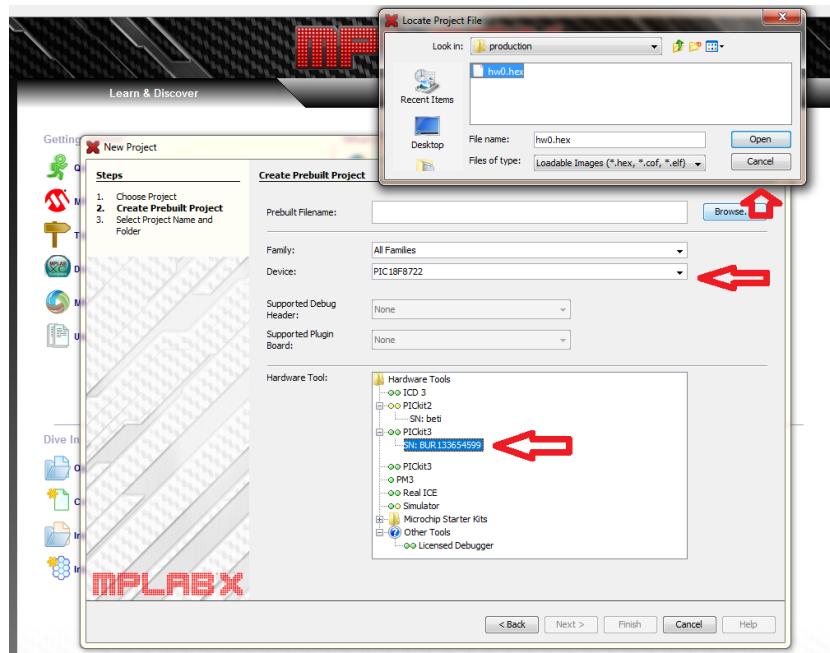


Figure 9: Create Prebuilt Project menu in MPLAB X IDE.

2.7 Step-6

Write the project name, and click the Finish button (Figure 10).

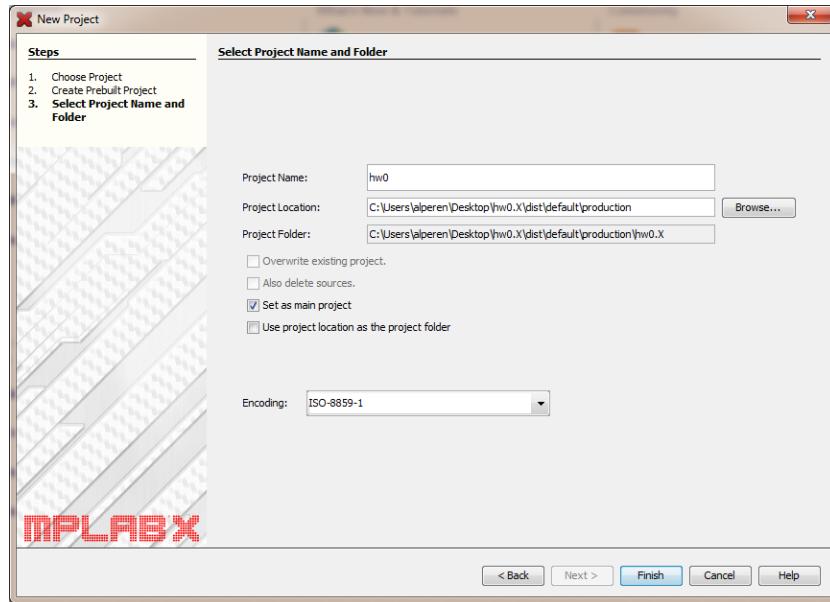


Figure 10: Last window to create a Prebuilt Project in MPLAB X IDE.

2.8 Step-7

Your prebuilt project can be loaded to the PIC18F8722 by using the button seen in Figure11 and named as "Make and Program Device Main Project".

* In this document, hw0.hex is just an example hex file that we use to demonstrate the programming of the PIC.

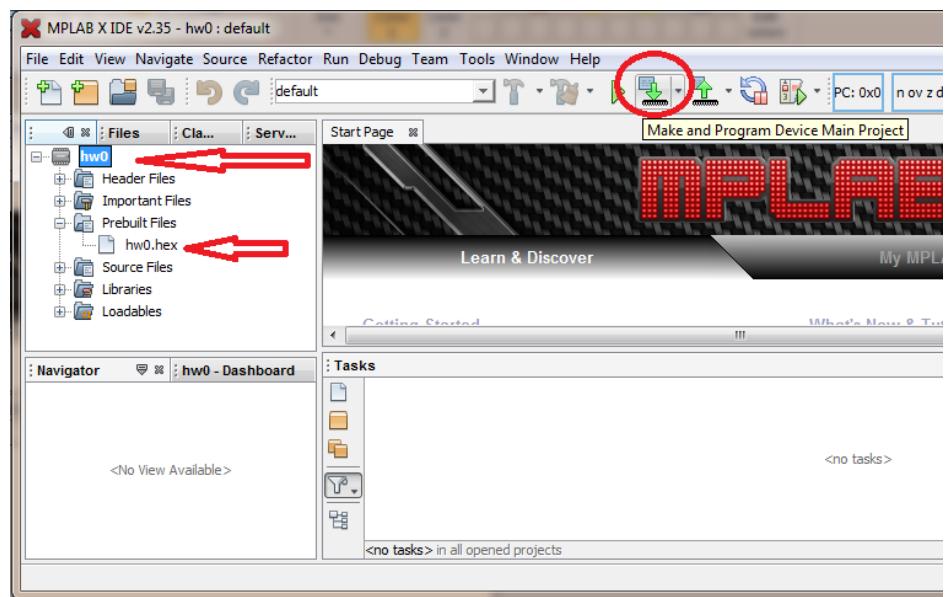


Figure 11: Example Prebuilt Project for hw0.hex file and program button in MPLAB X IDE.