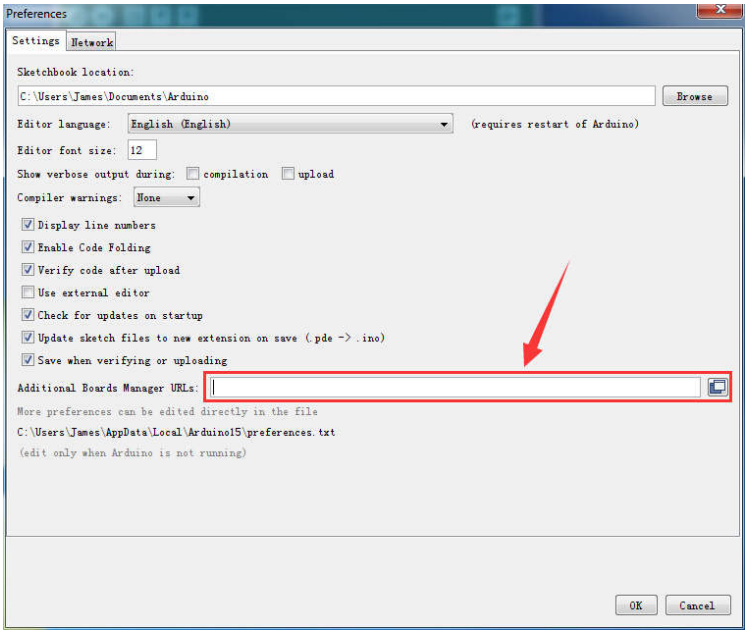
# Zero Pi FAQs

1. **Q: Why ZeroPi data pack "ZeroPi (32-bits ARM Cortex-M0+) by ZeroPi Team" was not successfully installed?**

   A: There are two major reasons that cause unsuccessfully installation of the data pack.

   (1) There is no ZeroPi boards manager URL in the "Additional Boards Manager URLs", as below:




ZeroPi boards manager URL:

https://raw.githubusercontent.com/jiexinluoye/ZeroPi_package/master/package_zeropi_index.json

Please click "File" -> "Preferences" and open "Settings" window, copy the ZeroPi boards manager URL into "Additional Boards Manager URLs". Then click "OK" to close the window. At this time, you can try to install "ZeroPi (32-bits ARM Cortex-M0+) by ZeroPi Team" data package again.

(2)Your network cannot visit GitHub directly. You may need to visit GitHub with web tools. Please search on the internet for related tools.

2. **Q: Why cannot print serial data with calling “Serial.print()” function?**

**A:** The serial port connected to ZeroPi Micro USB interface use “SerialUSB.print()” instead of “Serial.print()” function. Actually, “Serial.print()” function is for the Raspberry Pi interface in Zero Pi.

3. **Q: Why there is a mental pin in the Zero Pi GND pin?**

**A:** This is an anti-reverse measurement. The ZeroPi driver interface can be connected with DC motor diver and stepper motor driver. All the motor drivers needed to be installed in a correct way , otherwise it may cause damage on the motor driver. Please make sure the small white triangle on motor driver is in the same direction with the triangle on ZeroPi.

4. **Q: The maximum driving current of the MOS driver interface on ZeroPi?**

**A:** 10 A.

5. **Q: How many step resolutions does the DRV8825 stepper motor driver module have?**

**A:** Totally six different step resolutions.

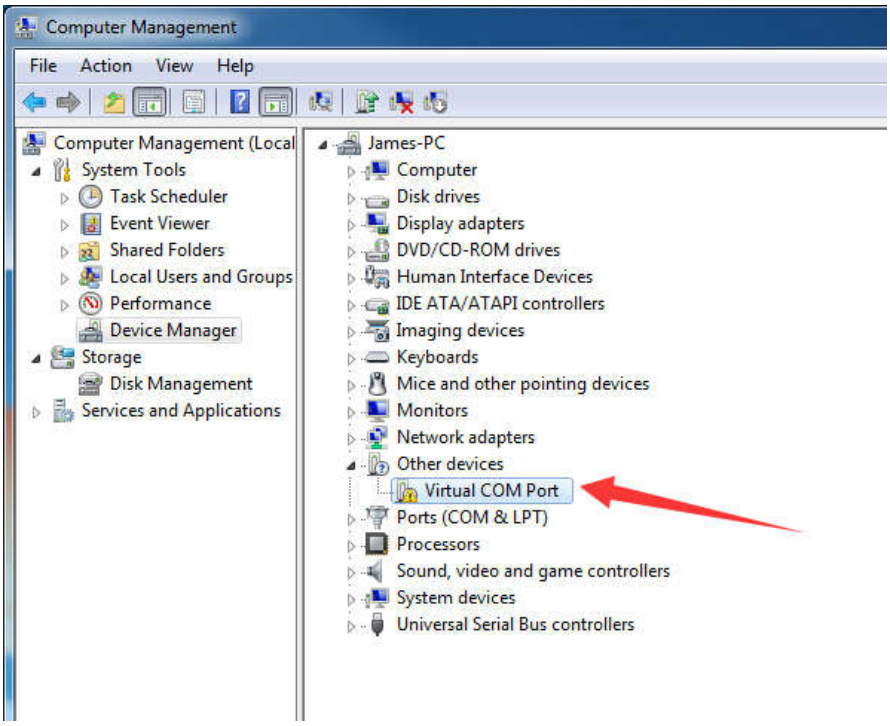
| | | |
|---|---|---|
| 1 | 0 | Full Step |
| 2 | 1/2 | Half Step |
| 3 | 1/4 | Quarter Step |
| 4 | 1/8 | Eighth Step |
| 5 | 1/16 | Sixteenth Step |
| 6 | 1/32 | Thirty-two Step |

6. **Q: How to use the CMSIS-DAP Debugger?**

**A:** The CMSIS-DAP Debugger is used for downloading programs and online debugging. If your program software supports online debugging (e.g. Keil uVision), then you will be able to use this CMSIS-DAP Debugger for debugging. If you are using Arduino IDE, then this CMSIS-DAP Debugger can only be used for downloading programs (Arduino IDE doesn’t support online debugging). The CMSIS-DAP Debugger shows up with a device name of “STMicroelectronics Virtual COM Port (COMx)” on the computer.

**1. Before using CMSIS-DAP Debugger, please install CMSIS-DAP Debugger driver beforehand.**

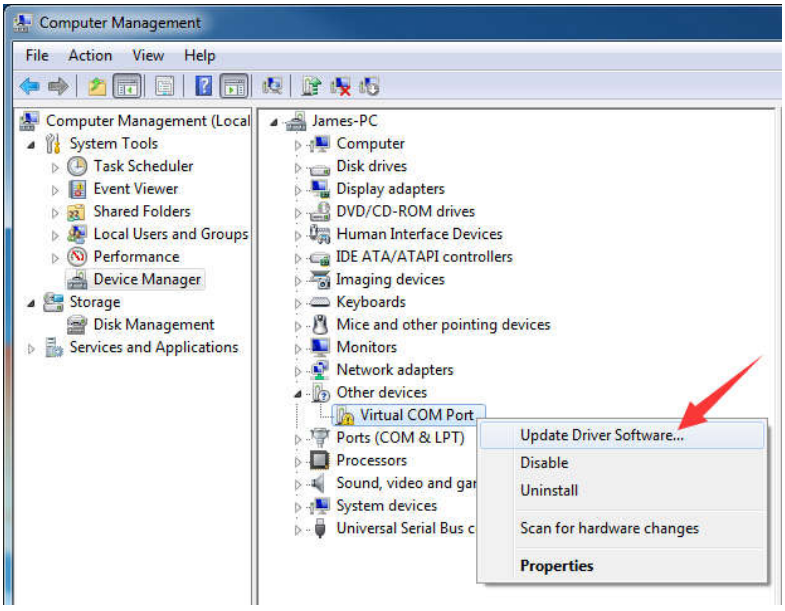
(1) Connect the CMSIS-DAP Debugger with computer via Micro USB, and then open up “Device Manager”. At this point, CMSIS-DAP Debugger is recognized as “Virtual COM Port”, as shown:



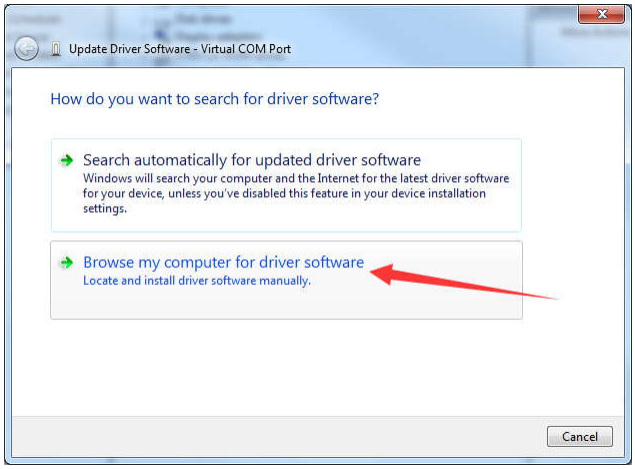

(2) Visit GitHub to download the ZeroPi data package, and then unzip the package. Here is the link:

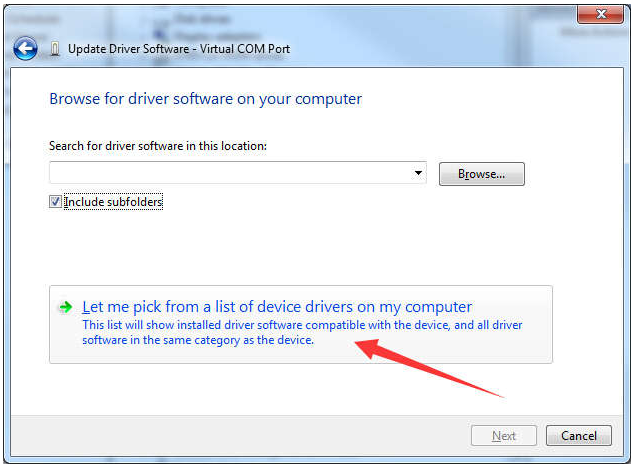
https://github.com/ZeroPiProject/ZeroPi_lib

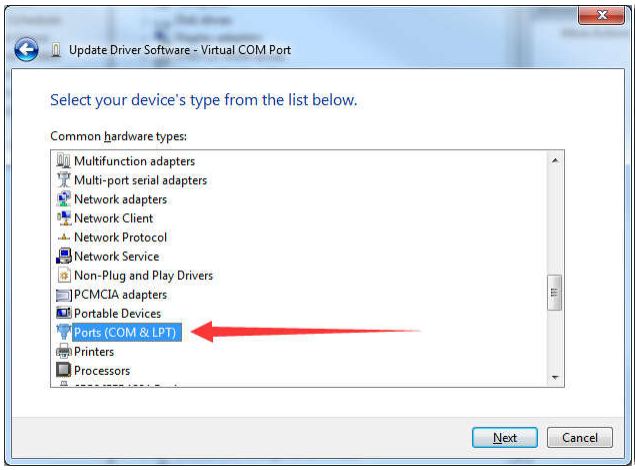
(3) In the "Device Manager" list, find "Virtual COM Port" then right-click to select "Update Driver Software", as below:

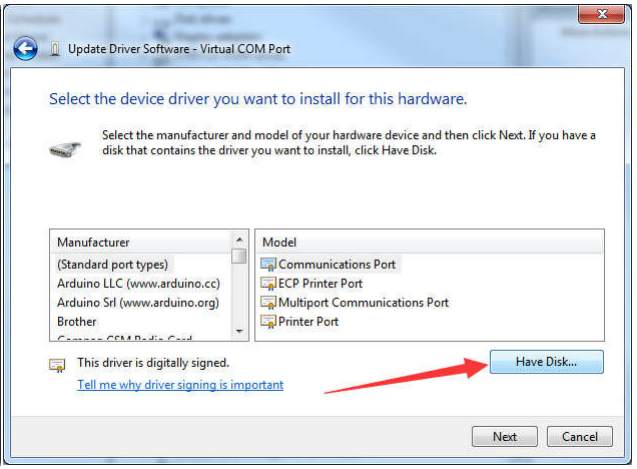


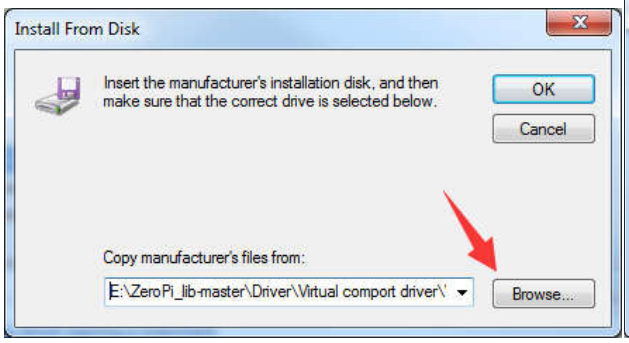

(4) Next, follow the next 7 pictures to start driver installation. When it comes to "Copy manufacturer's files from" box, select ".inf" file under "Win7" or "Win8" folder (according to your OS) in the ZeroPi data package.

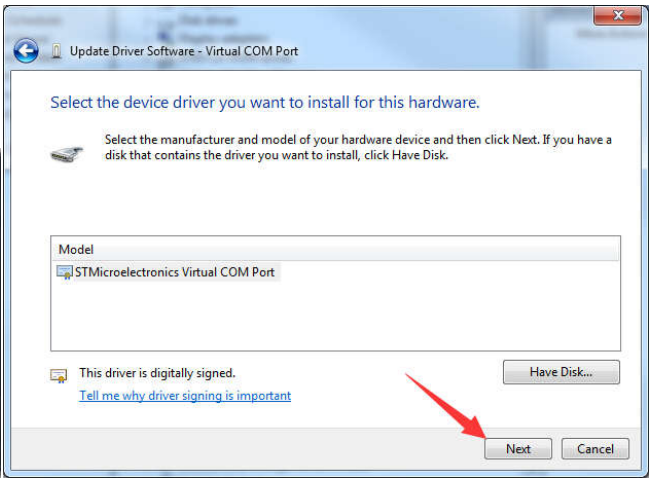

Update Driver Software - Virtual COM Port
How do you want to search for driver software?
Search automatically for updated driver software
Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.
Browse my computer for driver software
Locate and install driver software manually.
Cancel

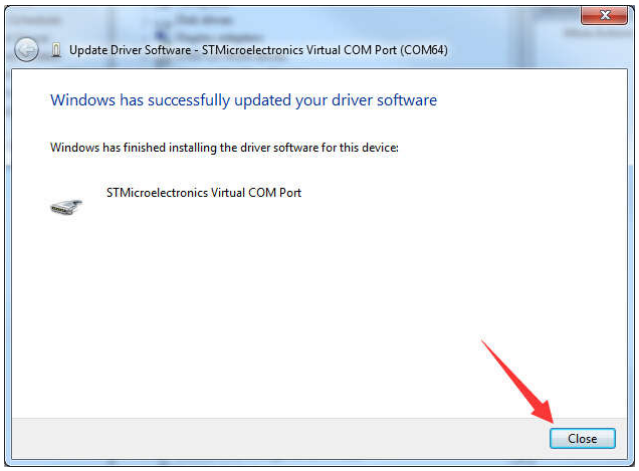

Update Driver Software - Virtual COM Port
Browse for driver software on your computer
Search for driver software in this location:
Browse...
Include subfolders
Let me pick from a list of device drivers on my computer
This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
Next
Cancel


Update Driver Software - Virtual COM Port
Select your device's type from the list below.
Common hardware types:
Multifunction adapters
Multi-port serial adapters
Network adapters
Network Client
Network Protocol
Network Service
Non-Plug and Play Drivers
PCMCIA adapters
Portable Devices
Ports (COM & LPT)
Printers
Processors
Next
Cancel

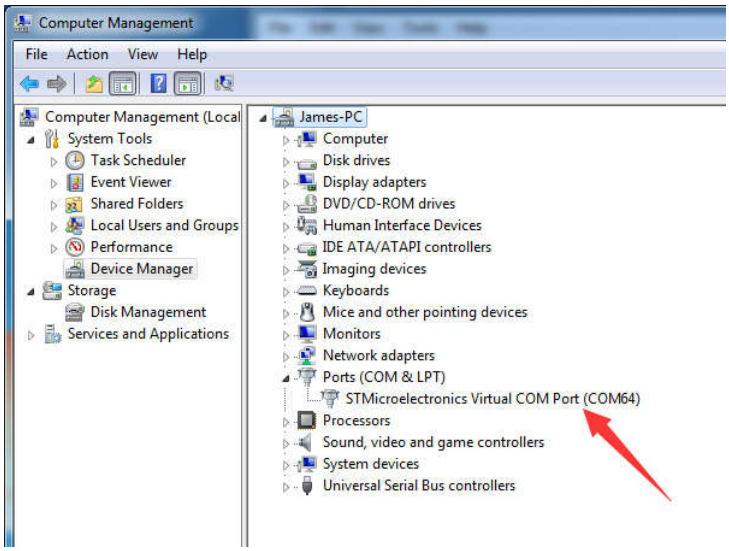

Update Driver Software - Virtual COM Port
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Manufacturer
(Standard port types)
Arduino LLC (www.arduino.cc)
Arduino Srl (www.arduino.org)
Brother
Model
Communications Port
ECP Printer Port
Multiport Communications Port
Printer Port
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
Next
Cancel


Install From Disk
Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.
OK
Cancel
Copy manufacturer's files from:
E:\ZeroPi_lib-master\Driver\Virtual comport driver\
Browse...


Update Driver Software - Virtual COM Port
Select the device driver you want to install for this hardware.
Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Model
STMicroelectronics Virtual COM Port
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
Next
Cancel

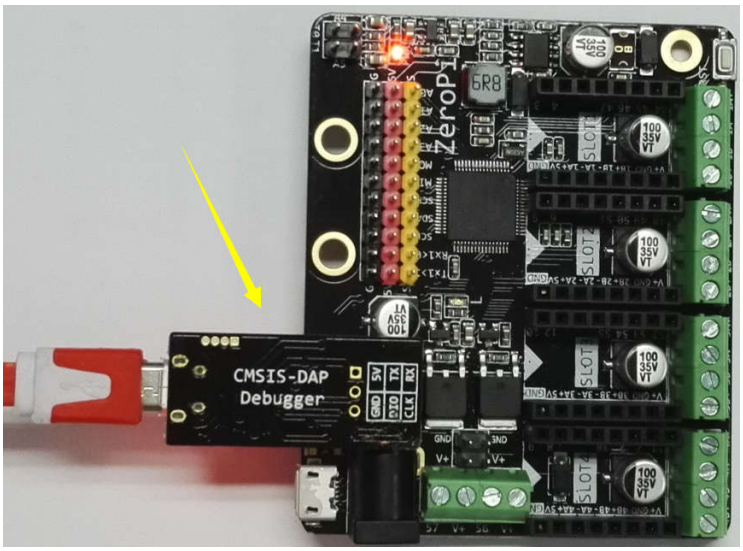



(5)After installing driver, CMSIS-DAP Debugger will be recognized as “STMicroelectronics Virtual COM Port (COMx)”.

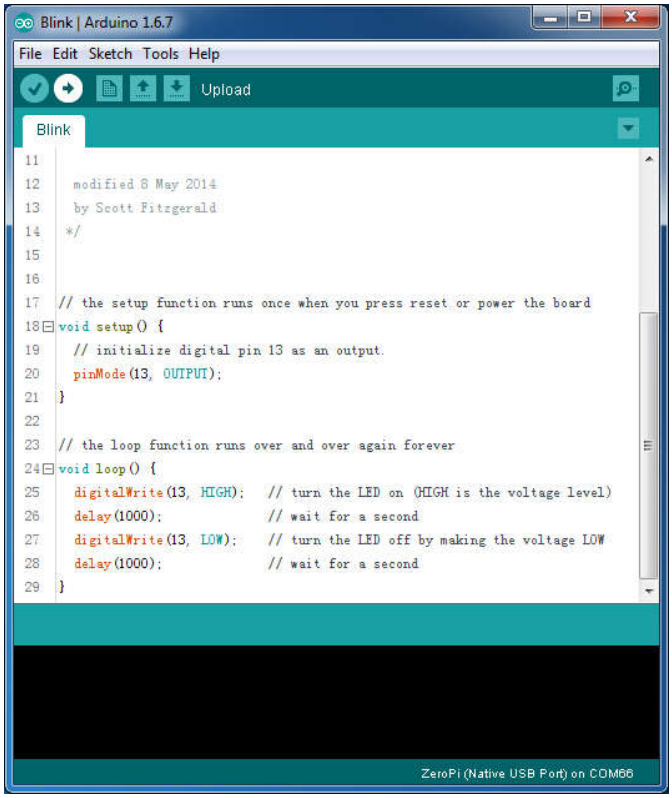



**2. Open up Arduino IDE, and then follow the next three steps to check if the CMSIS-DAP Debugger works well**

<1>Connect the CMSIS-DAP Debugger and ZeroPi.



<2>Open up Arduino IDE, click “Tools” -> “Board”, and then select “ZeroPi (Programming Port)”
<3>Go to “Tools” -> “Port”, and then select “COM64”. Please note that different computer may show different port number.
<4>Click “File” -> “Example” -> “01.Basics” -> “Blink” to open up Blink. Afterwards, click “Upload” to upload programs, as below:




<4>After uploading programs, you will able to see the blue LED on ZeroPi blinks at 1 second interval, this means the CMSIS-DAP Debugger can works well.

**7. Q: When connect ZeroPi with the computer via Micro USB, I can’t find corres ponding COMx in the Device Manager list.**

**A: There are two solutions for this problem:**

1. Double press the reset key on ZeroPi quickly
2. Use the CMSIS-DAP Debugger to download any program onto ZeroPi