**Arduino** is Italian Language that calls the project's name to develop AVR Microcontroller in the format of OPEN SOURCE.

Its characteristic feature is simple to learn and apply because there are simple commands that support the application and can be applied efficiently. Moreover, skilled user is able to build new commands and Library by self to support Windows, Linux and Macintosh OSX.

ET-MEGA2560 ADK   (P-ET-A-00449)

ET-MEGA2560 ADK is new board in the family of Arduino, it increases capability of communicating and commanding Board Arduino through Android OS devices such as cell phone or Tablet.
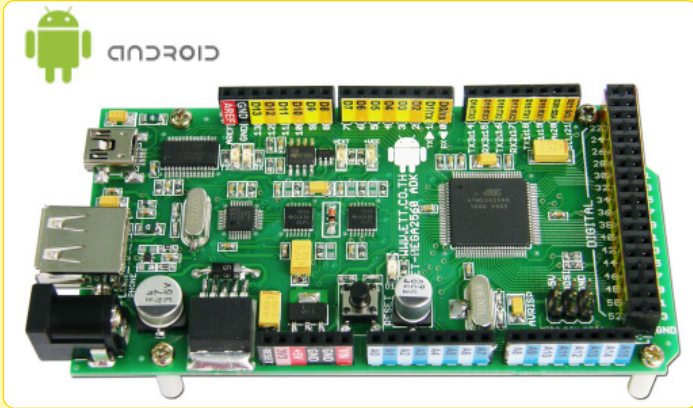

… Nowadays, ETT has developed and used AVR MCU No. ATMEGA2560 and MAX3421 to be Board Arduino that has USB HOST; it supports the connection with USB DEVICE and Android OS devices. It designs and chooses PIN I/O, including board size according to the standard of Board Arduino MEGA.

Specifications of Board ET-MEGA2560 ADK

- Use ATMEGA2560 to be MCU on board, RUN by 16MHz Frequency,100PIN TQFP
- Has 256 KBYTE FLASH to write program (8 KBYTE for BOOTLOADER)/ 8 KBYTE SRAM/ 4 KBYTE EEPROM
- 100% Support in developing program by C++ Language of Arduino according to the format of Arduino MEGA; support in running on computer PC; WINDOWS, LINUX, and MACINTOSH OSX
- Connector USB MINI use USB BRIDGE No.FT232RL from FTDI to communicate and download the written CODE into board, without purchasing any DOWNLOAD device anymore; and add Connector 6PIN to directly adjust PROGRAM for MCU, without using Program BOOTLOADER of Arduino
- ON BOARD USB HOST (using MAX3421) for interfacing with USB DEVICE or Android devices
  - Support in developing by ADK (Android Open Accessories Development Kit) when using with Android V2.3.4 or higher
  - Support in developing by ADB (Android Debug Bridge) of Microbridge when using with Android V1.5 or higher
- 54PIN DIGITAL I/O (5V TTL LOGIC) and there are…
  - 14PIN can be programmed to be function PWM
  - 16PIN ANALOG INPUT (10BIT 16-CH A/D)
  - 4 PORT UART (HARDWARE SERIAL PORT) as 5V TTL LOGIC
  - 1 HARDWARE TWI (I2C)
  - 1 HARDWARE SPI (UP TO 8 MBPS)
- PCB Board size and positions of PIN CONNECTOR accords to the standard of all Board Arduino MEGA; so, it can be used with Board SHIELD that are made by manufacturers to use with Board Arduino MEGA well
- PCB size; 5.3 x 10.2 x 2.0 cm.
- Use POWER SUPPLY 7-12V; it uses Connector MAIL JACK 2.5mm. to supply power into board. It is compatible with both AC and DC. It uses SWITCHING 5V REGULATE No.LM2575-5 to reduce heat and REGULATE 3.3V No.LM1117-3V3 (be compatible with DC ADAPTOR version 10VDC/850mA (OPTION) (A-AP-A-00001))
- Can use Power Supply from PORT USB if using current for all board is not higher than 500mA. There is circuit to choose source of Power Supply automatically on board.
- ET-MAGA2560 ADK consists of …
  1. Board ET-MEGA2560 ADK
  2. CD-ROM User's Manual and Program

ET-EASY MEGA1280   (P-ET-A-00404)
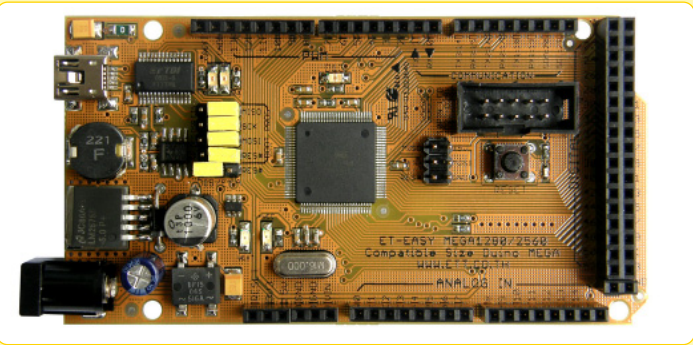
Arduino Project The AVR Board of ETT that is developed program by C++ Language of Arduino such as ET-BASE AVR EASY88/ 168/328, ET-EASY168 STAMP is restricted by amount of I/O and memory size; there is no enough resource to support bigger project.Nowadays, ETT develops and improves Arduino Board to support bigger projects; it improves Program to use with bigger Chip AVR and increases more I/O; DIGITAL, ANLAOG, PWM, UART and larger memory size. However, the method to develop program is still the same as the mini version. ETT uses ATMEGA1280 to develop board and its operating structure is the same as Arduino Mega, it is called "ET-EASY MEGA1280 (DUINO MEGA)". It improves some restrictions better than the standard version of Arduino Mega; so, it is cheap and makes user more convenient to do any project as required.

Features of Board ET-EASY MEGA1280(DUINO MEGA)

- Use ATMEGA1280 to be MCU on board, run with 16MHz, 100PIN TQFP
- 128KBYTE FLASH (4KBYTE is reserved for BOOTLOADER), 8KBYTE SRAM/ 4KBYTE EEPROM, and MCU has already been installed BOOTLOADER of Arduino Mega
- 100% Support program development by C++ Language of Arduino in the format of Arduino Mega
- Connector USB MINI uses USB BRIDGE No.FT232RL of FTDI with OVER CURRENT PROTECTION for communication and download the written code from computer PC into board, JUMPER to adjust operation of board to PROGRAM BOOTLOADER into MCU from PORT USB on board without using any external AVR ISP Programmer.
- 54 PIN DIGITAL I/O (5V TTL LOGIC), there are 14 PIN to program function as PWM.
- 16 PIN ANALOG INPUT(as A TO D 10 BIT 16 CHANNEL)
- 4 PORT UART 5V TTL LOGIC (as HARDWARE SERIAL PORT)
- Connector 10 PIN (HEADER IDE) 8 BIT, DIGITAL I/O (D22-D29) to connect with Character LCD from ETT such as ET-CONV 10 TO LCD, ET-CONV SPI TO LCD and I/O BOARDS from ETT
- Size of PCB Board and positions of PIN CONNECTOR are according to the standard of Board Arduino Mega.
- Board size: 5.3 x 10.2 x 2 cm.
- POWER SUPPLY 7-12V is compatible with both AC and DC by using SWITCHING LM2575-5 REGULATE to reduce heat when using very high current. It is able to use Power Supply from PORT USB if it uses current not higher than 500 mA. There is circuit to choose Power Supply automatically and it will remove Power Supply from USB automatically if interfacing with external Power Supply into board.
- ET-EASY MEGA1280(DUINO MEGA) consists of..
1. BOARD ET-EASY MEGA1280(DUINO MEGA)
2. CD-ROM Program and Manual
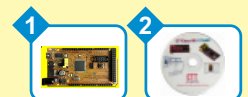
OPTION

- **CABLE USB TO 5P MINI**
  (A-CB-A-00044)
  (It is used to download program.)

- **DC ADAPTER 10VDC/850mA**
  (A-AP-A-00001)
  (It is used to download program.)