51 + ARM development board \ MCU learning board \ Comboembedded development board

51 + ARM combo embedded development board national initiative leading technology. Never imitate focus on innovation!

The Cortex-M3 - beyond the alternative to the ARM7 core. The first 3.3V and 5V dual power supply system. Bring unprecedented convenience to your experiment extended.
Our students to learn the arrival of the 32-bit ARM processor gospel! The study of the transition from the 51 zero-ladder to the ARM hall, subversion of ARM from here.

This board is the first domestic 32-bit ARM processor with MCS51 microcontroller perfectly compatible development board, it can be seen as a very professional STM32 development board can also beseen as a fairly robust 51 development board, which combined willbring you new to learn 32 bit ARM single-chip learning a new revolution has come, to remember that our innovation, from 51 to ARM zero ladderaccess, master ARM easy. Development board in this paragraph so that your perception the the ARM powerful and learning is notunattainable.

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→ [Why is a strong professional features STM32 development board? 】

1. This section development board 3.3V and 5V dual power system, and switch directly to the 3.3V power supply when using theSTM32.
2. The ARM processor uses the enhanced STM32F103C8T6, the kernel for the ARM's new Cortex-M3 core, performance, and ARM7and I do not know beyond. The chips can cover the basic functionsof more than 95% of the products STM32 family, the chip is not a fully-equipped learning preferred.

3. This boad is currently available in the market most of the STM32 development board, in addition to drive the LCD screen,consequently, learning ARM from the LCD, is undoubtedly a highthreshold to enter, for many beginners is not to think about difficult.Inherited in our development board, 51 Deep style. By the onboard16 LED lights, LED, dot matrix, stepper motors, relays, all kinds ofchips and other easy-to-understand resources the STM32 like 51 it is easy to control it, in order to become familiar with the STM32register operating and design ideas.

4. Take a look at our rich development board peripherals, we selected a chip, a very common piece and representation of the chip in the market, use the STM32 driven so many peripheral chips,allows you to tap the STM32 each corner of the study and chip drivers to learn, you get a comprehensive and thorough study.

→ [Why is a strong function of the 51 development board?】

1. This board 3.3V and 5V dual power supply, when a 5V, put on 51 single-chip, 51 became a standard development board.

2. 51 is, is not powerful, is not stronger than any one we have witnessed here is not saying much.

3. with STC SCM automatically download module

4. with 51 of ATMEL AVR microcontroller download interface

5. 51 MCU required crystal can be replaced

→ [Features and Powerfull and packaged included: 】

1. A dual power system, the domestic first dual-power system development board, 3.3V and 5V can freely switch, you can-take-all for all the IC's power supply

2. 32 bit ARM processor, using STM32F103C8T6 enhanced processor, a collection of the STM32 is more than 95% function, we can see that the chip is not fully functional, especially suitable for all levels of learners

3. The STM32 with 12-bit analog-to-digital (AD) converter, 10 analog inputs can be achieved. Onboard there are eight independent mode number of digital-analog (the ADDA), four analog inputs 1 analog output.

4. The STM32 with two hard-I2C-bus and two hard SPI bus, not a software simulation, the speed stability can be easily developed in this panel experiment.

5. 5 axis stepper driver module can implement intelligent robotic and simulation of numerical control systems, linear interpolation, circular interpolation by software algorithms.

6. Full-page modular design, flexible combination, a high degree of freedom to leave space to play, to live it.

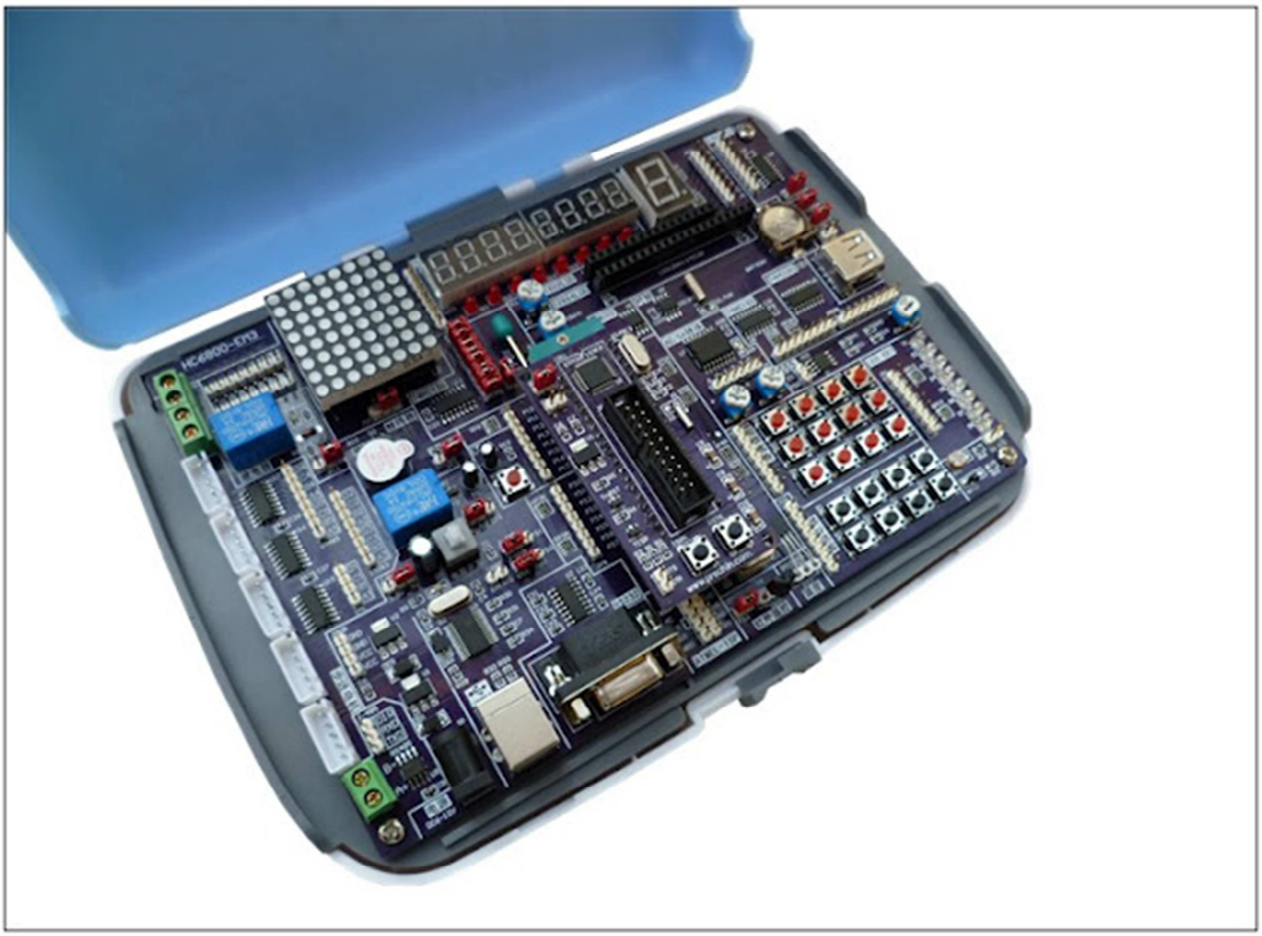
7. Industrial RS485 communication module, the output request of the industry standard design, convenient access to any RS485 device to form a multi-machine interconnected to form the 485 network system (if there are two of this development board, you only need two lines, you can two-machine communication).

8. The pulse generator module, the pulse generator 555 can generate a square wave of frequency tunable pulse source to the H-bridge circuit.
9. Dual independent serial module, onboard 2 serial ports, suitable for dual serial microcontroller. The STM32 has three serial ports, dual serial ports can directly learn.
10. TFT true color screen and SD card module, used to display text, pictures, etc., to do all kinds of man-machine interface using the STM32
11. Output expansion module 11.IO, 2 74595 latch chip can be extended to 16 output interface from the MCU foot limit on the number, give you more space to develop
12. IO input expansion module, 8 input interface can be extended by a 74165 latch chip, without the limit on the number of single-chip foot, giving you more space to develop
13. Color 8 * 8 dot matrix (red and green) and its driver module, the interface is completely independent, you can use onboard 595,573,138, single-chip direct drive. Flexible design allows you to
14. USB-to-serial module, transceiver and hardware flow control end open to external types of communications equipment, or microcontroller to do hardware flow control experiments
15. 16 completely independent LED lights, are a beginner rare, especially in learning the STM32 ARM, more feel 16 is a must, because of the STM32 16-bit output
16. Automatically download the module, STC of 51 single-chip design.
17. Support ucOS II real-time operating system migration and transplantation routines.
18. The national initiative with the industrial configuration software enables rapid development of various types of monitoring system.Your learning directly up to the application.
19. Too rich for the rest of the development board, we are all different one out.

→ [STM32F103C8T6 enhanced performance resources] (these areall you learn)

1. The STM32 using ARM32, Cortex-M3 CPU, the operating frequency can reach 72M, the CPU speed up to 1.25DMIPS/MHZ
2. 0 waiting to access memory
3. single-cycle hardware multiply and hardware division - to speedup the computing power
4. 68K the FLASH
5. 20K the SRAM

6. Clock, reset and supply management
7. 0 to 3.6 V power supply and I / O pins
8. Power on / off reset (POR / PDR), programmable voltage monitor(PVD)
9. High-speed crystal oscillator. Inline 4 to 16MHz
10. Factory-trimmed 8 MHz RC oscillator
11. Internal 40kHz RC oscillator
12. PLL supply the CPU clock
13. With 32kHz RTC oscillator calibration
14. Low-power of A.3 power-saving modes: Sleep, stop, and standby mode.B.VBAT for RTC and backup registers
15. Debug mode: Serial Wire Debug (SWD) and JTAG debuginterface
16. The DMA controller **A**.7 channel DMA controller **B**. Support for peripherals: timers, the ADC, SPI, I2C and USART **C.** 1 12-bit ADC, 1us conversion time (16 channels)
17. Up to 80 fast I / O port, 26/37/51/80 a multi-functional two-way 5V compatible I / O port. All I / O ports can be mapped to 16 external interruptup to seven timer
18. Up to three 16-bit timers, each timer. Up to 4 for the input capture / output compare / PWM or pulsecounting channel.16 6-channel advanced control timer. **A.** up to six PWM output. **B.** deadband control, edge / middle aligned waveform and emergency brake. Two 16-bit watchdog timer (Independent and Window). System Time: 24 decrement of the timer type
19. As many as nine communication interfaces. **A.**2 I2C interfaces (SMBus / PMBus) **B.**3 USART interfaces, support for ISO7816, LIN, IrDA interface,and modem control **C.**2 a SPI synchronous serial interface (18 Mbit / sec). **D.**CAN interface (2.0B Active). **E.**USB2.0 full-speed interface
20. 2 12-bit ADC, 1us conversion time (16 channels). Conversion range of 0-3.6V. Double sample and hold function.Temperature sensor (the STM32 comes with temperature sensors)



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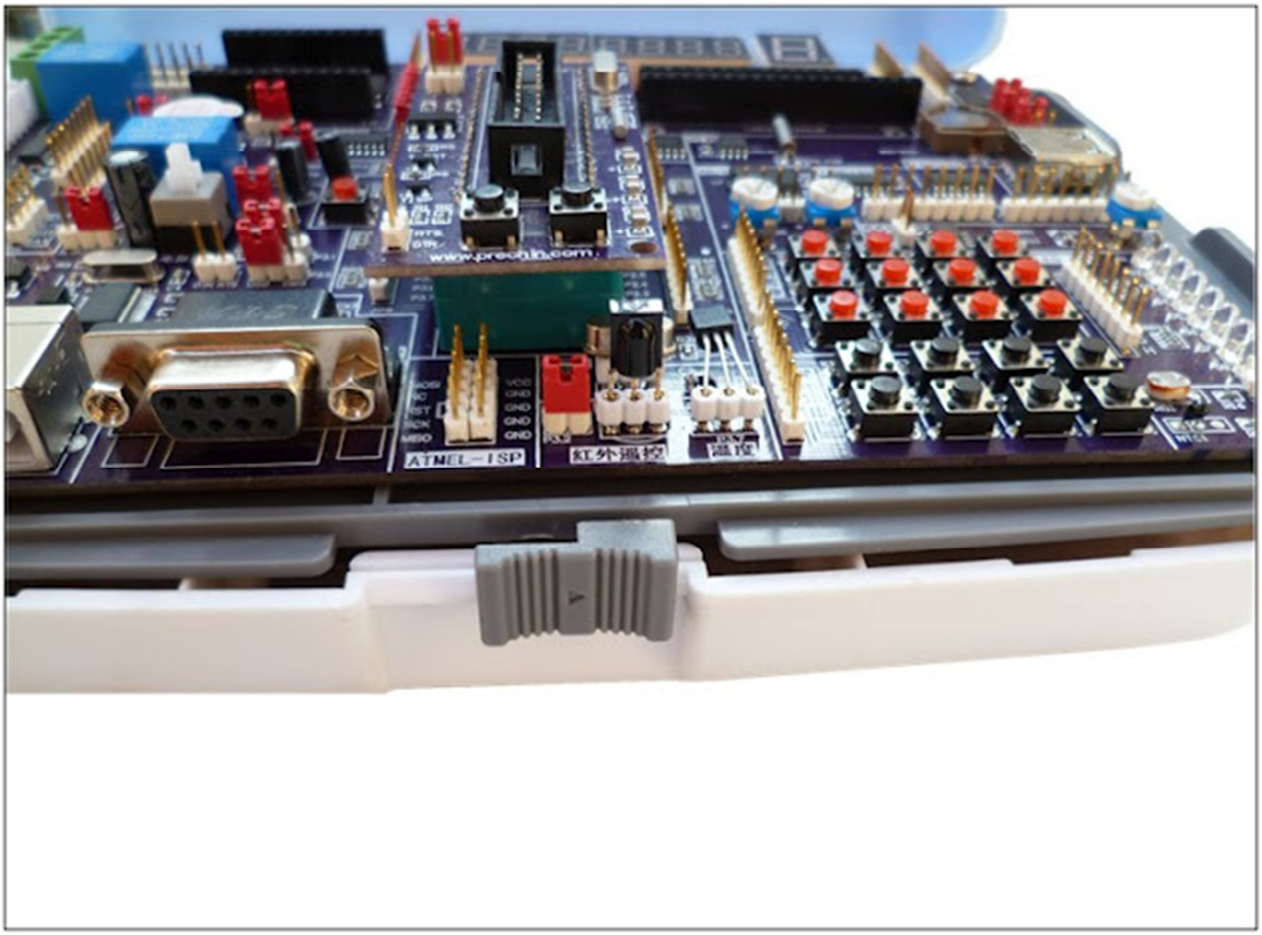
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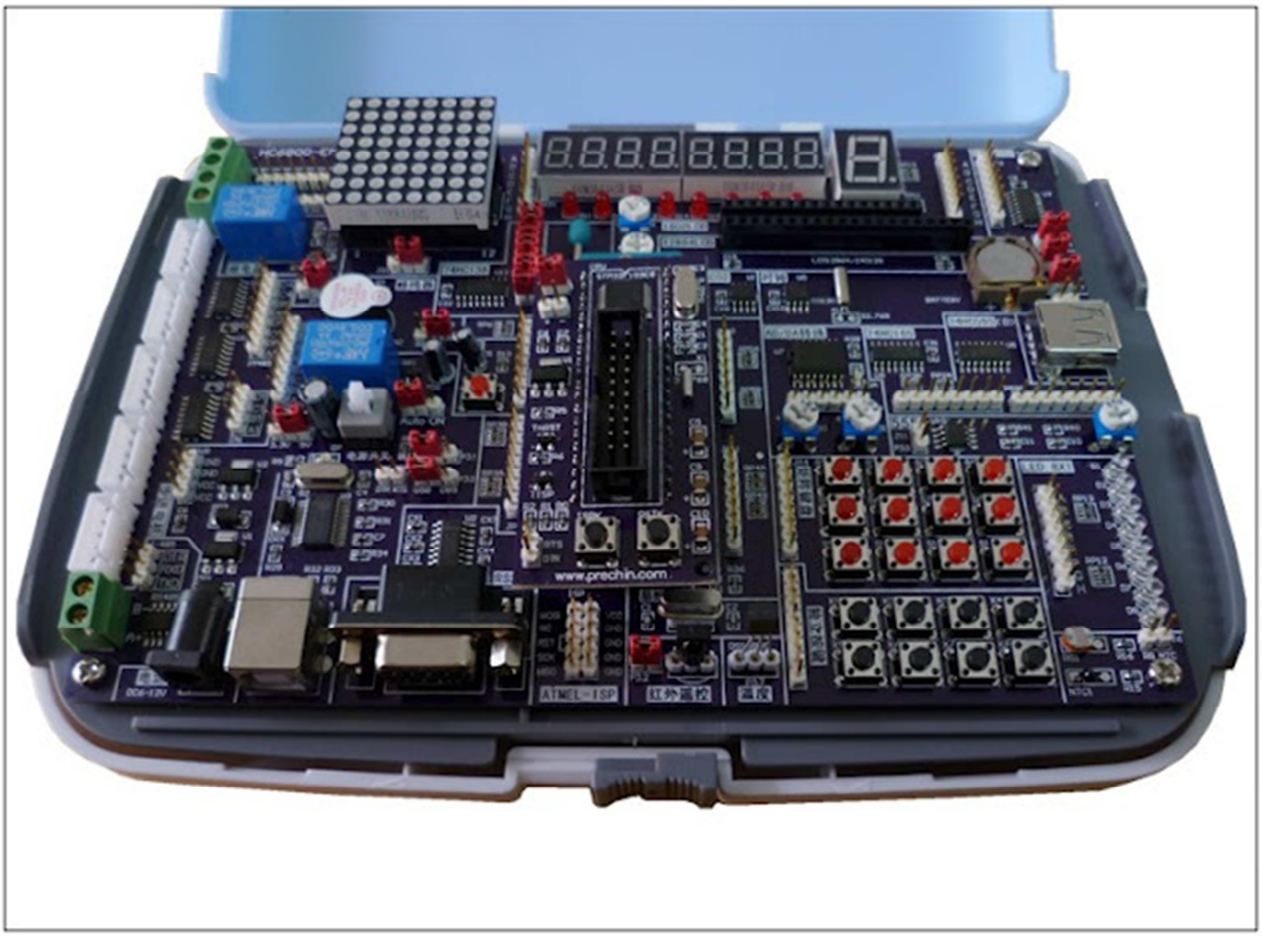
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