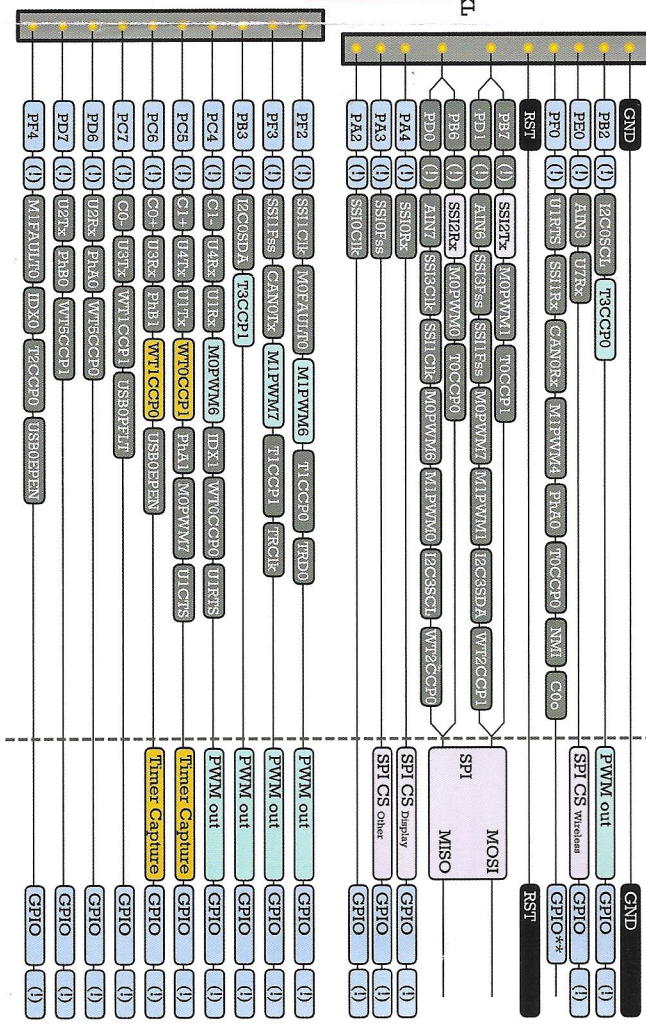
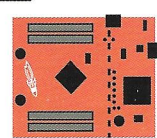
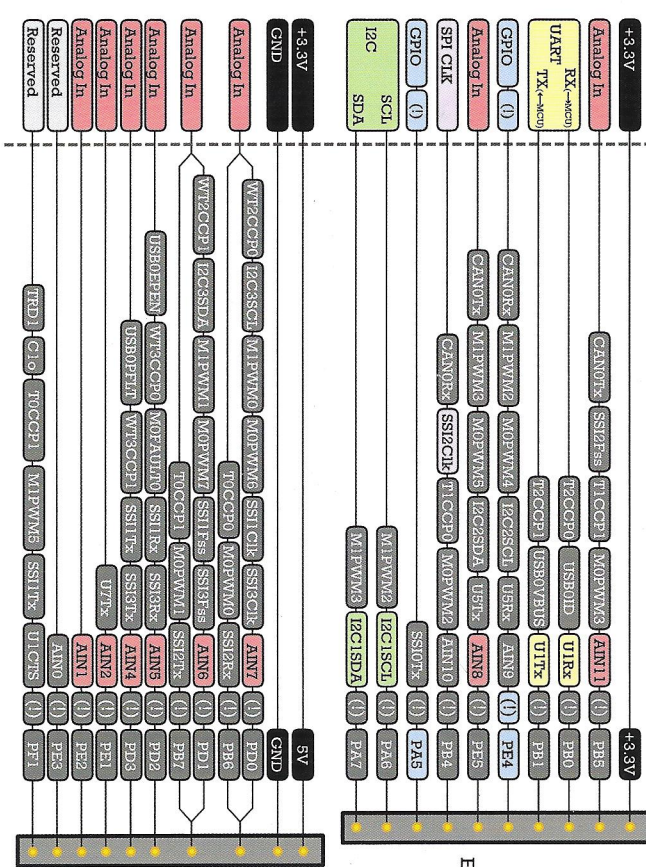


# Meet the Tiva™ C Series TM4C123C LaunchPad Evaluation Kit

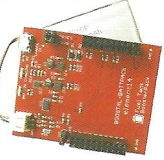
Part Number: EK-TM4C123GXL

**Below are the pins exposed @ the EK-TM4C123GXL BoosterPack pinout connector.**  
Also shown are functions that map with the BoosterPack pinout standard.  
\*\* Some LaunchPads do not comply with this GPIO pin. De-prioritizes this pin when making a BoosterPack.



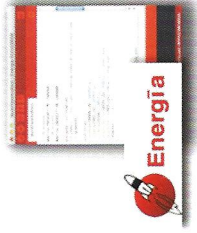
## BoosterPack Ecosystem

- Fuel Tank BoosterPack**
  - Untether your LaunchPad projects!
  - Rechargeable 4.44Wh Battery
  - I2C Fuel Gauge
  - LED charge-level indicator
  - Provides 5V & 3.3V sources
- Sensor Hub BoosterPack**
  - InvenSense MPU-6150 9-axis MEMS motion sensor
  - 3-axis gyroscope
  - 3-axis accelerometer
  - 3-axis compass
  - Bosch Sensortec BMP180 pressure sensor
  - Sensirion SHT32 humidity & ambient temperature sensor
  - Intersil ISL29023 light & IR sensor
  - TI's TMP006 contactless temp sensor



## Software Tools

- Energia**  
A simple open-source & community-driven code editor.  
Easy-to-use functions for blinking LEDs, buzzing buzzers & sensing sensors.  
>> [www.energia.cc](http://www.energia.cc)
- Professional Software tools**  
LaunchPad is also supported by professional IDEs that provide industrial-grade features and full debug-capability. Set breakpoints, watch variables & more with LaunchPad.  
>> [www.ti.com/ccs](http://www.ti.com/ccs)





# A closer look at your new LaunchPad

## Featured microcontroller: Tiva™ C Series TM4C123G

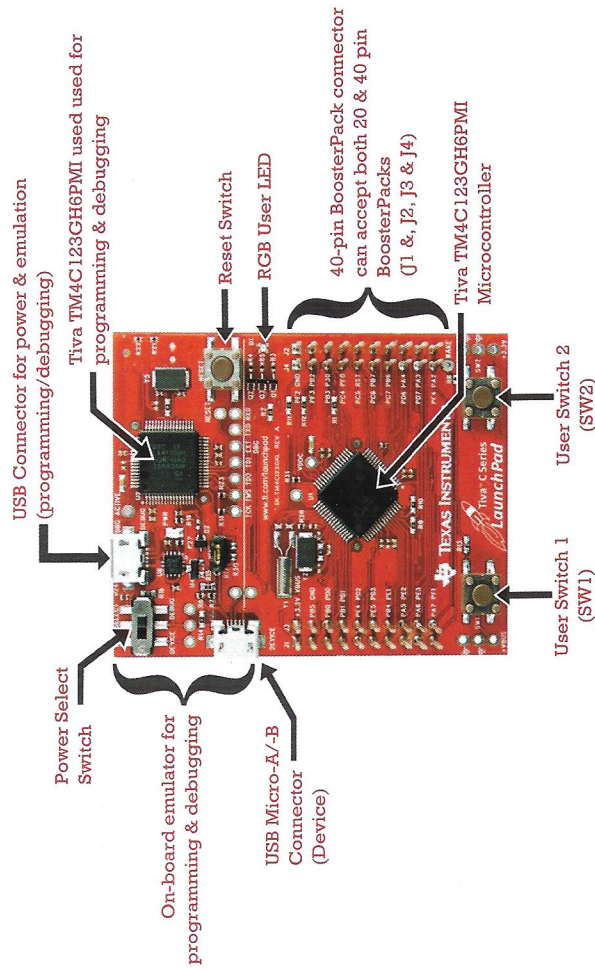
### This LaunchPad is great for...

- General purpose applications due to its 32-bit ARM® Cortex™-M4 80MHz CPU & analog/digital integration
- Industrial applications, including remote monitoring, electronic point-of-sale, test & measurement & more
- Beginners & experienced developers alike thanks to it's multiple points of entry into software development (Energia for beginners & industrial-grade tools like CCS or IAR for more advanced development)

### What comes in the box?



## EK-TM4C123GXL Overview



## Let's get started!

### The out-of-box demo:

The EK-TM4C123GXL LaunchPad features a TM4C123GH6PMI microcontroller device that is pre-loaded with some demo functionality.

#### 1. Connecting the hardware

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

*Note: If the "Found New Hardware" dialog box appears, ignore it until it is time to install the drivers.*

#### 2. The Demo 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.

#### 3. Software, Drivers & Documentation

Go to [www.ti.com/tm4c123g-launchpad](http://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 ILMFlash Programmer and a complete list of compatible devices, additional documentation including data sheets and user guides, and everything else you need to get started!

#### 4. Project 0

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

### Where do I go next?

This LaunchPad provides multiple-points of entry in terms of software development. You can use a friendlier code editing tool, such as the open source, community-made Energia, or a full-fledged industrial-grade development environment like Code Composer Studio.

## Energia

A wonderful community-driven, open-source code editor that provides a simple & friendly development environment.

- Open source & community-driven
- Based on the Wiring framework
- Robust collection of intuitive function calls & APIs
- Many code example & projects to help you get started quickly



[www.energia.nu](http://www.energia.nu)

## Professional Tools

Professional development tools are also available and provide advanced capabilities like full debug support enabling you to set breakpoints, watch variables, step through your code & more.

Code Composer Studio™ IDE



[www.ti.com/ccs](http://www.ti.com/ccs)