

# . Introduction of the motherboard

1. . The chip is used by Lexin. .ESP32S3.. Compared with other main control chips of Lexin, it is the leader in the whole series.  
. It not only supports .WIFI.. Function, also supports Bluetooth .5.0. .  
. In terms of processor. Use .Xtensa® 32. Place.LX7.. Dual-core processor, main frequency up to.240 MHz. , far beyond  
.STM32F4.. The series of chips.
2. . On the board .GPIO.. Different from those in the world .ESP WIFI.. There are many modules. .IO.. The mouth didn't lead out. Inside the module  
. In addition to the board .SPI\_FLASH. And .PSRAM.. Of the two devices .  
IO.. It didn't lead out, the rest .IO.. All of them have been led out.
3. . Equipped on the board .WIFI.. The antenna is .8. The multiplied millet pepper antenna makes its wireless signal much stronger than that in the world. .WIFI.. Module, its gain can reach several times that of the module antenna. The transmission distance is longer, and the development board is used.  
. After the development of the application is completed, you don't need to consider the on-board antenna when you play the board by yourself. .50. Ohm impedance calculation.
4. . On-board equipment .W5500.. Ethernet chip,.W5500.. It is a hardware..TCP /IP. Embedded Ethernet controller.  
. Its driving force is different from .STM32.. The drive of,.STM32.. The interior of use .TCP /IP. Stack, it is inferior in terms of speed.  
. And .ESP32S3.. The driver in only enables the bottom layer. .RAW MAC.. Mode, use the program (.LWIP.. ) Protocol stack means that no matter what you use .WIFI.. Internet connection or.W5500.. Network, its .LWIP.. The codes don't need to be touched.  
. And you can also use the external one. .PSRAM.. Memory, proceed .TCP /IP. Carry out a larger transmission volume. For example, the transmission of high-definition pictures is no longer a word.
5. . Equipped on the board .PSRAM.. Its size is .8M. It is equivalent to . STM32.. Chip .Random access memory.The memory has been increased to .8M  
. Size. For some large image processing, there has been a leap forward, which is why we can run perfectly.  
.LVGL.. The main reason. In addition, other protocol stacks can also be run in it.

6. . Equipped on the board .8M. Taxi .SPI\_FLASH. It is equivalent to .STM32.. Taxi .Read-only memory. , its program theory can be written to .8M. The size is not a problem.
7. . Equipped on the board .CH340K.. Automatically download the circuit and let the program use it. .IDF..When developing, only one is needed. .Type-c.. The data cable can be developed, and the software can also be downloaded and debugged with one click, without unnecessary operation.
8. . Equipped on the board .ST7735S.. Taxi .Liquid crystal display. , has .40 M. High refresh, cooperation .LVGL.. Some pictures can be displayed. Chinese text, some more interface operations.
9. . On the board .TF.. The card slot can read and write all files on the memory card, such as pictures,.MP3.. ,.MP4.. Wait a minute