BeagleBoard.org BeagleBone Blue preview

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What is demonstrated

- Open hardware Linux computer
  ➞ Self-hosted web IDE
  ➞ Debian Linux system

- Self-balancing robot run as a userspace task written in C
  ➞ 5ms inner-loop, <25% load

- Connected USB camera
  ➞ mjpg-streamer over WiFi

- Bluetooth speaker for audio

- ROS interface

What was improved

- Pre-integrated H/W elements for robotics
  ➞ pre-integrated software: Ardupilot, …

- 4-layer PCB design

- Quick connections for individual interfaces

Hardware Information

https://bbb.io/blue

1-GHz ARM Cortex-A8, programmable real-time units, 4×DC motor drive, 8×servo motor, WiFi/BT, USB, IMU, 2 cell LiPo battery mgmt, 4×quad enc, barometer, …

Source code or detail technical information availability

https://github.com/jadonk/beaglebone-blue
https://github.com/beagleboard/linux
https://github.com/beagleboard/image-builder
https://github.com/StrawsonDesign/Robotics_Cape_Installer