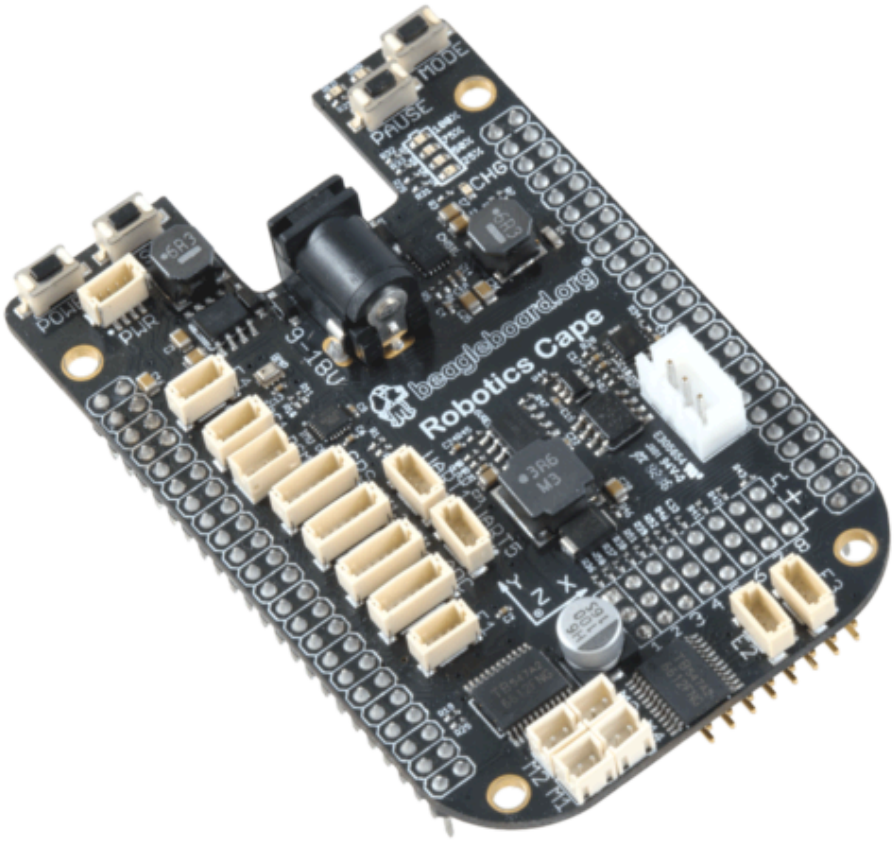
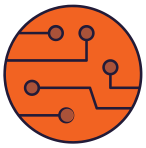


BeagleBone® Robotics Cape

Purchase at

What is BeagleBone® Robotics Cape?

Everything needed to bring the power of BeagleBone® to mobile robotics with almost no setup time. Loaded with innovative features such as a 9-Axis IMU, Barometer, H-Bridge DC motor controllers, Quadrature encoder, and more. Supported by a comprehensive software library, BeagleBone® Robotics Cape is designed to effortlessly take your robotics concepts from design to reality. The array of on-board sensors and controllers plus even more expansion options gives you everything you need for your robotics project.



Board Features

- 9-Axis IMU: Invensense MPU-9250
- Barometer: Bosch BMP280
- 4 x H-Bridge DC motor controllers
- 8-Channel Servo/ESC output
- 5V 2A switching regulator for robust power supply (8V -18V input voltage)
- 6V 4A regulated power supply to protect servos
- Charges a 2-cell LiPo battery
- 4 Quadrature encoder inputs
- GPS input with EM-406/EM-506 style UART connector
- Headers for I2C, UART, SPI, ADC, PWM, GPIO connectivity
- Supports DSM2 and DSMX satellite radios

Resources

Robotics Cape Hardware Files

Robot Control Library

BeagleBone® Cape Interface Specification

Compatible with:

- BeagleBone® Black
- BeagleBone® AI
- BeagleBone® Black Wireless
- BeagleBone® Black Industrial

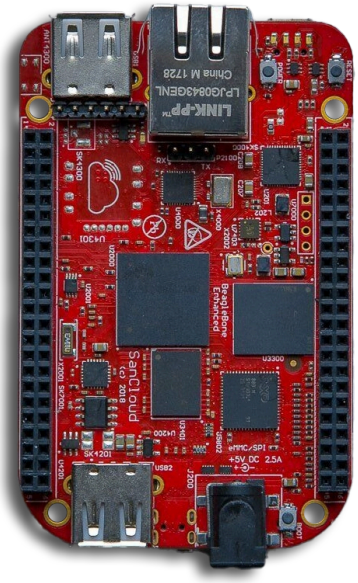
Related Products

SeeedStudio BeagleBone® Green Gateway

SanCloud BeagleBone® Enhanced Industrial

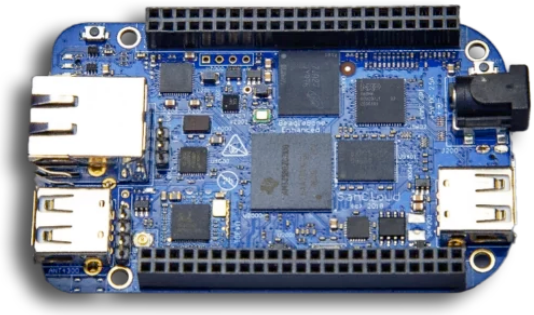
What is SeeedStudio BeagleBone® Green Gateway? Seeed Studio BeagleBone® Green Gateway is a low cost, open-source, community supported development platform for developers and hobbyists. It is a joint effort by BeagleBoard.org and Seeed Studio. It is based on the classical open-source hardware design of BeagleBone® Black and

SanCloud BeagleBone® Enhanced WiFi 1G



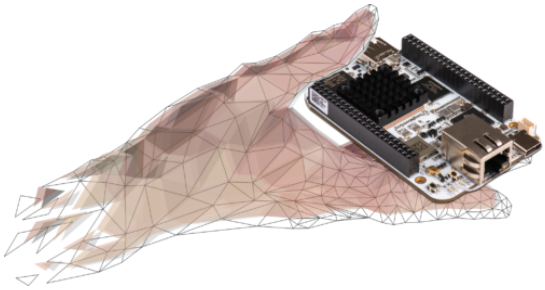
This Industrial temperature rated board by SanCloud takes the BeagleBone Black into industrial applications with many additional features. With upgraded Ethernet speed (gigabit), 1G DDR3 RAM and optional features including CANBus.

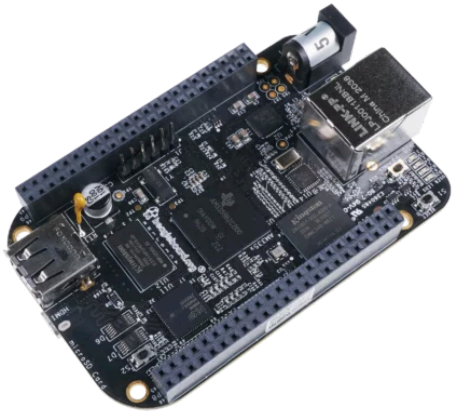
BeagleBone® Black



With 1 Gig of commercial grade DDR3 RAM, the SanCloud BeagleBone® Enhanced WiFi 1G, brings twice the memory and on board sensors to your projects

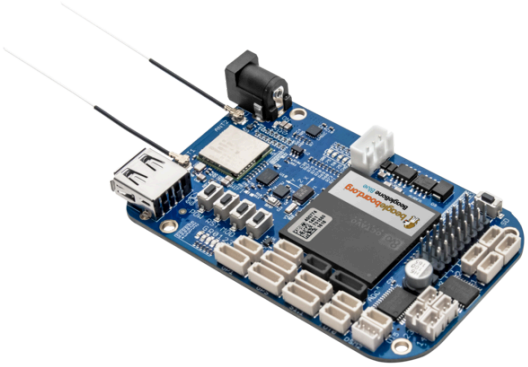
BeagleBone® AI





1GHz Single-Board Linux Computer based on ARM Cortex-A8 with PRU microcontrollers and tons of features like Ethernet and HDMI – credit card sized with over a decade of support

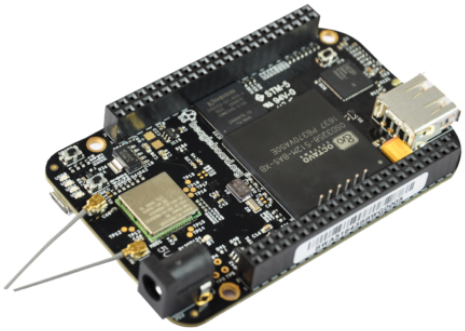
BeagleBone® Blue



Filling the gap between small SBCs and more powerful industrial computers, BeagleBone® AI, based on the AM5729, makes it easy to explore how artificial intelligence can be used in every day life. Powerful compute performance and software support.

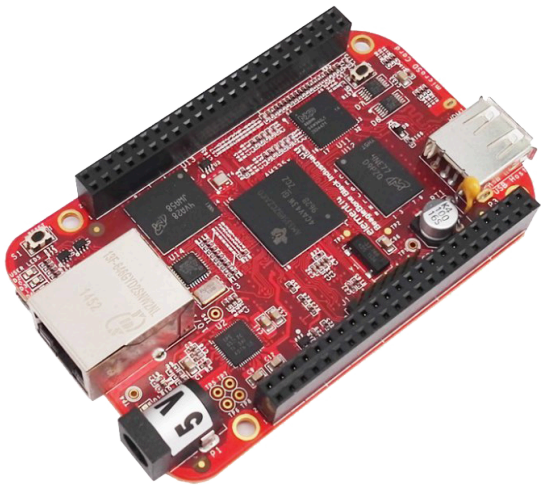
An all-in-one Linux-based robotics computer with compatibility to BeagleBone® Black and tons of integration including Wi-Fi, Bluetooth, IMU/barometer, power regulation, H-Bridges, motor connectors and more. Robotics made streamlined, affordable and fun.

BeagleBone® Black Wireless



With built-in 802.11 b/g/n 2.4GHz Wi-Fi and Bluetooth wireless networking capability, the popular open source BeagleBone® Black computer goes anywhere. Take your IoT and IIoT projects

BeagleBone® Black Industrial



Answer the need for an industrial rated single board computer with extended temperature range with the same functionality as the popular BeagleBone Black®

to the next level with a full Linux computer the size of a mint tin.

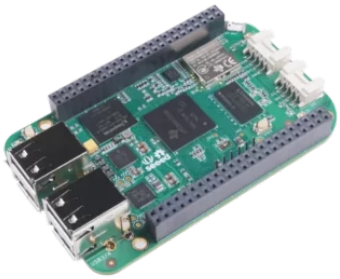
BeagleBone®

The original credit-card-sized BeagleBone® Linux computer that connects to the Internet and runs software such as Android 4.0 and Ubuntu.

SanCloud BeagleBone® Enhanced Extended WiFi

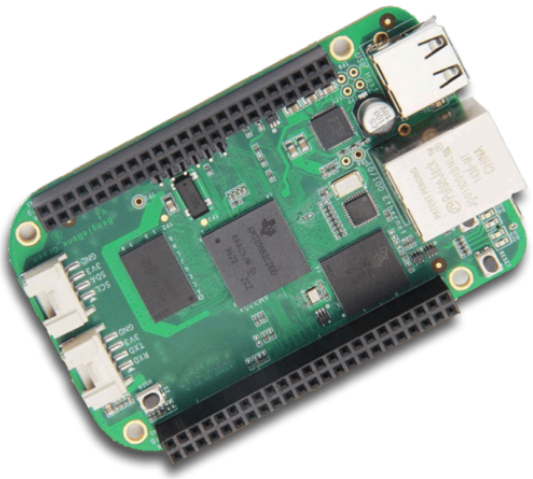
Supporting an extended temperature range, upgraded Ethernet, wireless and extra USB port capability, the SanCloud BeagleBone® Enhanced Extended WiFi brings the extras you need for IIoT applications

SeeedStudio BeagleBone® Green Wireless



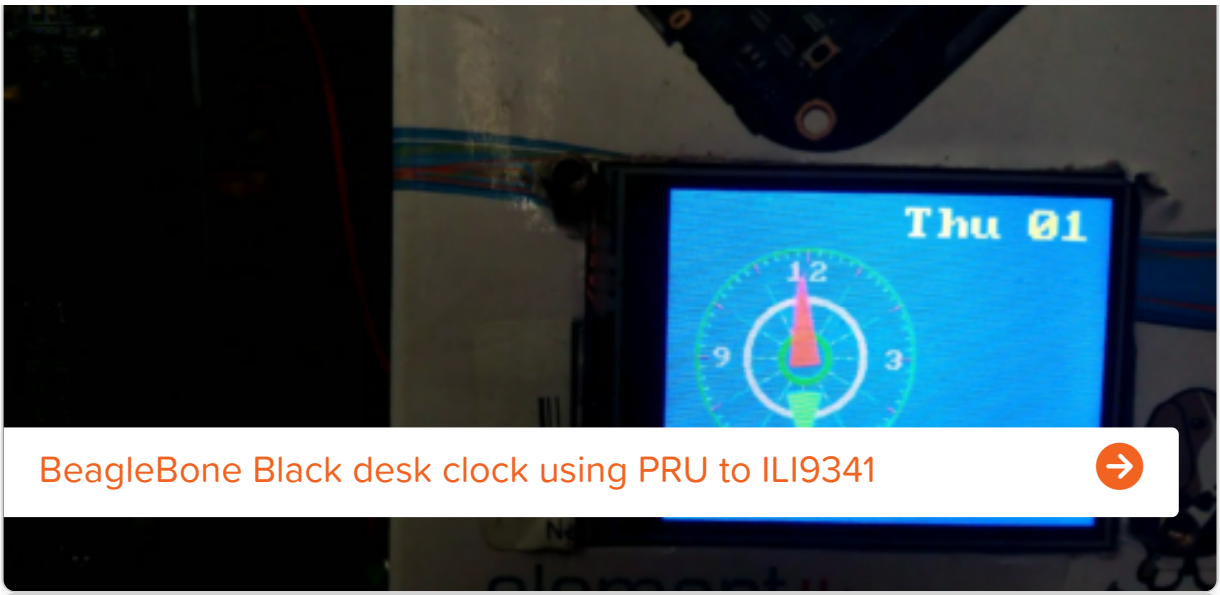
IoT made easy with WiFi/Bluetooth and a variety of sensors attached with Grove Connectors from SeeedStudio using this differentiated version of the open-source BeagleBone® Black hardware design

SeeedStudio BeagleBone® Green

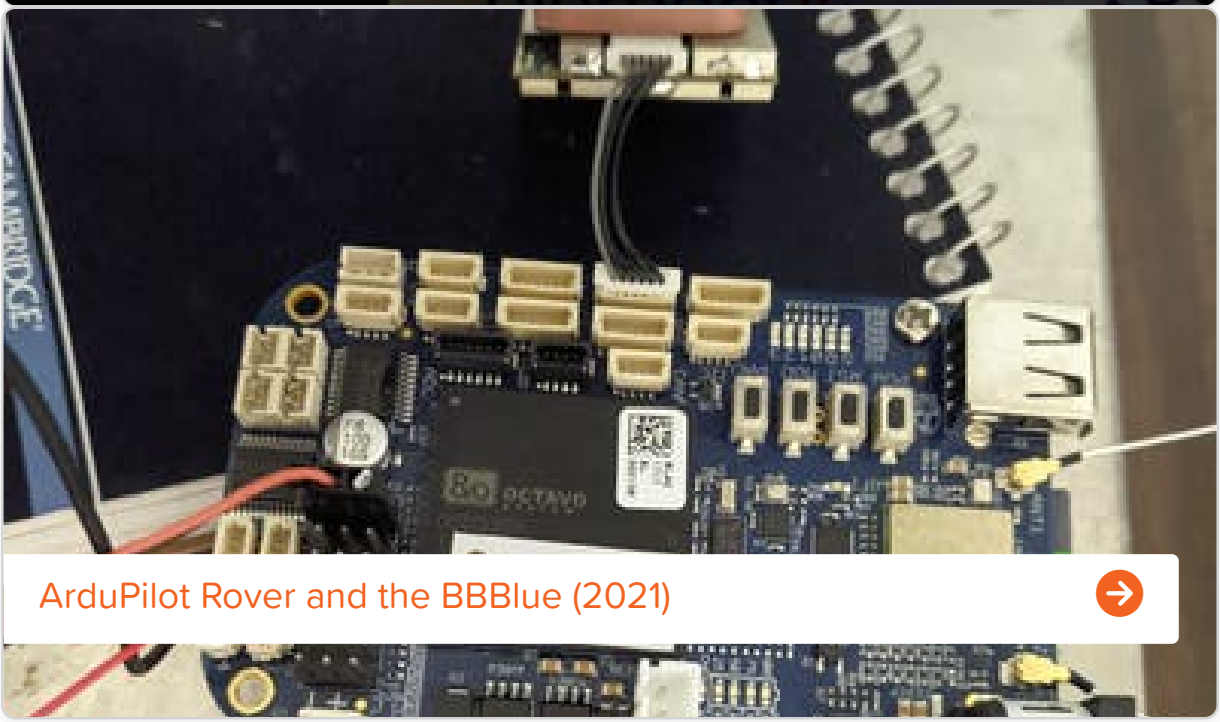


Leverage a large family of sensors easily via Grove Connectors from SeeedStudio using this differentiated version of the open-source BeagleBone® Black hardware design

Projects

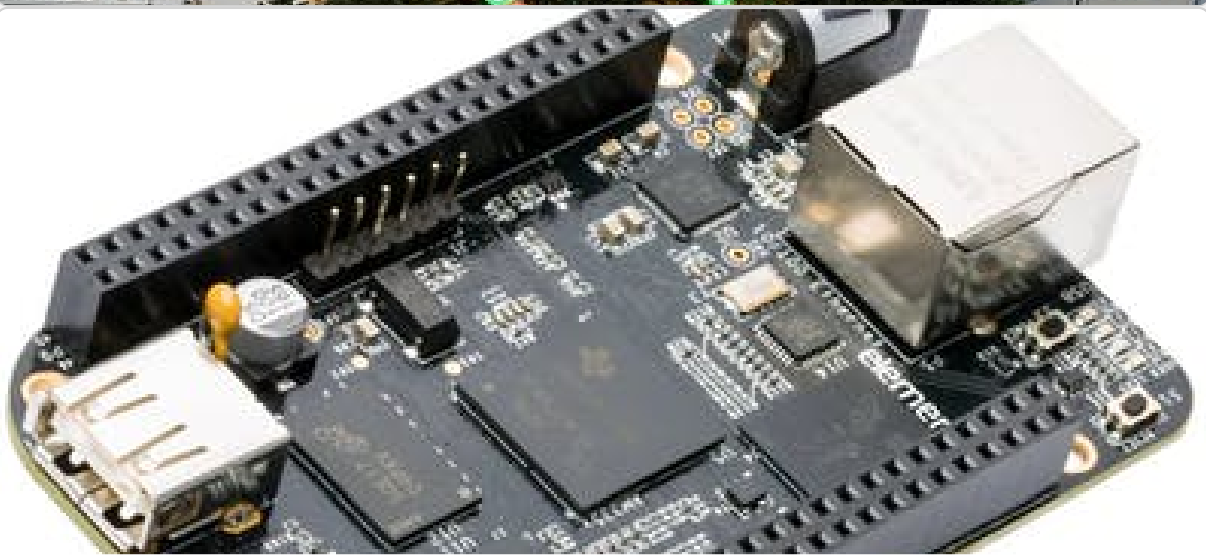


BeagleBone Black desk clock using PRU to ILI9341

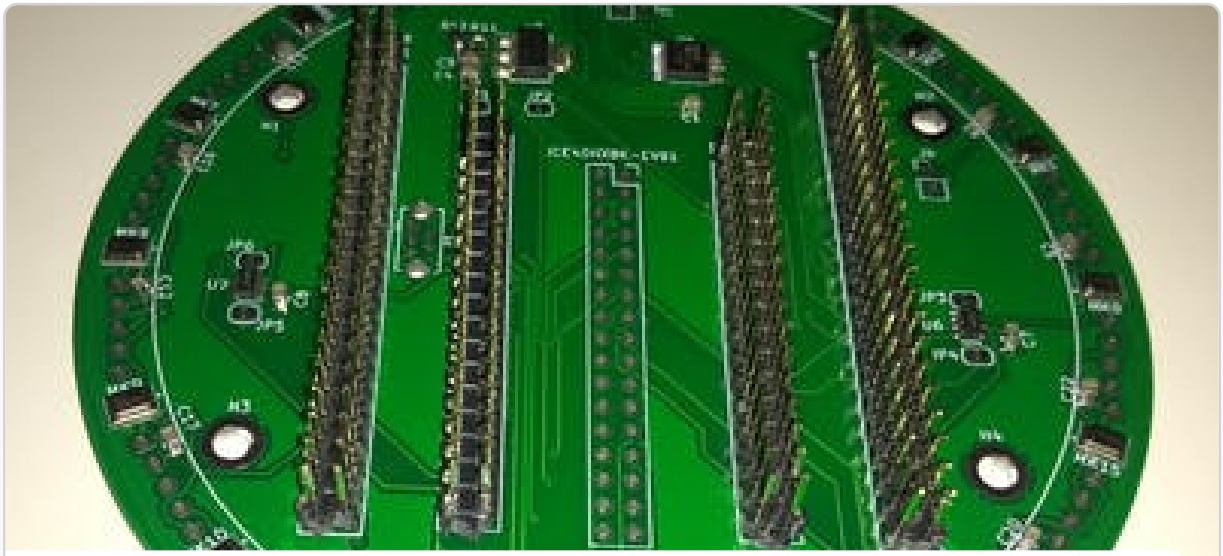


ArduPilot Rover and the BBBlue (2021)

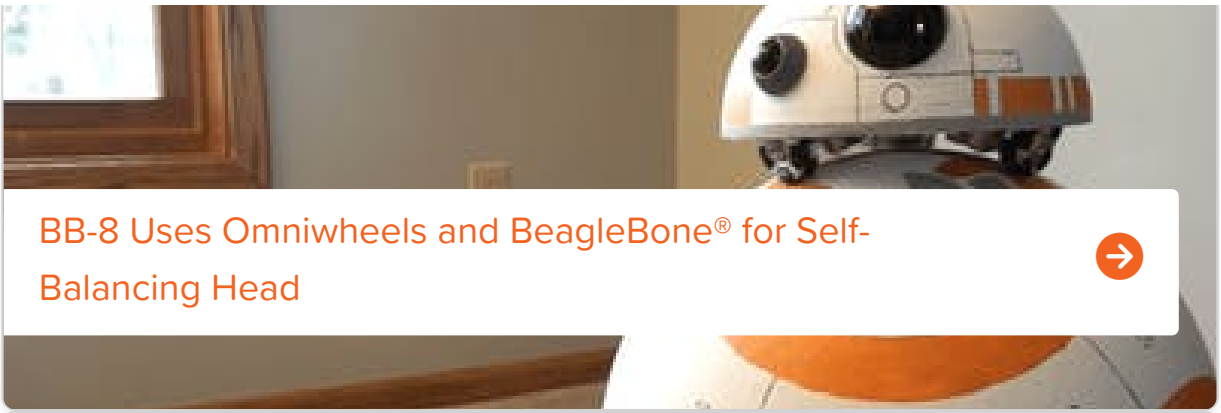
Beaglebone “Smart” Christmas Wreath



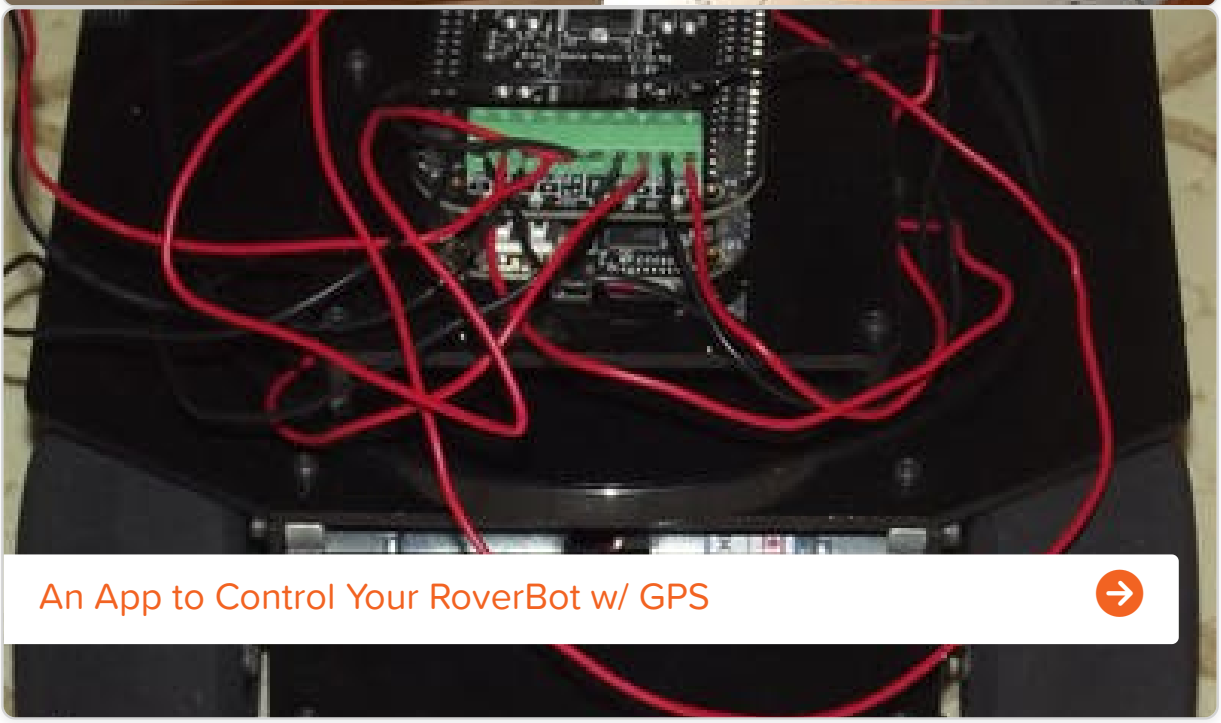
BBIO in Python



16 Microphone Array Using PocketBeagle



BB-8 Uses Omniwheels and BeagleBone® for Self-Balancing Head



An App to Control Your RoverBot w/ GPS

Andriod App to Speaker

BeagleBoard.org Foundation is a Michigan, USA-based 501(c)(3) non-profit corporation existing to provide education in and collaboration around the design and use of open-source software and hardware in embedded computing. BeagleBoard.org provides a forum for the owners and developers of open-source software and hardware to exchange ideas, knowledge and experience. The BeagleBoard.org community collaborates on the development of open source physical computing solutions including robotics, personal manufacturing tools like 3D printers and laser cutters, and other types of industrial and machine controls.

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