Help for devices

1. How do I connect to the Internet?

1.1 How can I use the App to set up the router?

Step 1: Log into the Mercku App and connect your phone to the Mercku Wi-Fi

Step 2: If there are already bounded routers with your account, click "Add a router" in the router list located in the top of the App homepage. Otherwise, the app will show you the page to add a new router. Then, click on **"Connected already"** and set up the router Wi-Fi details (Wi-Fi name, Wi-Fi password and router admin password) and internet information.

Step 3: After the router is setup successfully, please reconnect to the Wi-Fi and return to the App.

Step 4: Click "**Connected already**" on "Connect to Wi-Fi" page, enter admin password and click "Bind".

Potential Issue:

If, when clicking on "Connected already", the following pop-up message arises: "Please connect to Mercku Wi-Fi and try again", select "Go to connect" and find Mercku Wi-Fi in the Wi-Fi list. Connect, return to the APP, and try again.

1.2 Can I use the router without using the APP?

Step 1: Connect your computer to the router either with Ethernet cable or Wi-Fi, access http://mywifi.mercku.tech in your browser.

Step 2: You can set up admin password, Wi-Fi name, Wi-Fi password as well as other

configurations for the router on the webpage.

Step 3: After configured successfully, the router indicator light will flash in green. Now you can reconnect to the Wi-Fi to get access to the internet and manage the router with Mercku App.

1.3 How do I set up a Hive System (router with Bee nodes)?

Step 1: Set up the Mercku main router and connect to the Internet.

Step 2: Place the Bee in a suitable location and power it on, then wait for the mesh network to form automatically. The Bee indicator light will be green once the network is connected.

Attention:

- If the indicator light of Bee is blinking in green, this indicates its position is not suitable. Move the Bee to another location to gain better performance.
- To ensure that the mesh network works properly, please place the router in an open location. The upper limit of distance between nodes is 2 rooms or 10 meters.

2. What is Mercku Wi-Fi

2.1 What is the master router?

Master router is the Wi-Fi router that connects to Internet with ethernet cable to its WAN port. There could be only one master router in a mesh network.

2.2 Can M2 act as a Bee?

Yes. An M2 can be used as a master router or as a mesh node. In the latter, please refer to **2.3** for the steps to add an M2 to a mesh network.

2.3 How do I add a new M2/Bee to an existing mesh network?

Step 1: Open the Mercku APP and click "+" on the "My Wi-Fi" page.

Step 2: Power on the M2/Bee and click the M2/Bee reset button. When the indicator light blinks red, click "next" on the APP. Select the proper device in the list , click "next" and wait until it has been added to the mesh network.

Step 3: If the new M2/Bee is added to the mesh successfully, its indicator light will be green.

2.4 Do I need to upgrade to the latest firmware? How do I upgrade my router firmware?

New firmware will come from time to time. We recommend that you periodically check whether you are using the latest firmware to experience the full set of product features.

▪ **Update from the Mercku APP**

Step 1: Open the Mercku APP, click "Settings" to enter the list page, click "Upgrade firmware" and wait for the page to refresh.

Step 2: If a new firmware is available, click "Upgrade" to automatically update.

▪ **Update from the router's webpage**

Step 1: Connect your computer to the Mercku Wi-Fi, and access
http://mywifi.mercku.tech

Step 2: Click "firmware update" and "Online Upgrade". New firmware will show up and click "Upgrade" to upgrade automatically. If the internet connect is not available now, "Offline Upgrade" can be used to upload firmware images from local disk.

Attention:

- The indicator light blinks red when it starts upgrading.
- Wi-Fi will not be available during the update so please do not power off or reset

the device during the update, otherwise, the device maybe damaged.

2.5 What if I cannot connect to the Internet?

Step 1: Restart the main Mercku router if its indicator light blinks in green.

Step 2: When the indicator light on the router blinks red, please check whether the ethernet cable is properly connected to the WAN port and whether the Internet settings are correct.

Step 3: If your issues are not listed above, please consult the ISP operator to inquire your fee situation.

2.6 After powering on the M2, what if I can not find the corresponding Wi-Fi name in my device?

Please reset the router by pressing the reset key for at least 5 seconds until the indicator light is blinking frequently red. Then, refresh the Wi-Fi list in your device.

2.7 What is the maximum number of routers that can be supported at once in a mesh network?

A mesh network can simultaneously support up to 14 routers (M2 or Bee). A Hive system is usually the best solution for typical house up to 5000 square feet. New mesh node should be placed carefully to avoid too crowded signals.

3. Manage Your Router with Mercku App

3.1 How can I change the Wi-Fi password?

Step 1: After binding the router, open the Mercku APP, go to "Settings" and find the Wi-Fi settings.

Step 2: Go to the "Wi-Fi settings" to change the Wi-Fi password.

3.2 How can I limit the speed/time/site settings?

Step 1: open the APP, select "My Wi-Fi" and then get into "Devices".

Step 2: Click on the device and configure its rate limit, time limit and banned websites.

Attention:

- The rate limit is turned off by default.
- There is a maximum of 5 items for time limit.
- There is maximum of 15 banned websites for the entire network.

3.3 How do I unbind a router?

Open the APP, go to the "Settings" page, click "Unbind" and confirm.

3.4 How do I restore factory settings?

There are two ways to reset:

- APP

Step 1: Open the APP, tap on the router you want to reset.

Step 2: Click restore factory settings and confirm.

- Reset Button

Press reset button on the device for at least 5s and then release.

3.5   How do I restart the router?

There are three ways to restart:

- App

Step 1: Open the App and go to "My Wi-Fi"

Step 2: Tap on the router that needs to be restarted, lick "Reboot" and then "Confirm."

- Webpage

Step 1: Access http://mywifi.mercku.tech, and click "Reboot"

Step 2: Pull out and re-plug the power cable.

3.6 How do I set time zone for the router?

Step 1: Open the App and go to the **"Settings"**

Step 2: Tap on **"Set time zone"**,   select the proper timezone and**"Save"**

3.7 How do I view the connection status and device information?

Step 1: Open the App, the mesh network information is presented on the default page .
   Note: Green means that the mesh network is excellent, orange implies good while
   gray means offline.

Step 2: Tap on"Devices". All currently connected devices will show up and tap on
   specific device to checkout its details.

3.8 How to test network speed?

Open the app, go to "Settings" > "Speedtest". "Mobile > Router" will test the network throughput between your current device and the router, and "Router > Internet" will test the WAN speed.

Note: "Mobile > Router" can only be tested if the current device is connected to the target network.

3.9 The App shows "No internet access," and I cannot check my network settings, what should I do?

- If you are using a fixed IP address to access the Internet (your ISP provides the Internet IP address, etc.), you can use the following steps to address the issue.

Step 1: Select "Set up the Internet access manually."

Step 2: Select "Static IP" internet access mode.

Step 3: Fill in the IP address information and select "next."

Step 4: Please refer to the App instructions for the remaining steps.

- If you are not using a fixed IP internet access, you can try to resolve it by the methods below:

Step 1: Power off the M2 and Bee nodes then power them back on.

Step 2: Reconnect your phone to the Mercku Wi-Fi, force shut down the Mercku APP and then reopen the App to configure.

- If you cannot solve the problem according to the above two steps, try the following steps:

Connect your computer to the router, access http://mywifi.mercku.tech and test whether there is internet. If you are unable to connect, please contact your ISP.

3.10   Why is there slow speed even though indicator lights are green?

Step 1: The fact that the indicator lights are in green showcases the mesh connection is functioning properly.

Step 2: Test the Internet speed to check whether the current WAN speed is slow.

Step 3: Check out how many devices are connected to the Wi-Fi. The more devices there are, the slower the network might be.

Step 4: Check out the download and upload speed of the connected devices. The network might be slow if there are devices consuming too much bandwidth.

4. What does the indicator light mean?

● Red	Steadily illuminated	No Internet connection
	Blinking	Interactions (add nodes, upgrades, reboots)

	Blinking frequently	Restore to factory settings
● Green	Steadily illuminated	Stable network connection
	Blinking	Poor mesh connection

5. About the Reset button

Press and release	Entering to node-adding mode, it will automatically close after 60 seconds.	M2, Bee
Press for 5 seconds and release	Restore to factory settings.	M2, Bee

6. The router cannot be started, what do I do? Or how to unbrick my router?

Symptoms:

a. The router does not start properly
b. Failed firmware updating
c. The LED indicator light has turned off

Upload firmware with tftp:

Step 1: Download a tftp server. For example, xxxxxxx.

Step 2: Download the firmware for tftp from https://www.merckuwifi.org/download

Step 3: Connect a PC wired to router and set it to have a static IP address **(for example, 192.168.1.100)**.
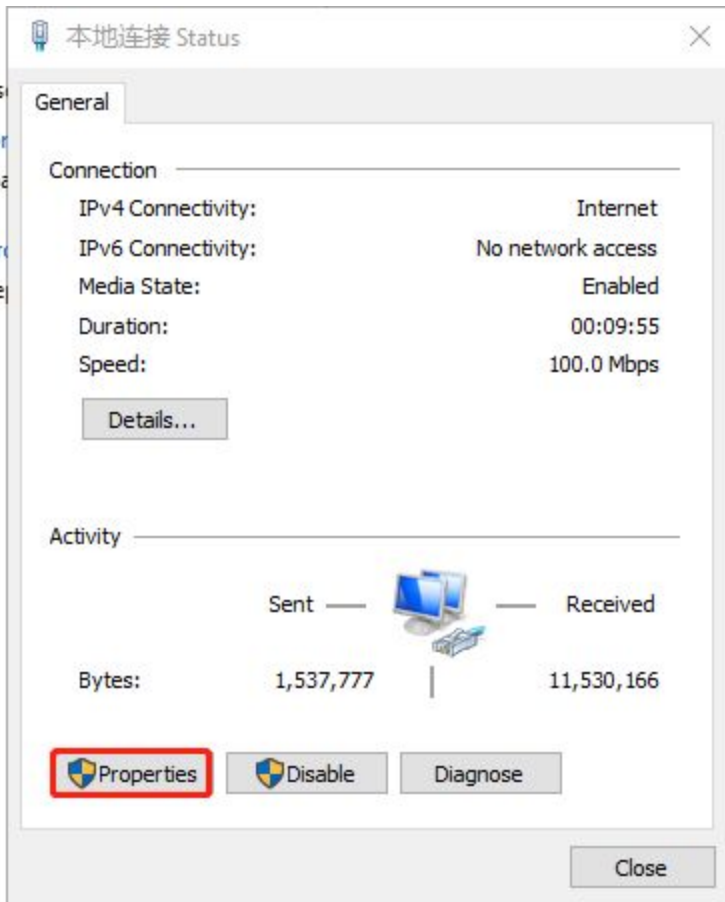
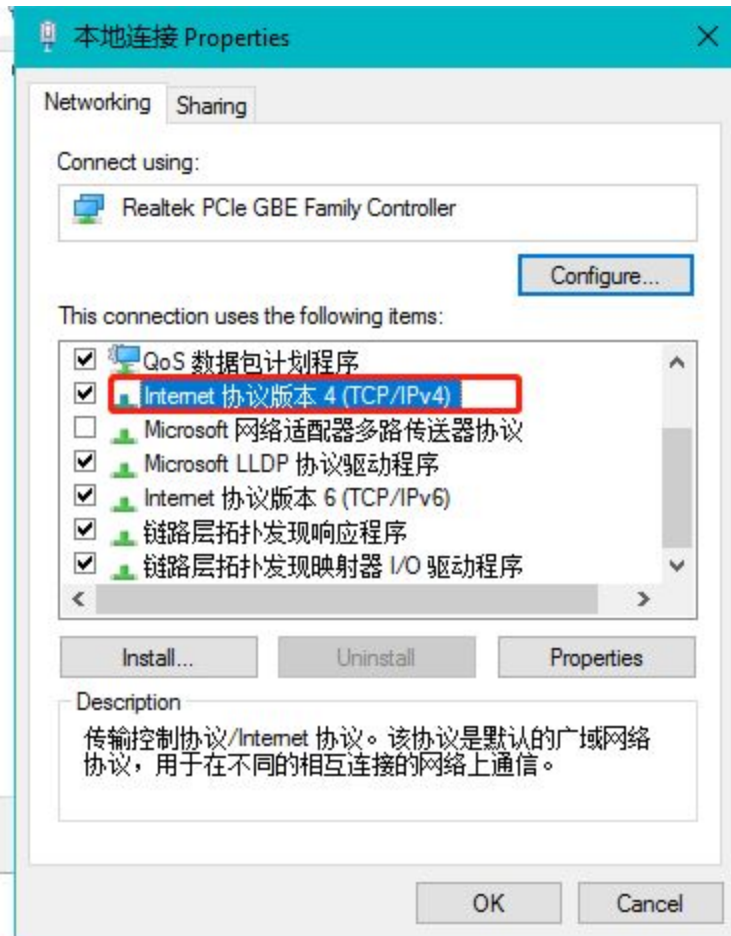- Click **"Open Network and Sharing Center"**
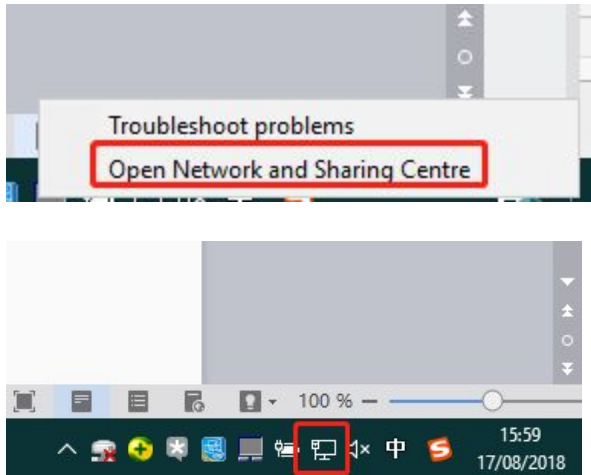
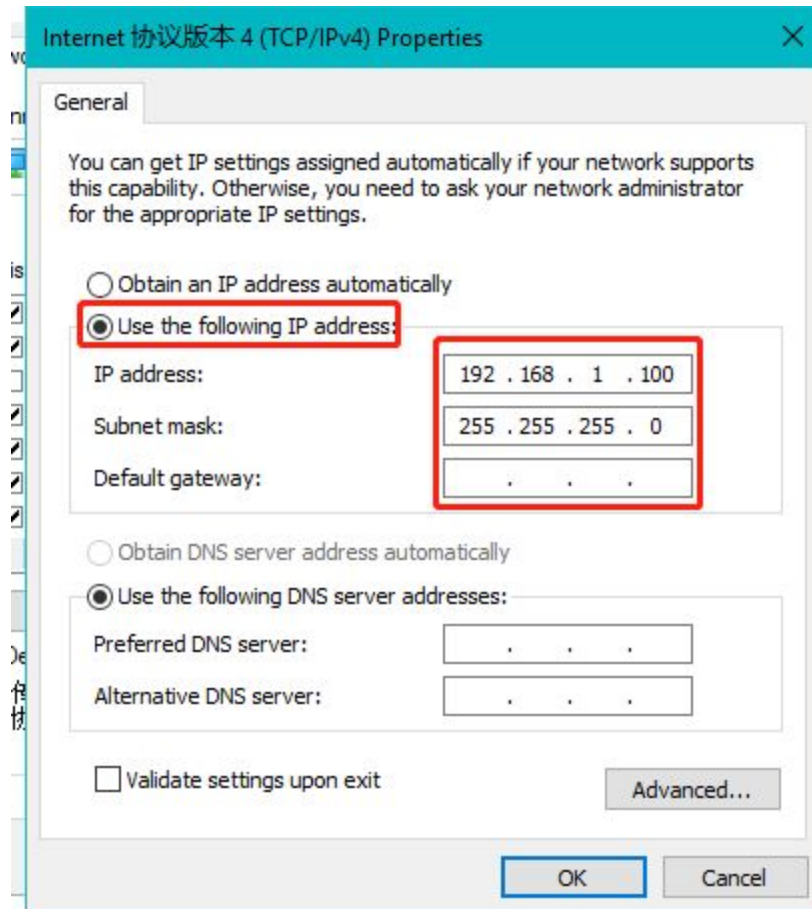- Click **"Local Area Connection"**
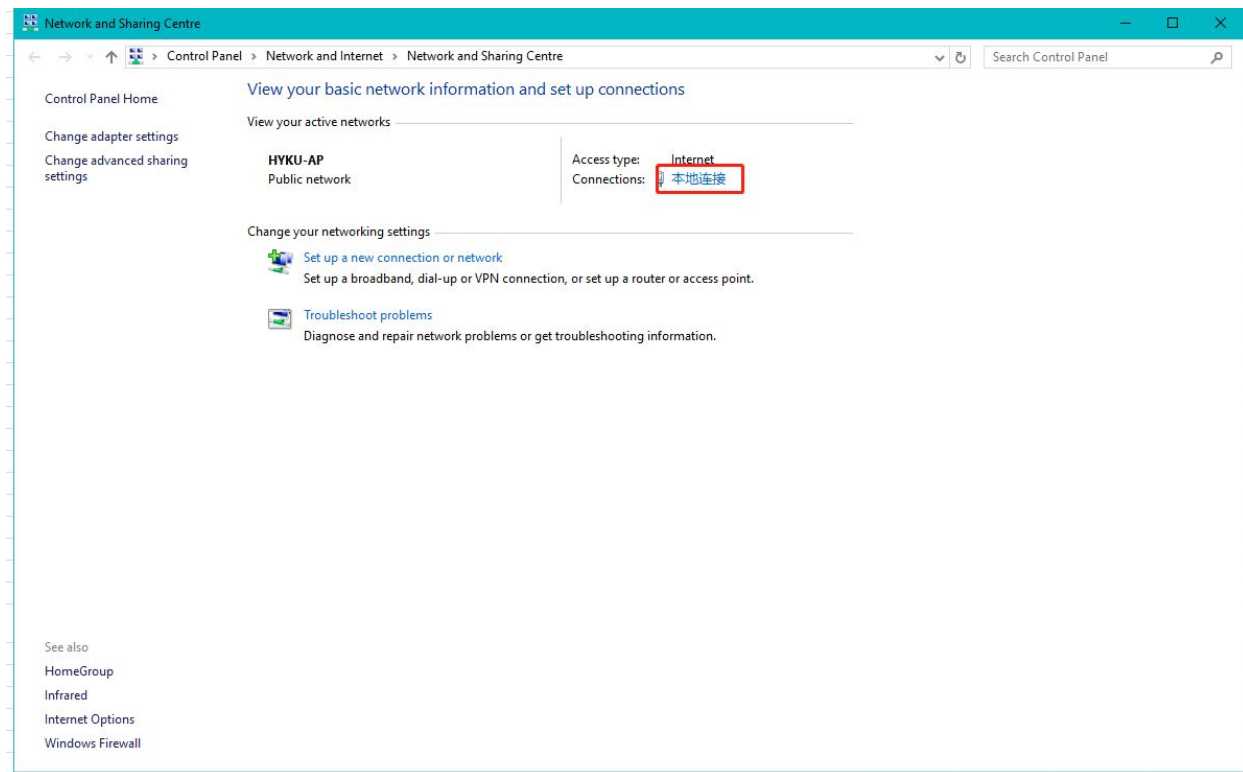
- Click **"Properties"**

- Double-click Internet Protocol Version 4 (TCP/IPv4)

- Use the following IP address and set-it up as shown below.

IP address: 192.168.1.100

Subnet mask: 255.255.255.0

- Click **"OK"** to save your configuration

Step 4: Unplug all port connections from router except the PC you are using to upload.

Step 5: Turn off the router for 10 seconds.

Step 6: Press and hold the reset button on the back of the router while powering the router on.

Step 7: When the router LED light is blinking in red and green alternately, release the reset button.

Step 8: Run the previously downloaded tftp.exe file.

- Select "192.168.1.100" in "Server interfaces"
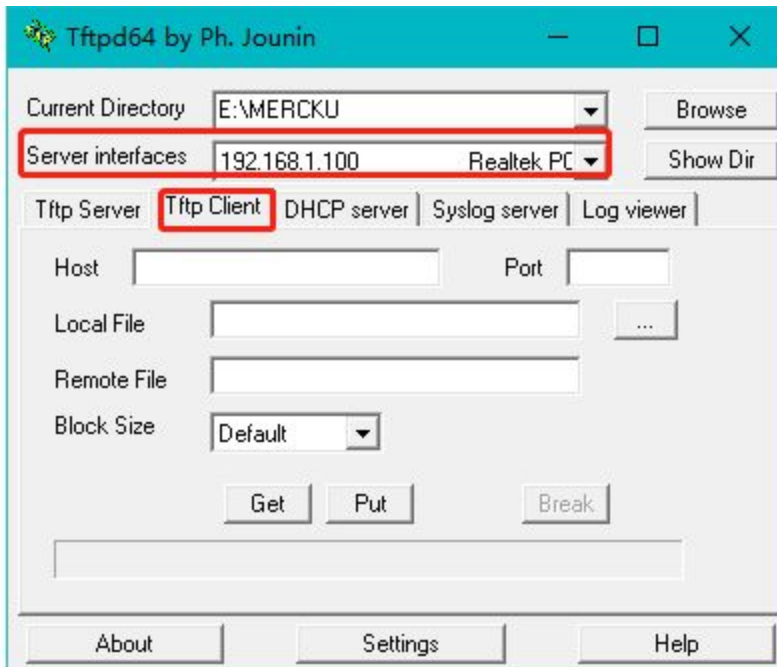
- In the "**Tftp Client",** enter the default router IP (usually 192.168.1.100)
- In the **"Local File,"** click the square button next to the browser and locate the firmware provided in step 1. Do not click the upgrade button yet.
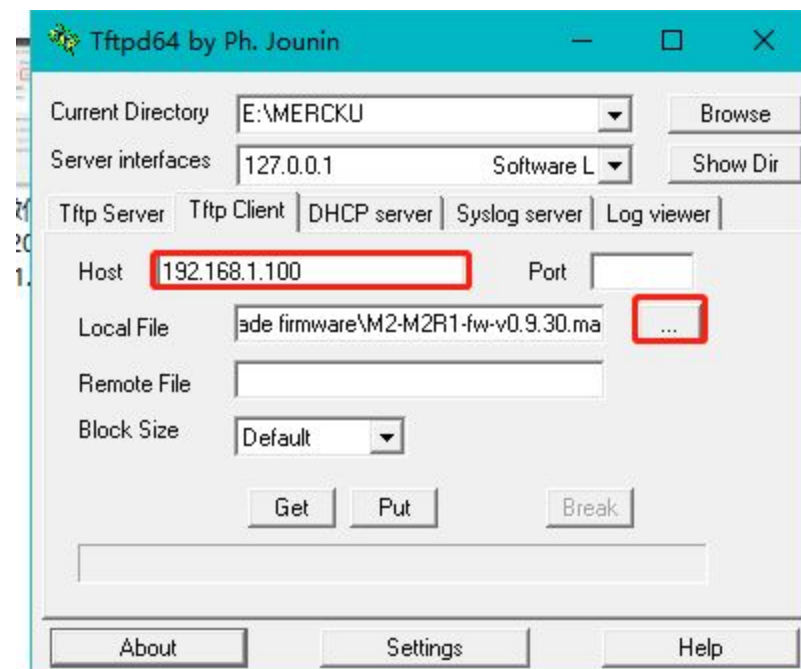
Step 9: Click the "Put" button on the tftp to perform a firmware upgrade.
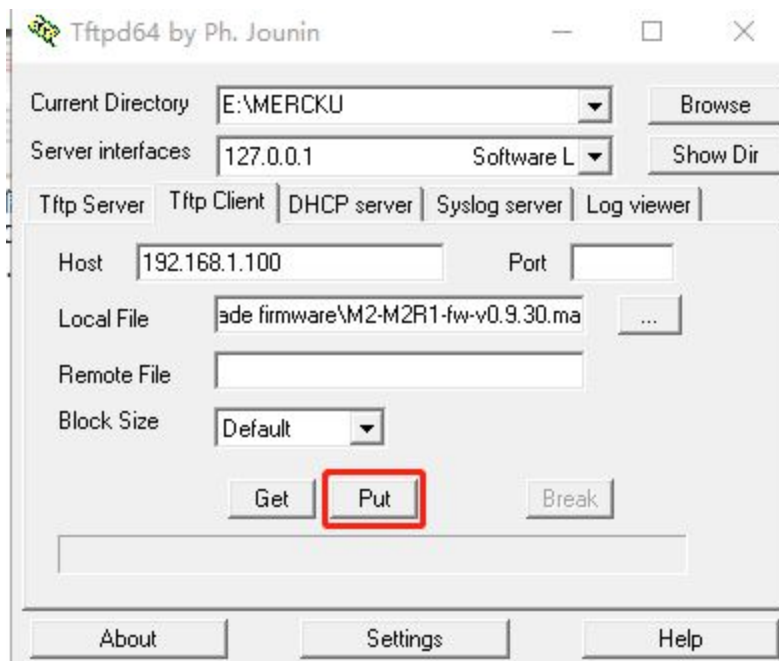
Step 10:   You should see a note saying "**Firmware was upgraded successfully**". If not, you may need to repeat above steps.
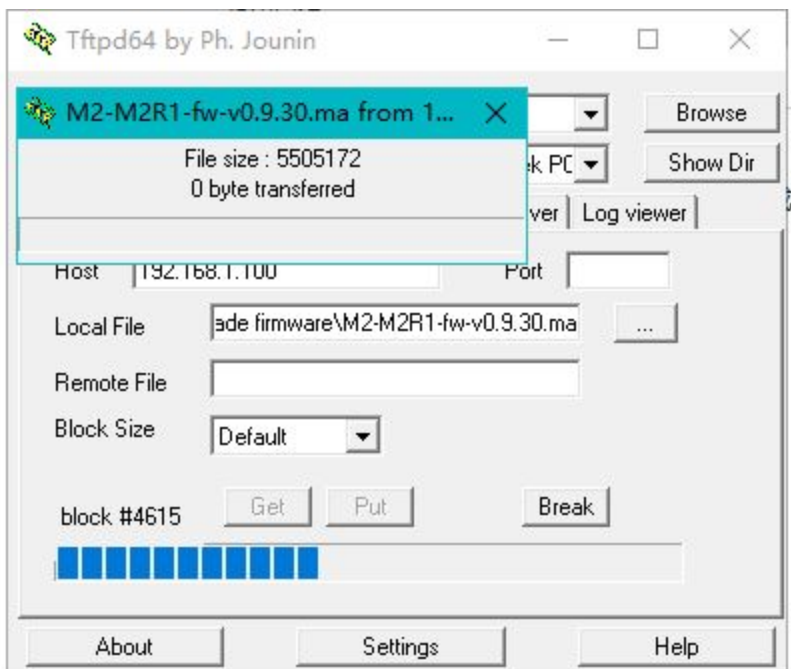
Step 11: The firmware has been uploaded but need to wait about 4 minutes for the router to finish storing firmware into its flash memory. Once it's done, you will see the Power LED will turn red and the wireless LEDs are both lit.

Note: Please remember to change your PC back to **"Obtain an IP address automatically"** and **"Obtain DNS server address automatically"**.