



Read this manual before operation

- The content includes electric connections and operation steps
- Read the manual to operate the systems

# RD-WIFI

## Wireless Network Instruction

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## CE

The product has been certified by the CE (Communate European) safety certification. It has passed the corresponding conformity assessment procedure and the manufacturer's declaration of conformity, in accordance with the relevant EU directive.



## ROHS

This product has been certified by EU legislation (Restriction of Hazardous Substances) Safety certification; comply with relevant EU environmental regulations.



## FCC

This product has been certified by the Federal Communications Commission for safety, Comply with us electronic safety regulations.

# SAFETY INFORMATION

When using this system, please make sure the operation is correct and the usage is safe. Some signs or text will be used to remind you to pay attention to the dangerous matters and some important information.

**Dangerous:**

Indicates a serious danger. In the process of use, if the operation is improper or the way of use is wrong, it may cause serious injury or even death to the user. Please do not operate it easily until you have made sure that the operation method is correct and the way of use is correct.

**Warning:**

Danger. In the process of use, if the operation is improper or the use is wrong, which may lead to the injury of the personnel, please do not operate the personnel and related personnel easily, until ensure the correct operation method and use method is correct before use.

**Cautious:**

Represents the potential risk of the product. In the process of use, if the use method is wrong or improper operation, it may cause damage to the product or some parts. Please do not use it until you have made sure that the operation method is correct and the usage is correct.

**Important:**

Represents important information to be paid attention to during the use of the product. Please do not ignore this information, this information will provide effective operational help.

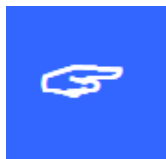


This sign indicates laser radiation, which is usually posted on products with laser output. Please be careful with laser and pay attention to safety when using this kind of equipment.

## Sign in、Devanning、Examine cargo

The product itself with plastic or metal shell, can protect the external electrical components from damage. The products are packed in foam bags and anti-static bags. If there is any external damage to the package, check the equipment and notify the carrier and carrier in writing of the damage.

### **Important:**



After receiving the product, please check whether the outer package is intact, check whether the product is complete after unpacking and whether all parts are intact. If any damage is found, please contact ruida immediately.

Remove all cargo from package and keep packing material and wiring parts. Please take care of the safety of the goods when unpacking them. After taking out the goods, please check whether the parts are complete and intact. If any missing parts or damaged parts are found, please contact ruida technology immediately. Do not install or debug the equipment if any obvious damage is found.

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# Section 1 Network connections via Wireless Network Card or WIFI on laptop

## CONTENTS:

- One machine + One PC
- One machine + Multiple PC
- Multiple machines + One PC
- Configuration

## 1.1 One machine + One PC

In this mode, one PC connects to one wireless terminal device via wireless terminal. As Figure-1 showed:

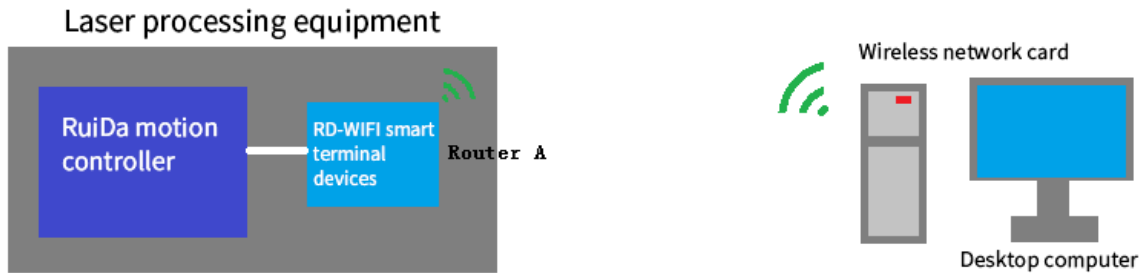


Figure-1 One desk-top computer wireless connection diagram

(Configured WIFI network card with USB interface)

Based on above structure, configured with RuiDa motion controller and RD-WIFI smart terminal devices, and the desk-top computer with wireless card, the wireless control can be achieved between computer and machine.

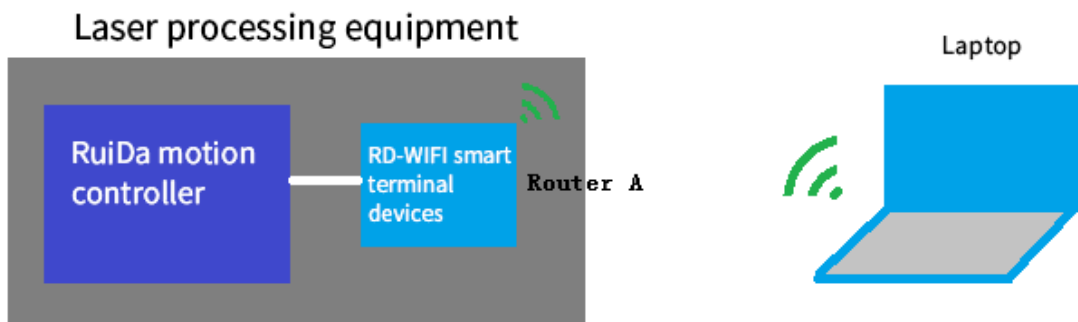


Figure-2 One laptop wireless connection diagram

(Open WIFI)

Based on above structure, configured with RuiDa motion controller and RD-WIFI smart terminal devices, and the laptop with wireless network card, the wireless control can be achieved between laptop and machine.



## 1.2 One machine + Multiple PC

For this mode, multiple PC can send process tasks to machine, see below figure-3.

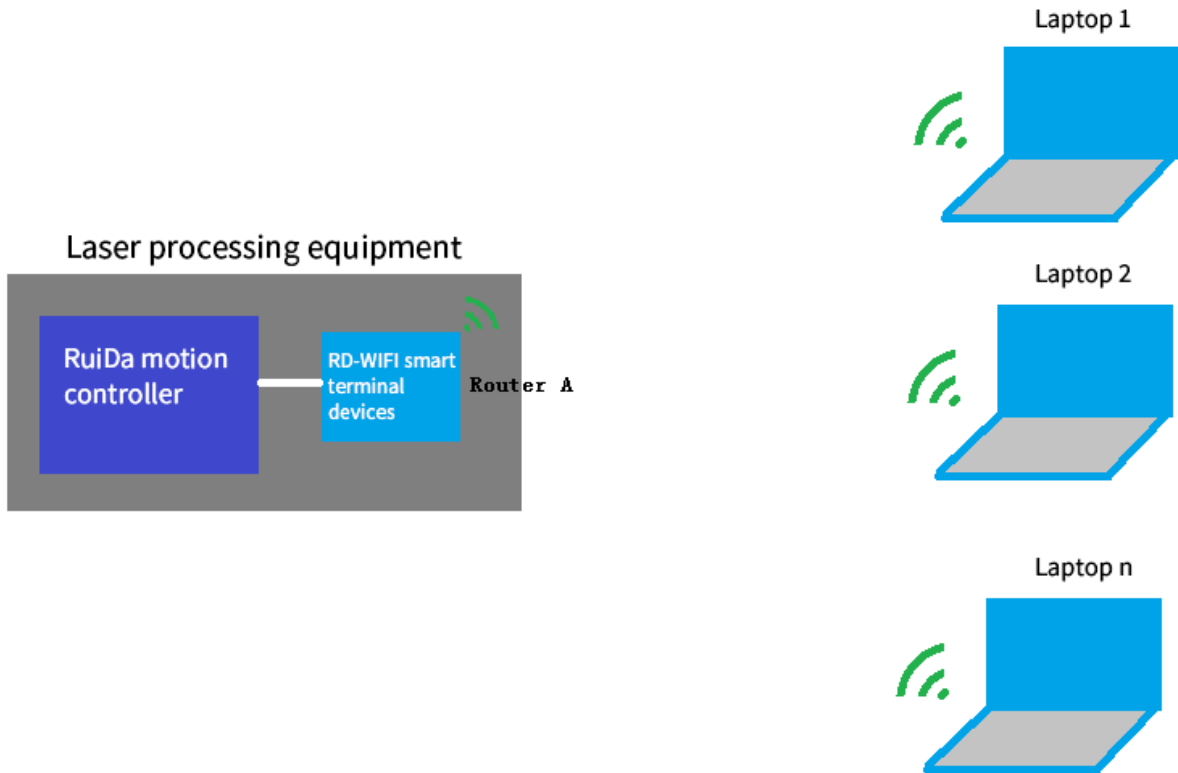
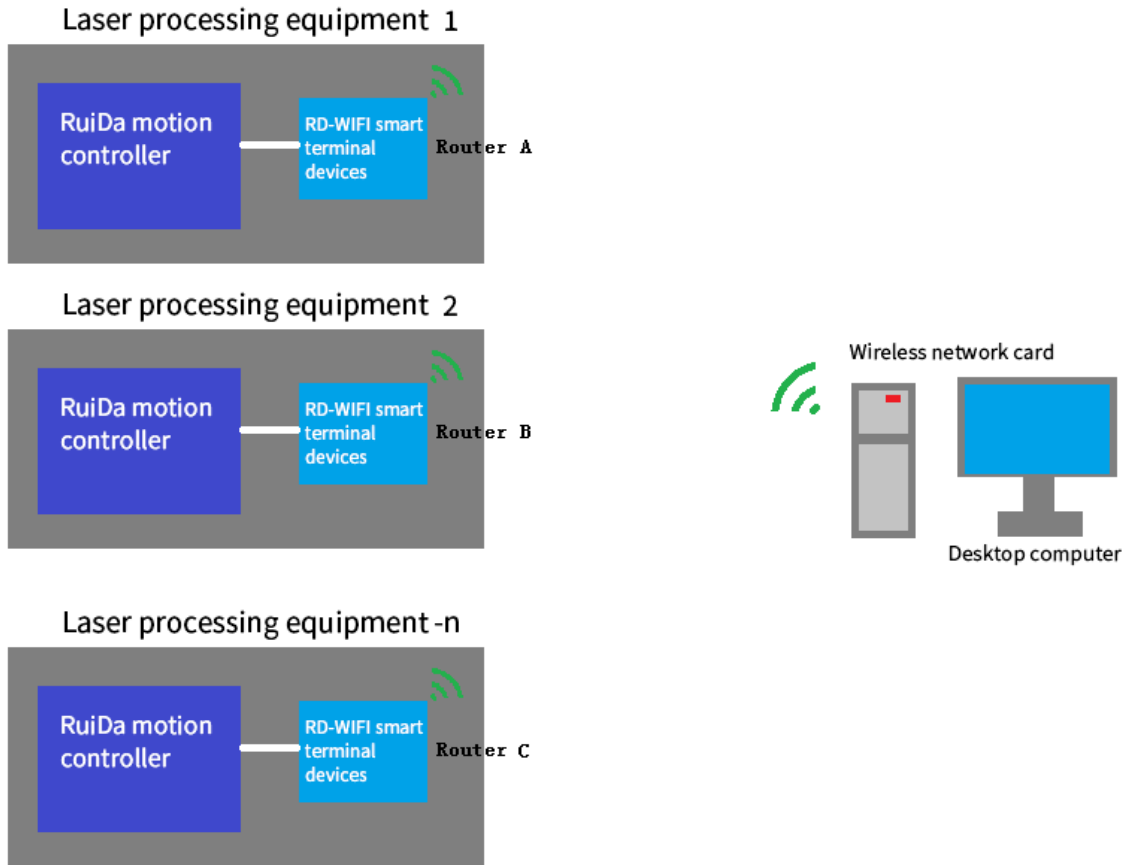


Figure-3 Multiple PCs share one machine

Notes: This operating mode is different from sharing printer, due to the machine cannot do process task queue, so when multiple PC shared the machine, the previous task must be finished, otherwise it will be failed.

## 1.3 Multiple machines + One PC

Each wireless terminal has an independent WIFI name in this mode. So user can chose any one of WIFI to control the machine. All the machines WIFI name are listed in the wireless network. User can choose connecting the related WIFI name to control the relative machine.

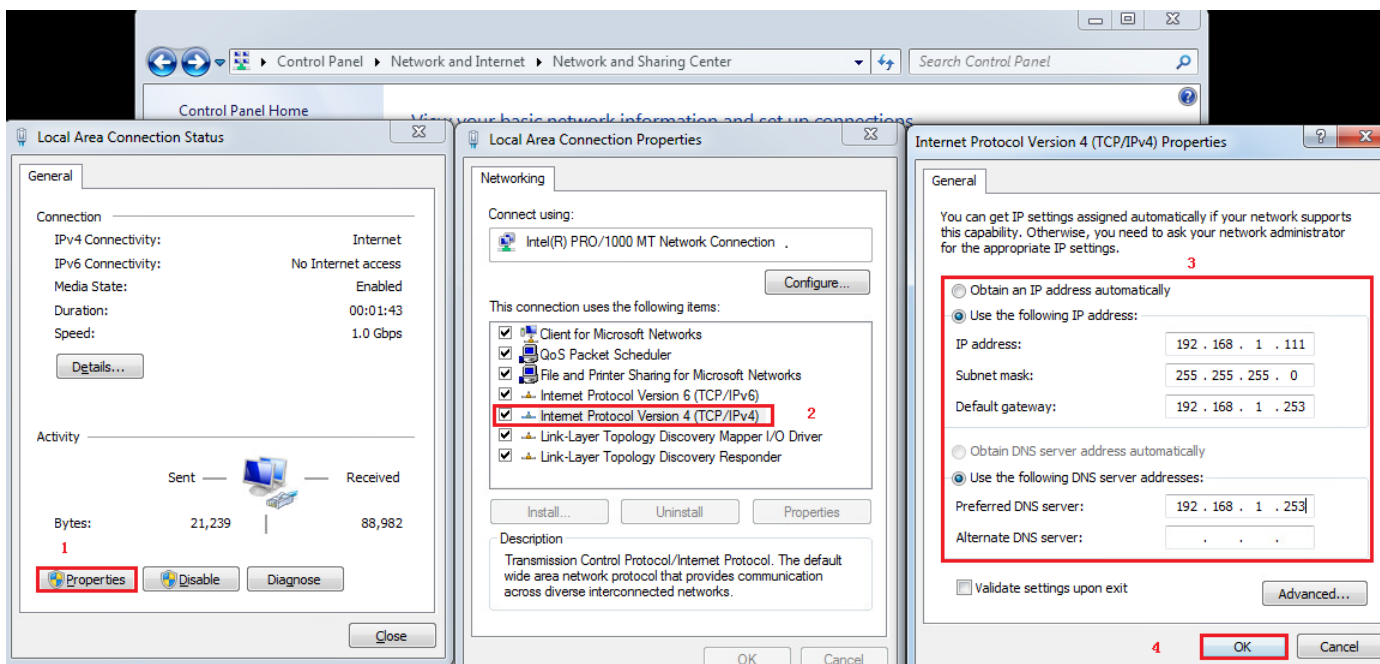
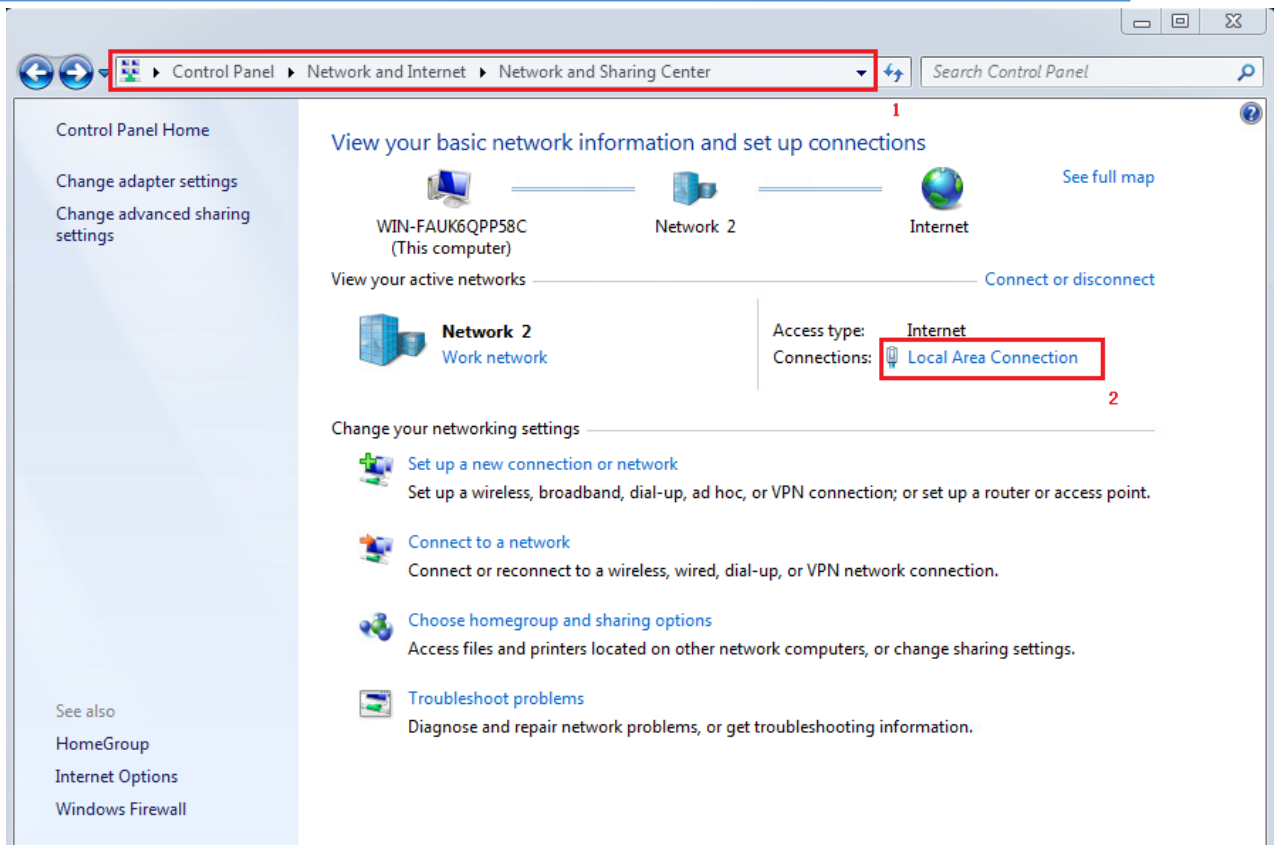


## 1.4 Configuration

### (1) Configured RD-WIFI

Adjust the router to AP gear first.

Set the local IP with router A or router B or router C in a network.



Connecting the computer and router A or router B or router C, open website: 192.168.1.253, and then enter into setup interface. Input user name and password:

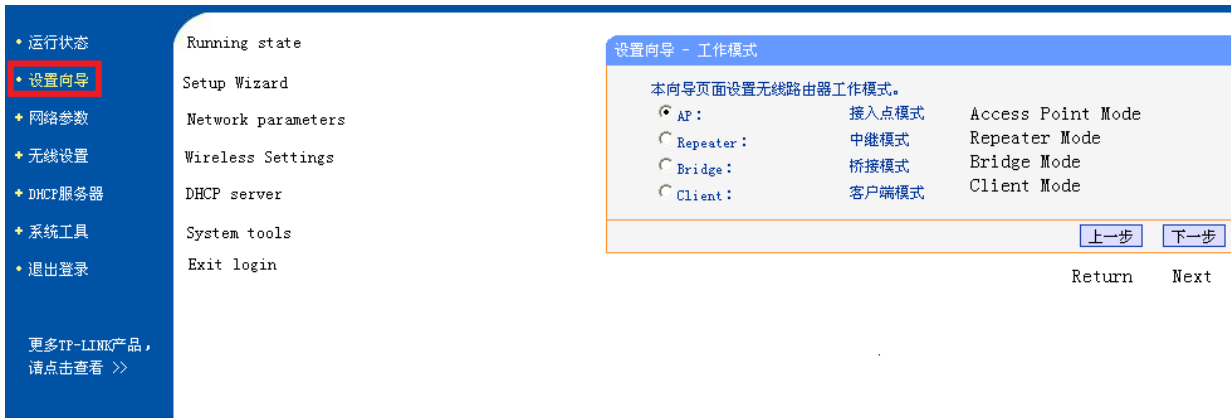
User name: admin

Password: admin

Enter into the setup main interface, choose setup wizard, and see below Figure:



Click “next”, enter into below interface, and choose AP.



Click “next”, enter into below interface:



Modify SSID to legible name, showed in your wireless network. Such as: set “Network1” or “Network2” or “Network3” (Note: Each independent wireless terminal will be assigned a unique name when leave factory)

If users need to set the connection password, the “wireless security option” is “WPA-PSK/WPA2-PSK”, and then input PSK password.



When configured, restart router, all the setup be effective.

## (2) Configured desk-top or laptop

Choose the WIFI name “Network1” or “Network2” or “Network3”, wireless connection showed “connected”, which means the computer and RD-WIFI smart module connected successfully, so user can use software through the host computer.



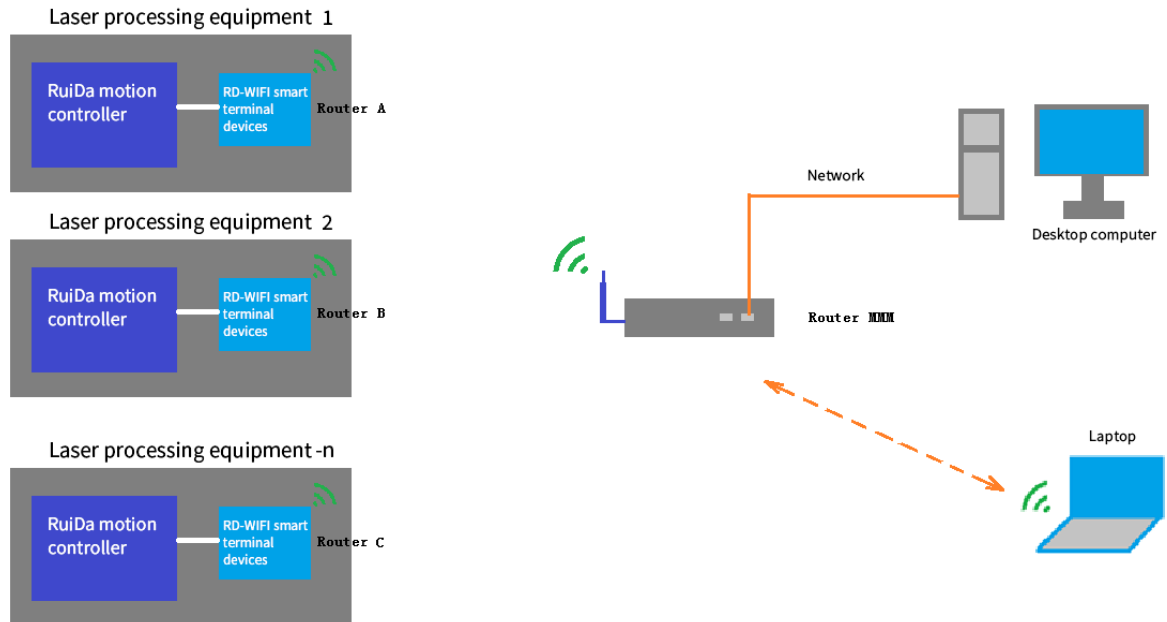
# Section 2 Network connections via external wireless router

## CONTENTS:

- Multiple machines + One PC
- Configured RD-WIFI terminal

## 2.1 Multiple machines + One PC

Multiple machines with desk-top or laptop. The connection method can be cable or wireless.

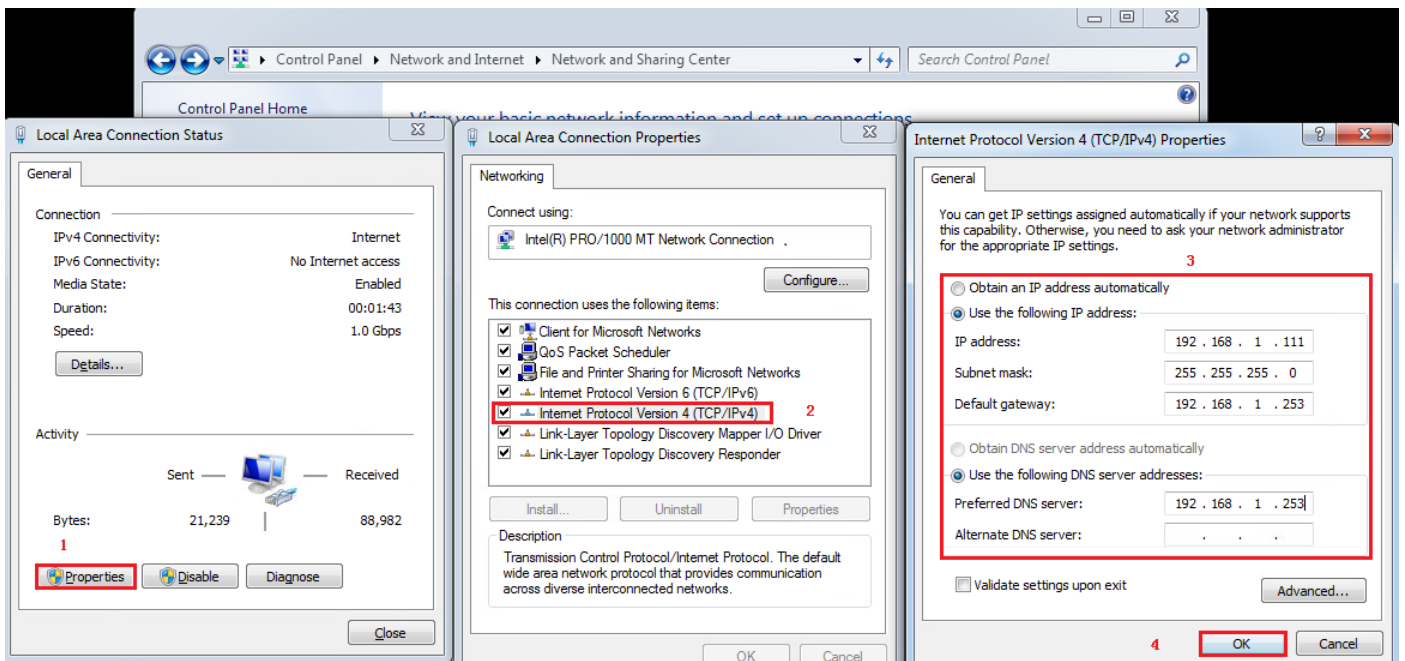
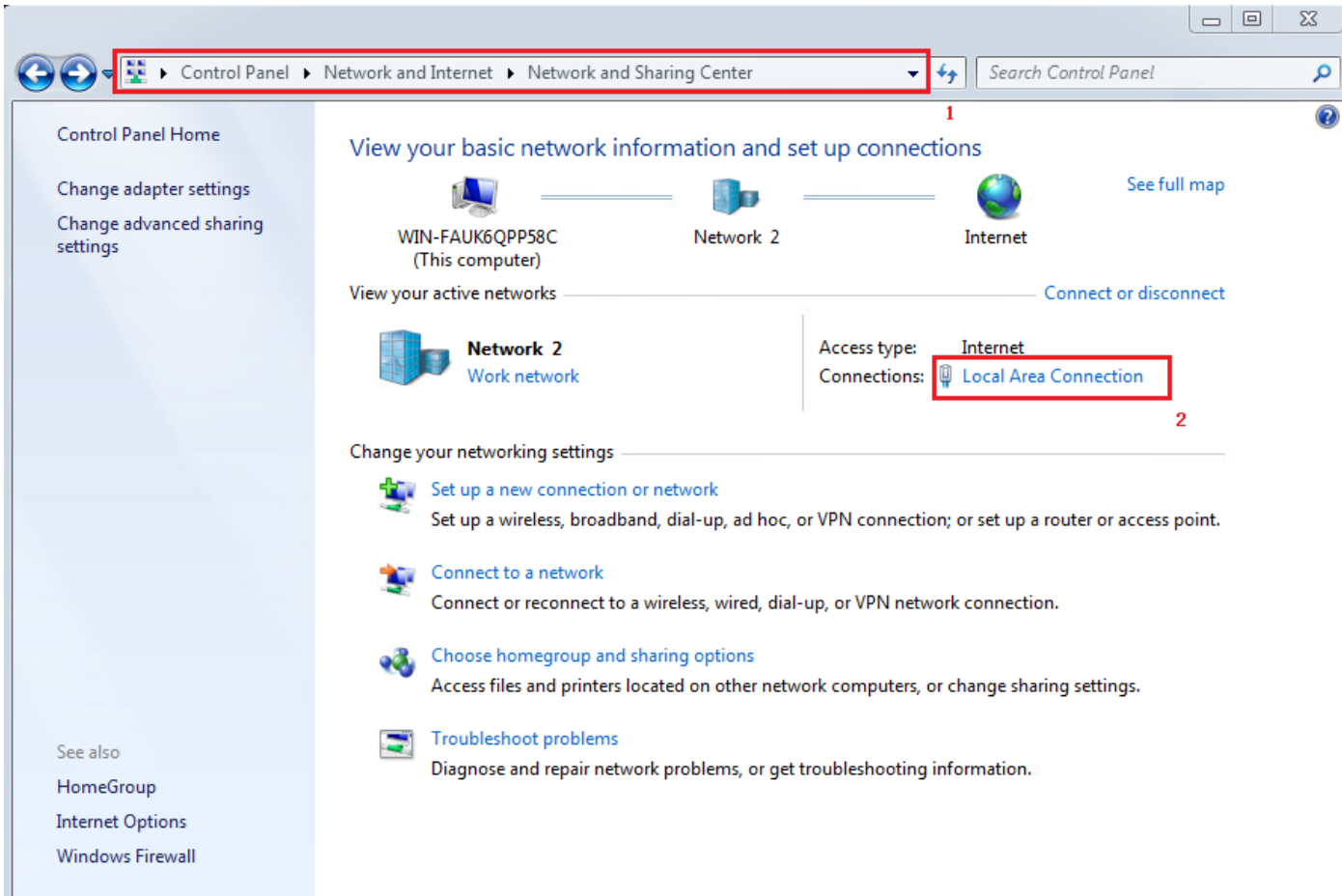


In this mode, user has to prepare wireless router.

## 2.2 Configured RD-WIFI terminal

Adjust the router to AP gear first.

Set the local IP with router A or router B or router C in a network.



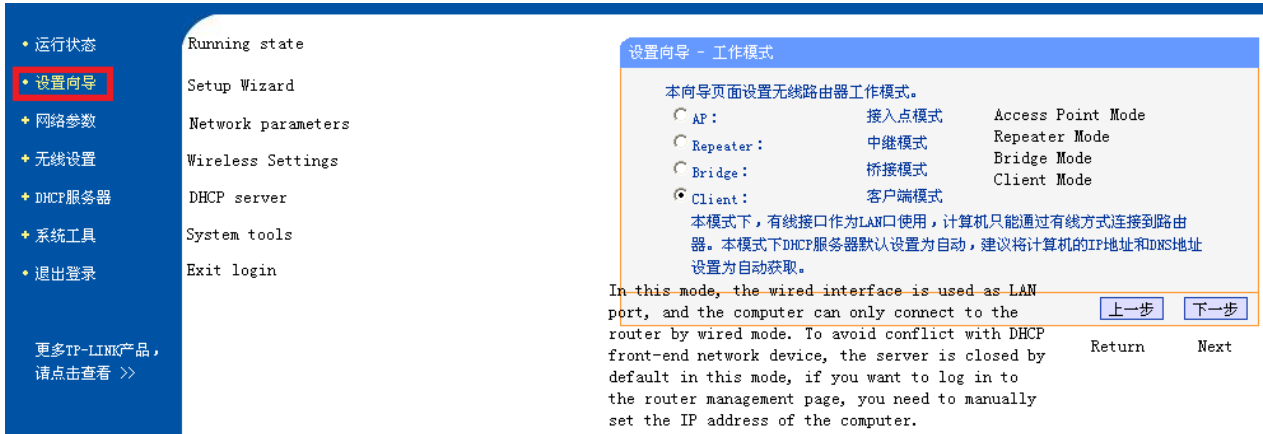
Connecting the computer and router A or router B or router C, input website: 192.168.1.253, fill in user name and password:

User name: admin

Password: admin

Interface will be popped-up as bellow, click setup wizard, choose “Client” mode.





Click "next".



Choose "scan", configured target router "MMM". Choose the use configured router name in the wireless list. Here take "machine control AP" as example:

- 运行状态
- 设置向导
- 工作模式
- 网络参数
- 无线设置
- DHCP服务器
- 系统工具

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ID	BSSID	SSID	信号强度	信道	加密类型	选择
1	B0-D5-9D-FB-E3-AF	Network1	48dB	6	WPA2-PSK	连接 connect
2	7C-AT-B0-5E-D5-ED	device000010	45dB	6	无加密	连接
3	B0-D5-9D-FB-E3-AF	360锦海番WiFi-AF	44dB	6	WPA2-PSK	连接
4	60-3A-7C-20-40-CA	RDACS-MAC	37dB	11	WPA/WPA2-PSK	连接
5	62-3A-7C-10-40-CA	RDACS-GUEST	37dB	11	WPA/WPA2-PSK	连接
6	38-01-46-14-1C-C5	device000009	34dB	6	无加密	连接
7	30-FC-68-81-CC-98	RDCCW	32dB	11	WPA/WPA2-PSK	连接
8	50-FA-84-B2-C9-3D	TP-LINK_5419	30dB	1	WPA/WPA2-PSK	连接
9	48-7D-2E-C8-C8-21	RDACS-MR1	30dB	11	WPA/WPA2-PSK	连接
10	D8-32-14-23-62-E8	淇氢二船二端胃秩二细致膝攀	27dB	1	WPA/WPA2-PSK	连接
11	FO-B4-29-19-14-94	DQA-IP	23dB	4	WPA/WPA2-PSK	连接
12	00-0C-43-76-20-A8	BC_DQA0_2_4G	23dB	13	WPA2-PSK	连接

Click "connect"

- 运行状态
- 设置向导
- 工作模式
- 网络参数
- 无线设置
- DHCP服务器
- 系统工具

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设置向导 - 无线设置

Basic parameters of Client mode for this guide page

本向导页面设置Client模式基本参数

SSID of the main AP 主AP的SSID:

MAC Address 主AP的BSSID:  例如: 00-1D-0F-11-22-33

SCAN (Select the encryption type of the main AP below and enter the wireless key of the main AP)

Key type 密钥类型:

WEP key serial number WEP密钥序号:

Type of certification 认证类型:

Key 密钥:

return next

Click "Next"

- 运行状态
- 设置向导
- 工作模式
- 网络参数
- 无线设置
- DHCP服务器
- 系统工具

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设置向导

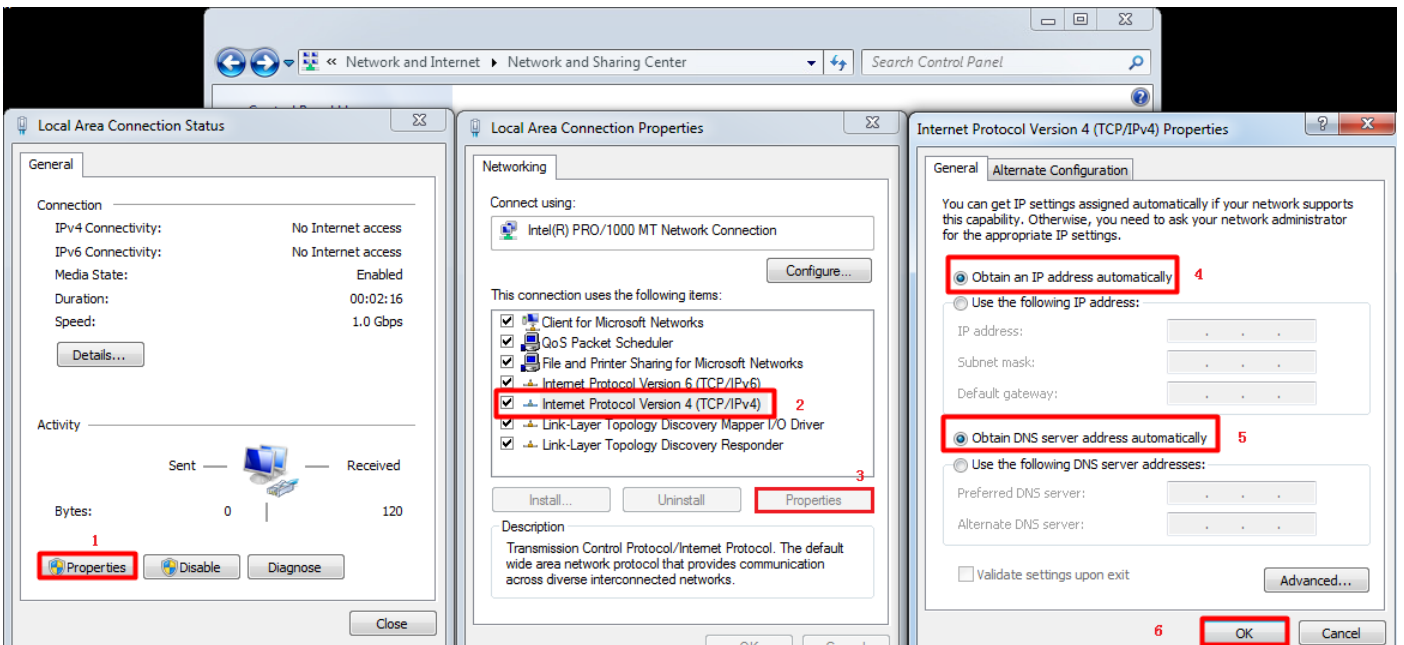
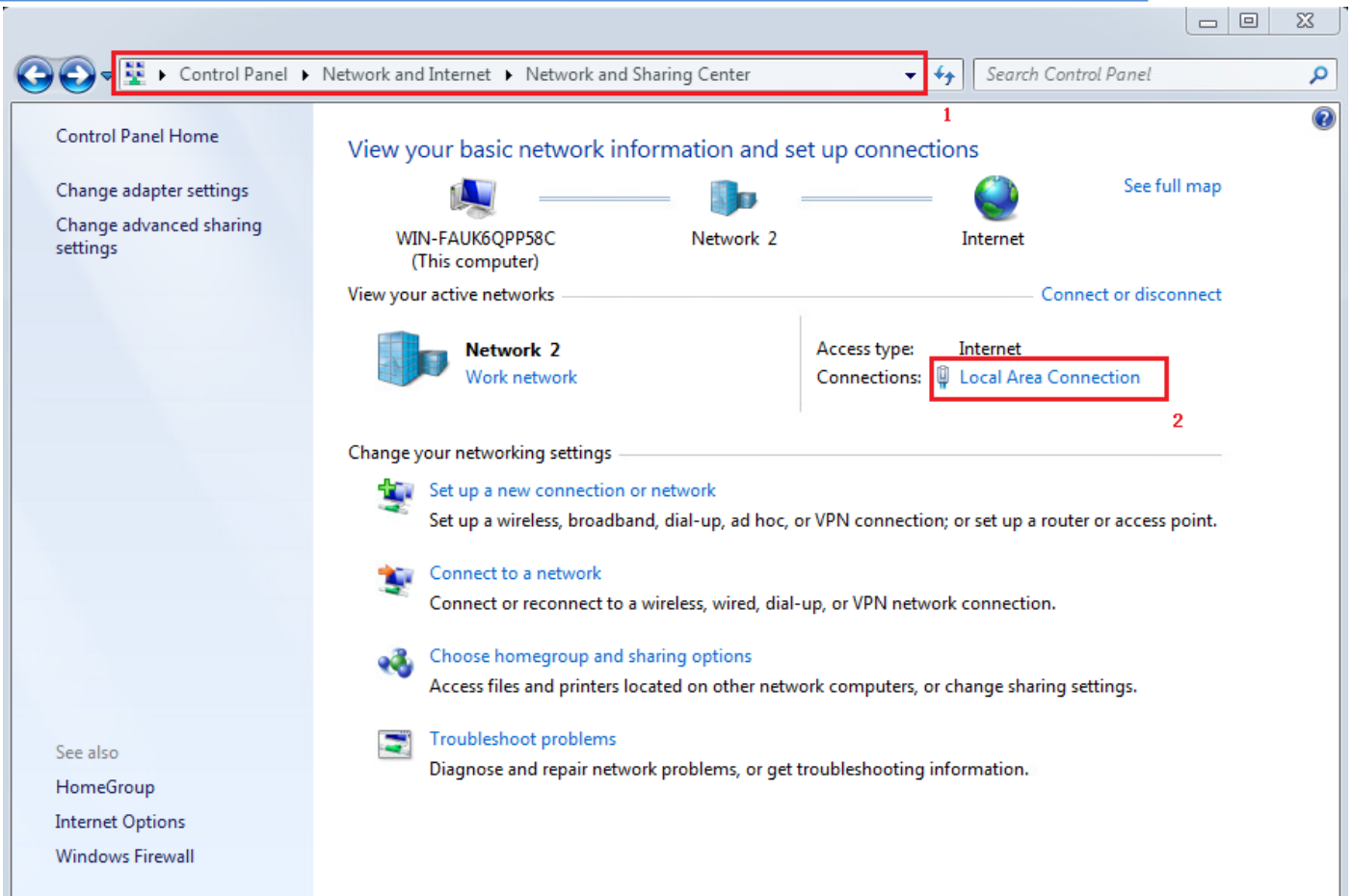
设置完成, 单击“重启”后路由器将重启以使设置生效。

set is complete, the router will restart after clicking restart to make the setting effective.

Return Reboot

Client side is set successfully and Click "reboot".

Last step, Set the local IP with router "MMM" in a network.(because some router DHCP IP address not in 192.168.1.xx)



# Section3 Main board network setting

## CONTENTS:

- Network without external wireless router
- Network by external wireless router

### 3.1 Network without external wireless router

In this mode, computer configured wireless network or module with wireless function. The wireless module IP address of host computer should be the same field to controller IP address. Such as: If the controller IP address is 192.168.1.100, user computer IP address cannot be 192.168.1.100. If there is more than one machine, different machine has different SSID name, so when one computer visits multiple machines, the controller IP address should be the same.

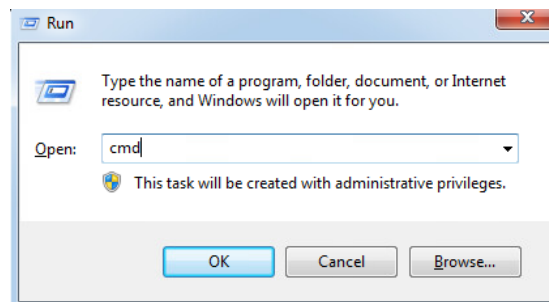
When visiting different machines, the computer should choose different wireless network name.

## 3.2 Network by external wireless router

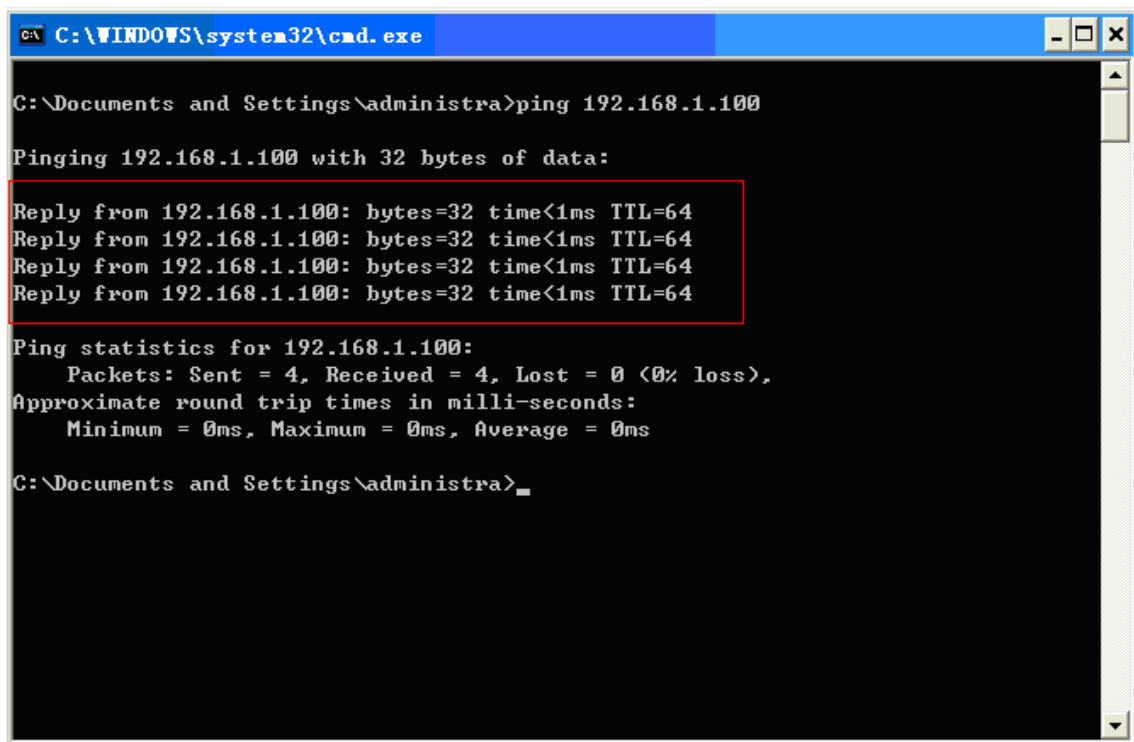
If network by external wireless router, it is necessary to set different IP address for each connected machine. Meanwhile, there may be other network devices (computer) in this network, so the computer using a fixed IP address in network is recommended, in order to avoid connection failure for IP address conflict.

In addition, test the IP address whether be occupied:

1> “start”—“run”, input “cmd.exe” in the popup dialog, and then “OK”.

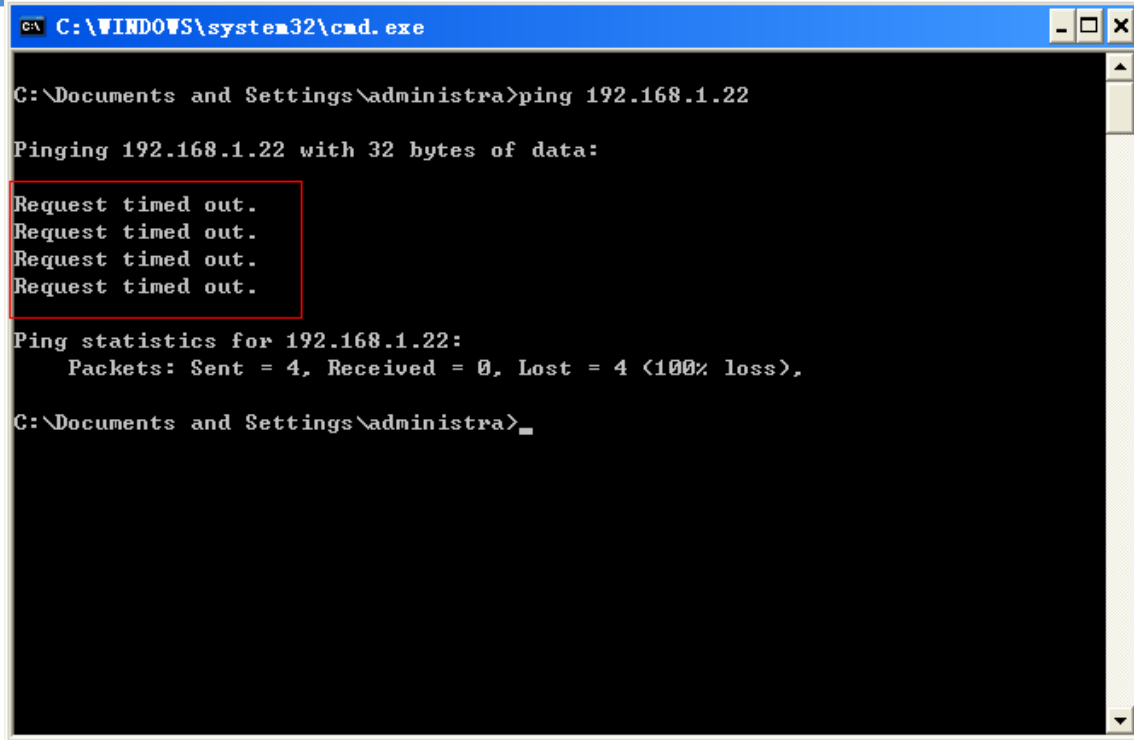


2> Enter command into the popup command line: ping+ be tested IP, such as “ping 192.168.1.100”, if connected, the below picture will be popped up, received the respond information, that means connected successfully and this IP address already been occupied.



```
C:\WINDOWS\system32\cmd.exe
C:\Documents and Settings\administra>ping 192.168.1.100
Pinging 192.168.1.100 with 32 bytes of data:
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Reply from 192.168.1.100: bytes=32 time<1ms TTL=64
Ping statistics for 192.168.1.100:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Documents and Settings\administra>
```

If connection failed, the time-out information will be popped up, which means this IP address is not in use.



```
C:\WINDOWS\system32\cmd.exe

C:\Documents and Settings\administra>ping 192.168.1.22

Pinging 192.168.1.22 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.1.22:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Documents and Settings\administra>_
```

- After finished, different operations for each machine according to different IP address in machine control operation.

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