SK-S12XDP512-A Quickstart Tutorial

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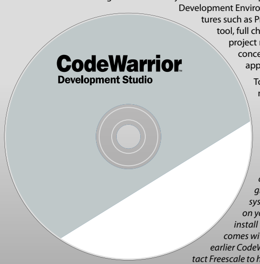
1 Install CodeWarrior Development Studio

The Starter Kit comes with a free version of CodeWarrior Development Studio Special Edition.

CodeWarrior Development Studio is a powerful and easy-to-use tool suite designed to increase your software development productivity. Its Integrated Development Environment (IDE) provides unrivaled features such as Processor Expert application design tool, full chip simulation, Data Visualization and project manager with templates to help you concentrate on the added value of your application.

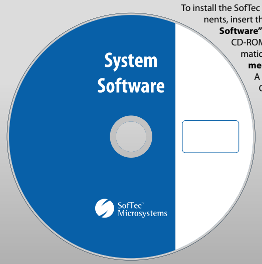


To install the CodeWarrior Development Studio Special Edition, insert the CodeWarrior CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Follow the on-screen instructions.

Note: the Starter Kit requires that a CodeWarrior version equal to or greater than 4.5 is present on your system. If you have an earlier version on your system, you must uninstall it and install the new CodeWarrior version which comes with the Starter Kit. If you purchased an earlier CodeWarrior version, we advise you to contact Freescale to have your license extended to the new version.

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.



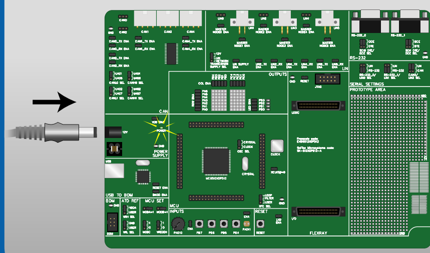
To install the SofTec Microsystems Additional Components, insert the SofTec Microsystems **"System Software"** CD-ROM into your computer's CD-ROM drive. A startup window will automatically appear. Choose **"Install Instrument Software"** from the main menu. A list of available software will appear. Click on the **"SK-S12XDP512-A Starter Kit Additional Components"** option. Follow the on-screen instructions.

Note: to install the SK-S12XDP512-A Starter Kit Additional Components on Windows 2000 or Windows XP, you must log in as Administrator.

3 Power up the Board

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. Make sure the **"VDD ENA"** jumper is inserted. The voltage is internally regulated to 5.0 V DC.

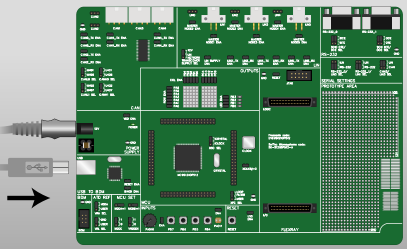
The green **"POWER"** LED on the board should turn on.



4 Connect the Board to the PC

Insert one end of the USB cable into a free USB port.

Insert the other end of the USB cable into the USB connector on the Starter Kit board.

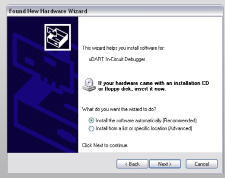


5 Found New Hardware Wizard

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 SK-S12XDP512-A 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.

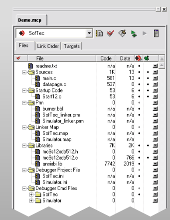
6 Run CodeWarrior and Open the Example

Make sure that all of the Starter Kit's jumpers are set to their factory position.

Start CodeWarrior Development Studio by selecting **Start > Programs > Freescale CodeWarrior > CW for HC12 > CodeWarrior IDE**. The CodeWarrior IDE will open.

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

Select the **"Demo.mcp"** workspace file that is located under the **"\Program Files\Freescale\CW for HC12\(CodeWarrior_Examples) \HCS12X\SofTec Microsystems\SK-S12XDP512-A\Demo"** directory.



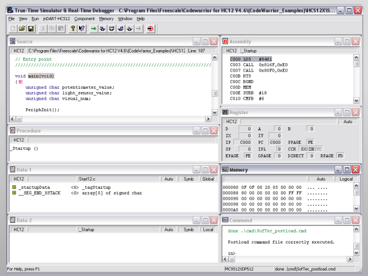
Click **"Open"**.

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

7 Start a Debugging Session

From the main menu, choose **"Project > Debug"**. This will compile the source code, generate an executable file and will download it to the demo board.

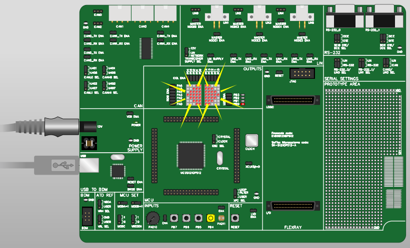
A new debugger environment will open.



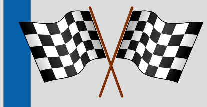
8 Run the Example

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

Press the "PB4" push-button. The output of the light sensor will be displayed on the two dot-matrix displays, in a graphic way. The light sensor is placed on the right of the "PB4" push-button. Cover the sensor with a finger and see the effect on the displays.



9 Congratulations!



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

For an in-depth guide of all of the user interface features, select **Help > CodeWarrior Help** from the CodeWarrior IDE'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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