

## 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

The BeagleBone delivers the bare bones with a most affordable price and the greatest access to interface signals for sensors and controls, while eliminating the need for additional equipment with a single cable development environment.



#### Specifications:

- >700-MHz super-scalar ARM Cortex™-A8
- 256-MB DDR2 RAM
- 1-port USB 2.0 host
- Integrated 10/100 Ethernet
- microSD slot and 2-GB microSD card with validation and demonstration image from the Angstrom Distribution
- USB 2.0 flexible device port with ability to supply power
- On-board USB-to-serial/JTAG over shared USB device port
- 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"



### Applications of BeagleBoard-xM and BeagleBone:

- 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](http://www.ti.com/armmpuevm)