Stellaris® LM3S9B92 Robotic Evaluation Board

The Stellaris® Robotic Evaluation Board (EVALBOT) is a robotic evaluation platform for the Stellaris LM3S9B92 microcontroller. The board also uses a range of Texas Instruments' analog components for motor drive, power supply, and communications functions. After a few minutes of assembly, the EVALBOT's electronics are ready-to-run.

When roaming, three AA batteries supply power to the EVALBOT. The EVALBOT automatically selects USB power when tethered to a PC as a USB device or when debugging. Test points are provided to all key EVALBOT signals. Two 20-pin headers enable future wireless communications using standardized Texas Instruments' low-power embedded radio modules (EM boards). Additional microcontroller signals are available on break-out pads arranged in rows adjacent to the microcontroller.

The EVALBOT has factory-installed quickstart software resident in on-chip Flash memory. For software debugging and Flash programming, an integrated In-Circuit Debug Interface (ICDI) requires only a single USB cable for debug and serial port functions.

The EVALBOT is available with a Stellaris-specific version of *µC/OS-III: The Real-Time Kernel* by Jean J. Labrosse. This book reveals how a real-time kernel works using Micrium's µC/OS-III and the Stellaris EVALBOT as references. In addition, the board is also available separately for those who already have the book.

Features

The evaluation kit provides a hands-on mini robotic platform for learning and using the µC/OS-III real-time kernel. The evaluation kit includes the following features:

- Evaluation board with robotic capabilities
- Mechanical components assembled by user
- Stellaris® LM3S9B92 microcontroller
- MicroSD card connector
- I^2S audio codec with speaker
- USB Host and Device connectors
- RJ45 Ethernet connector
- Bright 96 x 16 blue OLED display
- On-board In-Circuit Debug Interface (ICDI)
- Battery power (3 AA batteries) or power through USB
- Wireless communication expansion port
- Robot features
  - Two DC gear-motors provide drive and steering
  - Opto-sensors detect wheel rotation with 45° resolution
  - Sensors for "bump" detection

Ordering Information

Product Number	Description
EKB-UCOS3-BNDL	Stellaris® Robotic Evaluation Board with Micrium's *µC/OS-III: The Real-Time Kernel* by Jean J. Labrosse (board and book)
EKB-UCOS3-EVM	Stellaris® Robotic Evaluation Board for use with Micrium's µC/OS-III (board only)
EKB-UCOS3-BOOK	Micrium's *µC/OS-III: The Real-Time Kernel* by Jean J. Labrosse (book only)

For more information:

www.ti.com/evalbot

www.Micrium.com/Books/Micrium-uCOS-III

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http://www.ti.com/stellaris

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