

Instruction of Network Setting

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1. Preface

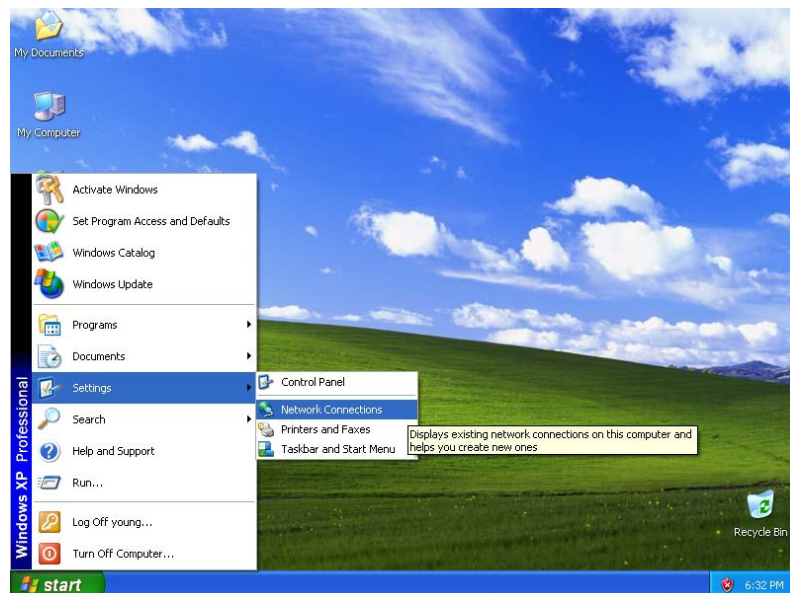
When controller connects to network, it needs a PC to provide and share the resource file, and let controller access that resource file. This PC is called as a file server. This PC needs set up a related network protocol, and also creates an account to access data, so controller can link to the PC correctly.

2. PC Setting

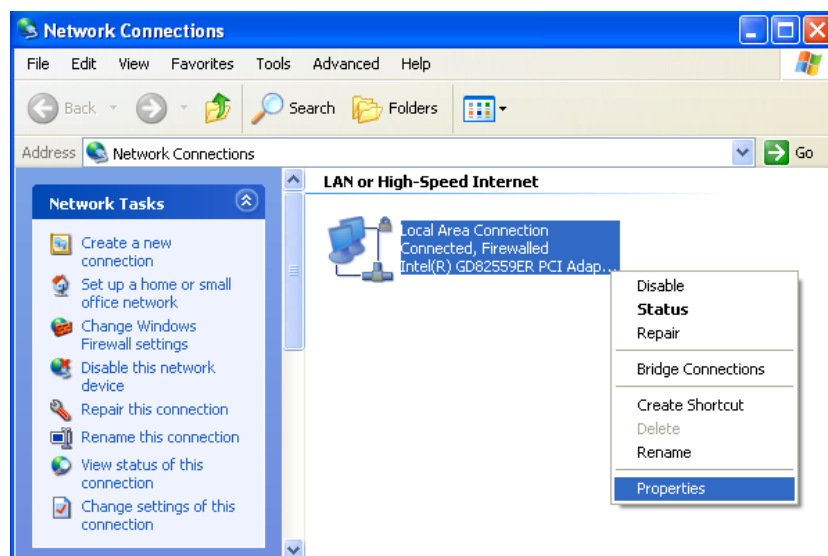
2.1 XP OS

A. Guest account setting

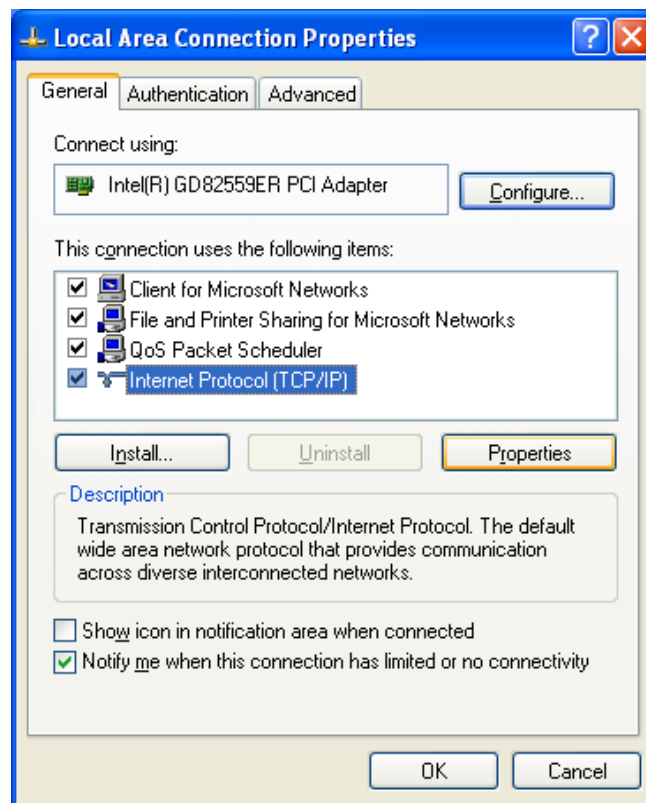
“Start” => “Setting” => “Network connections”



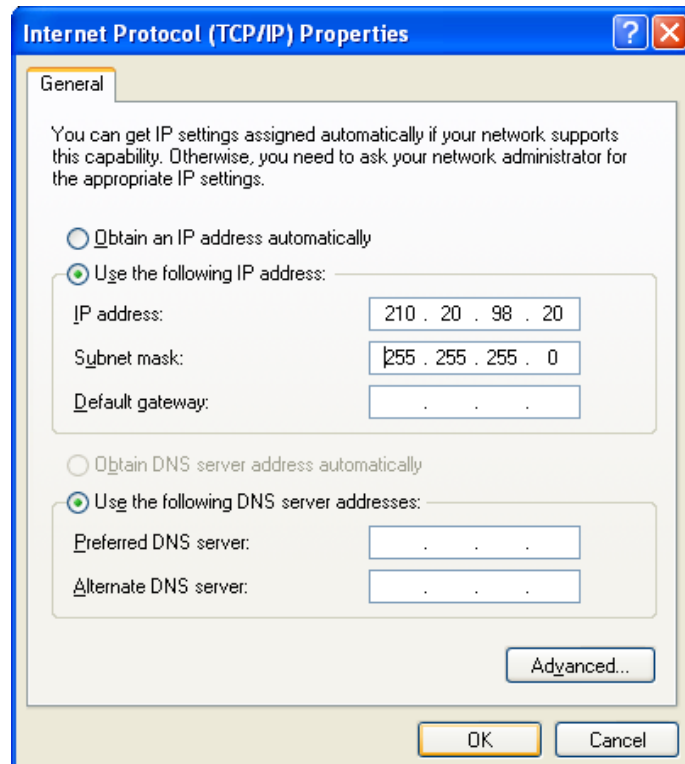
B. Click on “Local Area connection” =>right click on “Properties”



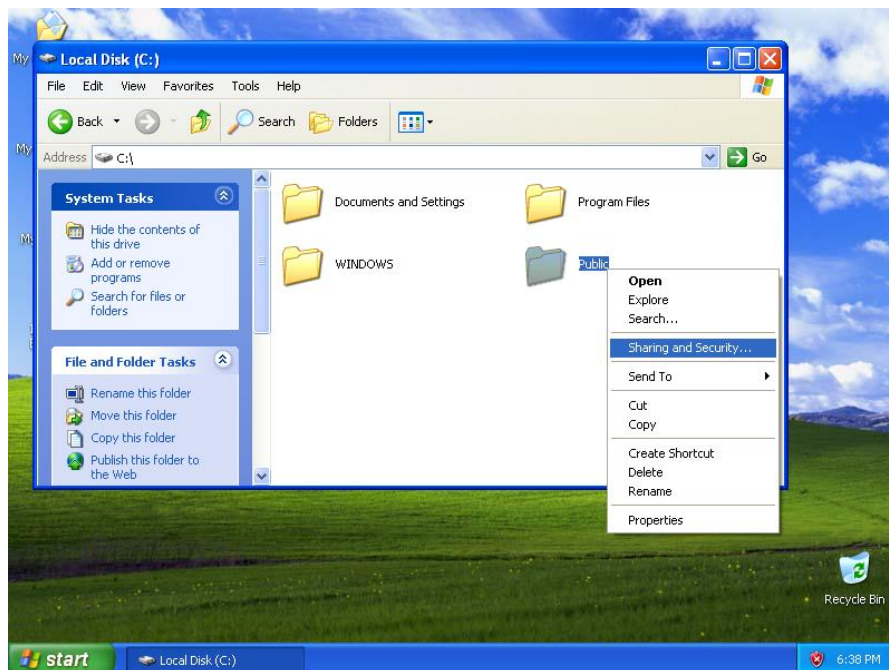
C. Click on “Internet Protocol [TCP/IP]”



D. Select “Use the following IP address” and fill in “IP Address” and “Subnet mask”, for example, input “IP Address” such as 210.20.98.20 , “Subnet mask” such as 255.255.255.0.



- E. Right click the folder you want to share and select “Sharing and security”



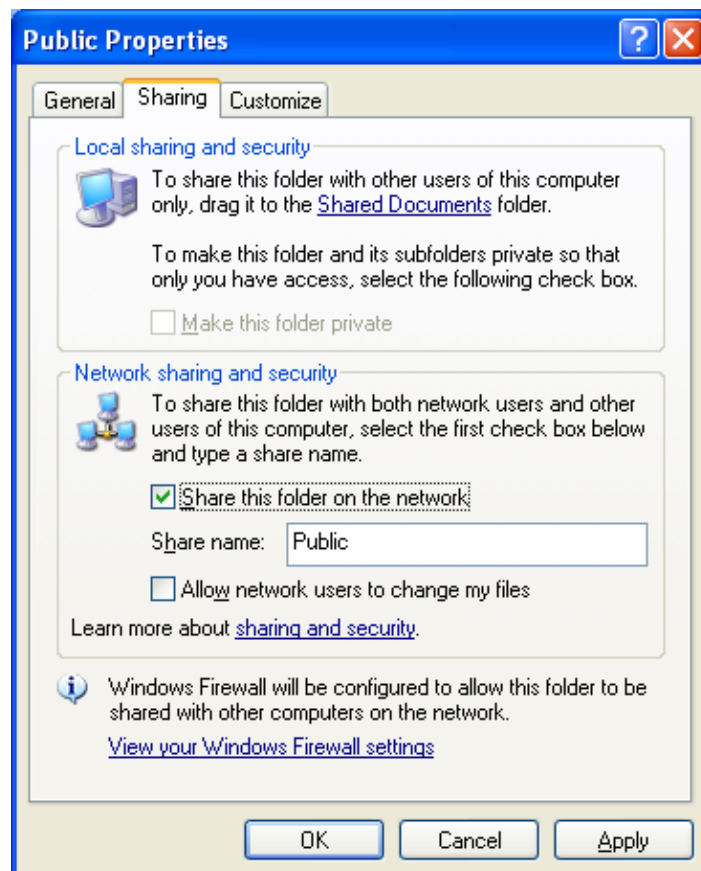
- F. Click “If you understand security risks but want to share files without running the wizard, click here”.



- G. Click “OK” to confirm sharing setting

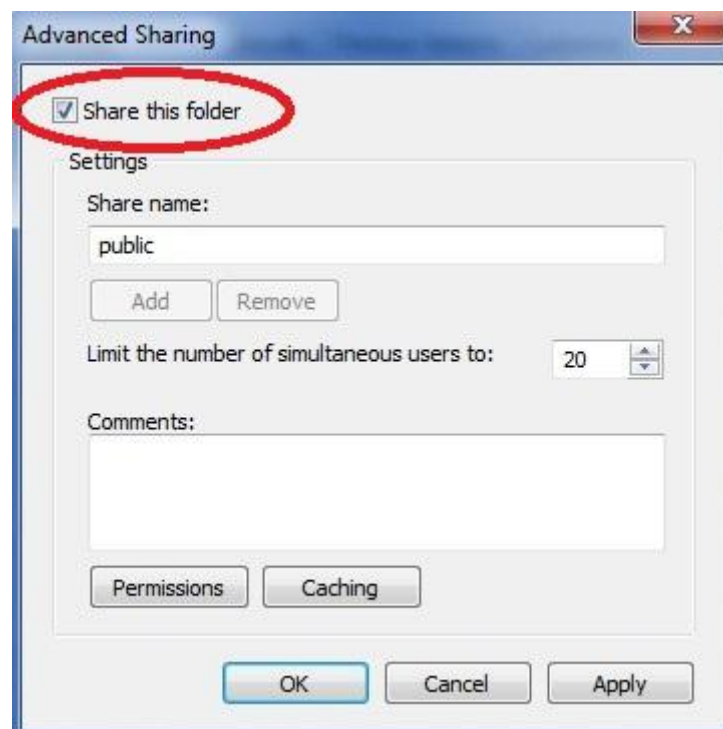
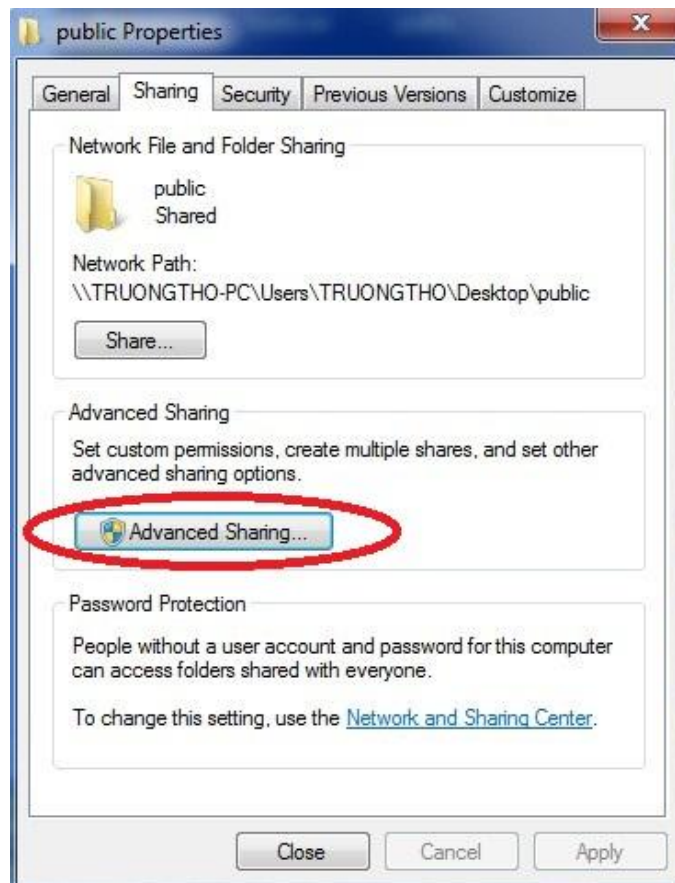


H. Select "Share this folder on the network", key in folder name and click "OK".

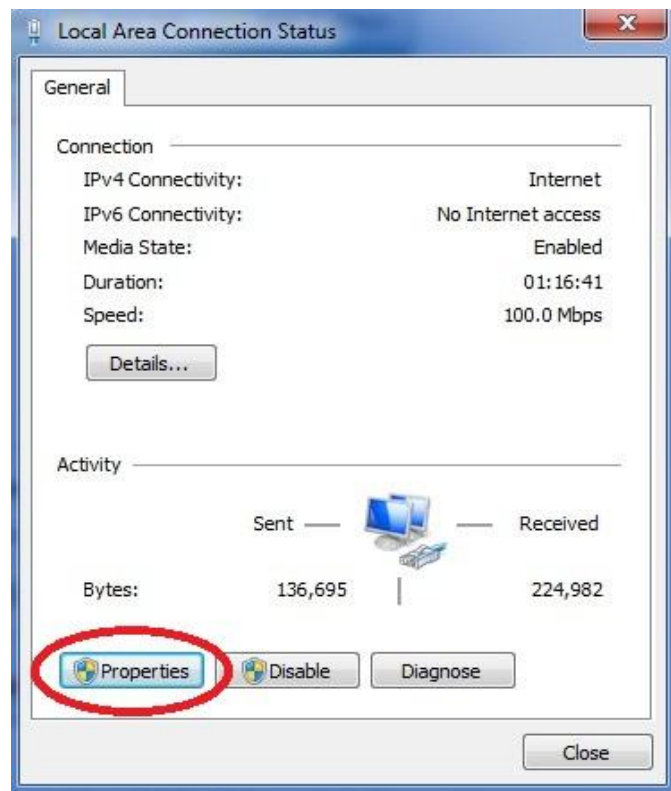


2.2 VISTA OS setting

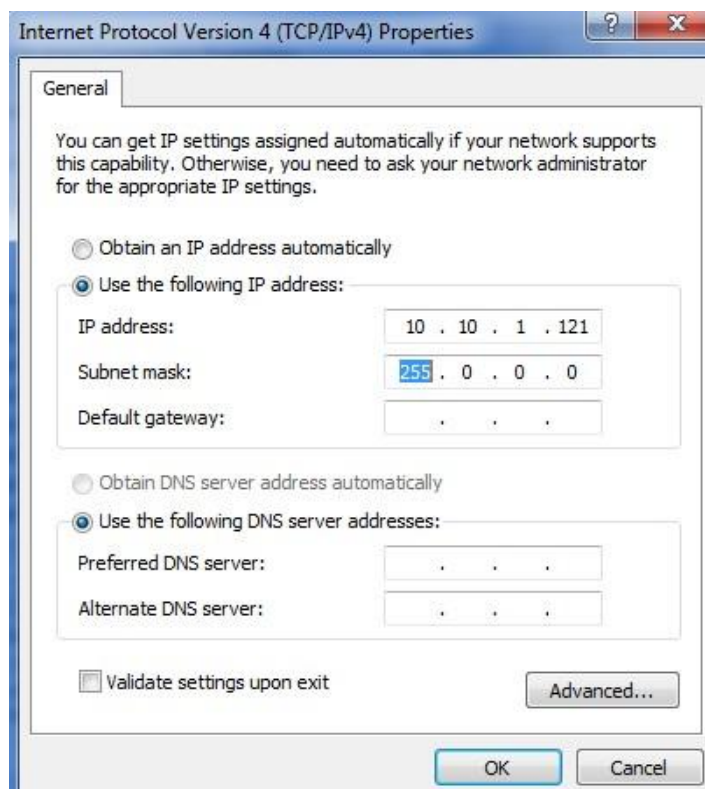
- A. Create a sharing folder, and change this folder's setting to offer controller to use, as the below figure.



- B. TCP/IP Setting, click “STAR” => “Setting” => “Network and Dial-up connections” => double click “Local Area connection” => “Properties”



- C. Double click “(TCP/IPv4)” and setting “IP address” and “Subnet mask”,
For example: IP: 10.10.1.121. Subnet mask: 255.255.255.0

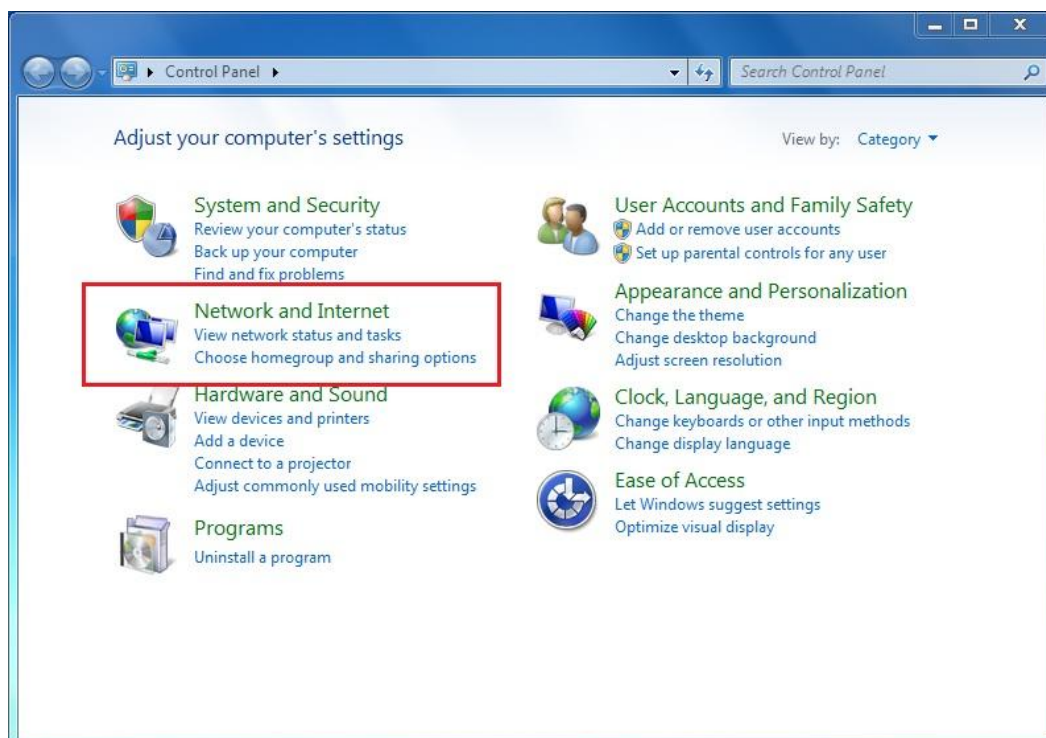


2.3 Win7 OS

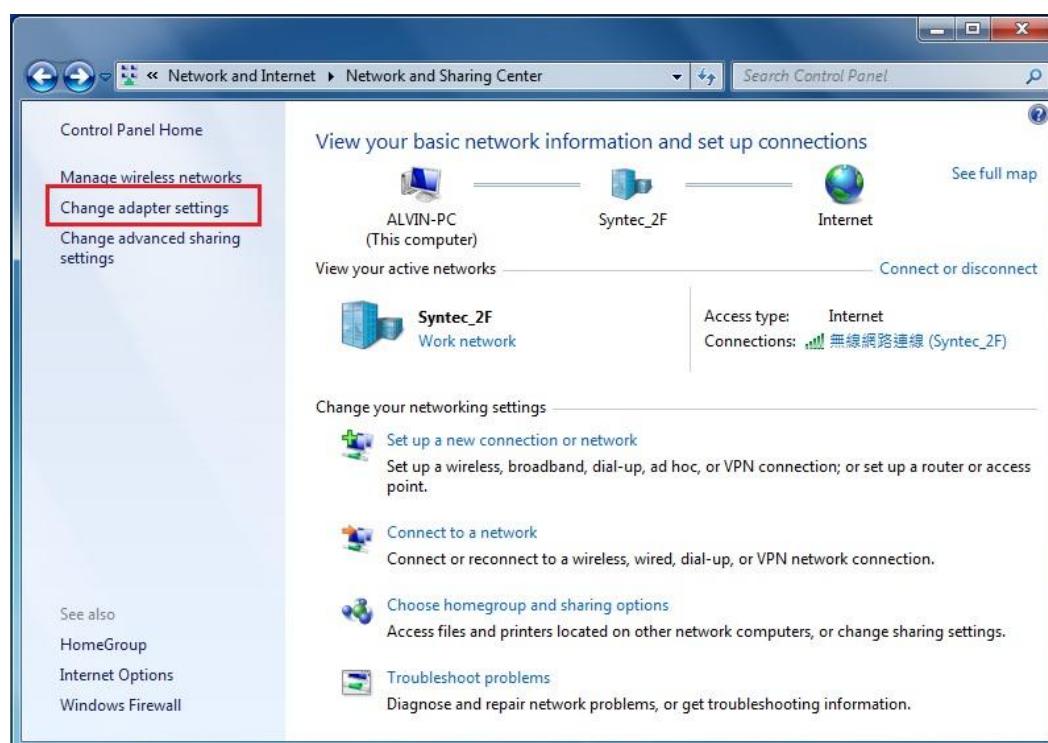
A. Resource file sharing setting, click “Start” => “Control Panel”



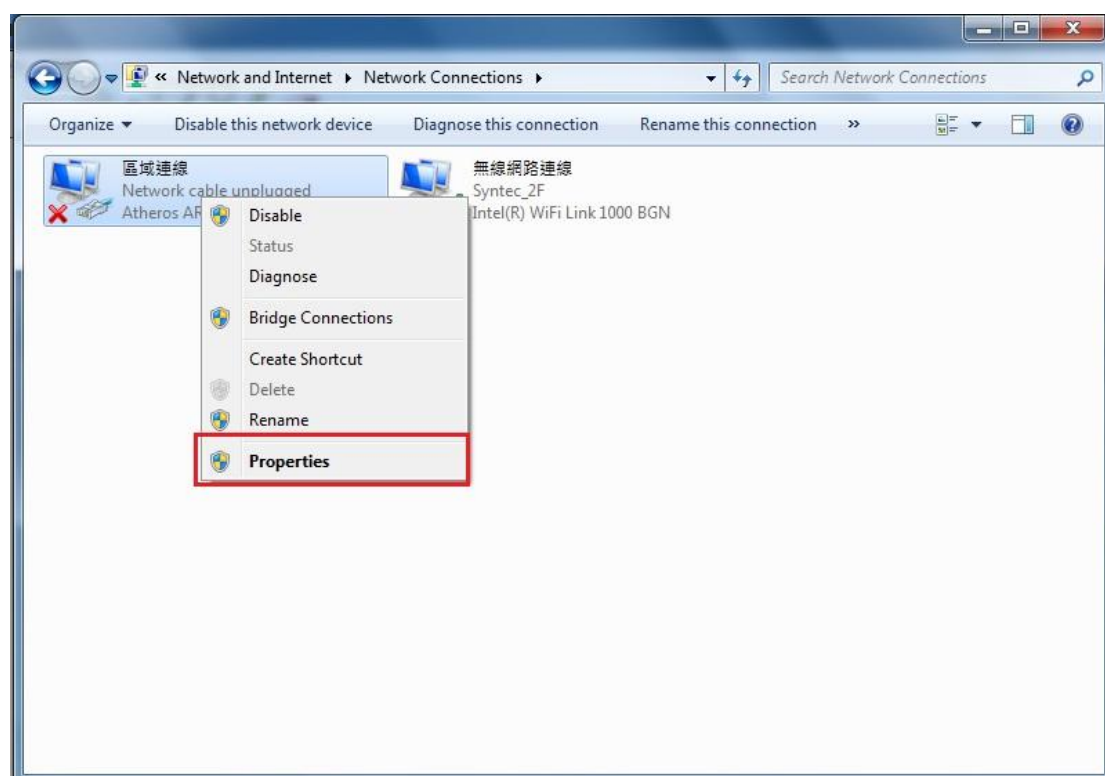
B. Click “Network and Internet” => “Network and Sharing Center”



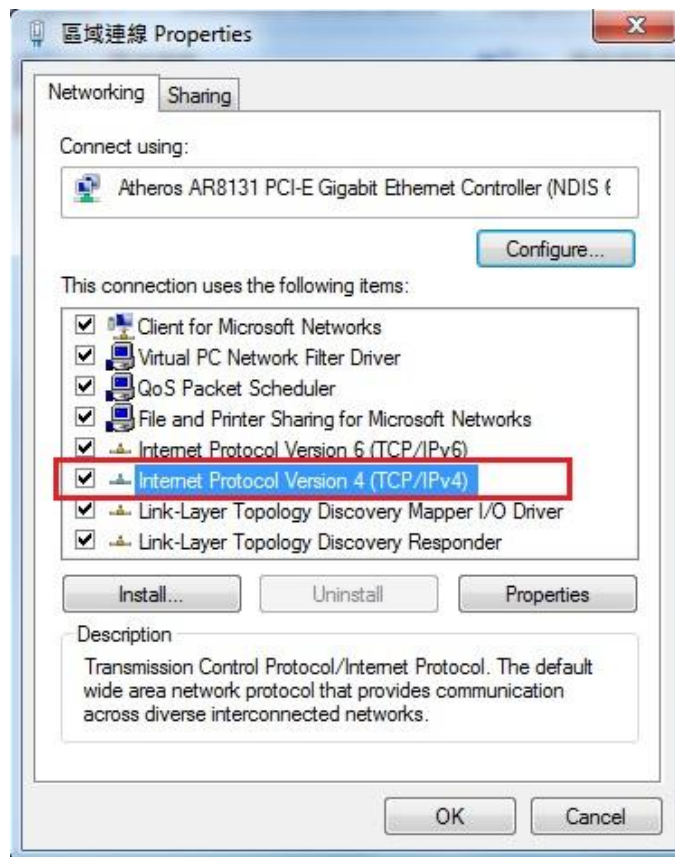
C. Click “Change adapter settings”



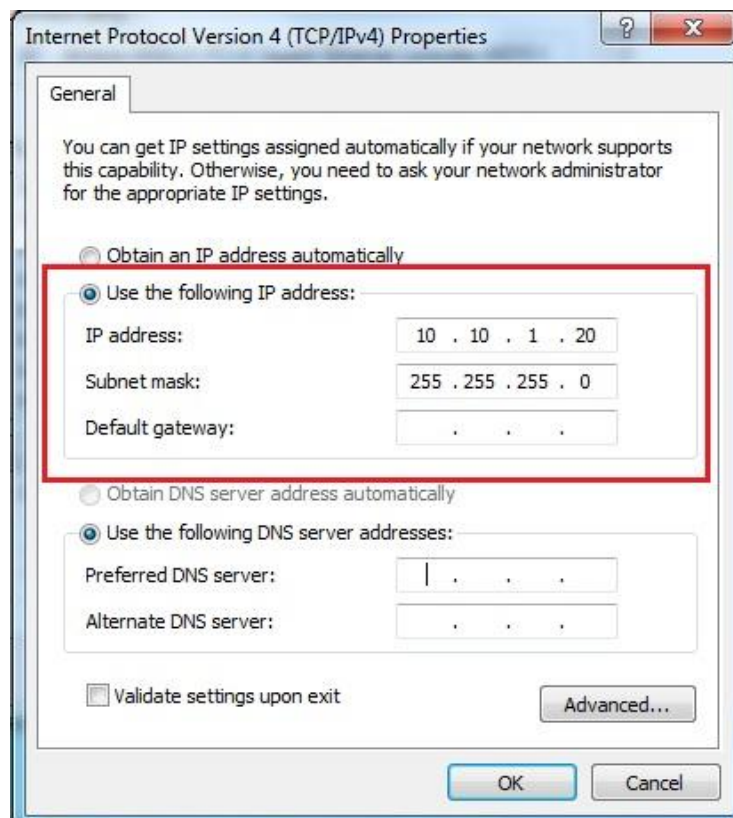
D. Right click “Local Area connection” and select “Properties”



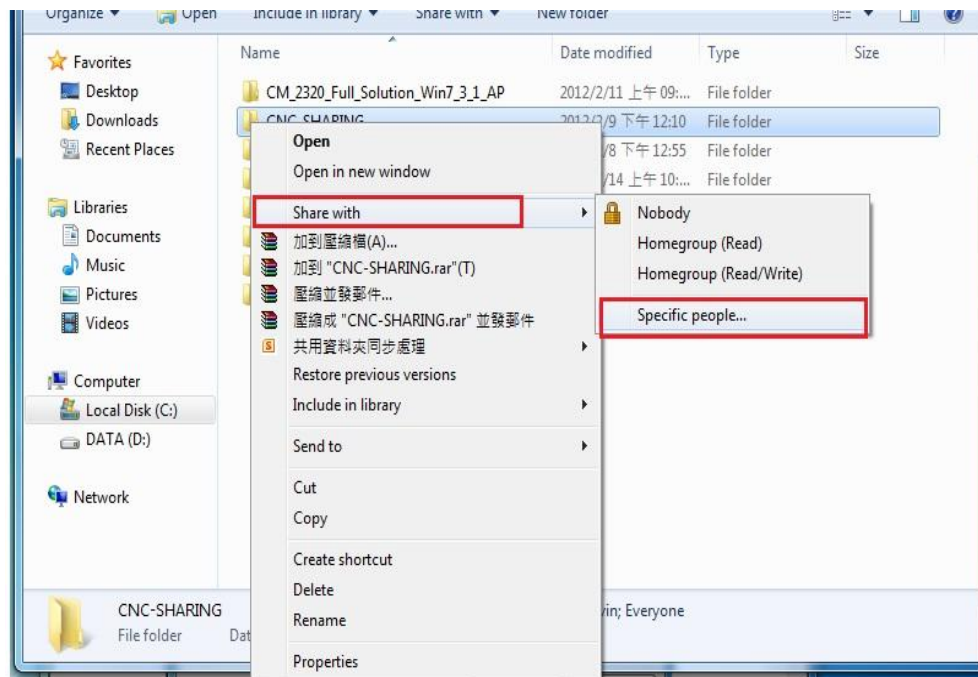
E. Double click “Internet Protocol Version 4 (TCP/IPv4)”



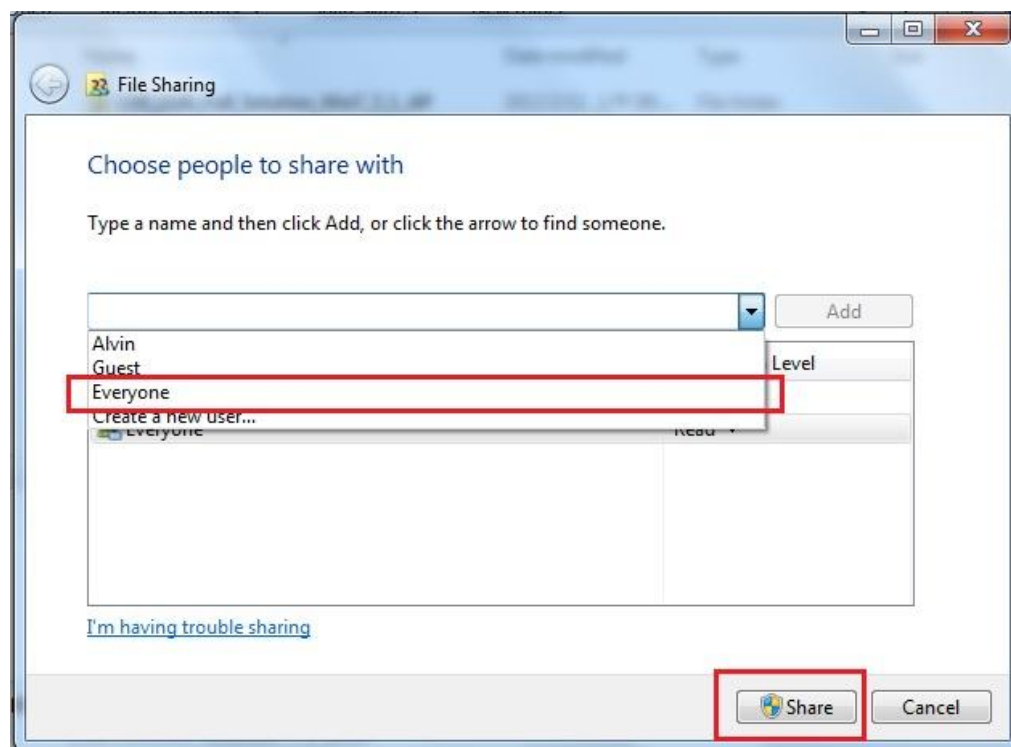
F. Setting the IP address, Subnet mask and then click “OK”



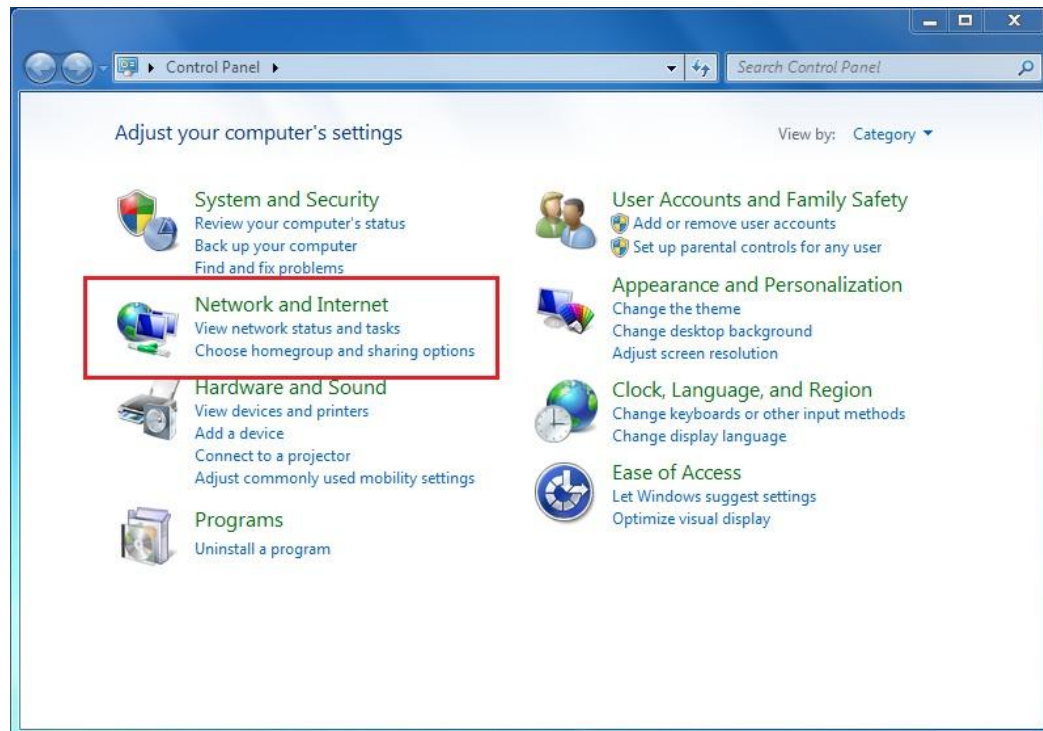
- G. Create a sharing folder, right click on the folder and select "Share with" => "Specific people"



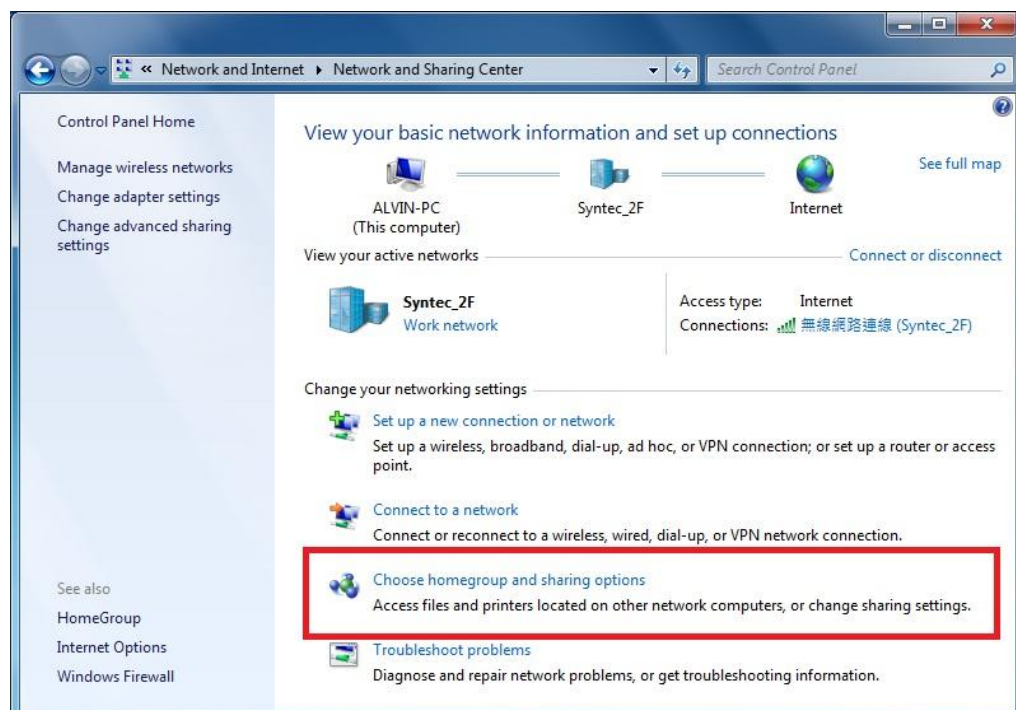
- H. Change the Setting for sharing this folder for everyone, and then click "Share" as follows.



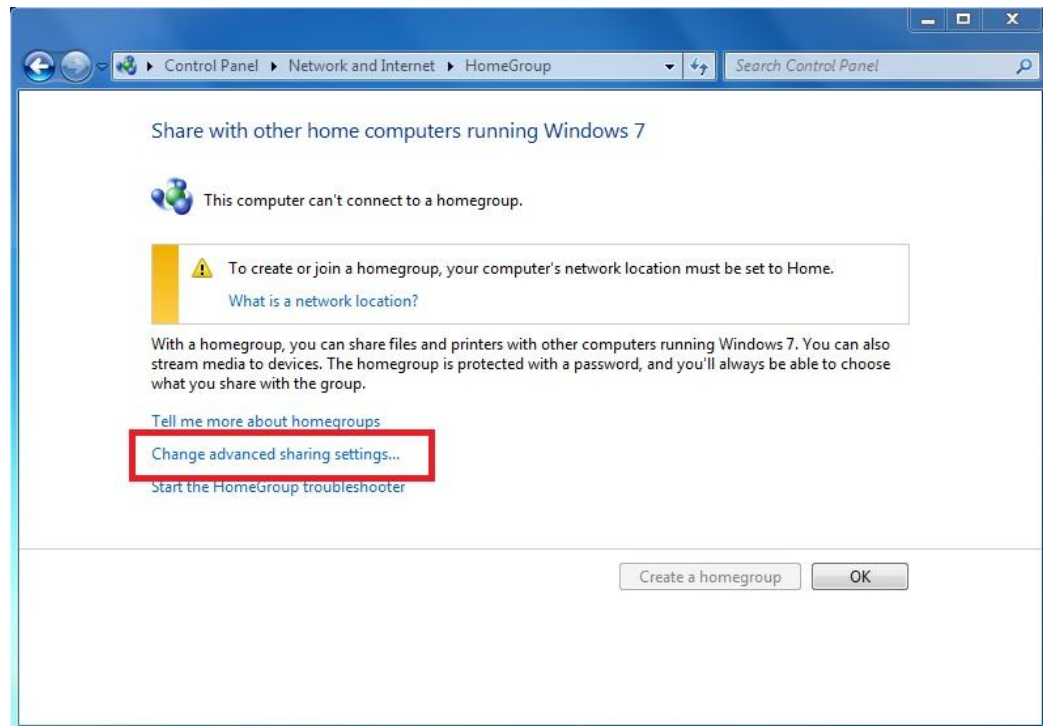
- I. Sharing option setting, click “Start” => “Control Panel” => “Network and Internet”



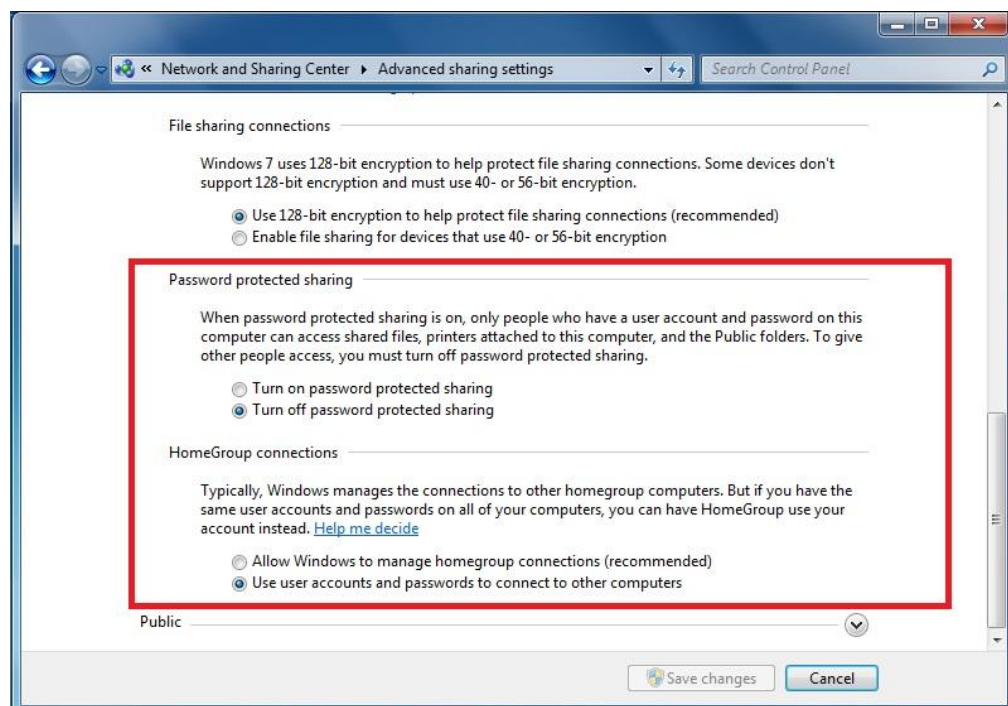
- J. Click “Choose homegroup and sharing options”



- K. Click “Change advanced sharing settings...”



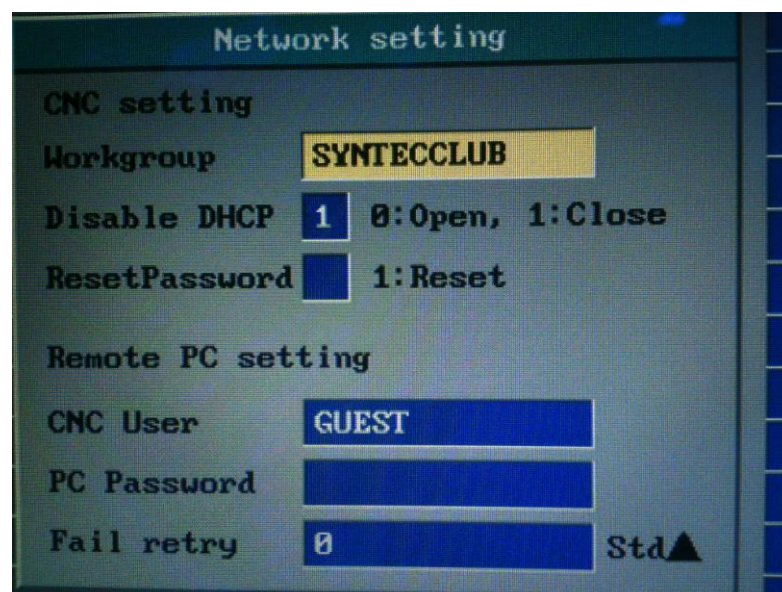
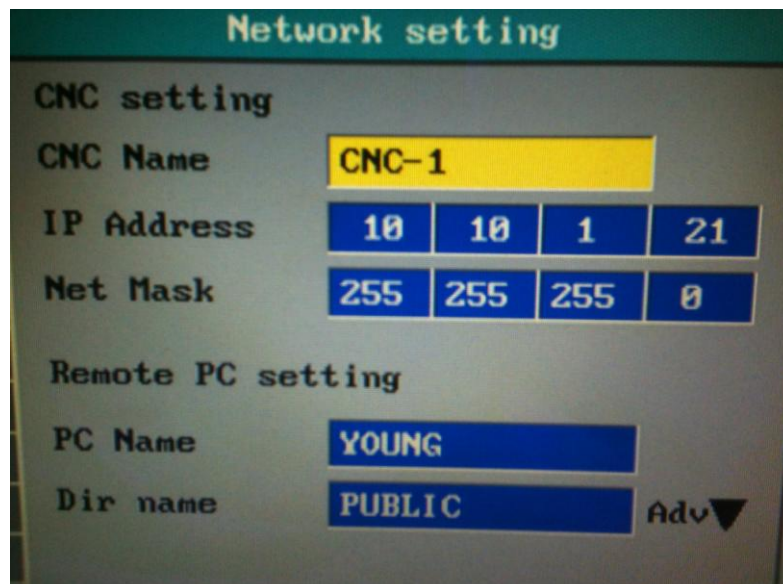
- L. Select “Turn off password protected sharing” and “Use user account and passwords to connect to other computers”



3. Controller setting

3.1 DOS system setting

- A. On the interface screen, press **"F6 Param."** => **"F10 Next page"** => **"F3 Network setting"** => **"F1 Net Dir setting"**
- B. **CNC Name:** Key-in the controller name, if you have more than two controllers, key-in different names for each.
- C. **IP address:** Key-in the IP address that has not been used.
- D. **Net Mask:** Key-in the Net mask (the same value with your computer subnet mask).
- E. **PC Name:** Key-in the full computer name (must match your PC name)
- F. **Dir Name:** Key-in the name in sharing folder (the same with your computer).



- G. Press **"Page Down"** to login the second page
- H. **Workgroup**: type the PC you want to connect (must match setting in the PC)
- I. **Disable DHCP**: Select "close" if select "specify an IP address" and "open" if select "Obtain an IP Address via DHCP"
- J. **CNC user**: key-in **"GUEST"**
- K. Press **"F1 OK"** and reboot the controller to finish installation.

3.2 CE system setting

- A. On the interface screen, press down **"F6 Parameter"** => **"F10 Next Page"** => **"F3 Network Setting"** to access IP address setting.
- B. **IP Address Setting**: select "Specify an IP Address" when the PC connects with controller directly. And select "Obtain an IP Address via DHCP" if using network connection via Dynamic Host Configuration Protocol
- C. **IP Address**: if you select "Specify an IP Address", key in the IP address which matches your PC IP.

The screenshot shows a 'Network Setting' window with the following sections:

- IP Address Parameter**:
 - IP Address Setting**: A dropdown menu currently showing 'Specify an IP Address' (highlighted in blue) and 'Obtain an IP Address via DHCP'.
 - IP Address**: An input field.
 - Subnet Mask**: An input field.
 - Default Gateway**: An input field.
 - Primary DNS**: An input field.
 - Primary WINS**: An input field.
- Network DiskRemote Host Path**:
 - PC Name**: An input field.
 - Dir Name**: An input field.
 - User Name**: An input field.
 - Password**: An input field.
 - Net Status**: A field showing 'Code : -1'.
- Resource Shared**:
 - Shared Folder Path**: An input field.

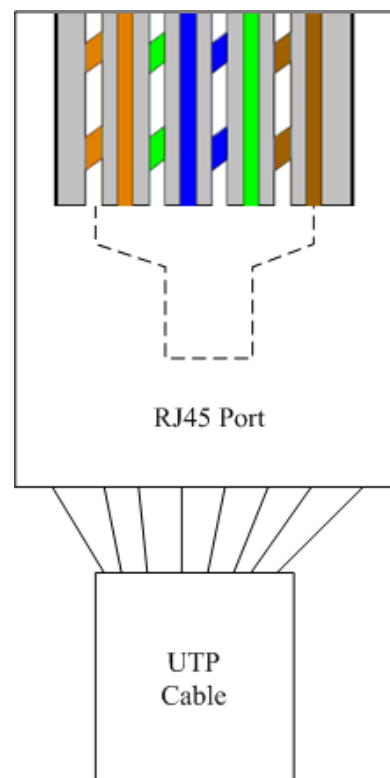
- D. **Subnet mask**: key-in the IP address for subnet mask (the same with PC subnet mask).
- E. **PC Name**: key-in the full computer name of your PC.
- F. **Dir Name**: key-in the sharing folder name(the same name with PC sharing folder)
- G. Press **"F1 OK"**, and then reboot controller to finish installation.

Network Setting			
IP Address Parameter			
IP Address Setting	Specify an IP Address ▼		
IP Address	10.10.1.35	Name Server Parameter	
Subnet Mask	255.255.255.0	Primary DNS	
Default Gateway		Primary WINS	
Network Disk Remote Host Path			
PC Name	ABC	Dir Name	CNC
User Name		Password	
Net Status	Code : -1		
Resource Shared			
Shared Folder Path			

4. UTP cable (RJ45 port) Production Method

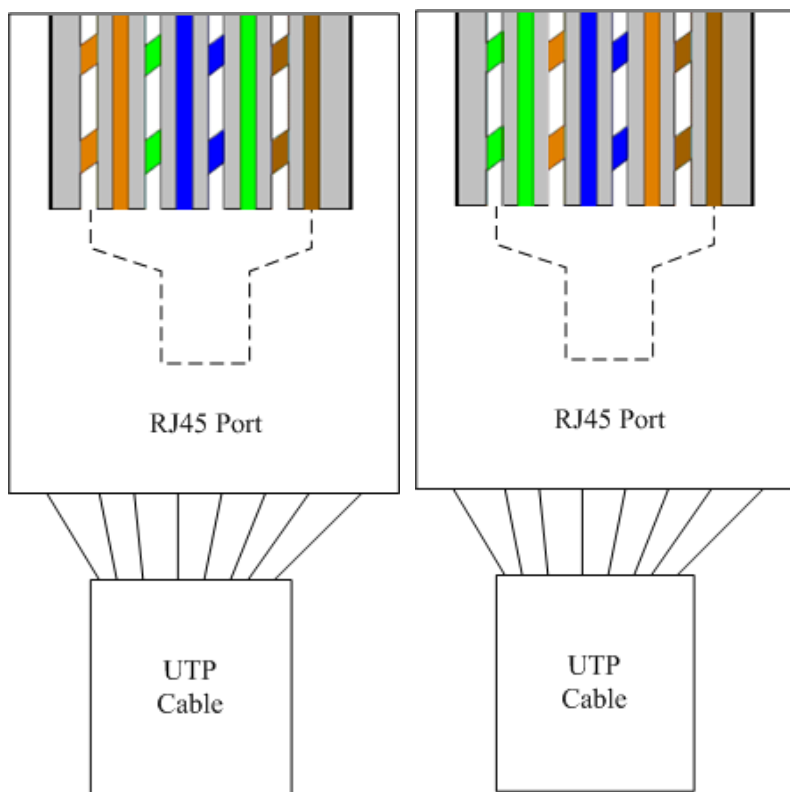
4.1 General network cable (with HUB)

From the front view of RJ45 port, the arrangement of eight lines from left to right is orange and white, orange, green and white, blue, blue and white, green, brown and white, brown. The sending and receiving ports are the same.



4.2 Jumper Cable (without HUB)

From the front view of RJ45 port, the arrangement of eight lines from left to right of sending port is orange and white, orange, green and white, blue, blue and white, green, brown and white, brown. The order in the receiving port is green and white, green, orange and white, blue, blue and white, orange, brown and white, brown.



5. Solve network connection problems

- Error 52: A duplicate workgroup or computer name exists on the network
 - ✓ There are two controllers with a same name in a same network domain.
- Error 53: The computer name specified in the network path cannot be located.
 - ✓ The computer you want to connect does not boot.
 - ✓ The computer name or share directory setting is incompatible with the controller.
 - ✓ Computer's IP address and subnet mask are not conformity with the content of the above sections.
 - ✓ If the PC connection uses the domain, please change it to a workgroup, and after the connection is successful, it needs to change back to the domain.
 - ✓ If these above possibilities have been excluded, please use the emergency stop condition (shutting down driver behind extreme power supply) and try again to check whether interference is reason.
- Error 7361: IPX or NetBIOS must be running in order to load the network.

- ✓ The IP address of the controller is the same with the other controllers.

6. How to manually modify the networking batch file

- I The computer connection name and sharing directory - C:\cncnet.bat

Example	Illustration
@C:\NET\net initialize @path=%PATH%;C:\NET; ... @C:\NET\net start @C:\NET\net use n: \\young\public cnc	Computer connection name: young Sharing directory: public Computer connection password: cnc

- II Computer connection name TCP/IP setting C:\NET\PROTOCOL.INI

Example	Example
... [TCPIP] NBSESSIONS =6 SubNetMask0 =255 255 255 0 IPAddress0 =10 10 1 21 DisableDHCP =1 DriverName =TCPIP\$ BINDINGS =A\$E100B LANABASE =0 ...	IP address: 10.10.1.21 Subnet mask: 255.255.255.0 DHCP function : 0 open ; 1 close

- III The setting of controller name and workgroup C:\NET\SYSTEM.INI

Example	Explanation
[network] filesharing =no printsharing =no autologon =yes computername =CNC lanroot =C:\NET username =GUEST workgroup =SYNTECCLUB reconnect =yes dospophotkey =N lmlogon =0 logondomain =SYNTECCLUB preferredredir =basic	Controller name: CNC Users: GUEST Workgroup: SYNTECCLUB

autostart =basic maxconnections =8	
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