Stellaris® LM3S9B92 EVALBOT

Robotic Evaluation Board

The Stellaris® LM3S9B92 EVALBOT 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's quickstart application provides out-of-the-box action and can be used along with other included examples as a foundation for seriously fun learning. The examples are based on the included, extensive StellarisWare library and can be modified to meet new challenges using one of the evaluation versions of the integrated development tools listed in the Ordering Information table.

Features

The evaluation kit provides a fun, hands-on mini robotic platform for learning and evaluating the Stellaris LM3S9B92 microcontroller. The EVALBOT 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 ICDI USB cable
- Wireless communication expansion port
- Robot features
  - Two DC gear-motors provide drive and steering
  - Opto-sensors detect wheel rotation with 22.5° resolution
  - Sensors for "bump" detection

Ordering Information

Product Number	Description
EKK-EVALBOT	Stellaris® LM3S9B92 EVALBOT Kit for Keil™ RealView® MDK-ARM (32 KB code-size limited)
EKI-EVALBOT	Stellaris® LM3S9B92 EVALBOT Kit for IAR Systems Embedded Workbench® (32 KB code-size limited)
EKC-EVALBOT	Stellaris® LM3S9B92 EVALBOT Kit for CodeSourcery G++ GNU (30-day limited)
EKT-EVALBOT	Stellaris® LM3S9B92 EVALBOT Kit for Code Red Technologies Red Suite (90-day limited)
EKS-EVALBOT	Stellaris® LM3S9B92 EVALBOT Kit for Code Composer Studio™ IDE (board-locked)

For more information: www.ti.com/evalbot

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http://www.ti.com/stellaris

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