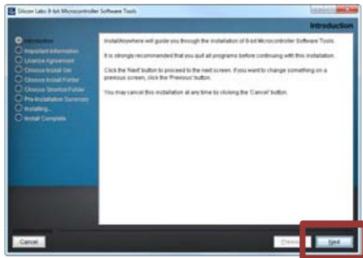


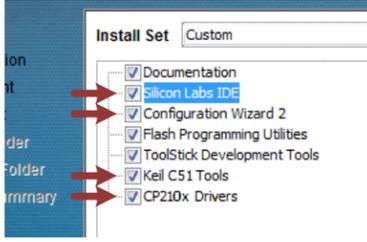
## A. Install Software

**1** Install the Silicon Labs 8-bit development software from the included CD-ROM. The latest software can also be downloaded from [www.silabs.com/8bit-software](http://www.silabs.com/8bit-software)

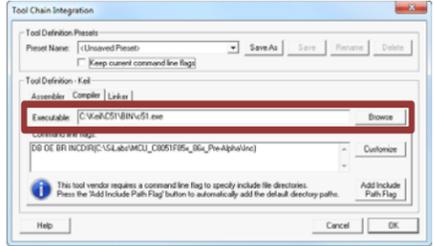


At a minimum, the C8051F850DK requires

- Silicon Labs IDE
- Configuration Wizard 2
- Keil C51 Tools
- CP210x Drivers



**2** Open the Silicon Labs IDE and ensure it's using the installed tools by going to the Project → Tool Chain Integration menu. The Assembler (A51), Compiler (C51), and Linker (BL51) each have separate tabs.

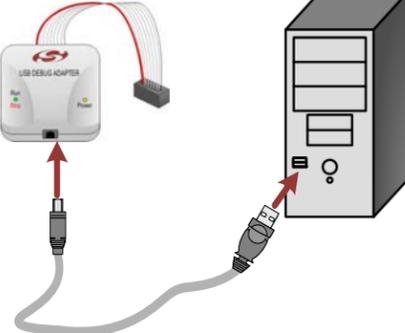


## B. Hardware Setup

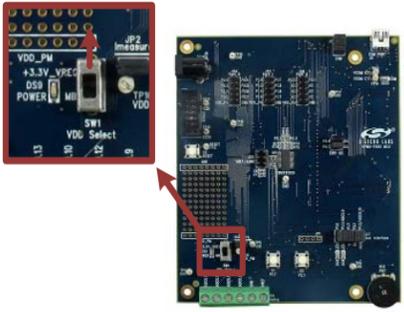
**1** Connect the USB Debug Adapter to the 10-pin debug connector (J23) on the MCU card using the 10-pin ribbon cable.



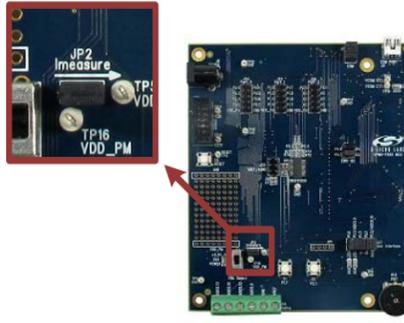
**2** Connect the USB Debug Adapter to the PC using the standard USB cable.



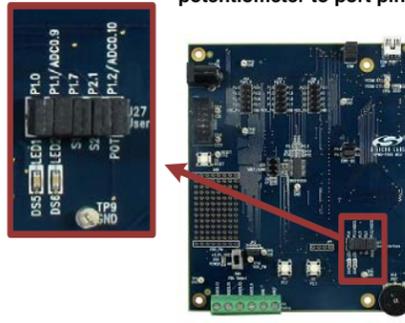
**3** Move the SW1 VDD Select switch to the top +3.3\_VREG position.



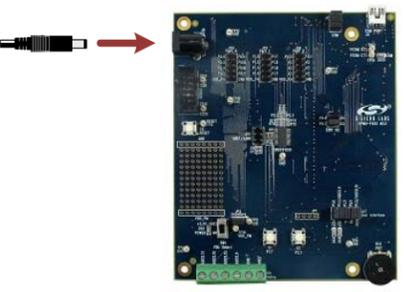
**4** Verify the JP2 Imeasure jumper is populated.



**5** Verify the J27 jumpers are populated, connecting the LEDs, switches, and potentiometer to port pins.



**6** Power the MCU card through the power connector (J6) using the supplied 9 V ac/dc adapter.



## C. Documentation

**1** Download the User's Guide for Each Board in the Development Kit.



### Where to Find Documentation

**C8051F85x/86x Information:**  
[www.silabs.com/8bit-mcu](http://www.silabs.com/8bit-mcu) → Small Form Factor MCUs → C8051F85x/86x  
**Hardware User's Guide:**  
[www.silabs.com/8bit-mcu](http://www.silabs.com/8bit-mcu) → Development Tools → C8051F850DK  
**OR** [www.silabs.com/udp](http://www.silabs.com/udp)  
**Application Notes:**  
[www.silabs.com/8bit-mcu](http://www.silabs.com/8bit-mcu) → Application Notes  
**Software:**  
[www.silabs.com/8bit-software](http://www.silabs.com/8bit-software)  
**Quality Documents:**  
[www.silabs.com/quality](http://www.silabs.com/quality)

**Note:** This Development Kit includes a **Product Serial Number** that expands the 2 KB code-limited evaluation version of the Keil tools to a full version with no code limit. Registration instructions can be found in the C8051F850DK User's Guide and in Application Note 104. This Keil tools upgrade process is not required to complete the steps listed in this document.



- C8051F850 UDF MCU card
- Silicon Laboratories USB Debug Adapter
- 1 x mini USB cable
- 1 x regular USB cable
- Universal Power Supply
- CD-ROM

The C8051F85x/86x Development Kits come with an MCU card, USB Debug Adapter, and all necessary cables and power supplies needed to evaluate hardware and develop code.

# C8051F85x/86x MCU DEVELOPMENT KIT QUICK-START GUIDE FEATURING THE UNIFIED DEVELOPMENT PLATFORM (UDP)



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User's use of this EVB/Kit is conditioned upon acceptance of the foregoing conditions. If User is unwilling to accept these conditions, User may request a refund and return the EVB/Kit to Silicon Labs in its original condition, unopened, with the original packaging and all documentation to:

Mailing Address:  
 400 W. Cesar Chavez  
 Austin, TX 78701

**D. Using the Silicon Labs IDE for the First Time**

**1** Open the project file `F85x_Blinky_Keil.wsp` in `..Examples\C8051F85x_86x\Blinky` by going to Project → Open Project.

**Note:** The default installation path is `C:\Silabs\MCU...`

**2** Go to Options → Connection Options... to select the debugging interface.

**Select USB Debug Adapter**

**Select the C2 debug interface**

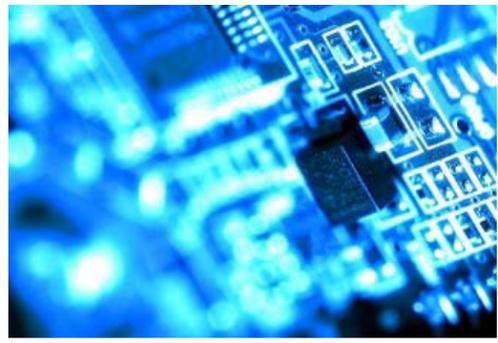
**3** Connect to the target MCU.

**Note:** If the IDE gives a notice that the debug adapter must be reprogrammed, press OK.

**4** Click on `F85x_Blinky.c` in the Project window to open the source file, if it's not already open.

**5** Build and Download the program.

**6** Execute the example program. The red LED on the MCU card flashes as the program runs.



**E. Additional Support**

**7** Stop execution of the program.

**9** Execute the program. The IDE will stop when it encounters the breakpoint.

**11** Open register or code windows by going to View → Debug Windows.

**8** Set a breakpoint on any line of code.

**10** Step through the program.

**12** View or modify Peripherals, Registers, or Memory.

**Where to Find Support**

- Application Notes: [www.silabs.com/bti-appnotes](http://www.silabs.com/bti-appnotes)
- MCU KnowledgeBase: [www.silabs.com/support/Knowledge Base](http://www.silabs.com/support/Knowledge Base)
- User's Forums: [forum.silabs.com](http://forum.silabs.com)
- Contact an Applications Engineer: [www.silabs.com/support/Contact Technical Support](http://www.silabs.com/support/Contact Technical Support)