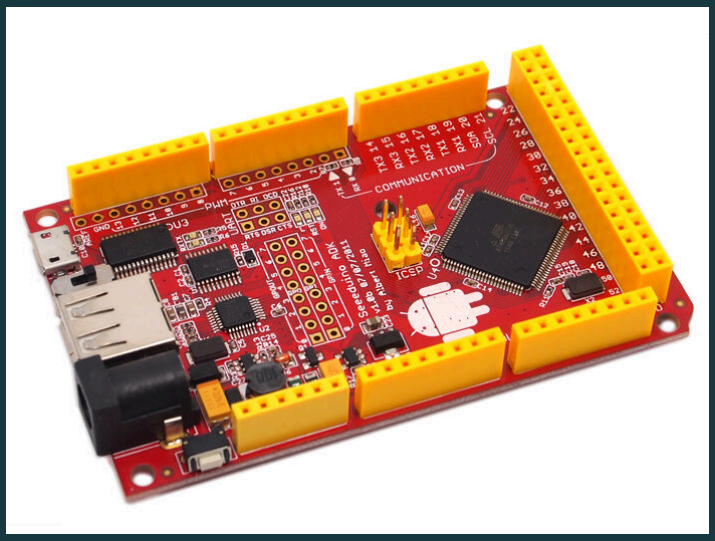
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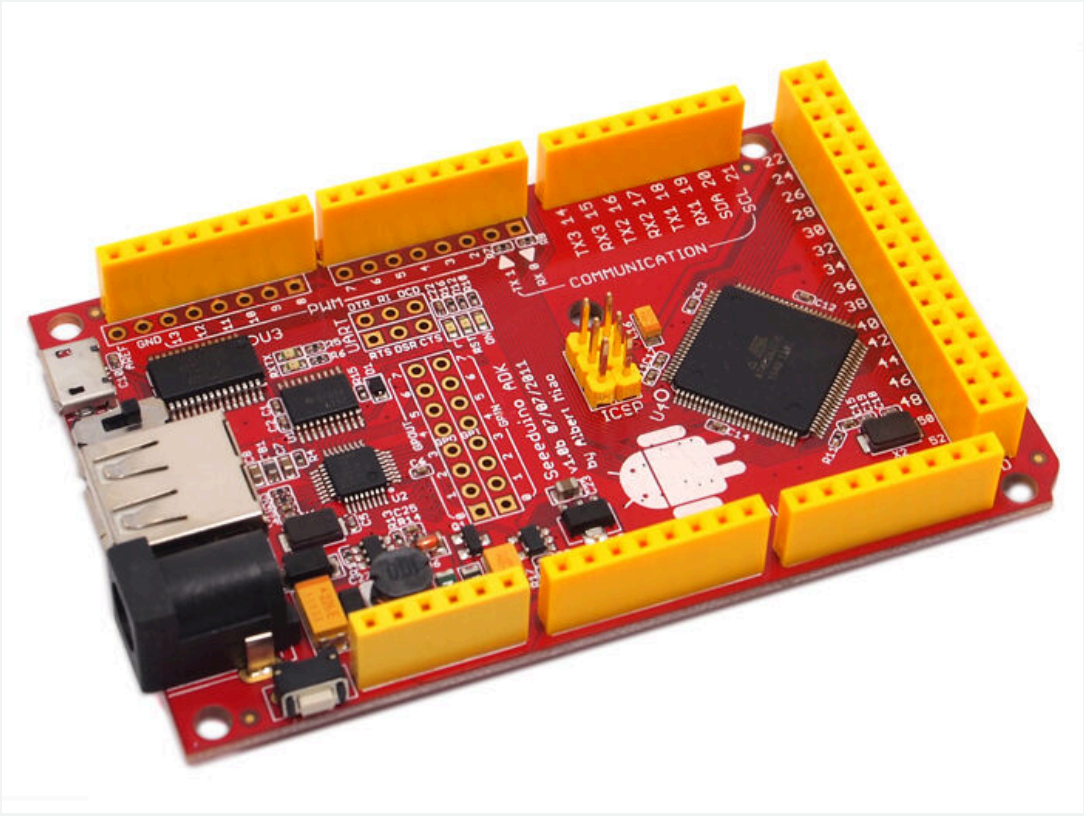
Seeeduino ADK Main Board

Seeeduino ADK Main Board (retired) is an Android ADK-compatible board with Arduino Mega 2560 features and USB host support.

SKU	UPDATED	PRICE
102010009	2024-08-09 02:12:45	$14.90(Excl. VAT)



Overview



This retired Seeeduino ADK Main Board (alternative: IOIO OTG) is an Android ADK-compatible development board with Arduino Mega 2560 compatibility, selectable 5V/3.3V logic, and on-board USB host. It features 56 digital I/O, 16 analog inputs, 14 PWM outputs, and supports Android devices via ADK or MicroBridge.

Key Features

This product is retired, please consider our **IOIO OTG for Android** as your alternative choice.

Seeeduino ADK Main Board is based on Android Open Accessory Development Kit(ADK). Compared to the Google's ADK Reference design, Seeeduino ADK has many added features like support of both 5V and 3.3V I/O (logic with a switch), smaller form-factor, better placement of reset button, pads for more pin-headers and sparkling RED PCB with Golden finish. Using ADK Main Board build your own Mobile accessories. Open Source Android development platform and Seeeduino ADK Main Board is an ideal solution for mobile based Home Automation.

Seeeduino ADK Main Board supports Android devices v1.5 using MicroBridge and v2.3.4 and above with Google Open Accessories API (ADK).

Seeeduino ADK Main Board works like Arduino Mega 2560 with inbuilt USB Host Shield. Hence, this Main Board can be connected to any USB devices. Users have to write their own drivers for using this feature.

What is Android Open Accessory Development Kit?

The Android 3.1 platform (also backported to Android 2.3.4) introduces Android Open Accessory support, which allows external USB hardware (an Android USB accessory) to interact with an Android-powered device in a special "accessory" mode. When an Android-powered powered device is in accessory mode, the connected accessory acts as the USB host (powers the bus and enumerates devices) and the Android-powered device acts as the device.

Android USB accessories are specifically designed to attach to Android-powered devices and adhere to a simple protocol (Android accessory protocol) that allows them to detect Android-powered devices that support accessory mode. Accessories must also provide 500mA at 5V for charging power. Many previously released Android-powered devices are only capable of acting as a USB device and cannot initiate connections with external USB devices. Android Open Accessory support overcomes this limitation and allows you to build accessories that can interact with an assortment of Android-powered devices by allowing the accessory to initiate the connection.

Features

- Android Open Accessories development Kit (**ADK**) compatible:
  - Supports Android v2.3.4 and above devices.
- Works with Android Debug Bridge (**ADB**) using **MicroBridge** :
  - Supports Android v1.5 and above devices.
- Arduino Mega 2560 compatible (256K Flash MCU)
  - Simply works like an Arduino Mega with an integrated USB Shield
- 56 Digital IOs
- 16 Analog inputs
- 14 PWM outputs
- 4 Hardware serial ports (UART)
- 1 Hardware TWI (I2C)
- 1 Hardware SPI (up to 8Mbps)
- On board USB host(MAX3421), and breakout for all I/Os pins.

- On board USB slave(FT232RL), and IOs breakout
- Build-in 5V-1A switched power regulator (input range 6V - 18V)
- Build-in 3.3V-500mA LDO power regulator.
- Red PCB, ROHS compatible and Golden finish.
- 5v/3v3 IO Level selectable (Atmega2560 running on 16MHz@3.3v is a bit over-clock, but according to the test result, works fine).

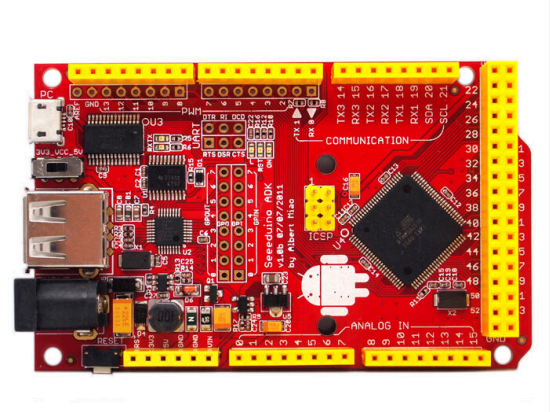
Application Ideas

- **Develop accessories for Android (v2.3.4 and above) devices using ADK.**
- **For Android devices not supporting ADK, use MicroBridge to develop accessories.**
- **Make Android devices interact with the physical world.**
- **As an Arduino compatible platform with 256K Flash.**
- **On board USB host makes it easy to interact with USB devices like pen drivers, keyboard, mouse, Bluetooth dongles.**

Documents

Please visit our **wiki page** for more info about this product. It will be appreciated if you can help us improve the documents, add more demo code or tutorials. For technical support, please post your questions to our **forum**.

Product Gallery







Compliance & Logistics

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Resource Links

- https://www.seeedstudio.com/Seeeduino-ADK-Main-Board-p-846.html
- Modified MicroBridge Arduino Library
- Modified MicroBridge Arduino Library for Arduino1.0
- Seeeduino Demo - Android App
- Seeeduino ADK Eagle Schematic PDF
- Seeeduino ADK Eagle Schematic and Board Files
- Android Open Accessory Development Kit Page
- MicroBridge Page
- Game controllers using USB Host Shield

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