

Tiva™ C Series TM4C123G LaunchPad Evaluation Kit



The Tiva C Series TM4C123G LaunchPad Evaluation Kit (EK-TM4C123GXL) is a low-cost evaluation platform for ARM® Cortex™-M4F based microcontrollers. The Tiva C Series LaunchPad design highlights the TM4C123GH6 microcontroller's USB 2.0 Device interface, Hibernation module, Motion Control PWMs and overall cost effectiveness. The Tiva C Series LaunchPad also features programmable user buttons and an RGB LED

for custom applications. The stackable headers of the Tiva C Series TM4C123G LaunchPad BoosterPack XL interface demonstrate how easy it is to expand the functionality of the C Series LaunchPad when interfacing to other peripherals with MSP430™ and other TI MCU BoosterPacks.

Kit contents

- Tiva C Series LaunchPad Evaluation Kit (EK-TM4C123GXL)

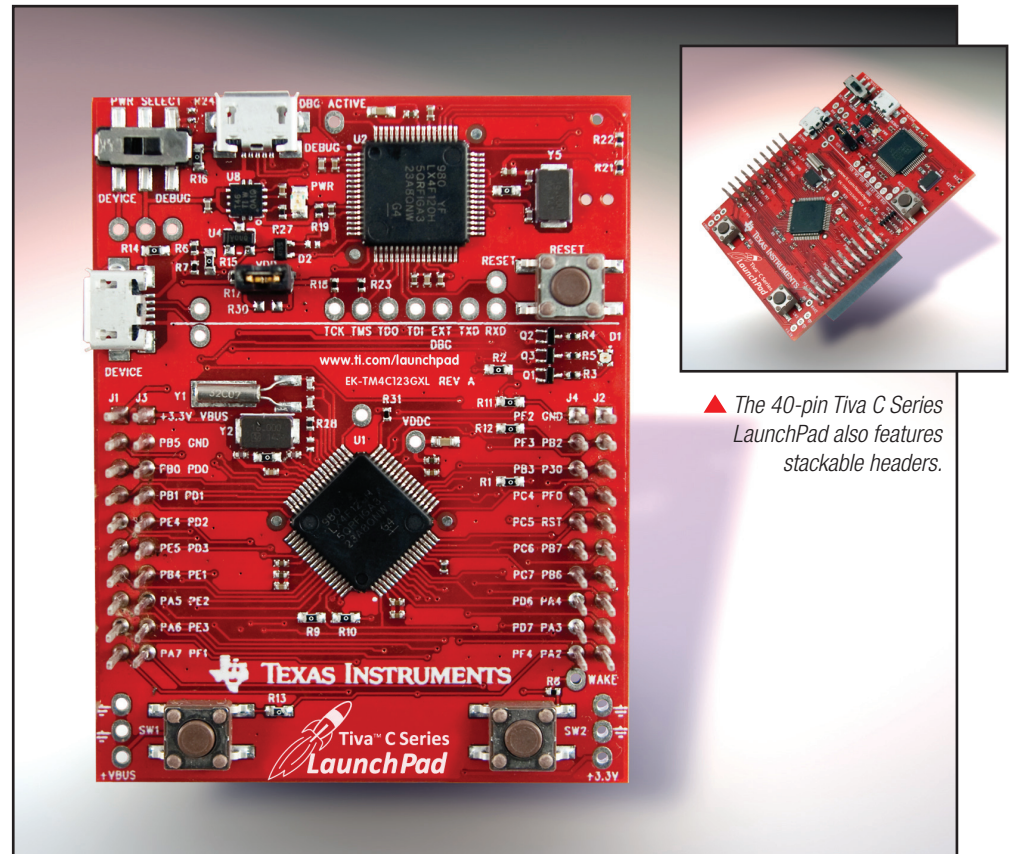
- On-board In-Circuit Debug Interface (ICDI)
- USB Micro-B plug to USB-A plug cable
- *README First* document

For a complete list of available BoosterPacks that can be used with the Tiva C Series LaunchPad, see:

www.ti.com/tm4c123g-launchpad

Features

- Tiva C Series TM4C123GH6 microcontroller
- USB Micro-AB connector
 - Device mode default configuration
 - Host/OTG modes supportable
- RGB user LED
- Two user switches (application/wake)
- Available I/O brought out to headers on a 0.1" grid
- On-board In-Circuit Debug Interface (ICDI)
- Switch-selectable power sources
 - ICDI
 - USB Device
- Reset switch
- Preloaded RGB quickstart application
- Supported by TivaWare™ for C Series software including the USB library and the peripheral driver library
- Tiva C Series TM4C123G LaunchPad BoosterPack XL interface which features stackable headers to expand the capabilities of the 40-pin Tiva C Series LaunchPad evaluation platform



▲ The 40-pin Tiva C Series LaunchPad also features stackable headers.

▲ Tiva C Series TM4C123G LaunchPad evaluation kit

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Tiva™ C Series TM4C123G LaunchPad README First

Welcome to the Tiva C Series TM4C123G Evaluation Kit. The Tiva C Series LaunchPad is a complete evaluation platform that provides everything you need to launch your own Tiva TM4C applications.

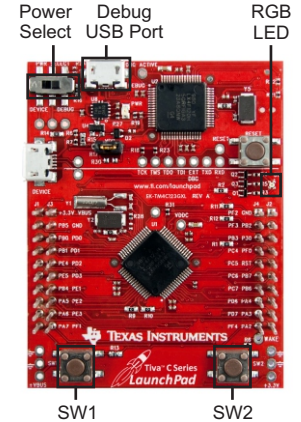
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Board Setup

Switch the Power Select (top left corner) to the right for Debug mode.

Connect the included USB cable from a Windows-enabled PC to the Debug USB port (top right corner) on the Tiva C Series LaunchPad. This USB port provides debug and Virtual COM Port connectivity via the Tiva C Series In-Circuit Debug Interface (ICDI).

Note: If the Found New Hardware wizard dialog box appears on your PC, ignore it until it is time to install the drivers.



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Quickstart Application

The Tiva C Series LaunchPad comes pre-programmed with the RGB quickstart application. This application demonstrates how to control the on-board RGB LED, the hibernate functionality of the TM4C123G microcontroller, and serial communications with the Tiva C Series LaunchPad.

Scan the ROYGBIV color spectrum of the RGB LED by pressing the bottom left button (SW1) or the bottom right button (SW2) on the LaunchPad. Leave the LaunchPad idle for five seconds to see a random color display. To enter Hibernation mode, press and hold SW1 and SW2 for three seconds. During Hibernation mode, you should see the LED blink every three seconds. To exit Hibernation mode, press SW2.

To control these functions serially using the UART, see the readme file in the qs_rgb project in the TivaWare™ examples for the EK-TM4C123GXL.

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Software, Drivers, and Documentation

Go to www.ti.com/tm4c123g-launchpad. Here you will find the latest TivaWare software, driver installation instructions, TM4C microcontroller-compatible compiler and debuggers, links to the LMFlash Programmer and a complete list of compatible devices, additional documentation including data sheets and user guides, and everything else you need to get started!

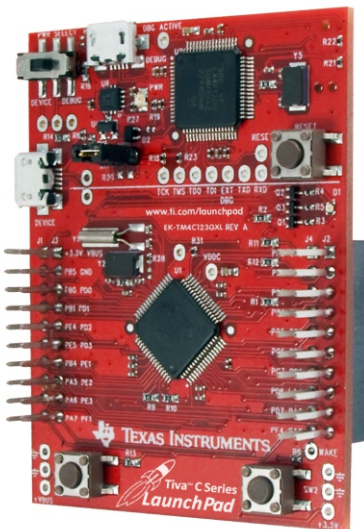
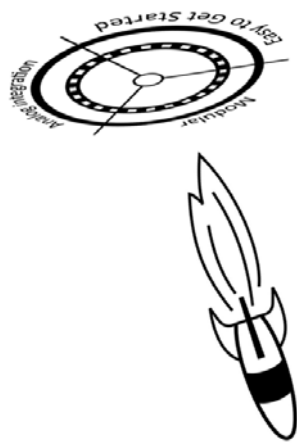
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Project 0

When you are ready to take the next step, complete Project 0. For more information, go to www.ti.com/launchpad and click on the Project 0 link.

Want more adventures with your MSP430, C2000, or Tiva C Series LaunchPad? Explore the many possibilities with the LaunchPad BoosterPacks at www.ti.com/boosterpacks.

LaunchPad
Tiva C Series
to the
Welcome



Additional resources at:
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