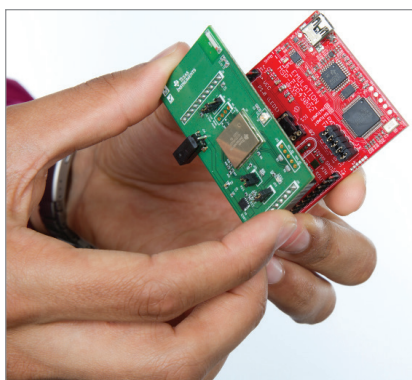


# LaunchPad Development Ecosystem in Education




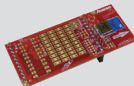


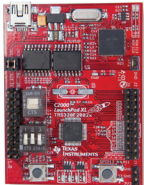


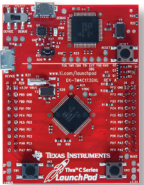


LaunchPad is a low-cost, fully featured development platform designed to introduce users to microcontrollers. Starting at \$9.99 USD, LaunchPad boards offer a snapshot into the world of TI's broad MCU portfolio.

- Blink LEDs, spin motors, make robots and much more with easy-to-use LaunchPads
- Open hardware platform
- Teach students basic programming
- Scalable software ecosystem
- Expand with BoosterPack plug-in modules



▲ LaunchPad + BoosterPack combinations enable rapid prototyping of various applications and projects. Stack BoosterPacks on top of LaunchPads to create thousands of new possibilities.

## Recommended LaunchPads and BoosterPacks for Academia

LaunchPad		Recommended BoosterPack	
<b>MSP430™ MCU</b>			
	<b>MSP-EXP430G2</b> <ul style="list-style-type: none"> <li>◦ Ultra-low power</li> <li>◦ U.S. \$9.99</li> </ul>		<b>CC110L RF BoosterPack (430BOOST-CC110L)</b> <ul style="list-style-type: none"> <li>◦ U.S. \$19.00</li> </ul>
	<b>MSP-EXP430F5529LP</b> <ul style="list-style-type: none"> <li>◦ Integrated full-speed USB 2.0</li> <li>◦ U.S. \$12.99</li> </ul>		<b>Educational BoosterPack MK II – Coming soon (BOOSTXL-EDUMKII)</b>
			
<b>C2000™ MCU</b>			
	<b>LAUNCHXL-F28027</b> <ul style="list-style-type: none"> <li>◦ Real-time control</li> <li>◦ U.S. \$17.00</li> </ul>		<b>C2000 LED BoosterPack (BOOSTXL-C2KLED)</b> <ul style="list-style-type: none"> <li>◦ U.S. \$30.00</li> </ul>
	<b>LAUNCHXL-F28027F</b> <ul style="list-style-type: none"> <li>◦ Real-time control with InstaSPIN™</li> <li>◦ U.S. \$17.00</li> </ul>		<b>Motor Drive BoosterPack (BOOSTXL-DRV8301)</b> <ul style="list-style-type: none"> <li>◦ U.S. \$49.00</li> </ul>
<b>TM4C12x MCU</b>			
	<b>EK-TM4C123GXL</b> <ul style="list-style-type: none"> <li>◦ Catalog ARM® Cortex®-M4F MCU</li> <li>◦ U.S. \$12.99</li> </ul>		<b>Sensor Hub BoosterPack (BOOSTXL-SENSHUB)</b> <ul style="list-style-type: none"> <li>◦ U.S. \$49.99</li> </ul>
	<b>EK-TM4C1294XL</b> <ul style="list-style-type: none"> <li>◦ ARM Cortex-M4F with ENet MAC+PHY</li> <li>◦ U.S. \$19.99</li> </ul>		<b>GPIO Breakout BoosterPack (BOOSTXL-IOBKOUT)</b> <ul style="list-style-type: none"> <li>◦ U.S. \$19.59</li> </ul>

# Software



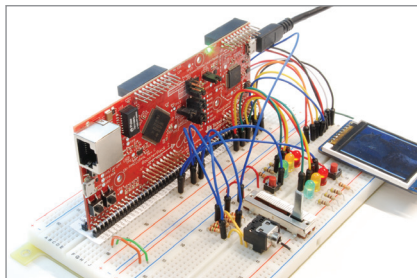
## Energia

- Open-source and community-driven development environment
- Free and downloads in seconds
- Simple and quick to learn API
- Easy functions for blinking LEDs, buzzing buzzers and sensing sensors
- Arduino compatible  
[energia.nu](http://energia.nu)



## Code Composer Studio™ Integrated Development Environment

- Robust and full engineering software IDE across all TI embedded MCUs and processors  
[ti.com/ccs](http://ti.com/ccs)



▲ Connect your LaunchPad to a breadboard to build your own system and easily program external chips.

# Resources

## Textbooks

Recommended textbooks to get started with LaunchPad.

- *Getting Started with the MSP430 LaunchPad*
- *Embedded Systems: Introduction to ARM® Cortex®-M Microcontrollers*
- *Embedded Systems: Real-Time Interfacing to ARM® Cortex®-M Microcontrollers*
- *Programmable Microcontrollers with Applications: MSP430 LaunchPad with CCS and Grace*  
[ti.com/textbooks](http://ti.com/textbooks)



## Student Project Repository

Checkout the project repository for design ideas, resources and inspiration and while you're there, feel free to share your latest and greatest project based on TI parts.

[ti.com/studentprojects](http://ti.com/studentprojects)



TI university program

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### Products

Audio	<a href="http://www.ti.com/audio">www.ti.com/audio</a>
Amplifiers	<a href="http://amplifier.ti.com">amplifier.ti.com</a>
Data Converters	<a href="http://dataconverter.ti.com">dataconverter.ti.com</a>
DLP® Products	<a href="http://www.dlp.com">www.dlp.com</a>
DSP	<a href="http://dsp.ti.com">dsp.ti.com</a>
Clocks and Timers	<a href="http://www.ti.com/clocks">www.ti.com/clocks</a>
Interface	<a href="http://interface.ti.com">interface.ti.com</a>
Logic	<a href="http://logic.ti.com">logic.ti.com</a>
Power Mgmt	<a href="http://power.ti.com">power.ti.com</a>
Microcontrollers	<a href="http://microcontroller.ti.com">microcontroller.ti.com</a>
RFID	<a href="http://www.ti-rfid.com">www.ti-rfid.com</a>
OMAP Applications Processors	<a href="http://www.ti.com/omap">www.ti.com/omap</a>
Wireless Connectivity	<a href="http://www.ti.com/wirelessconnectivity">www.ti.com/wirelessconnectivity</a>

### Applications

Automotive and Transportation	<a href="http://www.ti.com/automotive">www.ti.com/automotive</a>
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Computers and Peripherals	<a href="http://www.ti.com/computers">www.ti.com/computers</a>
Consumer Electronics	<a href="http://www.ti.com/consumer-apps">www.ti.com/consumer-apps</a>
Energy and Lighting	<a href="http://www.ti.com/energy">www.ti.com/energy</a>
Industrial	<a href="http://www.ti.com/industrial">www.ti.com/industrial</a>
Medical	<a href="http://www.ti.com/medical">www.ti.com/medical</a>
Security	<a href="http://www.ti.com/security">www.ti.com/security</a>
Space, Avionics and Defense	<a href="http://www.ti.com/space-avionics-defense">www.ti.com/space-avionics-defense</a>
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[e2e.ti.com](http://e2e.ti.com)