

AN-16004

AN-16004-Massduino-UNO-CORE

1. Summary

This document introduce Massduino-UNO-CORE , I will also do a video uploaded to the Internet, welcome Click to watch.

For more detail about Massduino, please click:

<http://www.inhaos.com/uploadfile/otherpic/DOC-MASSDUINO-UNO-CORE-V01-20160416.pdf>

View the video, please click: <https://www.youtube.com/watch?v=TFI-3XSWU7E&feature=youtu.be>

2. System structure

- MCU: MD-328D 32K Flash 2K SRAM 16bit ADC
- Working Voltage : 3.3V with onboard LDO
- Input Voltage: DC 4.5 to 12V
- 3.3V Output Current : 300mA MAX
- PCBA Size: 20 x 35mm
- Bootloader preprogramming : Massduino MD-328D

3. THE PRODUCTS



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4. MD-328D

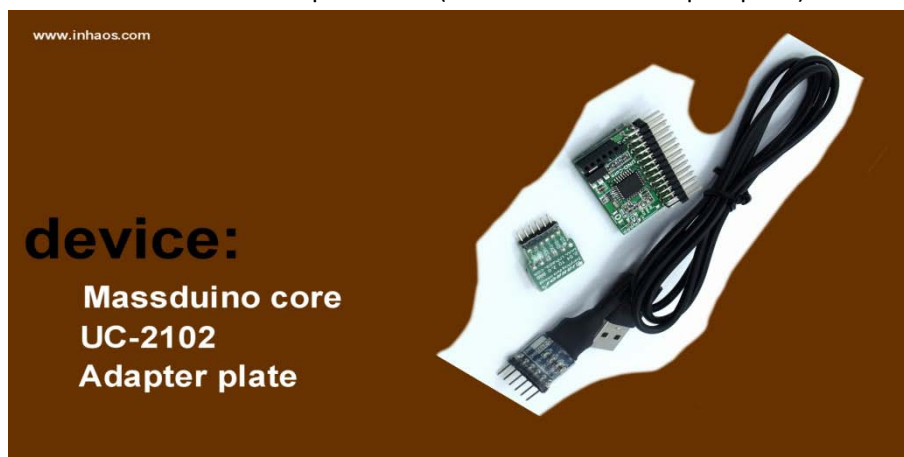
- Hi performance, Low power consumption 8bit RISC MCU
- 32K bytes of in-system programmable FLASH
- 2K bytes SRAM on-chip
- 1K bytes of data FLASH, support byte read (simulate E2PROM)
- Can be edited in the Arduino environment, concise and easy to use
- Programmable synchronous / asynchronous USART
- Can work in master / slave mode SPI Serial Interface
- Up to 30 programmable I / O
- High-performance, low -power and low-cost
- I2C -compatible two-wire serial communication interface protocols , supporting master and slave device mode
- 8-CH 10bit 250Ksps ADC
- 1.8 to 5.5V

5. THE FEATURES

- MD-328D core module
- Onboard 3.3V LDO
- Standard USB2Serial interface for uploading and debugging
- Onboard 2.4GHz RF Module (Optional)
- 100% Arduino development environment
- Vertical double row connector, minimum size on the main board
- Full UNO IO supported

6. DEMO

Massimo-UNO-CORE and upload tools(UC-2102 and the adapter plate)



The Massduino-UNO-CORE's volume is only a quarter of Arduino-UNO.

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low cost
Mini size
Arduino IDE



feature:
It has the lower price than UNO-CORE
It has a smaller volume than the Arduino
The MUC has lower power consumption than 328p

The Massduino MD-328D support 3 kinds of analogRead mode, they are 10bits, 12bits and 16bits.

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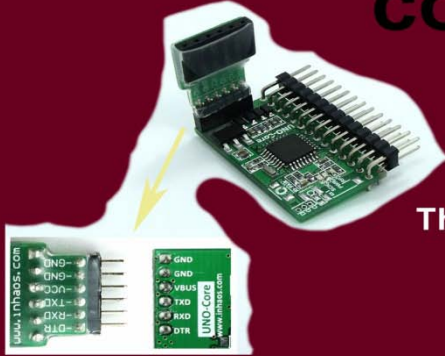
MD-328:
32K bytes FLASH
8-ch
10 bit ADC
1K data FLASH
2K SRAM



The order of connention.

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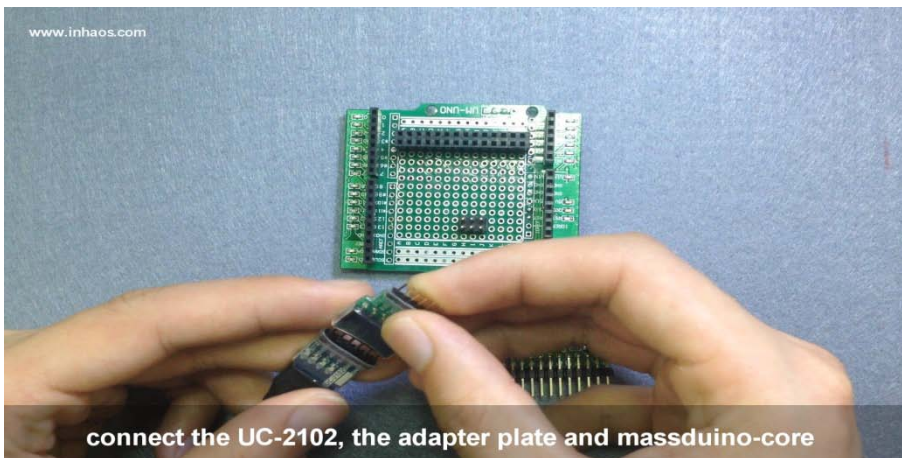
connent:
UC-2102 connect to the adapter plate
The adapter liate connect to massduino-core



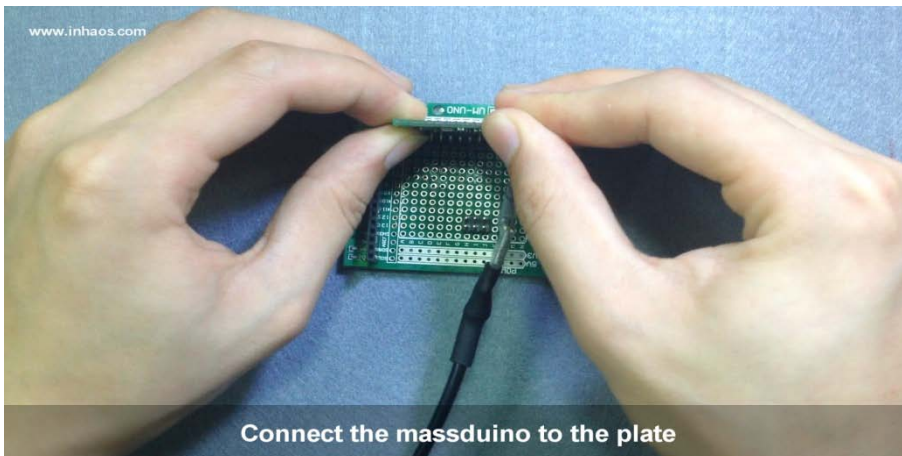
The devices of the demo.



Connect the UC-2102, the adapter plate and Massduino-UNO-CORE.



Connect the massduino to the plate.

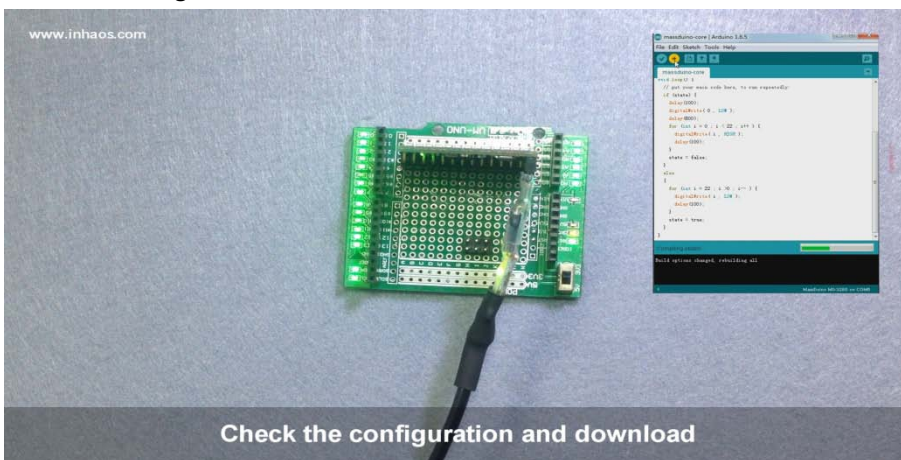


Open the program.



Open Arduino IDE

Check the configuration and download



Check the configuration and download

The program starts running,



Program starts running

