Pi Zero USB Adapter User Manual

OVERVIEW

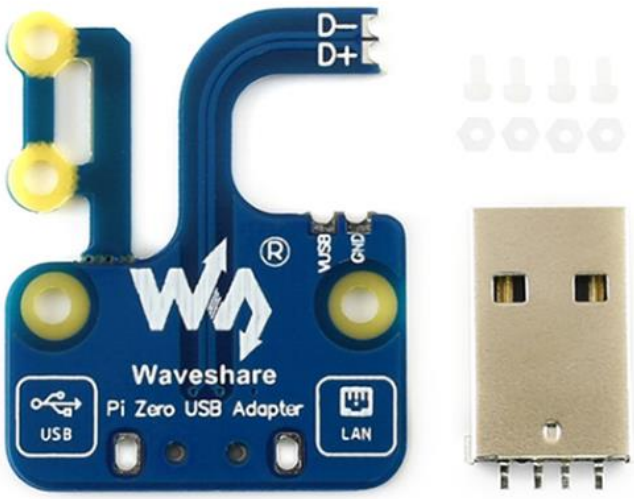
This is USB adapter board designed for Raspberry Pi Zero/Zero WH, turn the micro USB interface of Raspberry Pi Zero to USB Type A interface. With this adapter, you can directly inset your Raspberry Pi to PC as convenient as inserting a U drive.

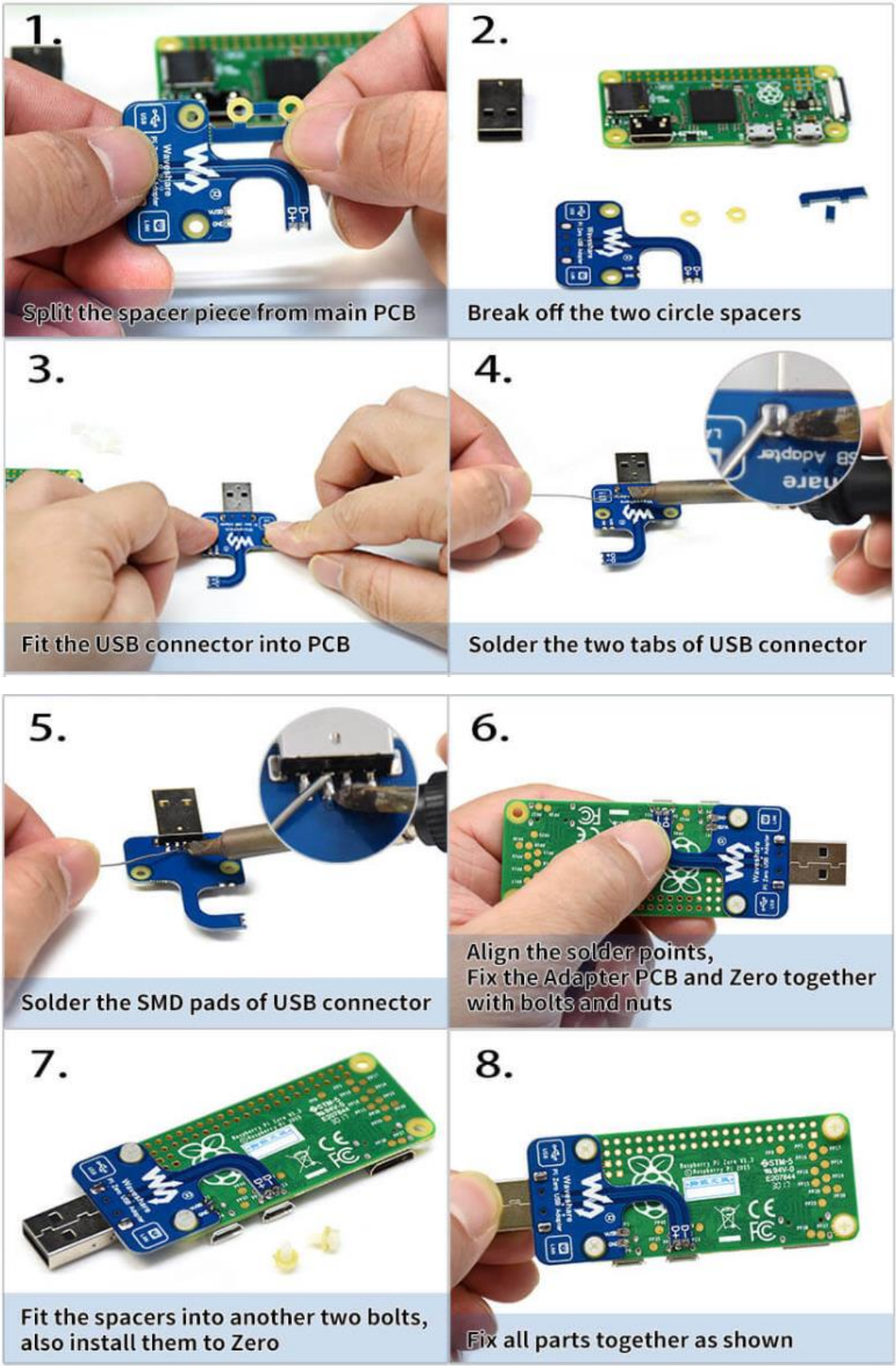
FEATURES

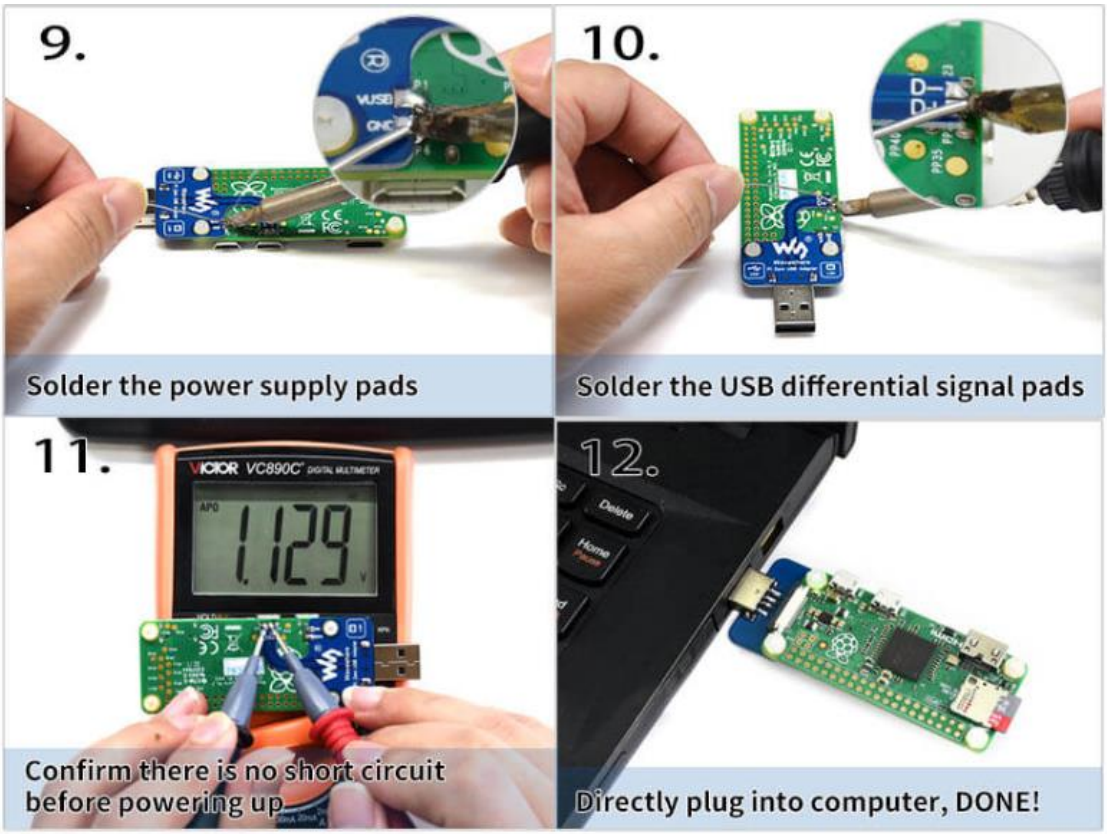
- Compatible with Zero V1.3/Zero W/Zero WH
- USB-A connector, directly pluggable into the computer USB port
- Power supply and USB OTG are also available

HOW TO WELD

You should manually assemble and weld this adapter to Pi zero. **Be careful during welding**, mistake welding is not included in warranty.




1.
Split the spacer piece from main PCB
2.
Break off the two circle spacers
3.
Fit the USB connector into PCB
4.
Solder the two tabs of USB connector
5.
Solder the SMD pads of USB connector
6.
Align the solder points,
Fix the Adapter PCB and Zero together
with bolts and nuts
7.
Fit the spacers into another two bolts,
also install them to Zero
8.
Fix all parts together as shown



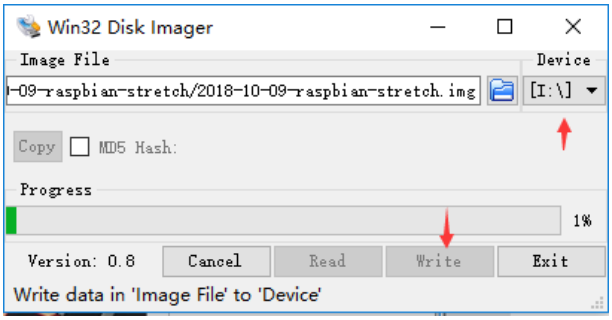
The USB Adapter PCB will thicken the Zero on one side, therefore, we also provide circle spacers for the other side, which can balance the thickness on both sides of the Zero, make it easier to use with a protection case or enclosure.

GUIDE (USE RASPBERRY PI ZERO)

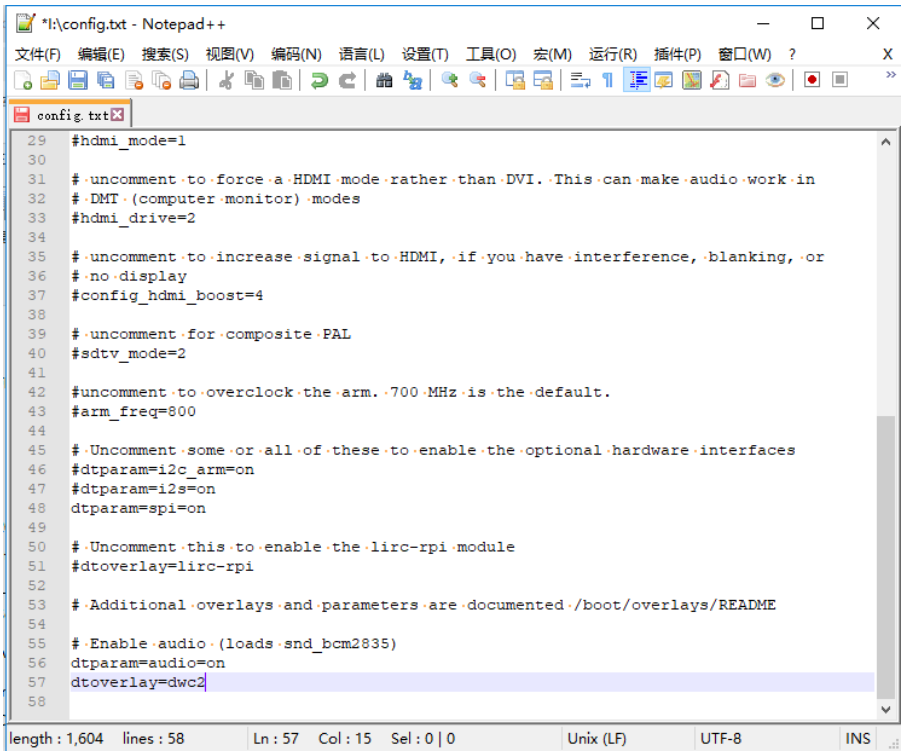
ACCESS RASPBERRY PI VIA SSH

1 Download newest Raspbian image from [Raspberry Pi website]

2 Write the image to SD card with Win32DiskImager software

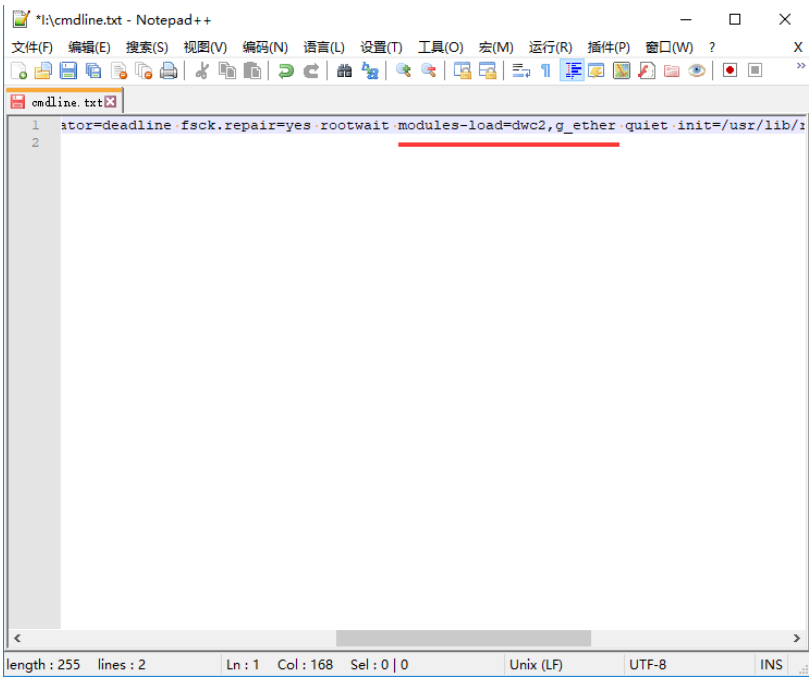


3 After writing, append this line: **dtoverlay=dwc2** to config.txt, which is in root directory of SD card.

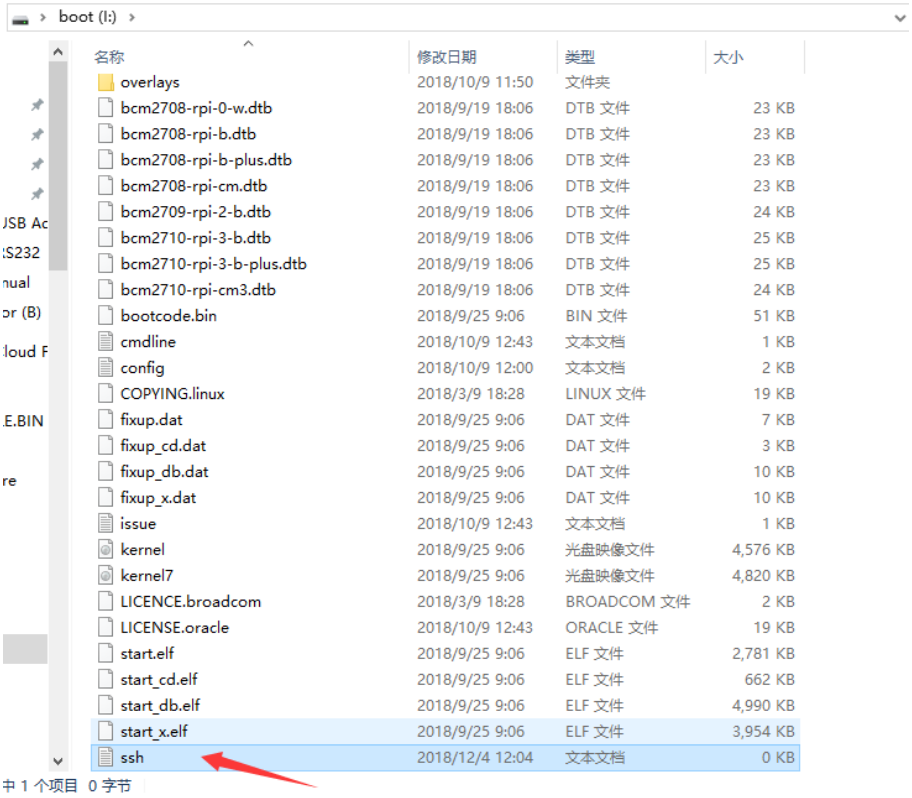


4 Edit cmdline.txt file. Note that, all the statements in this file are set in the same line, do not change the format. Find rootwait, and inset this statement following

it: modules-load=dwc2,g_ether



5 created a new txt file on root directory (BOOT) and named it ssh.



6 Insert the card to your Raspberry Pi and connect to PC.

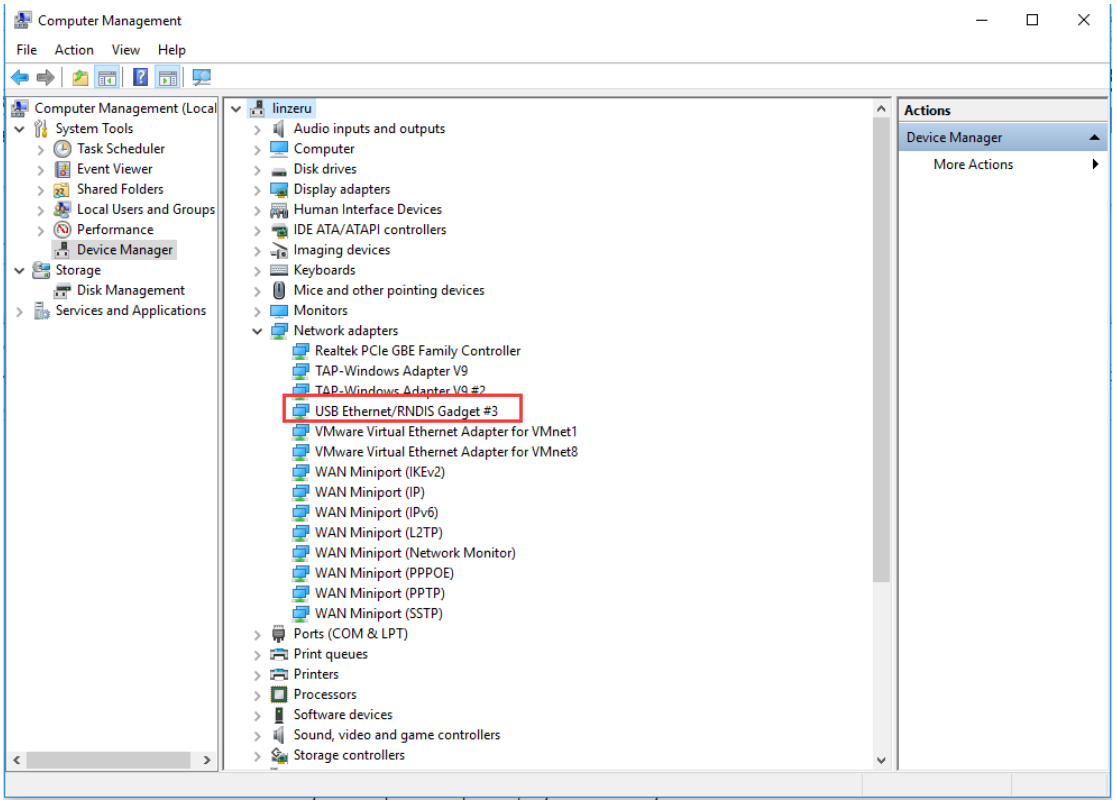
7 After booting (The green indicator will flash during booting, open Devices Manager. If the Raspberry Pi is designed as a COM device instead of RNDIS, you should first install the RNDIS driver

- https://www.waveshare.com/w/upload/7/7c/RPI_Driver_OTG.zip

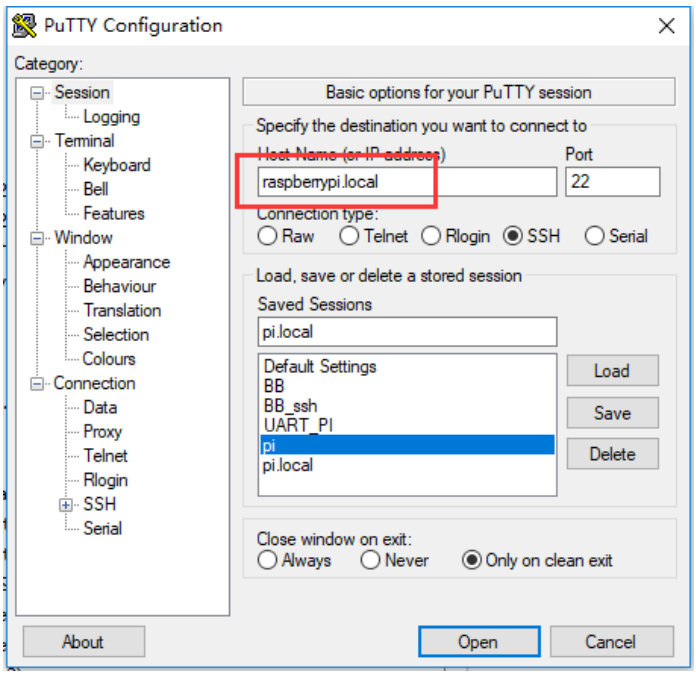
7.1 Download the driver and extract it

7.2 right click the COM devices (The one Raspberry Pi recognized as) -> Update Drive->Browser my computer for driver software then choose the driver and update.

8 After installing, you can find that one RNDIS Gadget is recognized



9 Access Raspberry Pi via SSH with Putty software, IP: raspberrypi.local Port: 22



10 If there is error information prompt, search Bonjour software online and install

```
pi@raspberrypi: ~
SSH is enabled and the default password for the 'pi' user has not been changed.
This is a security risk - please login as the 'pi' user and type 'passwd' to set
 a new password.

pi@raspberrypi:~ $ ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 12  bytes 1140 (1.1 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 12  bytes 1140 (1.1 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

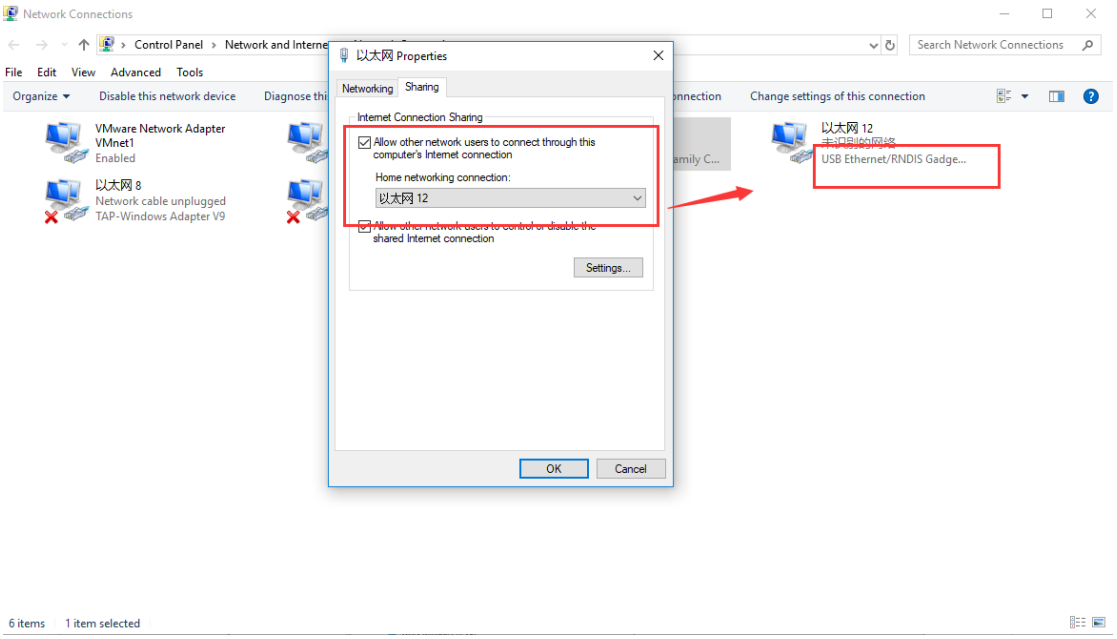
usb0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 169.254.240.5  netmask 255.255.0.0  broadcast 169.254.255.255
        inet6 fe80::7e6f:39ab:c99b:c59a  prefixlen 64  scopeid 0x20<link>
        ether 0e:db:e6:a2:ff:ee  txqueuelen 1000  (Ethernet)
        RX packets 289  bytes 42554 (41.5 KiB)
        RX errors 0  dropped 5  overruns 0  frame 0
        TX packets 100  bytes 19384 (18.9 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

pi@raspberrypi:~ $
```

SHARE NETWORKIGN WITH PC

There is a method that you can share network of your PC with Raspberry Pi.

1. Open Control Panel -> Network and Internet -> Network and Sharing Center->Change adapter settings
2. Find the network your PC connect, right lick->Properties->Sharing. Check option that Allow other network users to connect through this computer’ s Internet connection. Then select shared network



3. Then try to ping a website on your Raspberry Pi.

```
pi@raspberrypi: ~

pi@raspberrypi:~ $ ls
Desktop    Downloads  Music     Public        Templates
Documents  MagPi      Pictures  python_games  Videos
pi@raspberrypi:~ $ ping baidu.com
PING baidu.com (123.125.115.110) 56(84) bytes of data.
64 bytes from 123.125.115.110 (123.125.115.110): icmp_seq=1 ttl=51 time=35.5 ms
64 bytes from 123.125.115.110 (123.125.115.110): icmp_seq=2 ttl=51 time=35.8 ms
64 bytes from 123.125.115.110 (123.125.115.110): icmp_seq=3 ttl=51 time=36.2 ms
64 bytes from 123.125.115.110 (123.125.115.110): icmp_seq=4 ttl=51 time=36.1 ms
^C
--- baidu.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 35.581/35.958/36.217/0.314 ms
pi@raspberrypi:~ $ sudo apt-get update
Get:1 http://archive.raspberrypi.org/debian stretch InRelease [25.3 kB]
Get:2 http://raspbian.raspberrypi.org/raspbian stretch InRelease [15.0 kB]
Get:3 http://raspbian.raspberrypi.org/raspbian stretch/main armhf Packages [11.7
 MB]
Get:4 http://101.110.118.68/archive.raspberrypi.org/debian stretch/main armhf Pa
ckages [199 kB]
Get:5 http://101.110.118.47/archive.raspberrypi.org/debian stretch/ui armhf Pack
ages [39.1 kB]
99% [Connecting to raspbian.raspberrypi.org (93.93.128.193)]
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