

Starter Kit Quickstart Tutorial



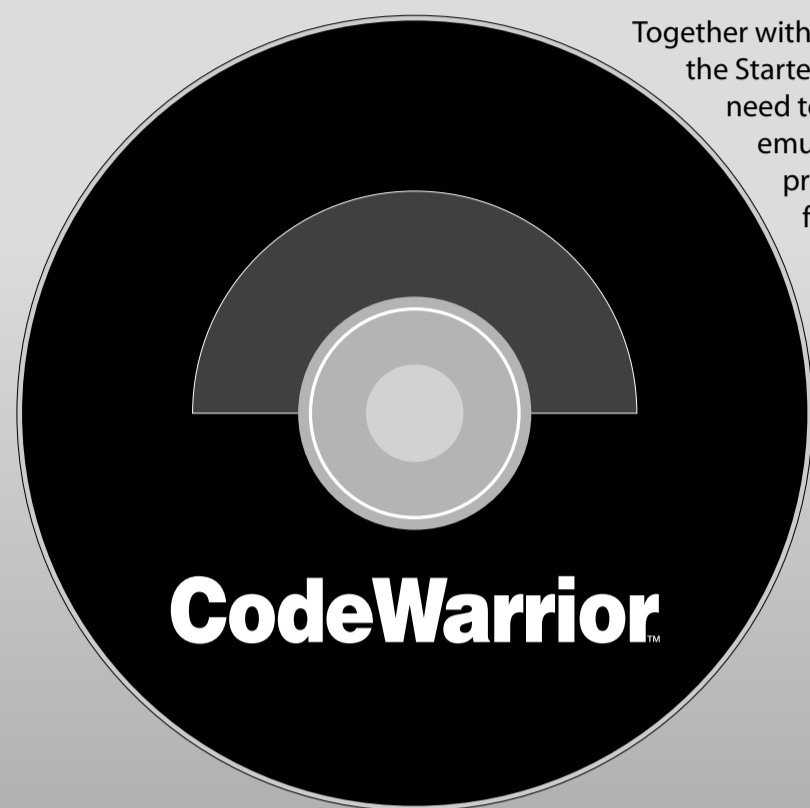
1 Install CodeWarrior Development Studio



The Starter Kit comes with CodeWarrior Development Studio for Freescale Microcontrollers, Special Edition. The Special Edition includes the CodeWarrior integrated development environment (IDE), code-size limited C compiler and C source-level debugger; macro assembler and assembly-level debugger; flash programming support; and full-chip simulator.

Together with CodeWarrior Development Studio, the Starter Kit provides you with everything you need to write, compile, download, in-circuit emulate and debug user code. Full-speed program execution allows you to perform hardware and software testing in real time.

To install the CodeWarrior Development Studio Special Edition, insert the CodeWarrior CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Follow the on-screen instructions.



2 Install Additional Components



The SofTec Microsystems Additional Components install all of the other required components to your hard drive. These components include the Starter Kit USB driver, the software plug-in for CodeWarrior, examples and documentation in PDF format.

To install the SofTec Microsystems Additional Components, insert the SofTec Microsystems "System Software" CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear.

Choose "Install Instrument Software" from the main menu. Follow the on-screen instructions.

Note: to install the Starter Kit Additional Components on Windows 2000 or Windows XP, you must log in as Administrator.

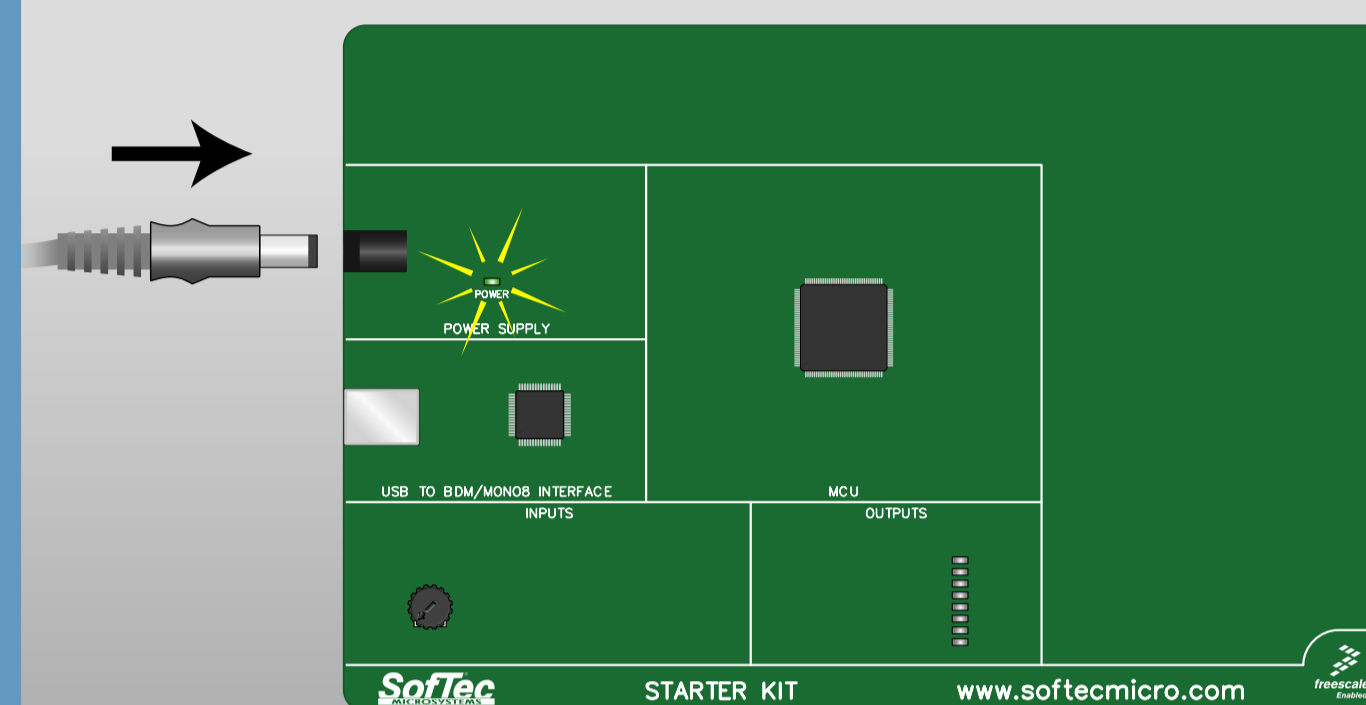


3 Power up the Board



Before powering up the evaluation board, make sure all of the Starter Kit's jumpers are set to their factory position (see the Starter Kit's specific user's manual).

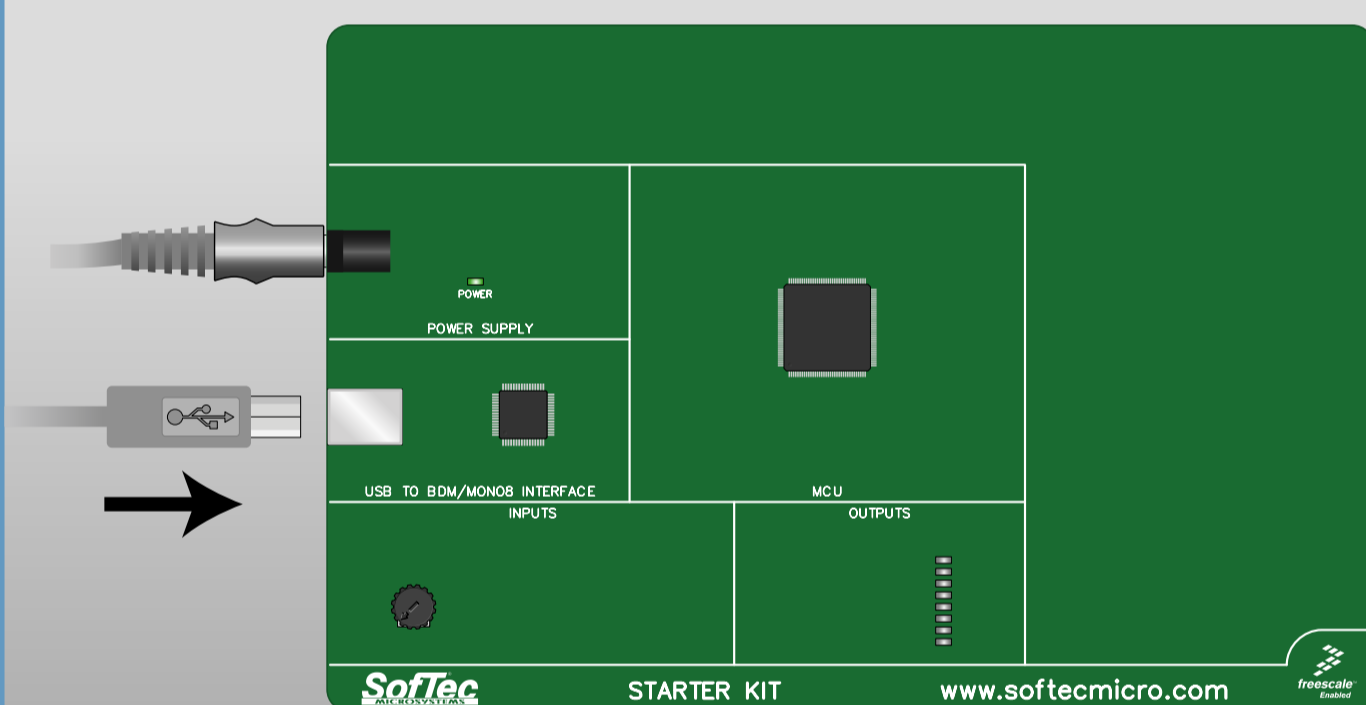
The power connector accepts a 12 V DC, wall plug-in power supply with a 2.1 mm pin and sleeve plug with positive in the center and sleeve as ground. The green "POWER" LED on the board should turn on.



4 Connect the Board to the PC



Insert one end of the USB cable into a free USB port on the host PC. Insert the other end of the USB cable into the USB connector on the Starter Kit board.



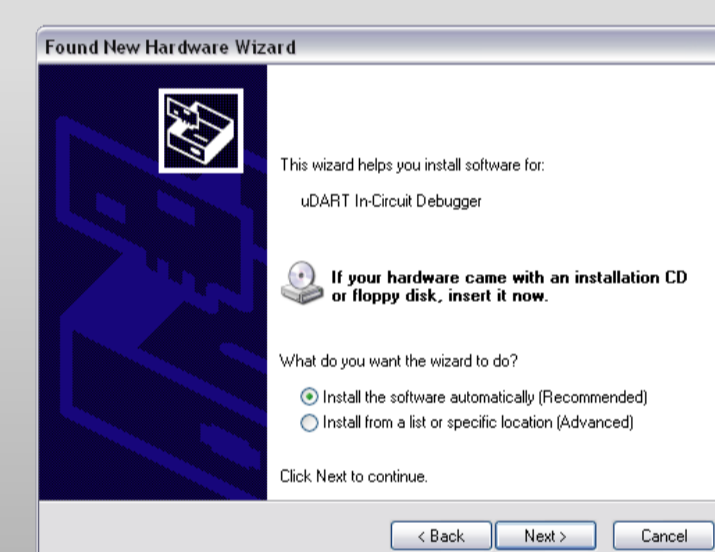
5 Found New Hardware Wizard



The first time the Starter Kit is connected to the PC, Windows recognizes the instrument and starts the "Found New Hardware Wizard" procedure, asking you to specify the driver to use for the instrument.

The procedure is slightly different on each version of Windows. On Windows XP, select the "Install the software automatically" option and click on the "Next" button.

Be sure not to specify any drive or optional location where to look for the driver, since it has already been installed on your hard disk by the Starter Kit Additional Components setup.



Note: both Windows 2000 and Windows XP may issue a warning during the "Found New Hardware Wizard" procedure. This warning is related to the fact that the USB driver used by the Starter Kit is not digitally signed by Microsoft, and Windows considers it to be potentially malfunctioning or dangerous for the system. However, you can safely ignore the warning, since every kind of compatibility/security test has been carried out by SofTec Microsystems.

6 Run CodeWarrior and Open the Example



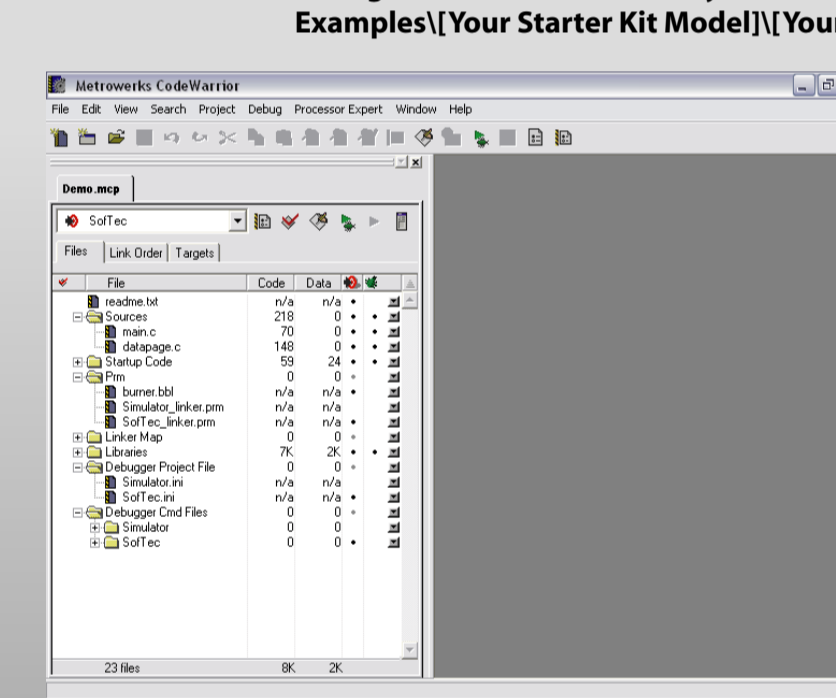
Make sure all of the Starter Kit's jumpers are set to their factory position. Start CodeWarrior Development Studio by selecting "Start > Programs > SofTec Microsystems > SK and ZK Series > CodeWarrior Development Studio". CodeWarrior Development Studio will open.

From the main menu, choose "File > Open".

Select the "Demo.mcp" workspace file located under the "Program Files\SofTec Microsystems\SK and ZK Series\CodeWarrior Examples\[Your Starter Kit Model]\[Your Target Microcontroller]" directory.

Click "Open".

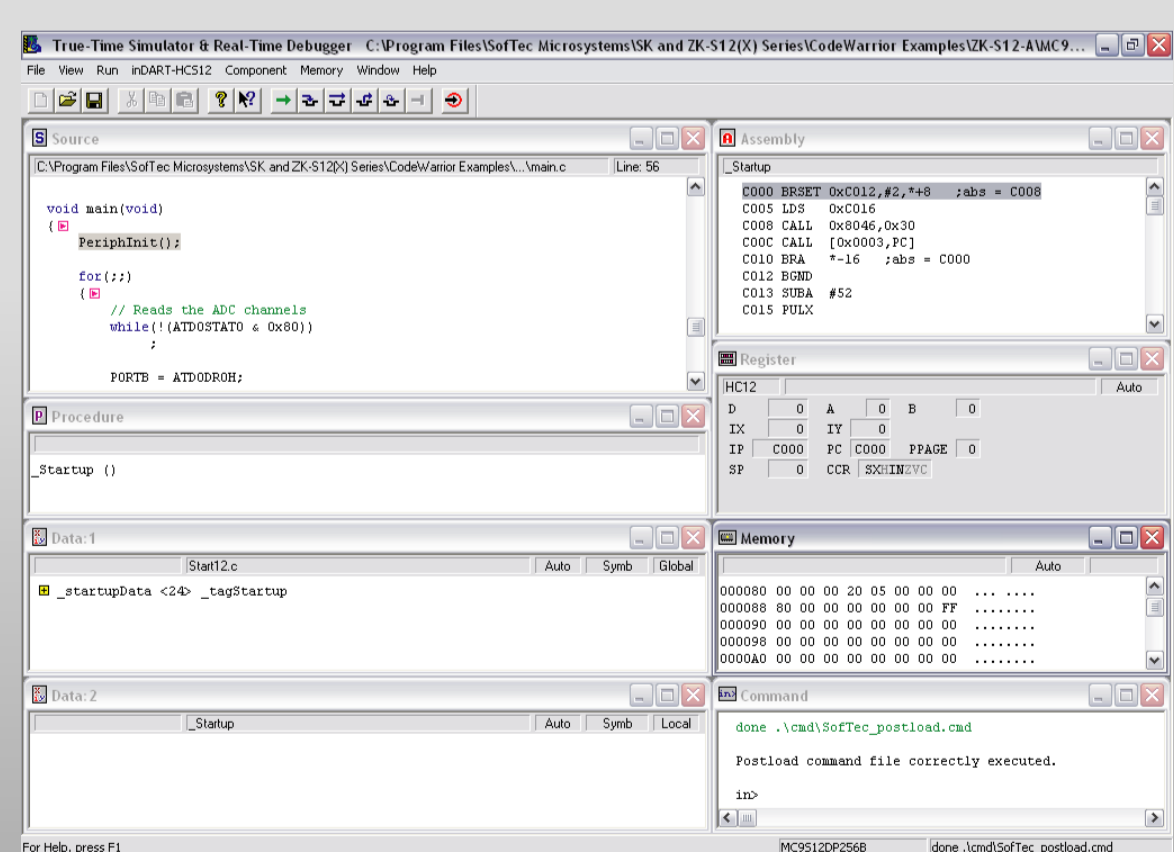
The source code of this example is contained in the "main.c" file. Double click on it to open.



7 Start a Debugging Session



From the main menu, choose "Project > Debug". This will compile the source code, generate an executable file and download it to the Starter Kit board. A new debugger environment will open.

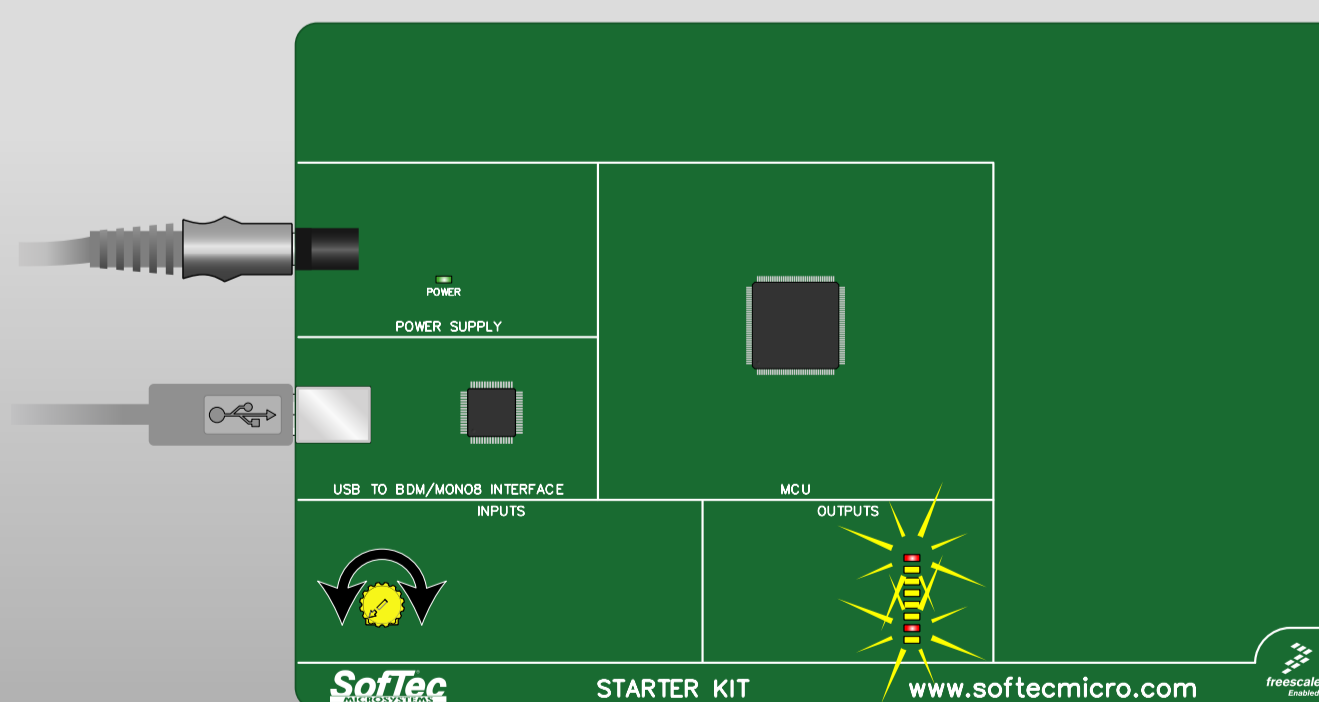


8 Run the Example

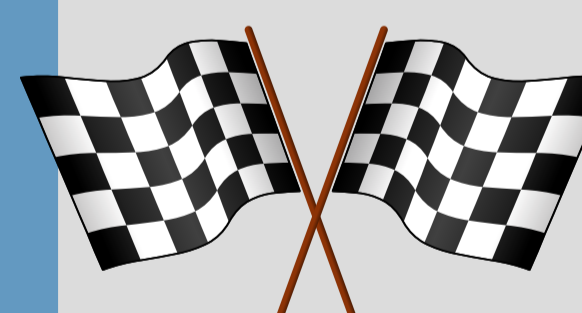


From the main menu, choose "Run > Start/Continue". The program will be executed in real-time.

By rotating the potentiometer on the Starter Kit board, you affect the results of the A/D conversion, and the result of each conversion is displayed on the Starter Kit's output section.



9 Congratulations!



You have successfully completed this tutorial! You can continue to experiment with the CodeWarrior user interface and discover its potentialities by yourself.

For an in-depth guide of all of the user interface features, select "Help > CodeWarrior Help" from the CodeWarrior Development Studio's main menu.

Please also read carefully all of the Starter Kit documentation.

For the latest software releases, new products, new supported devices, discussion forums and FAQs, log on to

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



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Starter Kit 速成教學



一 安裝CodeWarrior Development Studio

本產品 Starter Kit 附有專為開發飛思卡爾微控制器的 CodeWarrior Development Studio 特別版。此版本包含 CodeWarrior 整合式開發環境 (IDE)、C 語言編譯器 (程式大小被限制) 和 C 語言原始碼除錯器、巨集組譯程序和組合語言除錯器，並提供快閃記憶體燒錄及全晶片的模擬器。

本產品 Starter Kit 與 CodeWarrior Development Studio 能為您提供一切有關編寫、編譯、下載、線上模擬和除錯使用者程式碼，並能全速執行程式進行實時硬體和軟體的測試。

安裝 CodeWarrior Development Studio 特別版：將 CodeWarrior 光碟放入光碟機內，啟動視窗隨即自動打開。然後，請依照螢幕的指示進行安裝。



二 安裝附加元件

SoFtec Microsystems Additional Components 將會把所需的元件安裝到硬碟機，元件包括 Starter Kit 的 USB 驅動程式、CodeWarrior 的外掛軟體、程式例子及 PDF 格式的文件檔。

安裝 SoFtec Microsystems Additional Components：將本公司 SoFtec Microsystems 提供的 [System Software] 光碟放入光碟機內，啟動視窗隨即自動打開。

在主菜單選擇 [Install Instrument Software]，然後請依照螢幕的指示進行安裝。

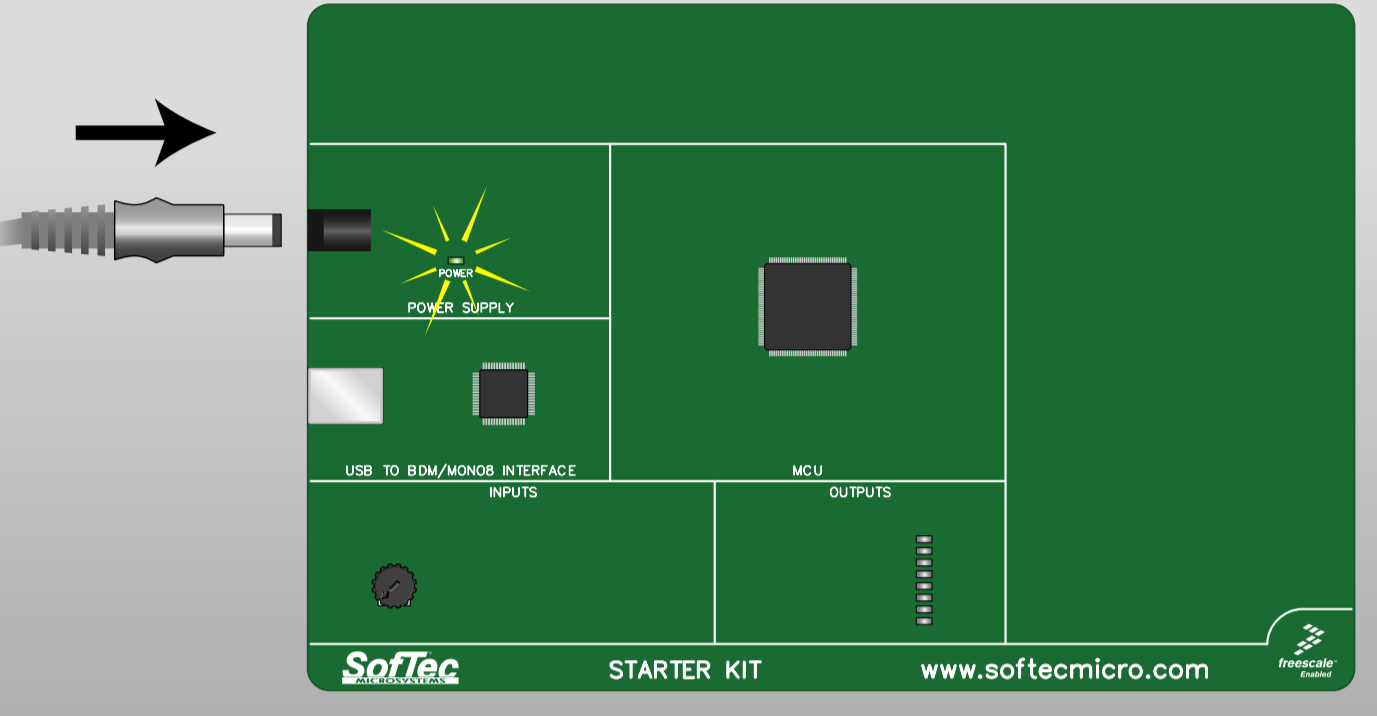
註：您必須以系統管理員的身份登入，才可以在 Windows 2000 或 Windows XP 安裝 Starter Kit Additional Components。



三 為電路板接上電源

為評估板接上電源前，請確定所有 Starter Kit 的跨接線固定於出廠時的位置 (詳情請參閱 Starter Kit 的使用者手冊)。

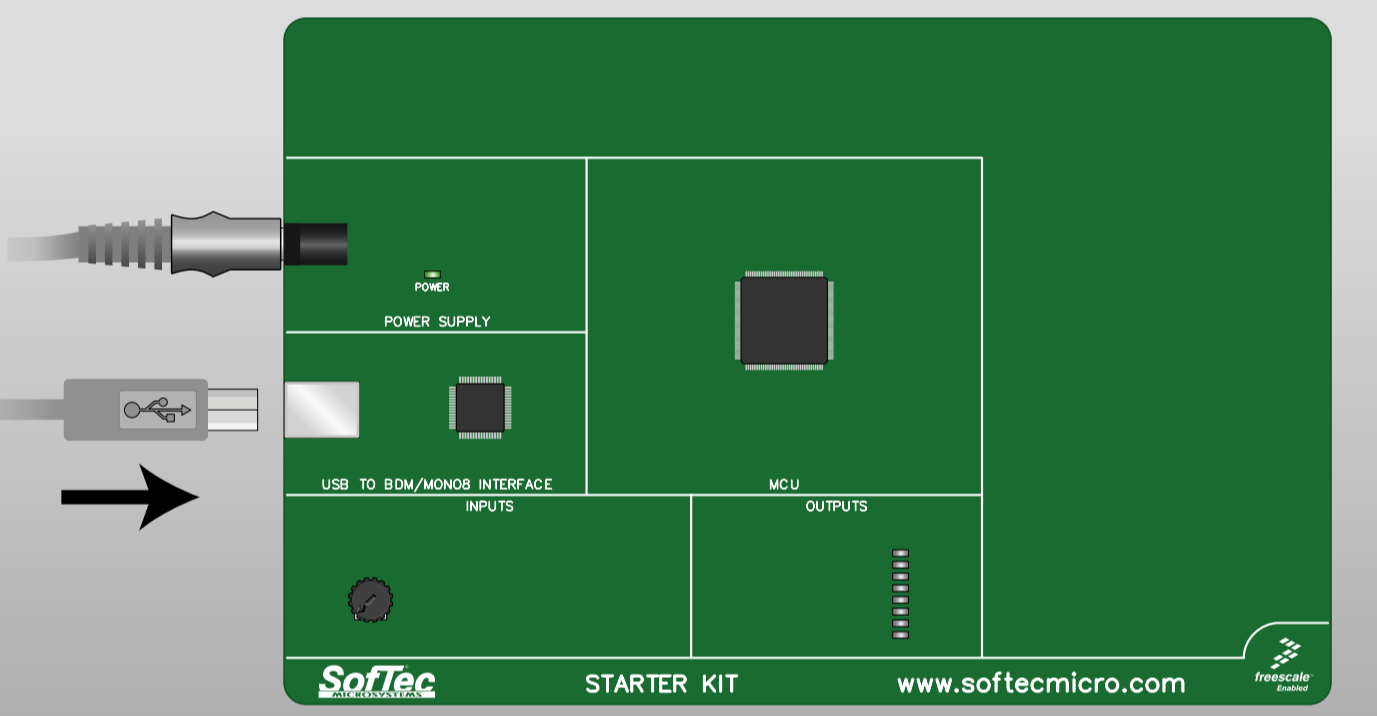
當電路板上的電源插孔接上 12 伏特直流電入牆式供電器 (插頭規格：2.1 mm，中心和外層分別為正極及接地端) 時，電路板上的 [POWER] 綠色發光二極體將會亮起。



四 連接電路板到個人電腦

把 USB 連接線的一端插入主機一個閒置的 USB 連接埠。

把 USB 連接線的另一端插入 Starter Kit 電路板的 USB 連接頭。



五 新增硬體精靈

當首次連接 Starter Kit 到個人電腦，Windows 會偵察到新硬體並開啓 (新增硬體精靈)，詢問驅動程式的位置。

各 Windows 版本的安裝步驟略有不同，如您正在執行 Windows XP 版本，請選擇 [自動安裝軟體] 及按一下 [下一步]。

正確的驅動程式在設定 Starter Kit Additional Components 時已經安裝妥當，請不要指定驅動程式的所在位置。

註：Windows 2000 及 Windows XP 在執行 [新增硬體精靈] 程序時，對此 USB 驅動程式沒有 Windows 認可的數位簽章，可能發出有潛在的失誤及可能危及整個系統的警告。但經本公司 SoFtec Microsystems 作出深入的兼容及安全測試，可放心略過此警告。



六 執行CodeWarrior 以及開啟例子

請先確定 Starter Kit 的跨接線固定於出廠時的位置。

開啓 CodeWarrior Development Studio 軟體：選擇 [開始 > 所有程式 > SoFtec Microsystems > SK and ZK Series > CodeWarrior Development Studio]。

在主菜單選擇 [File > Open]。

在路徑 [Program Files\SoFtec Microsystems\SK and ZK Series\CodeWarrior Examples\Your Starter Kit Model\Your Target Microcontroller\Demo] 中，選取工作區檔案 [Demo.mcp]。

按一下 [Open]。

[main.c] 包含這例子的 C 原始碼，按兩下此檔案便可開啓它。



七 開始除錯時段

在主菜單選擇 [Project > Debug]，原始碼將會被編譯並產生可執行程式檔，然後自動下載到 Starter Kit 電路板上。

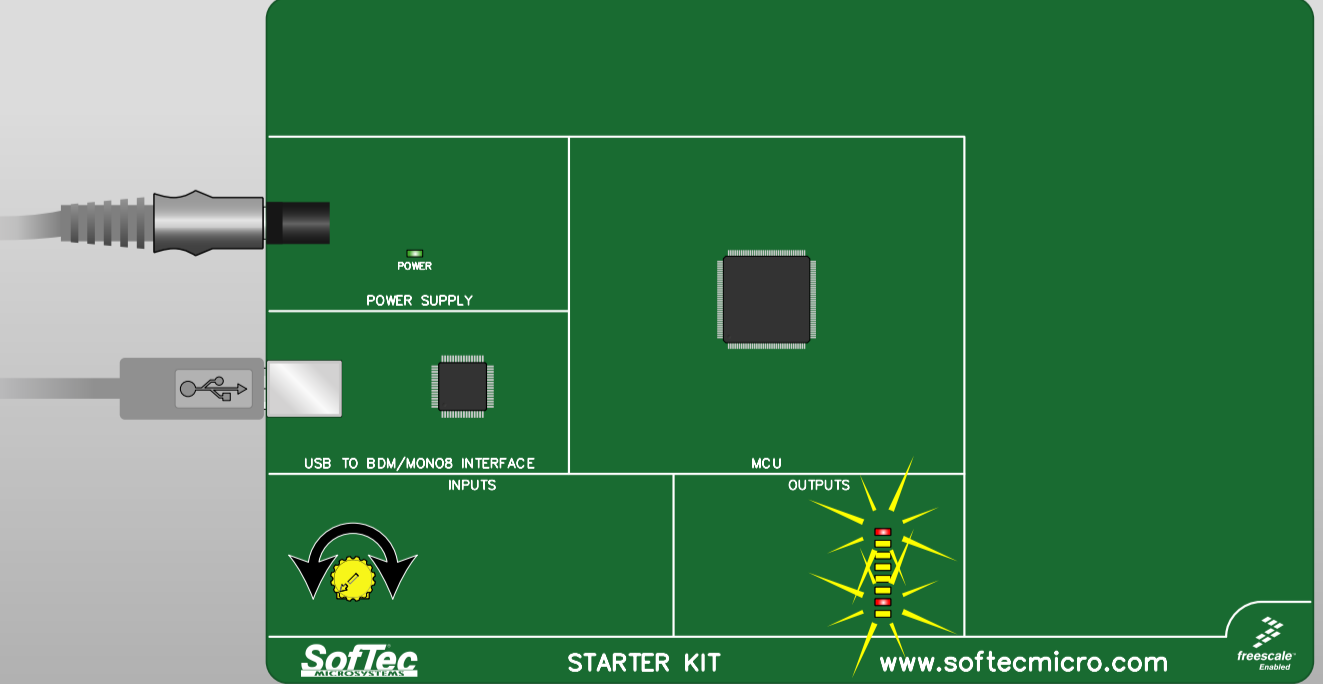
新的除錯器環境將會被打開。



八 執行例子

在主菜單選擇 [Run > Start/Continue]，程式將會被實時執行。

轉動在 Starter Kit 電路板上的分壓計，類比 / 數位轉換結果將會被改動，並即時在 Starter Kit 輸出區域顯示。



九 恭喜!

您已成功完成此教學！歡迎您繼續嘗試使用 CodeWarrior 使用者介面，並發掘該產品更多的潛能。

有關使用者介面深入的功能，請在 CodeWarrior Development Studio 中的主菜單選擇 [Help > CodeWarrior Help]，參考有關的說明。

此外，請詳細參閱 Starter Kit 內的所有文件。

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

