



Welcome to the Hercules™ LaunchPad



Additional resources at:
www.ti.com/launchpad



Hercules RM42x LaunchPad Quick Start Guide

Welcome to the Hercules RM42x LaunchPad Evaluation Kit. The Hercules LaunchPad is a USB-based evaluation platform that provides everything you need to start evaluation and development with Hercules MCUs.

1. Software and Driver Installation

Go to www.ti.com/launchpad. Select Launchpads tab and then select Hercules. Here you can download and install Code Composer Studio™ (CCS). This will install the necessary drivers for LaunchPad. If you choose the custom install option of CCS, select 'Cortex-R4F MCUs' support at a minimum. Select 'Free CCS License – For use with XDS100 emulators'. **Note:** Complete the CCS installation before connecting the board.

Additional software and documentation can be found on the Hercules LaunchPad wiki page:

http://processors.wiki.ti.com/index.php/Hercules_LaunchPad

2. Connecting the Hardware

Connect the LaunchPad using the included USB cable to a Windows PC (XP or 7). The board will be powered via the PC's USB port. If prompted, allow Windows to automatically install the driver software for the on-board XDS100v2 JTAG emulator and the Virtual COM Port.

3. Quick Start Application

The MCU on the Hercules LaunchPad comes pre-programmed with the Hercules Safety MCU Demo Software. This software can be used stand alone on the LaunchPad or in conjunction with the PC application shown in section 4 of this guide. When the board is powered on via the USB port the demo software will show a startup blinking sequence on the GIOA2 and NHET08 LEDs. The demo also lets you toggle the GIOA2 LED through the push button GIOA7.

You can start learning about the Hercules MCU's built-in safety features right out of the box. Inject an Oscillator fault by connecting OSCIN to GND (close jumper JP1).

Upon detecting the fault, on-board Hercules MCU will respond by asserting the error pin (nERROR) low, indicated by the red LED on the bottom right corner of the board. **Note:** Open jumper JP1 and reset the board before continuing with other demos.

4. Hercules Safety MCU Demos

Go to the Hercules LaunchPad wiki page to download and install the Hercules Safety MCU Demos. Once the installation is complete, start the Hercules demo software. The software will be available in 'Start->All Programs->Texas Instruments->Hercules->Hercules Safety MCU Demos'.

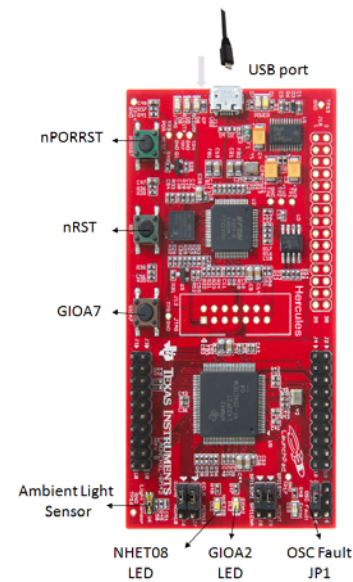
It includes a safety features demo and other demos using LEDs and ambient light sensor that let you interact with and learn about features on Hercules MCUs.

5. 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 for Hercules LaunchPad.

Explore LaunchPad BoosterPacks at www.ti.com/boosterpacks

Watch Hercules 'How-to' videos at www.ti.com/herculestraining. Technical support: www.ti.com/hercules-support



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This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- *Reorient or relocate the receiving antenna.*
- *Increase the separation between the equipment and receiver.*
- *Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.*
- *Consult the dealer or an experienced radio/TV technician for help.*

3.2 Canada

3.2.1 For EVMs issued with an Industry Canada Certificate of Conformance to RSS-210

Concerning EVMs Including Radio Transmitters:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Concernant les EVMs avec appareils radio:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Concerning EVMs Including Detachable Antennas:

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. This radio transmitter has been approved by Industry Canada to operate with the antenna types listed in the user guide with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Concernant les EVMs avec antennes détachables

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http://www.tij.co.jp/llds/ti_ja/general/eStore/notice_01.page

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1. Use EVMs in a shielded room or any other test facility as defined in the notification #173 issued by Ministry of Internal Affairs and Communications on March 28, 2006, based on Sub-section 1.1 of Article 6 of the Ministry's Rule for Enforcement of Radio Law of Japan,
2. Use EVMs only after User obtains the license of Test Radio Station as provided in Radio Law of Japan with respect to EVMs, or
3. Use of EVMs only after User obtains the Technical Regulations Conformity Certification as provided in Radio Law of Japan with respect to EVMs. Also, do not transfer EVMs, unless User gives the same notice above to the transferee. Please note that if User does not follow the instructions above, User will be subject to penalties of Radio Law of Japan.

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