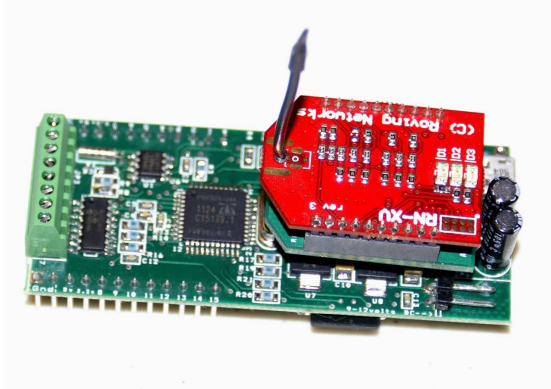


Controlled Capture Systems
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AndroidAQ Data Acquisition and Control Module



The 24-channel AndroidAQ module is very small, fully programmable, multi-cored single-board data acquisition platform that is used for electronics prototyping and product development. The module can communicate with the outside world wired and wirelessly using many of the popular wireless radio technologies. AndroidAQ has 16 digital/analog I/O channels, all of which can be used for Counter/Event counting or for frequency synthesis. It also contains a separate 8-channel 12-bit analog to digital convertor, all of which allows for a sundry of data acquisition applications such as robotics, biomedical devices, green technology control, and more. AndroidAQ has the highest channel count and is the lowest cost-per-channel device available compared to other name brand low-cost data acquisition modules.

FEATURES

- 16 channels of I/O. Each channel is user programmable as either an input or an output channel.
- 8-channel 12-bit Analog to Digital Converter.
- Based on Parallax's Propeller multi-core microcontroller.
- Built-in micro SD card holder.
- USB connectivity, with optional Bluetooth, Wi-Fi, ZigBee, or xBee radios.
- Built-in Real Time Clock with battery back-up.

- 9 to 12-volt DC input power or can be powered via AC power supply (sold separately).
- Breadboard prototyping spacing (board dimensions: "3.00" X 1.300", pin spacing: 1.100" X 0.100").
- User customizable internal firmware and open source sample software also customizable by you (or by Controlled Capture Systems) for your projects and applications.
- Free downloads of our AndroidAQ DEMO for Android, AndroidAQ for DEMO LabVIEW applications and MCU firmware code.
- Designed and manufactured in the USA.

APPLICATIONS

- Scientific experiments, class projects, and field measurements.
- Stepper, servo, brush-less and other DC motor and motion controls.
- Android and other smart peripherals including smart vending machines.
- 2D and 3D printer control and/or multi-axis CNC machine control.
- Solar and electric vehicle on-board power management systems.
- Biometric and medical smart devices and equipment.
- Single to multi-wheeled driven robotic vehicles.
- Multicopter, Quadcopter, and other unmanned aerial vehicles or drones.
- Quadrapod, Hexapod and other multi-legged robots.
- Bipods, balancing robots, and more fun with robotics.
- Weather, earthquake, data recording, and other remote testing and sensing operations.

AndroidAQ Data Acquisition Module for Android, LabVIEW and more...

- Home security, automated watering systems, Christmas lighting control and much more, limited only by your imagination...

SPECIFICATIONS

- **8 (eight)** 32-bit processors that run independently at 80MHz, for up to 160MIPS, which can also synthesize NTSC video and speech without extra support chips.
- Digital inputs (I/O speed up to 160 MHz, 5-volt DC tolerant)
- Digital outputs (sink/source 40mA max. @ 3.3-volt)
- Event counters or frequency measurements (up to 40MHz)
- User settable frequency and duty cycle output synthesis for Pulse Width Modulation (1 Hz to as high as 320KHz)
- 12-bit, ADC can be sampled up to 100K Samples/Sec total.
- Input power 9-12-volt DC ~40-75mA current draw. Output power 3.3-volts and 5-volts at ~.75-amps available for external circuitry.

BLOCK DIAGRAM

