

# chipKIT™ Boot Loader Update Tutorial.

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1300 NE Henley Court, Suite 3  
Pullman, WA 99163  
(509) 334 6306 Voice | (509) 334 6300 Fax

## Getting Started

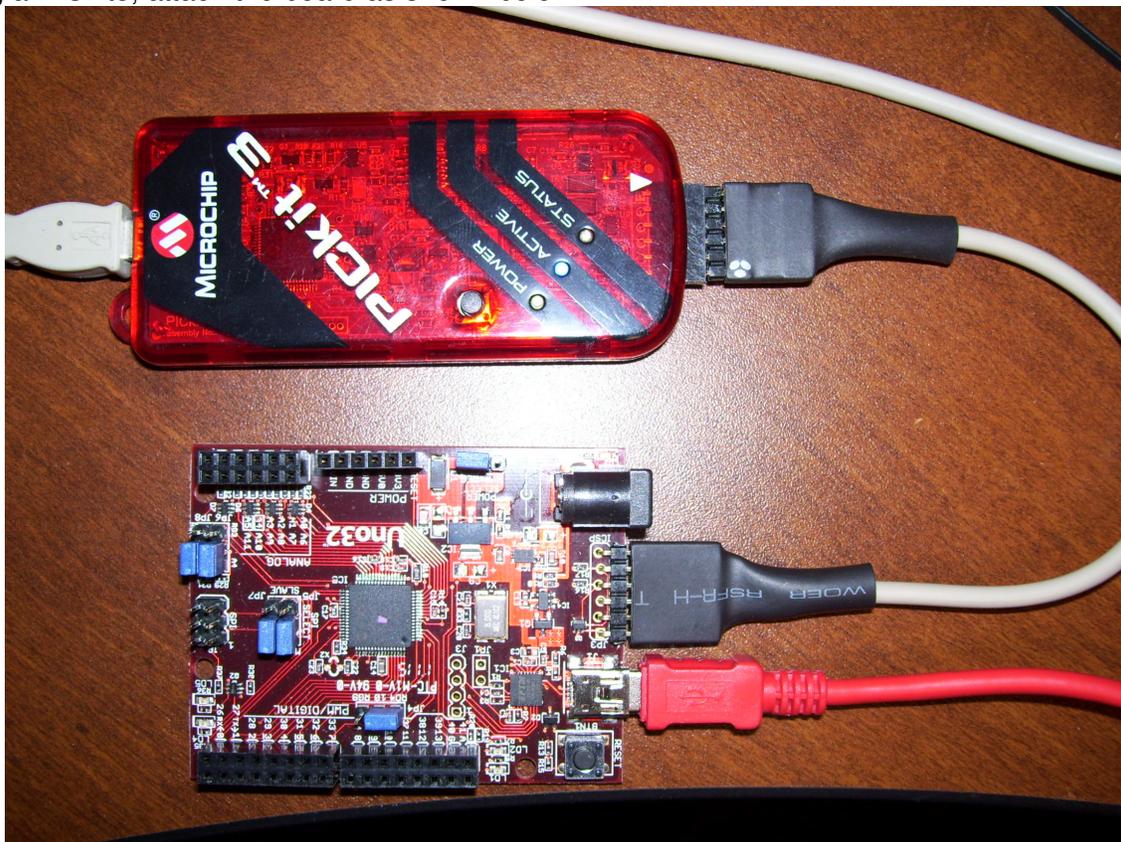
### You will need:

Most recent version of MPLAB® IDE from Microchip ([www.microchip.com](http://www.microchip.com))  
A Microchip PIC Programmer (PICKit3, REAL ICE or ICD3)  
Uno32 or other chipKIT board

This document describes the procedure for programming the boot loader into a chipKIT Uno32 board. The same procedure is used to programming other chipKIT boards. Instructions are provided to program the boot loader using a Microchip PICKit3, REAL ICE or ICD3.

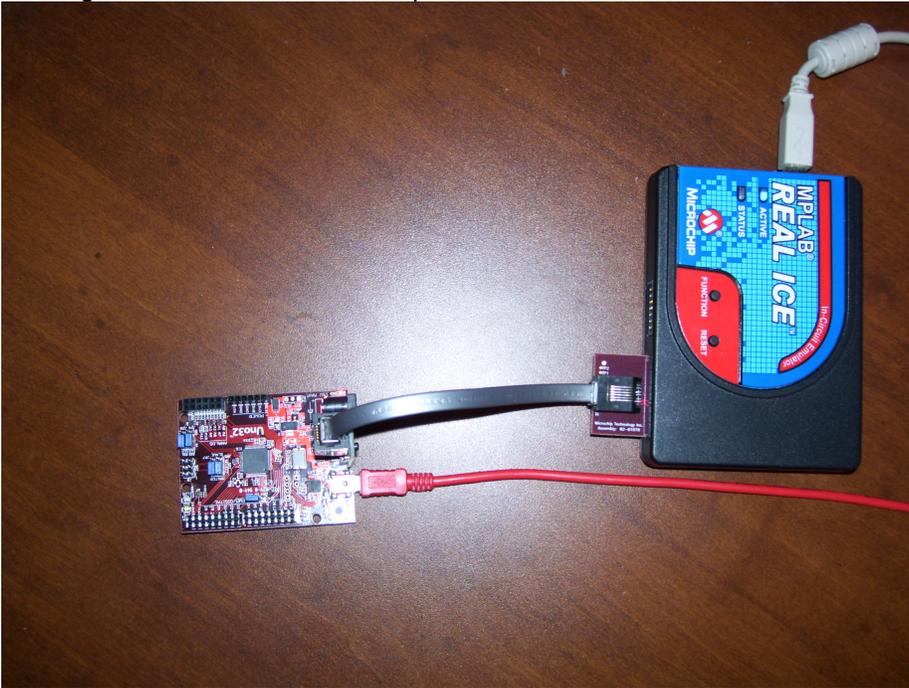
Download the latest boot loader image from the board product page on the Digilent website (the boot loader image is located in the support documents section at the bottom of the page). Save the HEX file where you can find it later (this is the file that you will import in step one later in this tutorial).

If using a PICKit3, attach the board as shown below:

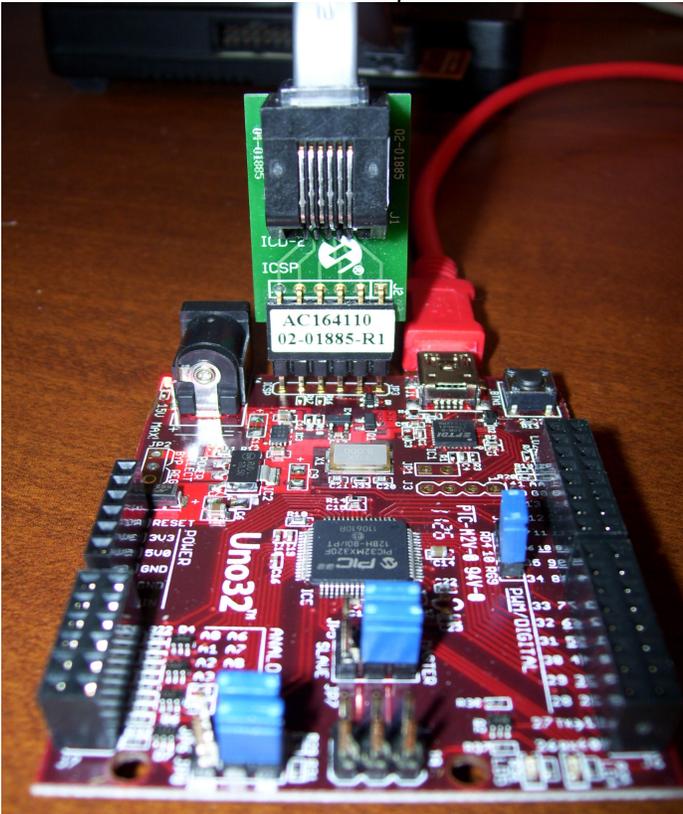


*Note: You will need to power the Uno32. It is recommended to use the onboard USB port to power the board.*

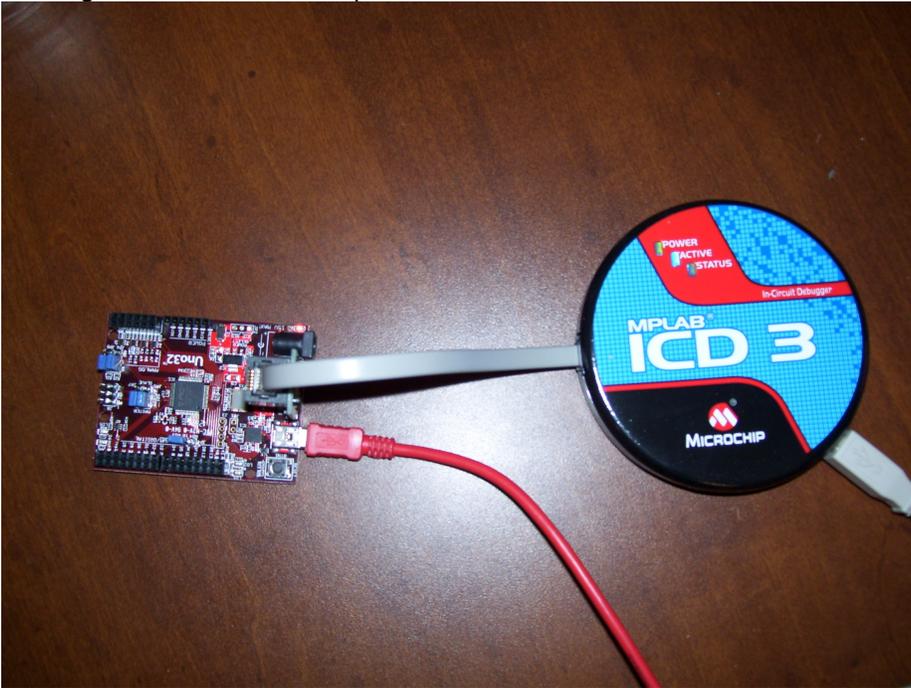
If using The REAL ICE with adapter board AC164110, attach the Uno as shown below:



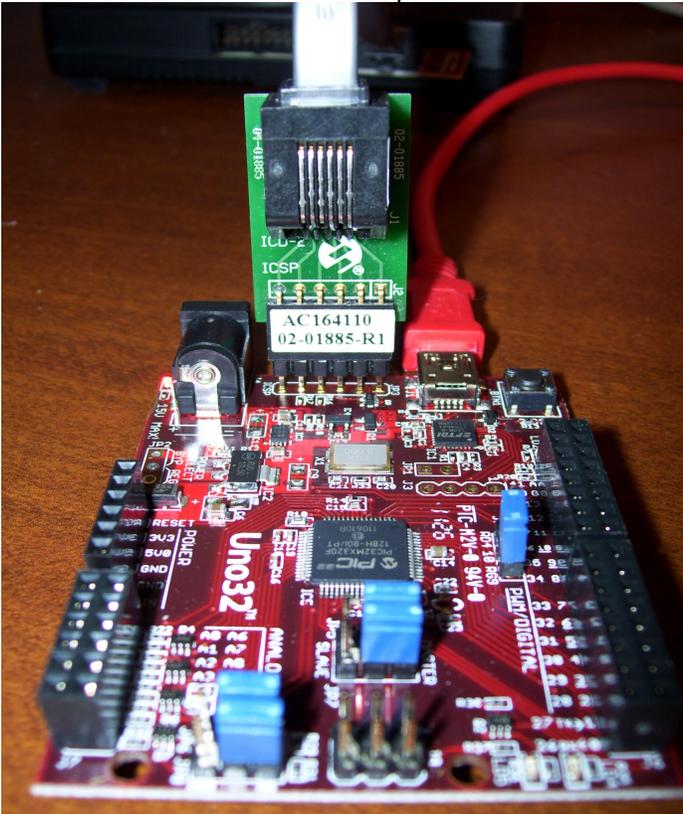
This is how to connect the adaptor board to the Uno32:



If using The ICD 3 with adapter board AC164110, attach the Uno as shown below:



This is how to connect the adaptor board to the Uno32:



## Programming the New Boot Loader

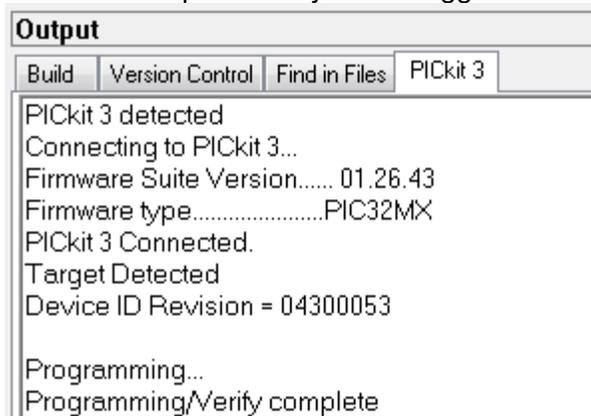
1. From the Start Menu, go to Programs->Microchip->MPLAB IDE v8.76 (or whatever other version of the MPLAB IDE is being used) and click on "MPLAB IDE".
2. In the "Configure" menu click on "Select Device" then from the dropdown menu in the dialog box, select the appropriate microcontroller for the board.
  - a. Uno32: PIC32MX320F128H
  - b. uC32: PIC32MX340F512H
  - c. Max32: PIC32MX795F512L
3. In the "File" menu click on "Import" to bring up the "Open" dialog box, select browse and located the location where you saved the new boot loader. Once the file is highlighted then click "Open".
4. In the "Programmer" menu, select the submenu "Select Tool" and then select the programmer being used.
5. Click on the "Program" Icon, which is shown below (circled in red).



6. A dialog box titled "Programming Warning" may pop up. If this dialog comes up click on "Yes".



7. At this point the "Output" window in MPLAB lab should look similar to the one shown below. With the exception that your debugger will be listed where it states PICkit 3.



8. The new boot loader is now programmed onto the board.