# PIC10F Quick Start Guide

This is a guide to help you get started with your PIC10F Starter Kit (Farnell InOne order code 798-4057). Your kit should contain the PIC10F adapter kit and samples (Farnell InOne order code 796-5540) and a PICkit™ 1 starter kit (Farnell InOne order code 439-0787).

**How to get started:**
1.  Carefully unpack the PICkit starter kit and AC163021 adapter kit. Be sure to follow standard ESD procedures, as the devices and PICkit starter kit are ESD sensitive.

2.  Using proper soldering techniques, assemble the adapter kit into the 5 adapters per the enclosed diagram. Be careful to not overheat the PIC10F devices. Note: A Universal Adapter (Farnell InOne order code 804-9769) is available that has a clam shell to hold the small package without the need to solder.

3.  Replace the PIC12F675 that comes on the PICkit with the PIC10F.

4.  Install the development software by first placing the PICkit 1 Flash Starter Kit CD in your CDROM drive. Please review the system requirements on the back cover of the PICkit starter kit box. Please go to **www.farnellinone.com** for the latest version of MPLAB® IDE and install that if required.

**Using the blinker demo:**
5.  Use MPLAB IDE version 6.53.xx or later to compile the blinker.asm demo into hex code:

    a. A project file called blinker.mcp is available which has all of the MPLAB settings for this demo to compile. The blinker.asm and blinker.mcp files are available from **www.farnellinone.com**.

    b. The demo files should be placed in a directory called "PIC10F code" on your C drive (C:\PIC10F code)

6.  Open the MPLAB IDE program and load the blinker.mcp project file by clicking on Project -> Open and select C:\PIC10F code\blinker.mcp

7.  Select Project -> Build All to compile the code. Make sure that no errors occur.
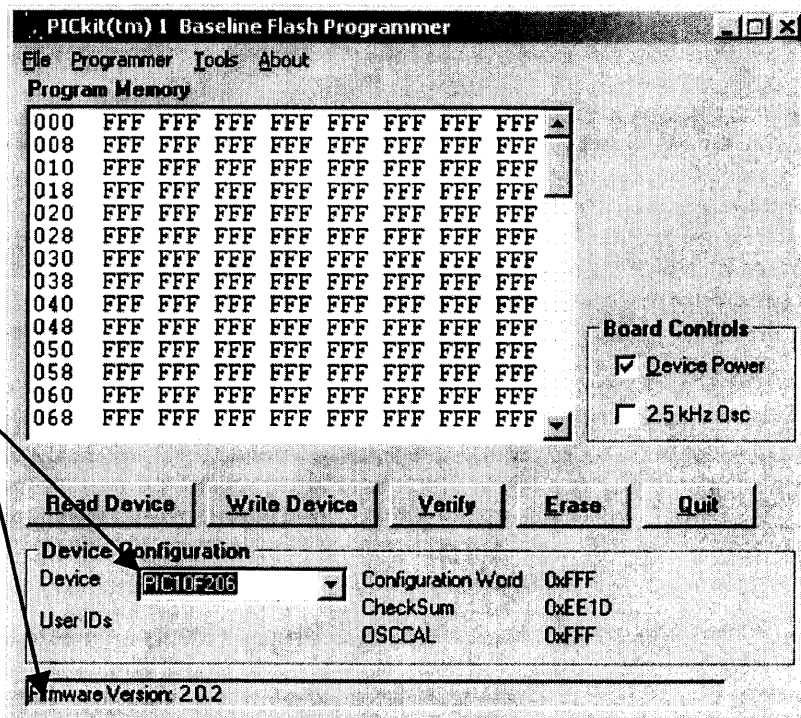
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8. Once the build has succeeded, use the PICkit 1 starter kit Baseline Flash program to write the image to the device:

    a.  Start the PICkit 1 Baseline Flash Programmer application.

    b.  Verify Firmware V2.0.2 in the lower left corner of the application window.

    c.  Select the PIC10F206 device.

    d.  Use File -> Import to bring in the blinker.hex file you just created in MPLAB. (C:\PIC10F code)

    e.  Finally press the Write Device button to program the PIC10F206 device.

9. Once loaded, LED D6 on the PICkit starter kit should start flashing indicating that the program is working properly.

10. You now have all the basic building blocks to evaluate the PIC10F206!

## For more information and documentation on the PIC10F206 please go to www.farnellinone.com

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**PICkit(tm) 1 Baseline Flash Programmer**

File  Programmer  Tools  About

**Program Memory**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 000 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 008 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 010 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 018 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 020 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 028 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 030 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 038 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 040 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 048 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 050 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 058 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 060 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |
| 068 | FFF | FFF | FFF | FFF | FFF | FFF | FFF | FFF |

**Board Controls**

☑ Device Power

☐ 2.5 kHz Osc

[Read Device] [Write Device] [Verify] [Erase] [Quit]

**Device Configuration**

Device  [PIC10F206 ▼]  Configuration Word  0xFFF

User IDs             CheckSum  0xEE1D

                     OSCCAL  0xFFF

Firmware Version: 2.0.2

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**Appendix A: Blinker.asm**
**You can also create a new project for the blinker.asm demo as shown below:**

**First create a project in MPLAB:**
  **Start MPLAB, select Project Wizard from the Project pulldown menu**
  **Step 1: select device PIC10F206 (next)**
  **Step 2: Tool suite - Microchip MPASM – (should be default) (next)**
  **Step 3: Name project – Blinker and select a directory**
  **Step 4: additional files (none – press next)**
  **Finish.**

  **Open an edit window (File | New | Save as Blinker.asm)**
  **Right mouse click on "Source Files" in project window, add blinker.asm**
  **Type this into the window:**

```
list p=10f206
#include <p10f206.inc>

__CONFIG _CP_OFF & _WDT_OFF & _MCLRE_ON & _IntRC_OSC

;***** VARIABLE DEFINITIONS
temp EQU 0x10
delay1 EQU 0x11
delay2 EQU 0x12
;***********************************
        org 0x3FF
        org 0x00
        movwf OSCCAL
        bcf OSCCAL,FOSC4
        goto MAIN
; ====================================
;subroutines
```

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```
delay
        movlw           0xfa
        movwf           delay1
        movlw           0xFF
        movwf           delay2
delay_loop1
        decfsz          delay1,F
        goto delay_loop2
        retlw           0x00
delay_loop2
        decfsz          delay2,F
        goto delay_loop2
        goto delay_loop1
; ================================================================
MAIN
        movlw           b'11000000'
        option
        movlw           b'11110011'
        movwf           CMCON0
        movlw           b'00000000'
        movwf           GPIO
        movlw           b'11111001'
        tris GPIO
Loop_here
        movlw           b'00000100'
        xorwf           GPIO,F
        call delay
        goto Loop_here

END
```