

The source for embedded design innovators and hobbyists

BeagleBoard.org promotes and motivates open source development on ARM® microprocessor-based systems. The key objectives of the organizations are to:

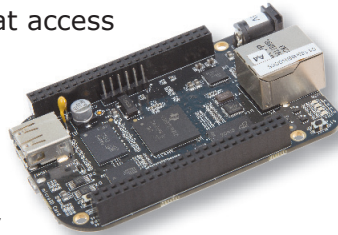
- Enable hobbyists and innovators to explore new domains and experiment with their ideas on an open platform
- Enable such experiments to be conducted cost effectively – to nurture innovation – by enabling the supply of ultra-low-cost hardware platforms
- Bring together communities by providing the basic infrastructure to exchange ideas

BeagleBone Black

BeagleBone Black is a revision of the original BeagleBone with enhanced performance (1 GHz), additional memory (512 MB) and on-board HDMI. Still the same credit-card-sized Linux™ computer that runs Android™ and Ubuntu™, BeagleBone Black maintains a lower price point than the original BeagleBone, making it one of the most affordable open-source development boards in the



market. Incorporating great access to interface signals for sensors and controls while eliminating the need for additional equipment with a single cable development environment, BeagleBone Black facilitates the out-of-box experience for makers, engineers and hobbyists around the world.



Go to BeagleBoard.org to order your BeagleBone Black (U.S. \$45)

Specifications:

- 1-GHz super-scalar ARM Cortex™-A8
- 512-MB DDR3 RAM
- 1-port USB 2.0 host flexible device port with ability to supply power
- 1-port USB 2.0 client
- On-chip 10/100 Ethernet
- 2-GB eMMC memory that's pre-loaded with Angstrom distribution and that frees up your microSD card slot
- 3.3-V 2× 46-pin peripheral with multiplexed LCD signals and battery-control expansion headers
- Board size: 3.4" × 2.1"

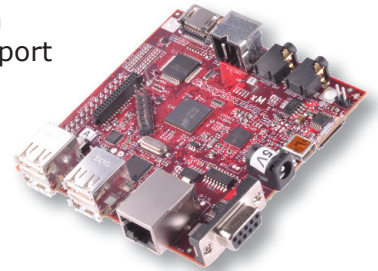
BeagleBoard-xM

The BeagleBoard-xM has extra MIPS and extra memory, blurring the lines between desktop and embedded software development and accelerating the development of open source software on ARM.



Specifications:

- 1-GHz super-scalar ARM Cortex-A8
- 512-MB LPDDR RAM
- 4-port USB 2.0 hub
- Hub provided 10/100 Ethernet
- microSD slot and 4-GB microSD card with validation and demonstration image from the Angstrom Distribution
- USB 2.0 flexible OTG port with ability to supply power
- DB-9 serial and 14-pin JTAG connectors
- 1.8-V 20-pin peripheral and LCD expansion headers
- Camera port
- DVI-D and S-video
- Board size: 3.25" × 3.25"



Go to BeagleBoard.org to order your BeagleBoard-xM (U.S. \$149)

Applications of BeagleBoard-xM and BeagleBone Black:

- 3D printers and industrial robotics
- Autonomous robots and flying drones
- Web servers and Internet-enabled kiosks
- Home media centers and automation
- In-vehicle entertainment and monitoring
- Thin clients and digital signage
- Development with Ubuntu, Android, Open Embedded, Windows® Embedded, QNX, Symbian, Debian, Fedora, Gentoo and more ...

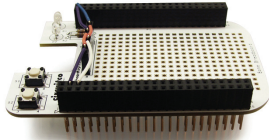
The boards from **BeagleBoard.org** are not intended to replace commercial development environments, but instead offer a community-supported platform that can be used as the basis for building more complete development systems and as a target for community software baselines. For more complete development environments, please consider one of the ARM microprocessor evaluation modules from Texas Instruments. www.ti.com/armmpuevm

BeagleBone Capes



beagleboardtoys.com

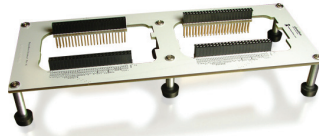
BeagleBone BreadBoard



MSRP: U.S. \$29.95

- Solderless breadboard
- Jumper wire kit
- LEDs, resistors, and switches
- Patterned prototyping area

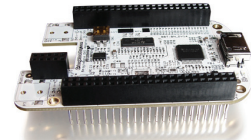
BeagleBone Breakout Cape



MSRP: U.S. \$39.95

- Cutouts for visibility
- Thick PCB against stress
- Standoffs for stability
- Long connector pin tails

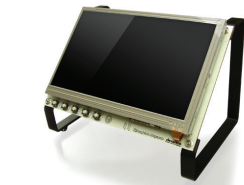
BeagleBone DVI-D Cape



MSRP: U.S. \$48.95

- 16-bit DVI-D output
- Small-sized HDMI connector
- Two user-controlled LEDs
- 1024 × 768 resolution

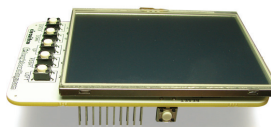
BeagleBone LCD7 Cape



MSRP: U.S. \$157.95

- 7" TFT LCD
- 800 × 480 resolution
- 4-wire resistive touchscreen
- Five GPIO-mapped buttons

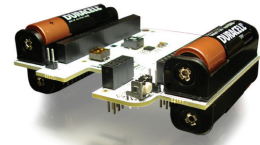
BeagleBone LCD3 Cape



MSRP: U.S. \$69.95

- 3.5" TFT LCD
- 320 × 240 resolution
- 4-wire resistive touchscreen
- Five GPIO-mapped buttons

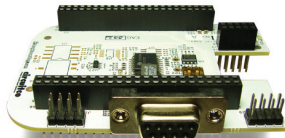
BeagleBone Battery Cape



MSRP: U.S. \$48.95

- Powered by AA battery
- Up to four cells
- Voltage-level feedback
- Power button and indicator

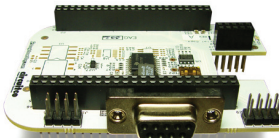
BeagleBone CANbus Cape



MSRP: U.S. \$58.95

- Standard D-Sub9 connector
- Uses DCAN1 from AM335x MPU
- Supports SocketCAN
- Power indicator and EEPROM

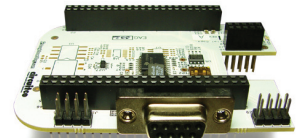
BeagleBone PROFIBUS Cape



MSRP: U.S. \$48.95

- Standard D-Sub9 connector
- Four UART selections
- Power indicator
- EEPROM

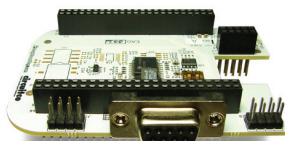
BeagleBone RS-232 Cape



MSRP: U.S. \$38.95

- Standard D-Sub9 connector
- Four UART selections
- Power indicator
- EEPROM

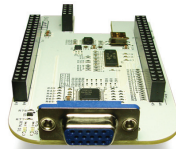
BeagleBone RS-485 Cape



MSRP: U.S. \$38.95

- Standard D-Sub9 connector
- Four UART selections
- Power indicator
- EEPROM

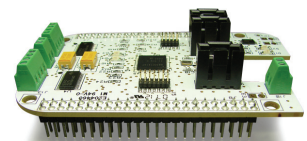
BeagleBone VGA Cape



MSRP: U.S. \$48.95

- 16-bit VGA output
- Standard D-Sub15 connector
- Two user-controlled LEDs
- 1024 × 768 resolution

BeagleBone MSTP Cape



MSRP: U.S. \$86.95

- Two DRV8825 motor controllers
- Separate MSP430 MCU
- SPI interface to BeagleBone
- Standalone via RS-232