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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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# C8051FxxxDK DEVELOPMENT KIT QUICK-START GUIDE FOR KITS FEATURING THE UNIFIED DEVELOPMENT PLATFORM (UDP)

## Kit Contents

There are four varieties of general purpose UDP development kits. The content of these kits is listed below:

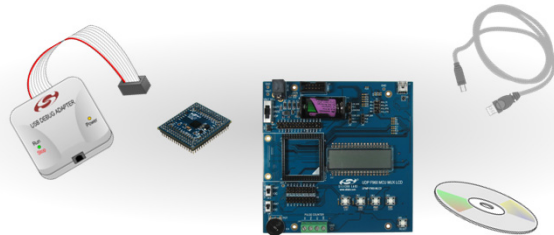
### Development Kit

- The specific UDP MCU card.
- Silicon Laboratories USB Debug Adapter.
- Supporting cables.
- C8051FxxxDK Development Kit CD.
- C8051FxxxDK Quick Start Guide (this document).



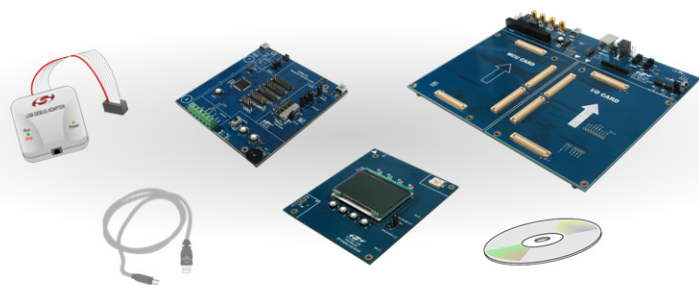
### Development Kit with Pico Board

- UPPI Pico Board for the MCU.
- The specific UDP MCU card.
- Silicon Laboratories USB Debug Adapter.
- Supporting cables.
- C8051FxxxDK Development Kit CD.
- C8051FxxxDK Quick Start Guide (this document).



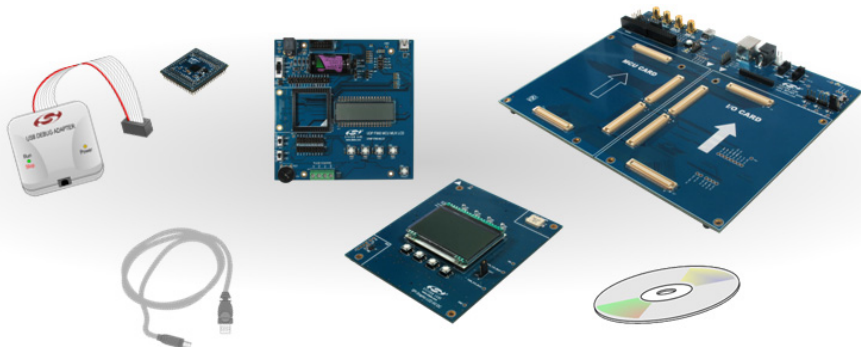
### Enhanced Development Kit

- The specific UDP MCU card.
- UDP Motherboard.
- The specific kit I/O card.
- Silicon Laboratories USB Debug Adapter.
- Supporting cables.
- C8051FxxxDK Development Kit CD.
- C8051FxxxDK Quick Start Guide (this document).



### Enhanced Development Kit with Pico Board

- UPPI Pico Board for the MCU.
- The specific UDP MCU card.
- UDP Motherboard.
- The specific kit I/O card.
- Silicon Laboratories USB Debug Adapter.
- Supporting cables.
- C8051FxxxDK Development Kit CD.
- C8051FxxxDK Quick Start Guide (this document).





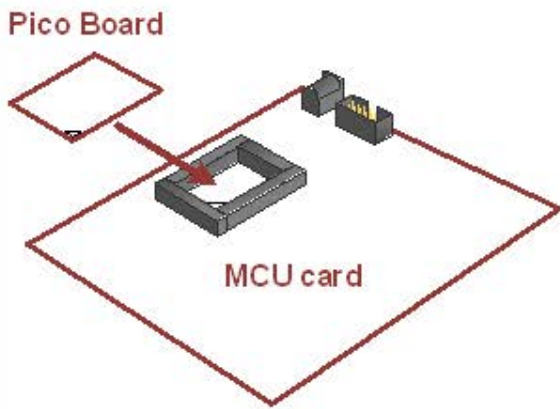
## Hardware Setup with the UDP Motherboard

1

If the kit includes a UPPI Pico Board, connect the Pico board to the MCU card. The white triangles on the boards should line up.

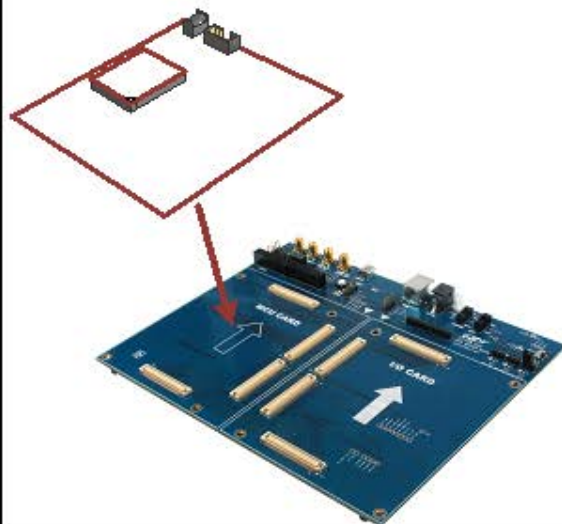
Pico Board

MCU card



2

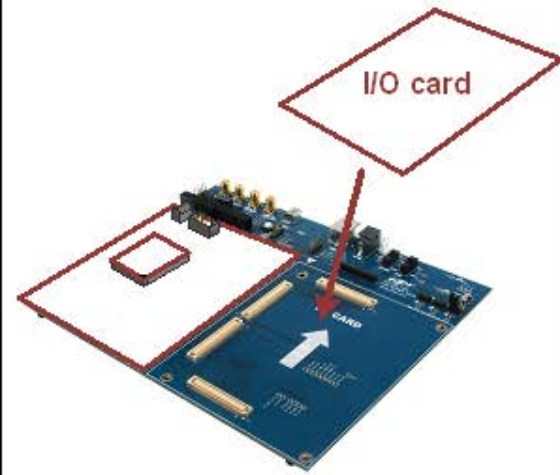
Connect the MCU card to the UDP motherboard.



3

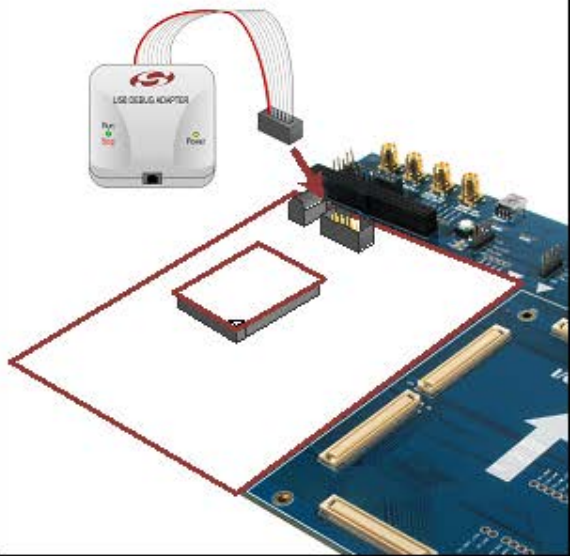
If the kit includes an I/O card, connect the I/O card to the UDP motherboard.

I/O card




4

Connect the USB Debug Adapter ribbon cable to the MCU card.



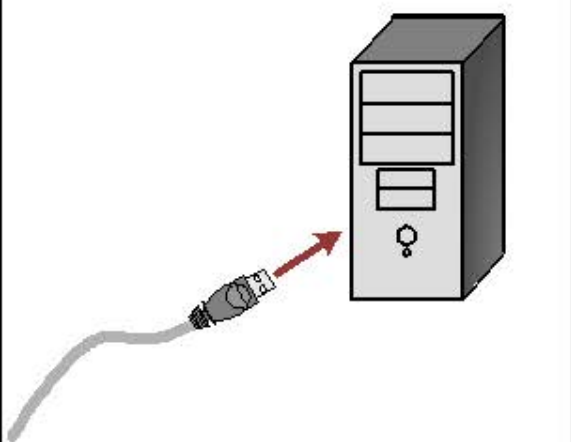
5

Connect a USB cable to the USB Debug Adapter.



6

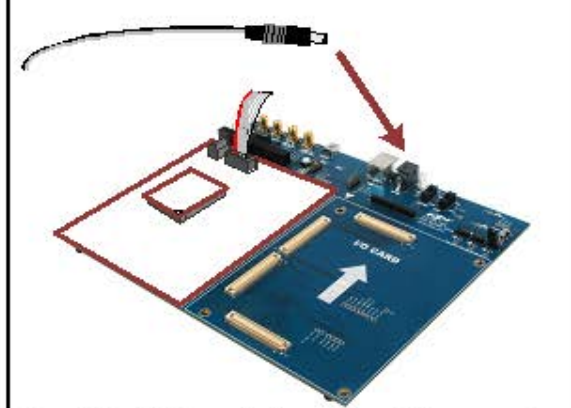
Connect the USB cable to the PC.



7

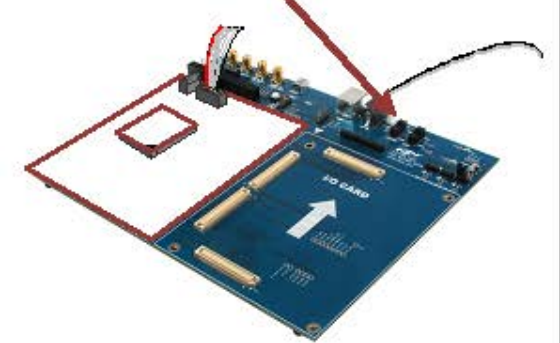
Connect the power supply to the UDP motherboard.

Note: The UDP motherboard includes several options for alternate power sources. See the UDP motherboard User's Guide at [www.silabs.com/udp](http://www.silabs.com/udp) for details.



8

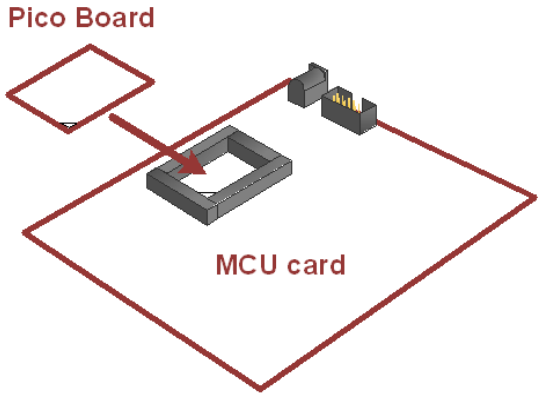
Move the motherboard power switch to the ON position.



Hardware Setup with the MCU Card Alone

1

If the kit includes a UPPI Pico Board, connect the Pico board to the MCU card. The white triangles on the boards should line up.

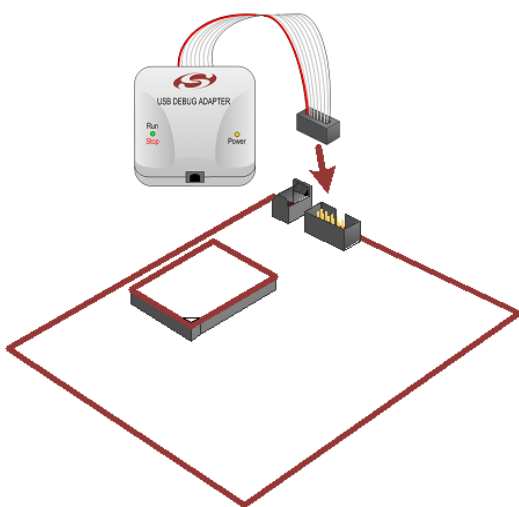


Pico Board

MCU card

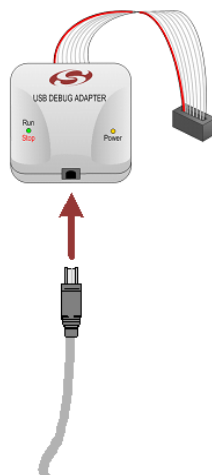
2

Connect the USB Debug Adapter ribbon cable to the MCU card.



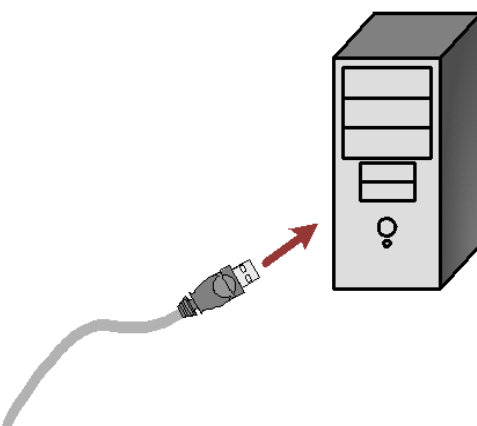
3

Connect a USB cable to the USB Debug Adapter.



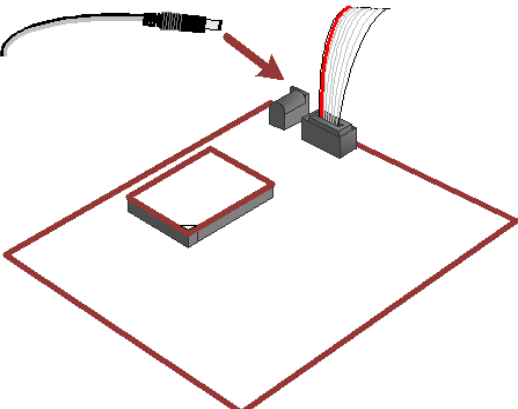
4

Connect the USB cable to the PC.



5

Connect the power supply to the MCU card.



Note: Some MCU cards include options for alternate power sources. See the UDP MCU card User's Guide at [www.silabs.com/udp](http://www.silabs.com/udp) for details.

Software Installation

1

Insert the UDP Development Kit CD in the PC's CD-ROM Drive.



2


Select "Install Development Tools" from the introduction window and follow the on-screen instructions.



Note: If autorun does not launch the introduction window, run "SETUP.EXE" directly from the CD.


3

From the Programs list in the Start menu, select Silicon Laboratories and click on the Silicon Laboratories IDE logo.



4

Silicon Laboratories IDE opens.

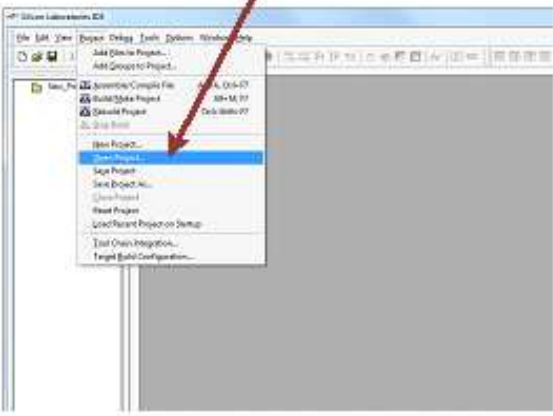




Using the Silicon Labs IDE

1

Open the project file "**<Family>\_Blinky\_C.wsp**" located at "**C:\SiLabs\WCUExamples\<Family>\_Blinky**"




2

Select "**Connection Options...**" from the "**Options**" Menu.

Select USB Debug Adapter

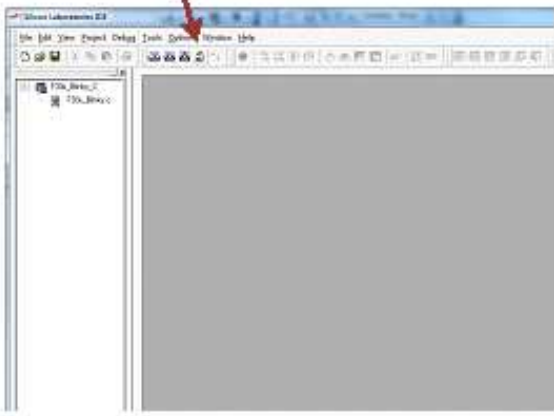
Select the correct debug interface

C8051F0xx	→ JTAG
C8051F1xx	→ JTAG
C8051F2xx	→ JTAG
C8051F3xx	→ C2
C8051F4xx	→ C2
C8051F5xx	→ C2
C8051F9xx	→ C2



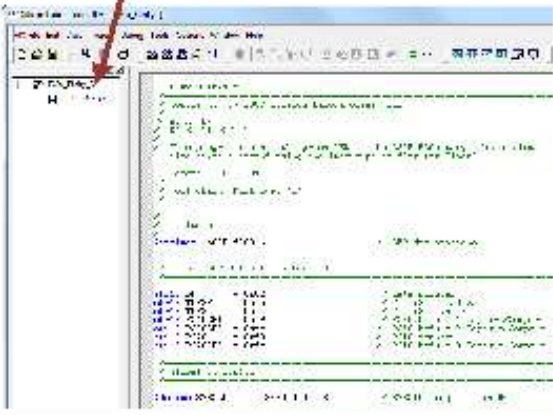
3

Connect to the target MCU.



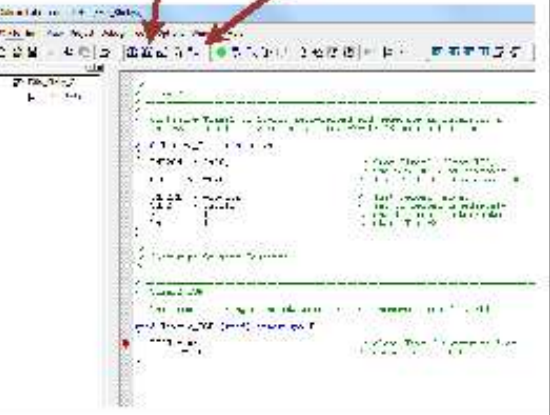
4

Click on "**<Family>\_Blinky.c**" to open source file.



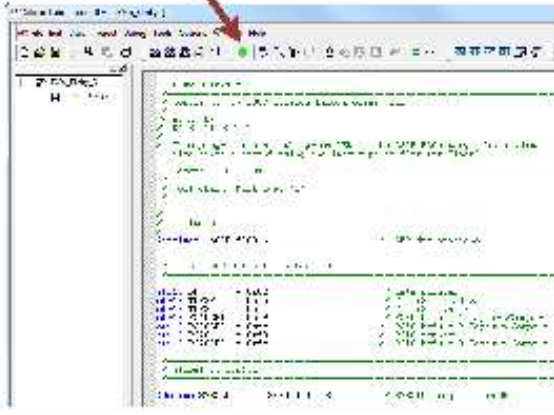
5

Build and Download the program



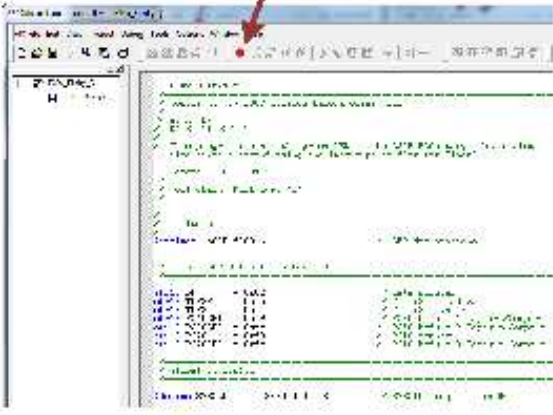
6

Execute the example program. The green LED on the MCU card flashes as the program runs.



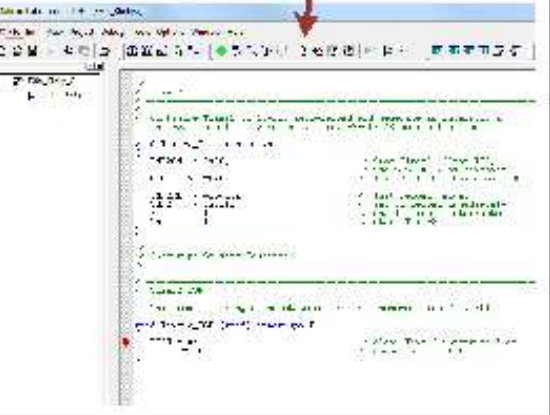
7

Stop execution of the example program



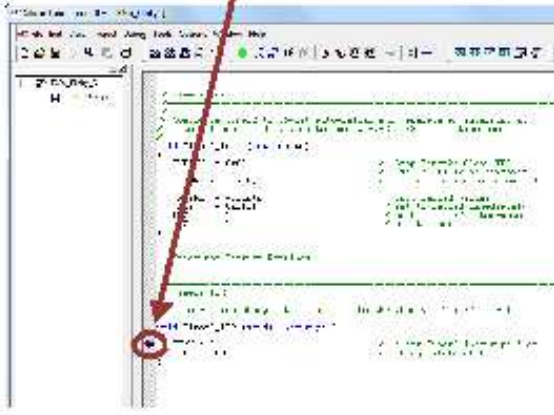
8

Set a breakpoint



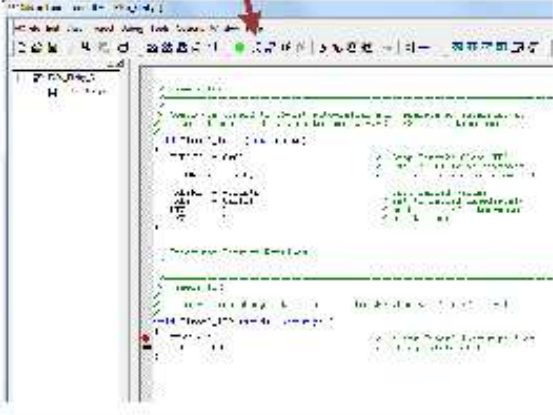
9

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



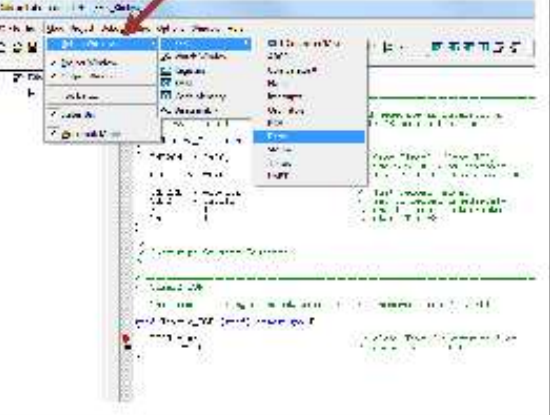
10

Step through the program



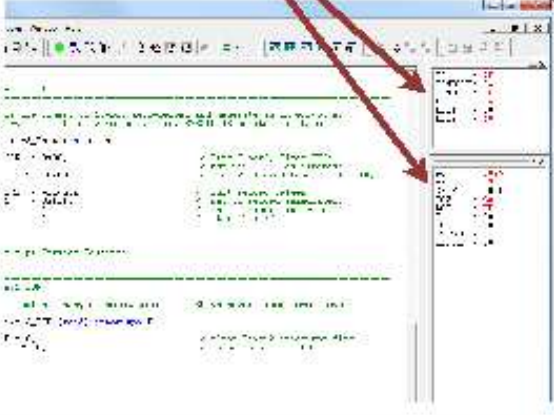
11

Open Debug windows.



12

View or modify Peripherals, Registers, or Memory.



- If you are having trouble installing and/or using the development kit, please use the following support resources:
- UDP Motherboard, MCU card, Pico Board, and I/O card User's Guides ([www.silabs.com/udp](http://www.silabs.com/udp))
  - Application Note "AN104: Integrating Keil 8051 Tools Into the Silicon Labs IDE" (contains instructions for obtaining the 4 k limited version of the Keil toolset)
  - Latest versions of Application Notes can be found at [www.silabs.com/products/microcontroller/applications.asp](http://www.silabs.com/products/microcontroller/applications.asp)
  - MCU Knowledgebase (available at [www.silabs.com](http://www.silabs.com) → SUPPORT)
  - Contact an Applications Engineer using the online information request form (available at [www.silabs.com](http://www.silabs.com) → SUPPORT).