

HiView Plus-WiFi Microscope

User's Manual

Welcome

Thank you for choosing HiView Plus-WiFi microscope!

The HiView Plus-WiFi microscope is an exciting and dual-usage digital microscope; it can be used either with a WiFi connection or with a USB wired connection. The dual-usage microscope enables you to clearly study micro-objects, the WiFi connect not only gives you freedom to move away from a laptop/PC, it also enables you to share your study with others connected to the WiFi. The Hiview Plus has a wide scope of applications, such as,

- Industrial Inspection
- Computer Parts inspection
- Telecom module inspection
- Scientific teaching tool
- Medical analysis
- School Research tool
- Insect dissection / examination
- Plant dissection / examination
- Skin examination
- Textile Inspection
- Collections / Coin/ Jewelry Inspection
- Printing Inspection
- And more.....

Please read this manual carefully before using HiView Plus-WiFi microscope!!!

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Product Specifications

- ☐ Operation system: Windows /Mac/IOS and Android

WiFi Spec:

- ☐ Photo and Video Resolution: 1.3MPiexe-- 1280x1024(MJPG),640x480(MJPG), 320x240
- ☐ IEEE 802.11 b/g/n standards compliant
- ☐ Wireless Transmission Distance: up to 5m
- ☐ Transmit Power:
 - 11n HT40 MCS7: +13 dBm
 - 11b CCK: +18 dBm
 - 11g OFDM: +15 dBm
- ☐ Data Rate:
 - 802.11n: up to 150Mbps
 - 802.11b: 1, 2, 5,5, 11Mbps
 - 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
- ☐ The Temperature: ≤60 °C (Celsius degree) with full speed running.
- ☐ Frequency Range: 2.400 ~ 2.4835GHz
- ☐ Power Consumption: Max 2.5W
- ☐ Frame Rate: 10fps~30fps
- ☐ Li-ion Battery: Continuous Working Time—Appx.2 Hours, Full Charging Time—3 Hours
- ☐ Battery Life: 500 cycles
- ☐ Power Source: DC5.0V/1A

Camera Spec:

- ☐ Camera Sensor: CMOS 1/4”
- ☐ Optical features:
 - Exposure: Auto
 - Gamma Correction: Auto
 - Numerical Aperture: Auto
 - White Balance: Auto
 - Black Reference: Auto
 - Flicker Avoidance: Auto
 - Defect Identification: Auto
 - Color Saturation: Auto

Microscope Spec:

- ☐ Adjustable Magnification: 5x~200x
- ☐ The Object Distance: 8~300mm
- ☐ Focus Range: 8mm ~ 300mm
- ☐ Light Source: 8pcs adjustable White LEDs
- ☐ Lens: High Definition Microscopy Lens
- ☐ Dimension: 36mm(Diameter) x 142mm(Length)
- ☐ Weight: 88g

Wired USB Spec:

- ☐ Photo and Video Resolution: 1.30Mpixel—1280x1024,640x480,320x240
- ☐ PC interface: USB 2. 0
- ☐ MiniUSB Cable:1.2m

Safety Cautions

1. Avoid touching the lens.
2. Protect the product from electrostatic damage.
3. Do not attempt to disassembly any part of this product.
4. Do not attempt to service this product yourself. Opening the covers may expose you to dangerous voltage points or other risks.
5. Store and operate HiView Plus-WiFi microscope at Temp: -20 ~ 45°C, Humidity: 45% ~ 85%, storing and operating outside these limits may reduce the life of the product.
6. Do not expose this product to water or other liquids. If water or other liquids enter the product, immediately power off the product. Continued use of the product may result in fire or an electrical shock.
7. Do not use any detergent or volatile solution, as this will damage the camera case, painted surfaces and lens. To clean the product uses only a soft cleaning cloth.
8. Do not place this product near a heat source or expose direct flame, avoid the lens damaged by high temperature or humidity
9. If the lens is dirty, please use a kens brush on soft cloth to wipe clean. Avoid touching it with your fingers. Exercise care to avoid scratching the lens.
10. Need to read HiView Plus-WiFi microscope User's Manual before using and storing it.
11. To avoid electric shock, remove all electricity source before removing PC.

Package Contents

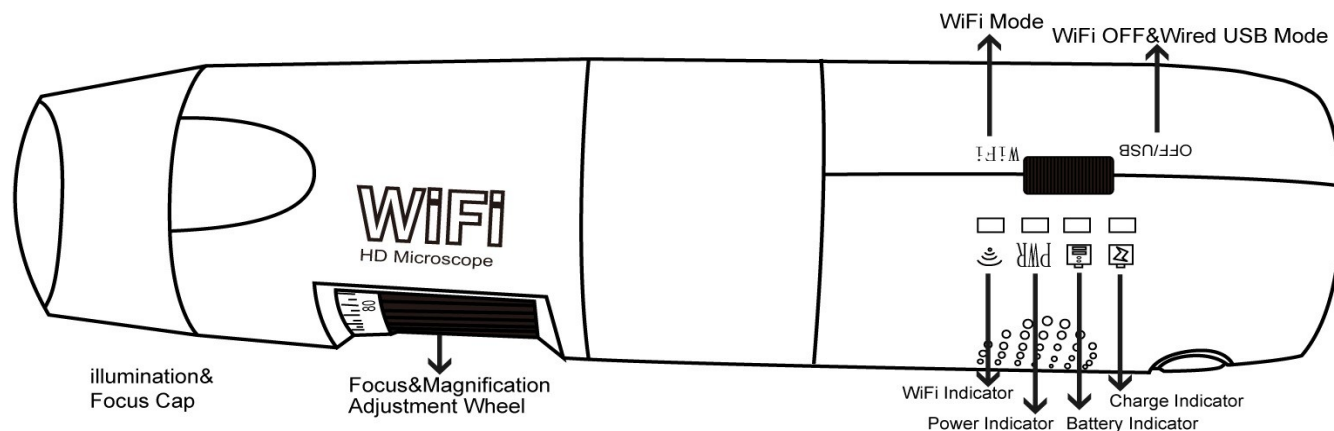
The HiView Plus-WiFi microscope package includes the following:

1. HiView Plus-WiFi microscope
2. USB AC adapter
3. USB cable
4. CD Disc (Software) and Quick manual
5. Plastic Stand
6. Calibration Ruler
7. 2pcs Focus Caps



How to Use

Part Description



The Power “OFF/USB—WiFi” Switch

WiFi: Hiview Plus Microscope works in WiFi mode when Power Switch is moved to “WiFi” side.

OFF/USB: Power-off WiFi Microscope when Power Switch is moved to “OFF/USB” side; also, USB microscope works if connected to PC’s USB port via MiniUSB cable.

WiFi Indicator (Blue LED): Flashing light indicates data transmission; Constant light indicates no data transmission.

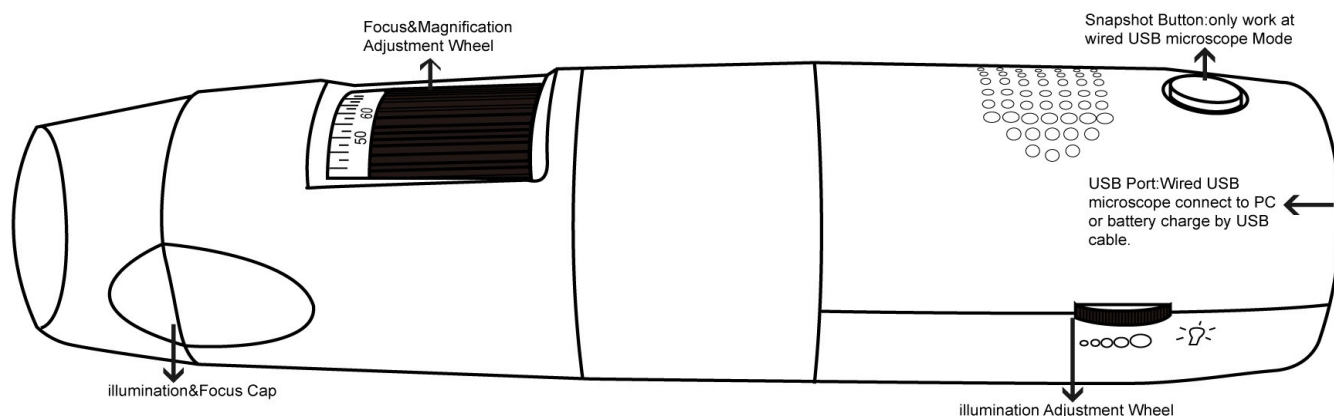
Power Indicator (Blue LED): Lights when power on WiFi or connected to PC or AC adaptor via MiniUSB cable.

Battery Indicator (Blue LED or Red LED): Red LED lights when battery level low; Blue LED lights when battery charging full.

Charge Indicator (Red LED): Lights when the battery is being charged; turn off when the battery is fully charged.

Charging Instructions:

1. Connect the DC Adapter (plug the AC adapter into an AC outlet) or PC’s USB cable, it charges whether the power switch is on WiFi or OFF/USB. **(We DO NOT recommend charging WiFi Microscope while using)**
2. The Charge LED is on when the device is charging. When the battery is at full charge, the battery LED comes ON.



User guide: Working at WiFi Mode




1. Download and install the “Hiview Plus” app from <http://www.cosview.com/page/support/index.php> or the Disc enclosed for your **Windows** or **Mac OS** device.

Note 1: Search “Hiview Plus” in **App Store** or click the below link:

<https://itunes.apple.com/us/app/hiview-plus/id701290091?ls=1&mt=8>

to download and install it for **iPad** and **iPhone**. (Be sure to download the latest version, otherwise changing the resolution is a problem for **IOS 7**)

Note 2: You MUST ENABLE firstly “Setting->Security->Unknown sources: Allow installation of apps from unknown sources” in your Smart-phone or Tablet, click <http://www.cosview.com/page/support/index.php> to install “Hiview Plus(Android)” for **Android’s Smart-Phone** or **Tablet**.

2. Slide the Power switch to the “WiFi”, and the power LED  indicator will light, wait for ~20 seconds until the WiFi indicator  and the illumination LEDs light, then the WiFi signal will be transmitting correctly.
3. Check the wireless connection on your Phone/Tablet or PC and a list of available networks will appear. Select the SSID “WiFi2SCOPE_xxxxxx” network from the list to connect; the network “WiFi2SCOPE_xxxxxx” requires a password: enter the password “12345678” and click Ok.
4. Once connected, open the “Hiview Plus” application to see your images. The WiFi indicator LED  flashes and video stream signal should be displayed in the app. Video streaming can be broadcasted to many devices, but the frame rate will decrease as the number of receiving devices increase.

Setting for Internet and Microscope’s WiFi Connection at the same time

To access the internet by WiFi connection at the same time the WiFi microscope is working, open an internet browser, input <http://10.10.1.1>, and click “enter”. A pop-up window will require you to enter a username and password, please enter: Username=admin, Password=admin and this window should appear:





Click **Internet Connection** in the window to pop-up the below screen:

Internet Connection
 Connect to the Internet through the Wi-Fi or Ethernet.

Generally, your iPad/Computer can access the Internet via your WioData connect ethernet.

☐ **Wireless Router Mode(Gateway)**

You also can connect to the Internet by linking WioData to Wi-Fi network your already use.

☒ **Wireless AP Client Mode**

Follow these simple steps to set up a Internet connection for WioData.
it will only take a minute.

← Back
Next →

Click **Next** to pop-up the below screen:

Internet Connection - Select Network
 Please select the network you wish your to connect.
 Refresh

Internet AP SSID (It is the WiFi network name for internet)

← Back
Next →

Click **Refresh** till your desired network SSID appears, and click it to pop-up the below screen:

Internet Connection - Enter Password
 Enter the password for selected Wi-Fi network.

Network Name (SSID): Internet AP SSID

Password:


← Back
Next →

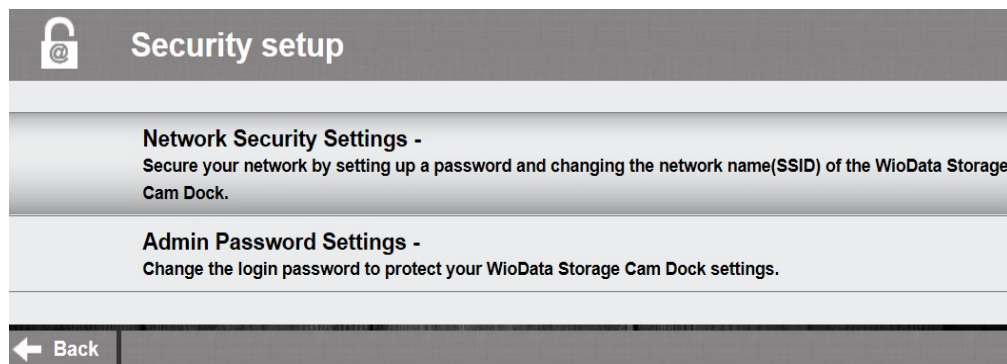
Enter the password to click “Next” till the setting is Well Done. Now you can open Hiview Plus app to use WiFi microscope, and at the same time, you can access the internet.

WiFi Security Setup

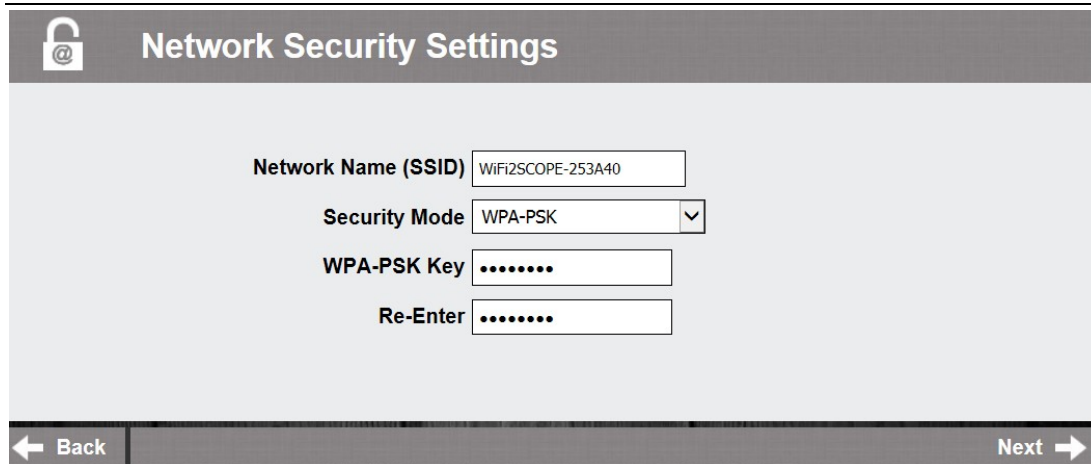
To change the WiFi access password, open an internet browser, input <http://10.10.1.1>, and click “enter”. A pop-up window will require you to enter a username and password, please enter: Username=admin, Password=admin and this window should appear:



Click  in the window to pop-up the below screen:




Click “Network Security Settings -” to pop-up this below screen:



Enter your desired Network Name (SSID) and password in “WPA-PSK Key” and “Re-Enter”, and click “Next” until the setting is done. Now you can re-connect the new SSID WiFi by entering the new password.

User guide: Working at Wired USB Mode

1. Download and install the application “MiviewCap” (for windows OS) or “AllView” (for Mac OS).
2. Slide the Power switch to the “OFF/USB” side, and connect to PC’s USB port with USB cable; the power LED  indicator will light, as well as charge indicator LED (Battery is being charged)
3. Open “MiviewCap” or “AllView” app to work with it. The illumination LED lights up as soon as the application software is running.
4. Please refer to the detailed manuals on the CD: “Miview_Manual-English” or “AllView Mac Manual”.


Hiview Plus Application

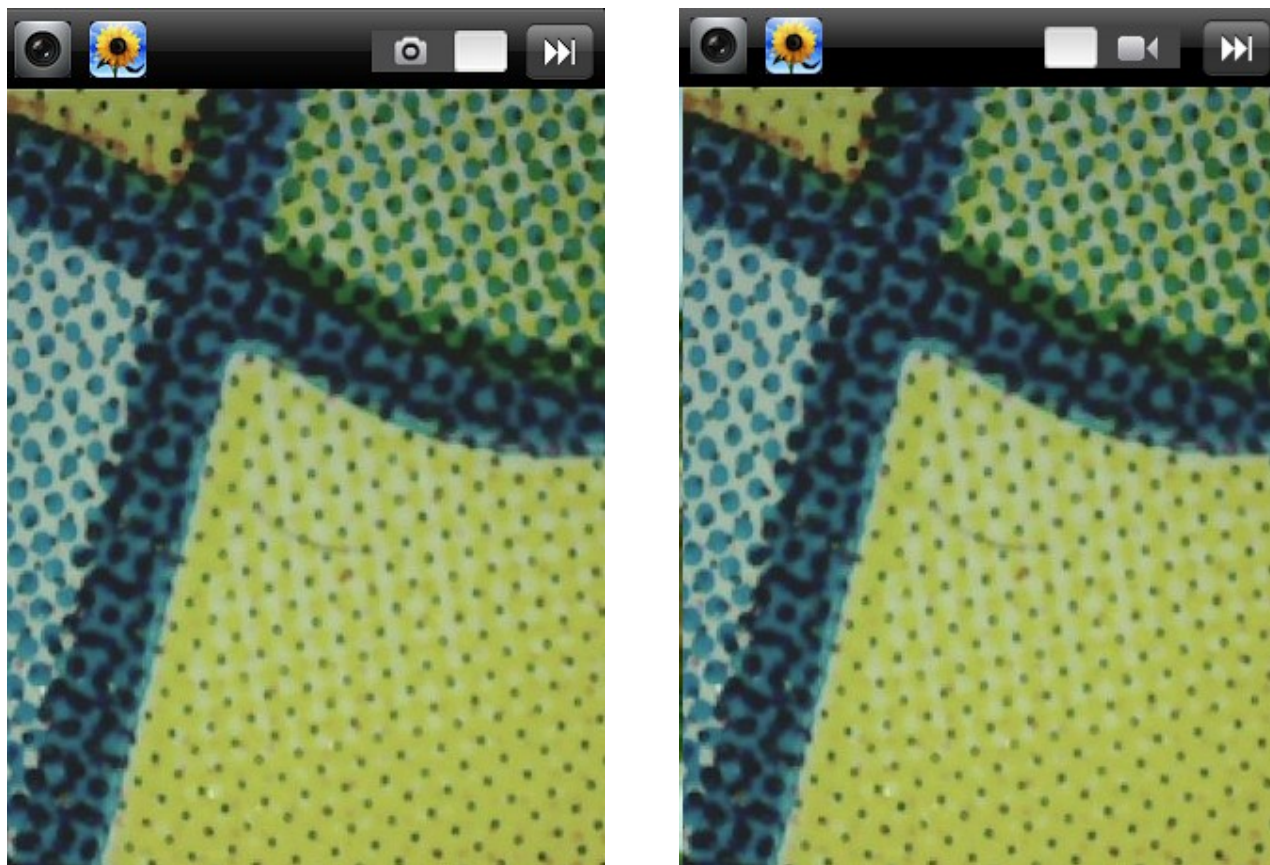
Note: Before start Hiview Plus app, please make sure the WiFi microscope has already connect to your display device by WiFi.

Hiview Plus on iPad/iPhone

Search “Hiview Plus” in App Store or click the link <https://itunes.apple.com/us/app/hiview-plus/id701290091?ls=1&mt=8> to



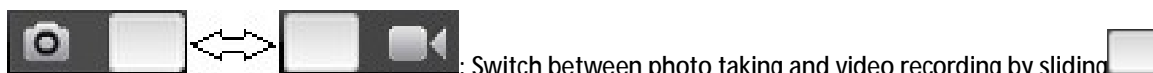
download and install it, click  icon to display video as below:



: Capture photo or record video (You must set the pixel resolution to 640x480 when recording video).



: Photos folder or videos folder.



: Switch between photo taking and video recording by sliding




: Resolution Setting. (When changing the resolution, you must wait until the illumination LED is off and lights up again before clicking Done - it takes about 5 seconds).

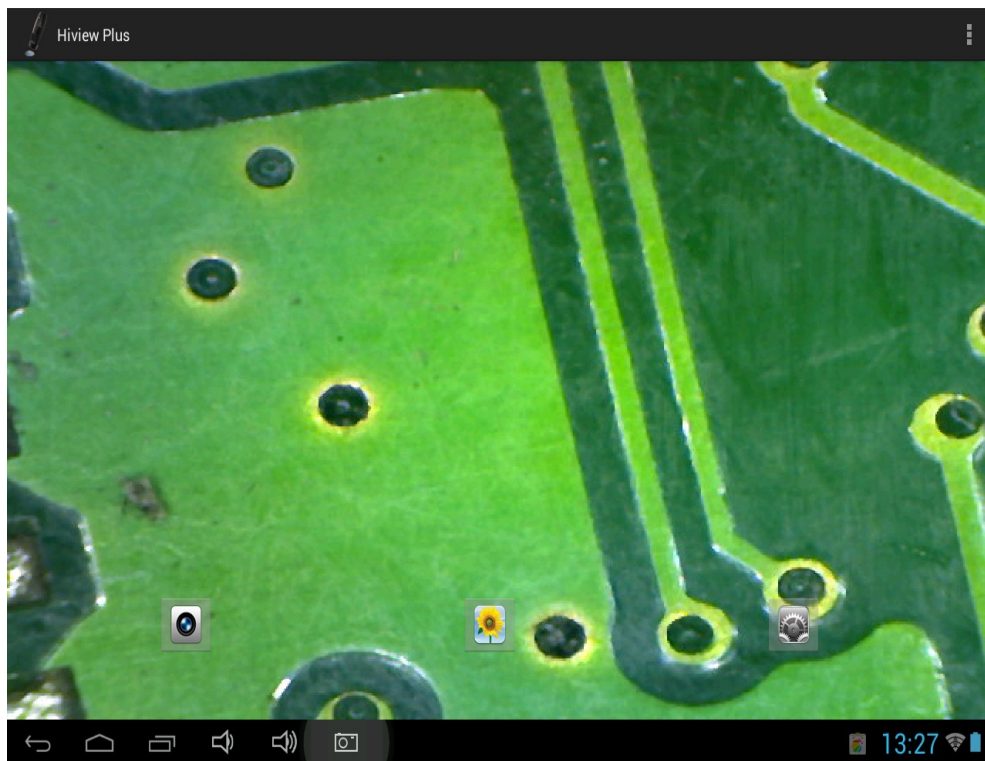
Warm-up Tips: Please click  → Done to resume the live video after sliding to unlock from auto-lock.

Hiview Plus on Android Tablet /Phone



Click <http://www.cosview.com/page/support/index.php> to download "Hiview Plus (Android)", click  icon to display video as below:

(Note: You **MUST** enable firstly "**Setting**→**Security**→**Unknown sources**: Allow installation of apps from unknown sources" in your Smart-phone or Tablet).




: Capture photo



: Photos folder



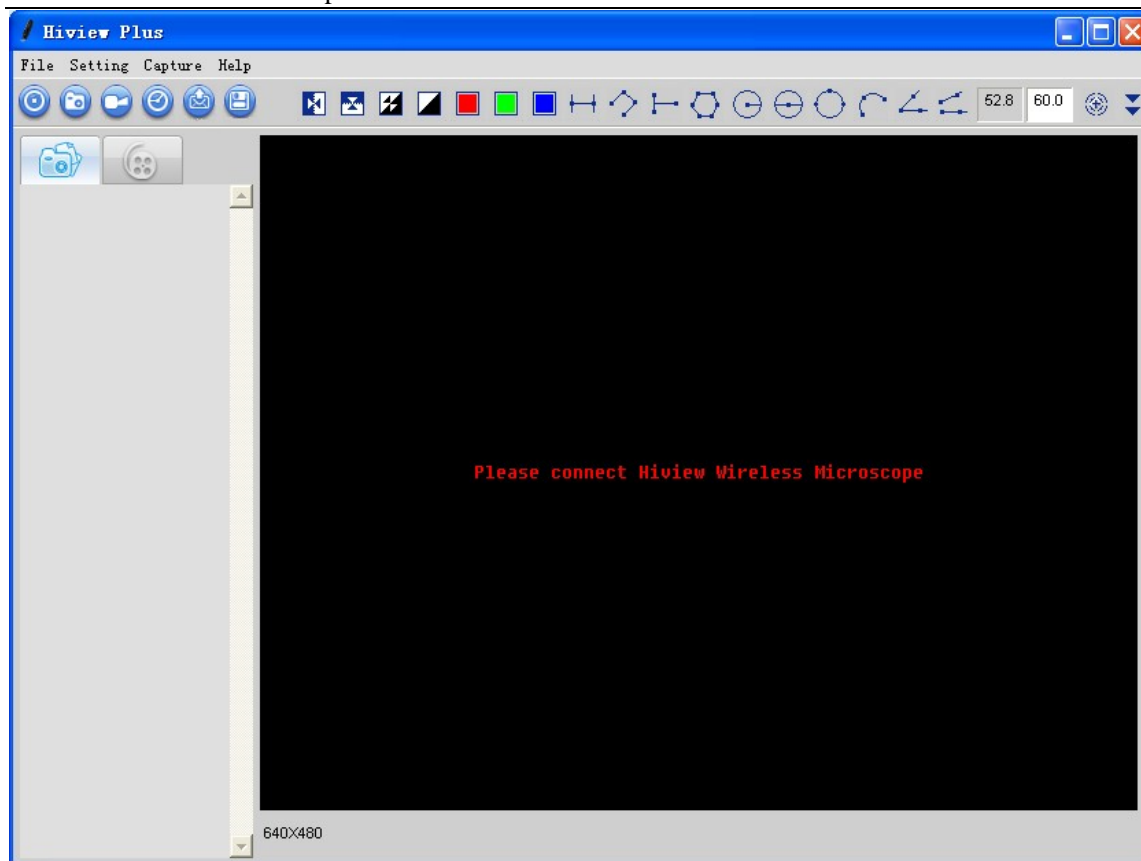
: Resolution Setting (When changing the resolution, you must wait until the illumination LED is off and lights up again before clicking live video - it takes about 5 seconds)


Warm-up Tips: Please click  to resume the live video after sliding to unlock from auto-lock.

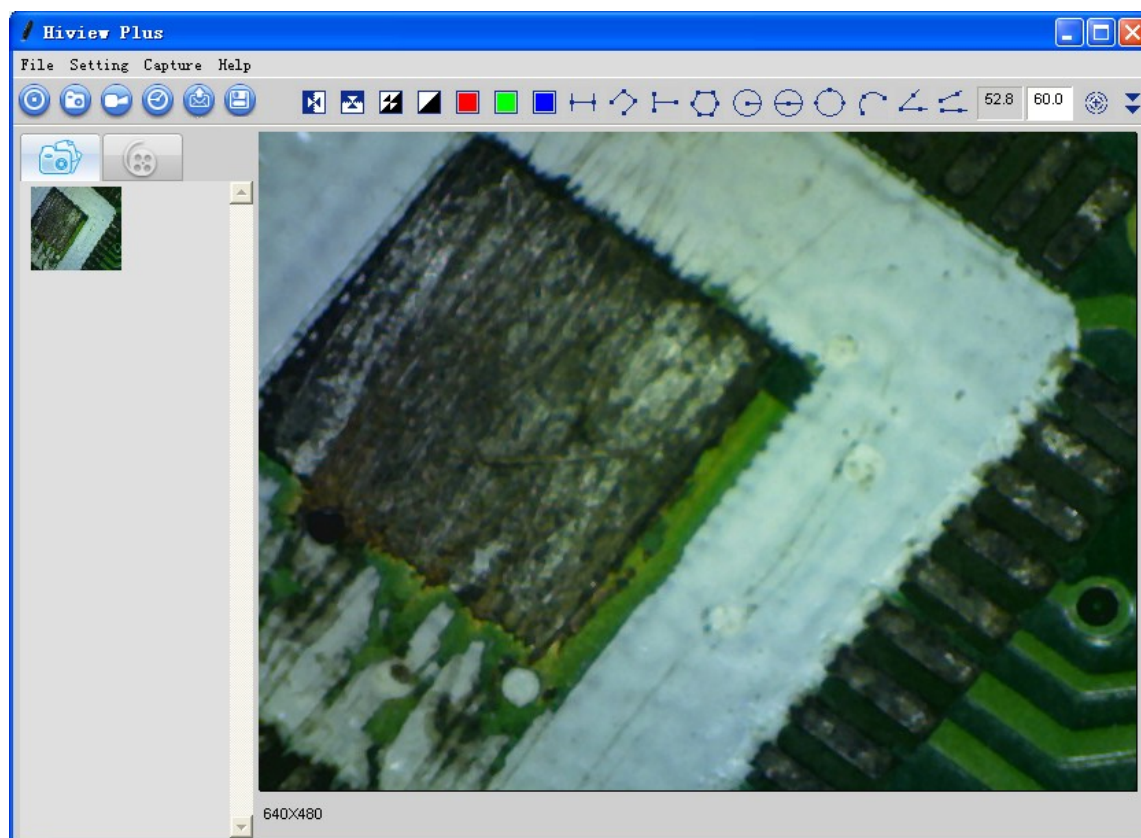
HiView Plus on Windows Computer



Double-click HiView Plus icon  after completing installation to pop-up the below screen:



Click "Preview"  icon and the Hiview Plus main screen will display video as below: (it waits about 5 seconds to display video; if the frame rate of live video is slow, please click "Preview" icon once again to try)




Menu:

File


Select a photo or video, click "File" on menu bar or right-key to pup-up the drop-down menu for operation.

Open: Open the selected photo or video to be viewed.

Save As: Save the selected photo or video file as the desired folder and file format. (Or click ).

Delete: Delete the selected photo or video.

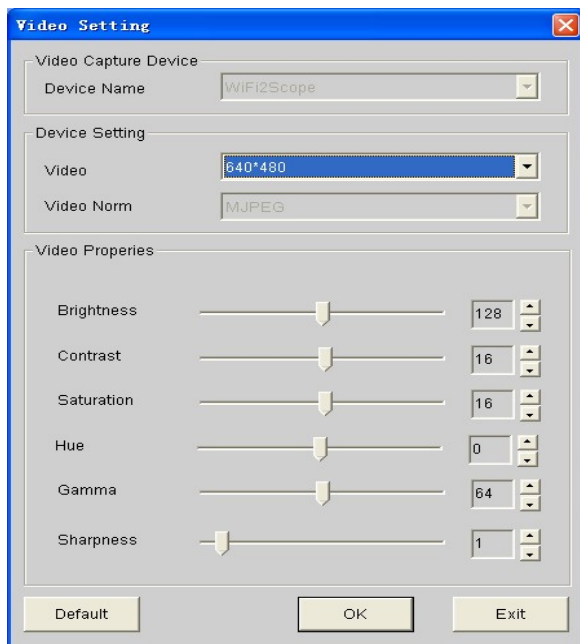
Delete All: Delete the all photos or videos in the photo or video folder.

E-Mail: Email the selected photos through your default email account. (Or click  button).

Favorites: Open the folder which contains the captured photos and recorded videos.

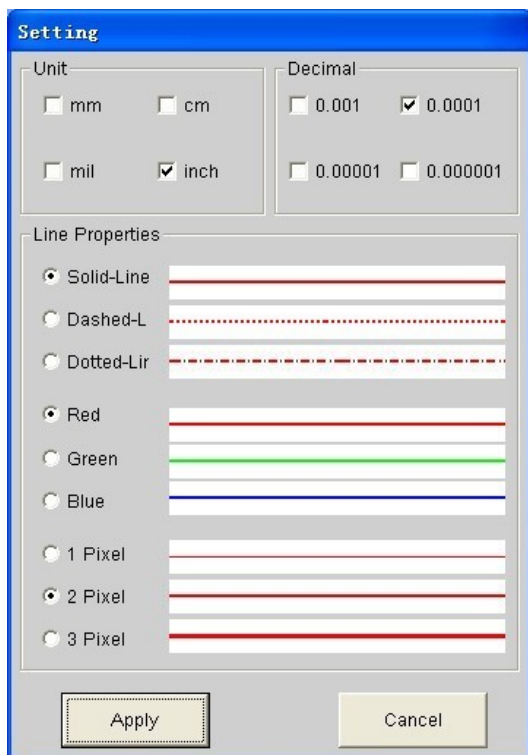
Setting

Device Setting: Select "Video setting" to pop-up the window below for video parameter setting:




When you change the resolution, you must wait until the illumination LED is off and lights up again before clicking OK - it takes about 5seconds.

Setting: click to pop-up the pen setting: (If the "Line width" is 2 or 3 Pixel, the "Pen Type" must be Solid-Line)

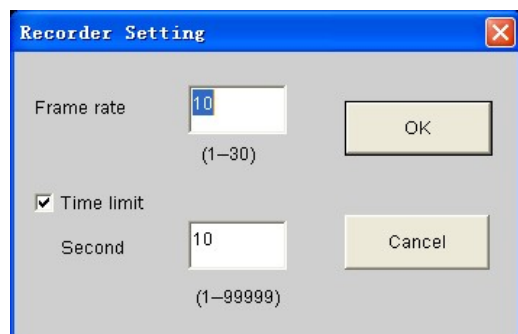


Language: The language selection allows you to select the Hiview Plus interface language.

Capture

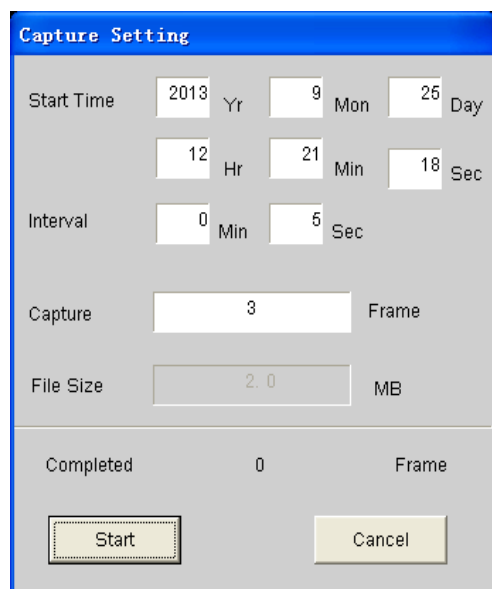
Take Picture: You can capture a photo by clicking the  snapshot Button.

Take/Stop Video: In the active live video window, click on the  button to record a video



1. Frame rate: is the number of frames or photos that are projected or displayed per second. The number range is 1~30
2. Timer limit: is the time of video recording to avoid video file size exceeding the disk space. The number range is 1~99999

Take time-lapsed pictures: Press the time-lapsed  button on the active preview window



Help

Help: User manual.

Update: Update link.

About: Software version.

Video Processing

Please click "Preview"  to resume the live video after finished operation of video processing below.


 Horizontal Mirror

 Vertical Mirror

 Negative

 Binary Segmentation

 Monochrome display (Red)

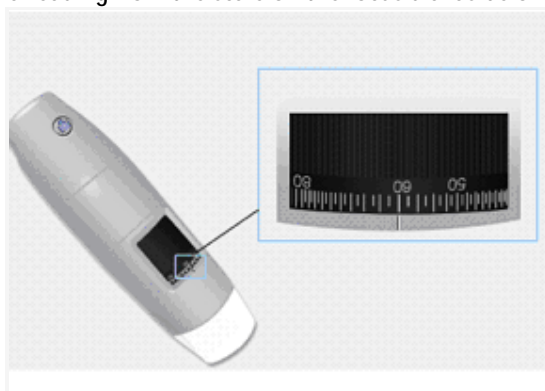
 Monochrome display (Green)

 Monochrome display (Blue)

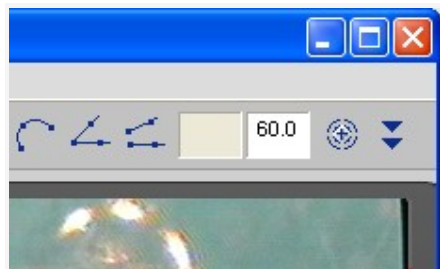
 Calibration on Video


It is strongly suggestion: To obtain more accurate the measurement data, please calibrate before any measurement function.

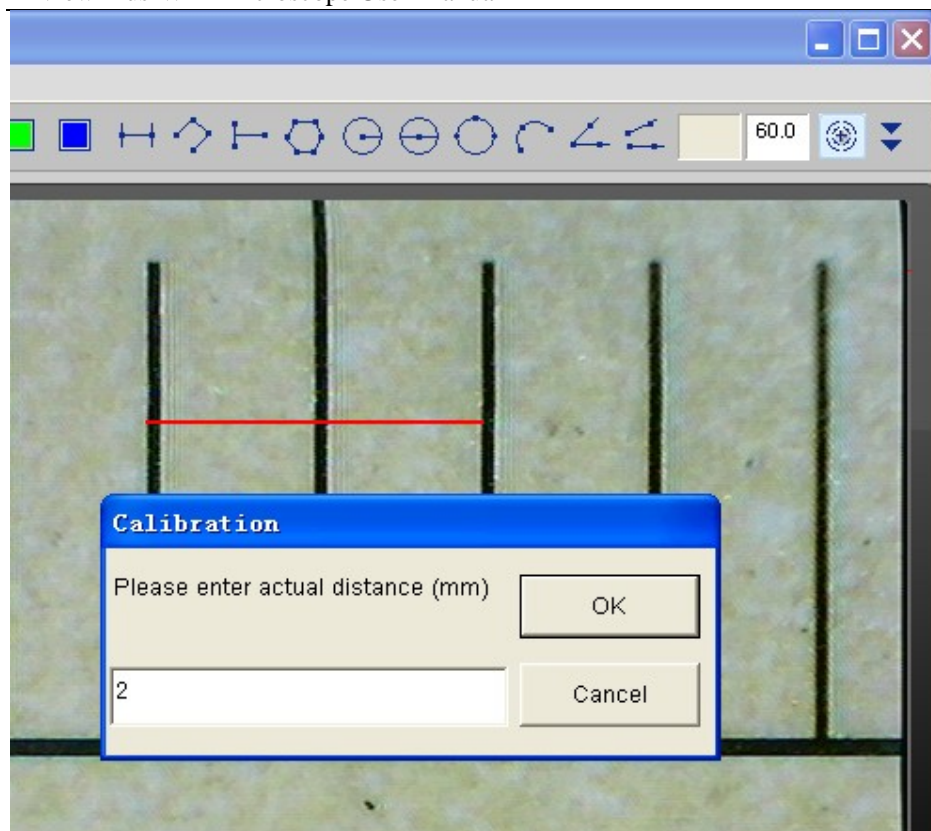
Select a known measurement standard as the to-be-observed object, such as a ruler, to be used for calibration. Bring photo of the selected ruler into focus by turning the “Focus & Magnification adjustment wheel”, determine the magnification by taking a reading from the scale on the focus dial as below(The default magnification is 60):



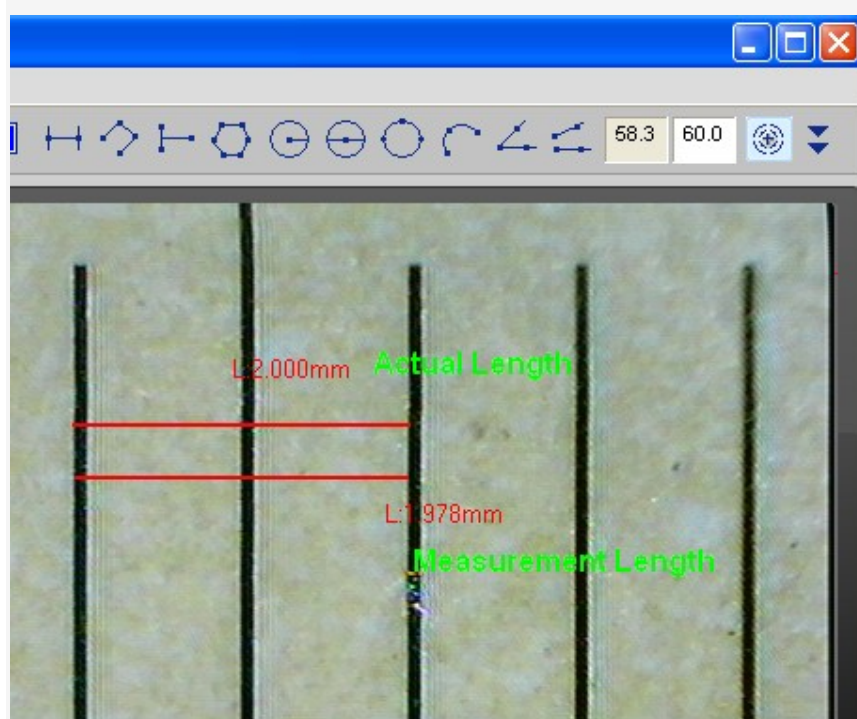
Enter the scale value in the “Scale” box in the right-hand scale box of the screen as below:



In the live video window click on the calibration button , and then click and drag to 2mm length, a small window pop up , enter the actual length(The example is 2mm) to click “OK” Button..



The software will automatically calibrate the scale of magnification and will show the calibrated scale of magnification at the right-hand box of calibration button as below:



Now the calibration is completed, you can make measurement features accurately on taken photos or real-time video at this focus point (*Don't subsequently adjust the "Focus & Magnification adjustment wheel"*). *If the new photo object is not in focus, please only adjust the distance between the microscope and the object till the photo is clear, and then capture the photo to measure it.*



Line Measurement

This allows you to measure the linear distance between two points. Simply click and drag to the desired length, and click again to finish.



Point to Line Measurement

This allows measurement of a line 90 degree from a certain line. Simply create a line to represent the base by clicking once to start, drag, and then click again to set the endpoint. Branch off from the base line to start measuring the line that is 90 degree from the base line and a final click to finish the measurement.



Continuous Line Measurement

This allows measurement of the distance between multiple connecting lines. Simply click and drag to form one section of distance, click again to start another section. Continue until the total desired distance is measured. Double-click to finish.



Polygon Measurement

This allows measurement of a polygon. Simply click and drag to form the desired length, and click again to start the next section, double-click to finish the polygon measurement.



Radius of Circle Measurement

This allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired radius.



Diameter of Circle Measurement

This allows you to measure the circumference, area, and radius of a circle. Simply click and extend out to the desired diameter.



Three Point Circle Measurement

This allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.



Three Point Arc Measurement

This allows a measurement of an arc. Click on three consecutive points on an arc to measure.



Three Point Angle Measurement

This allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.

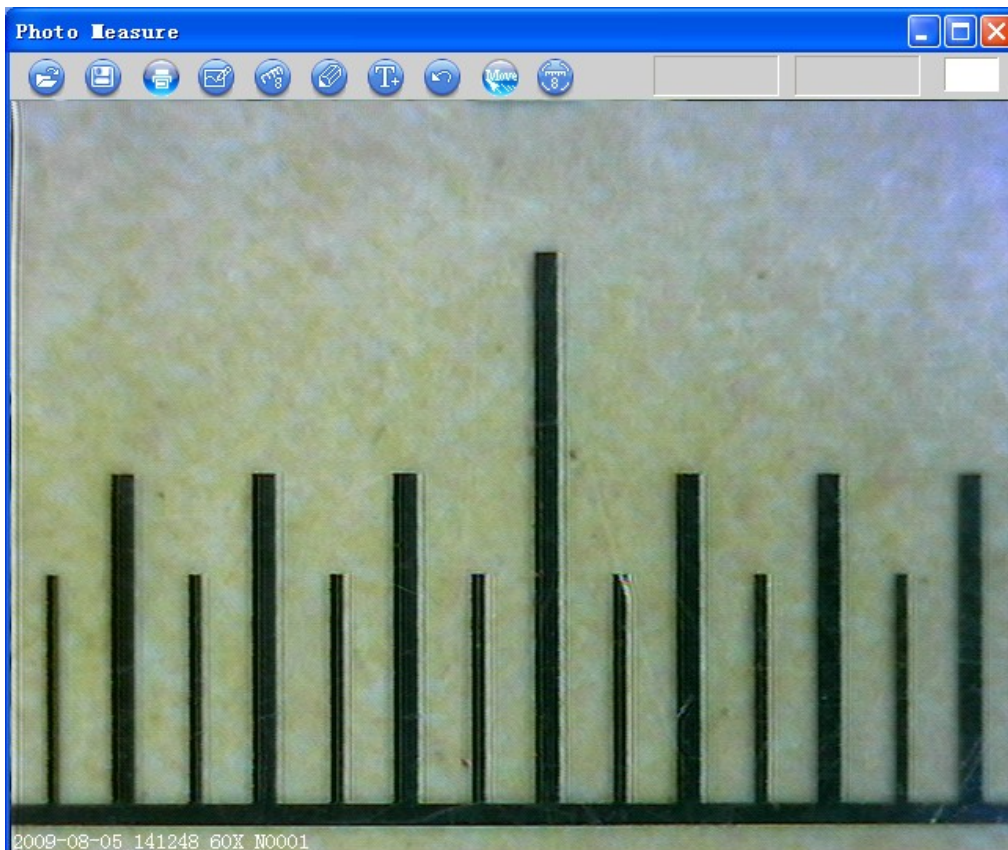


Four Points Angle Measurement

This allows the measurement of an angle by selecting four points. Simply select two points from one line segment and another two points from another line segment to complete the angle measurement.

Photo Viewing, Measure and Calibration

You can double-click the selected Photo to measure and view it as below shown:



For measure, please enter the magnification if there is not number. The number is the scale value of roller at the baseline of the captured photo.

Photo file name: yyyyymmddhhmmss_nnnx_Nxxxx is combined by date, time, magnification and serial number. For example, Still_2009-03-06_102949_060X_N0002 figures: Number is 0002, magnification is 60, date is Mar-06-2009, time is AM10:29:49. The program will auto load the magnification when you measured it if you put the scale before you capture the photo.



: Open a photo for measure from a folder.



: Save as



: Print this photo.



: Select one target.



: Measure function items.



: Pen setting.



: Add text into photo.



: Delete the selected target.



: Move the selected target.

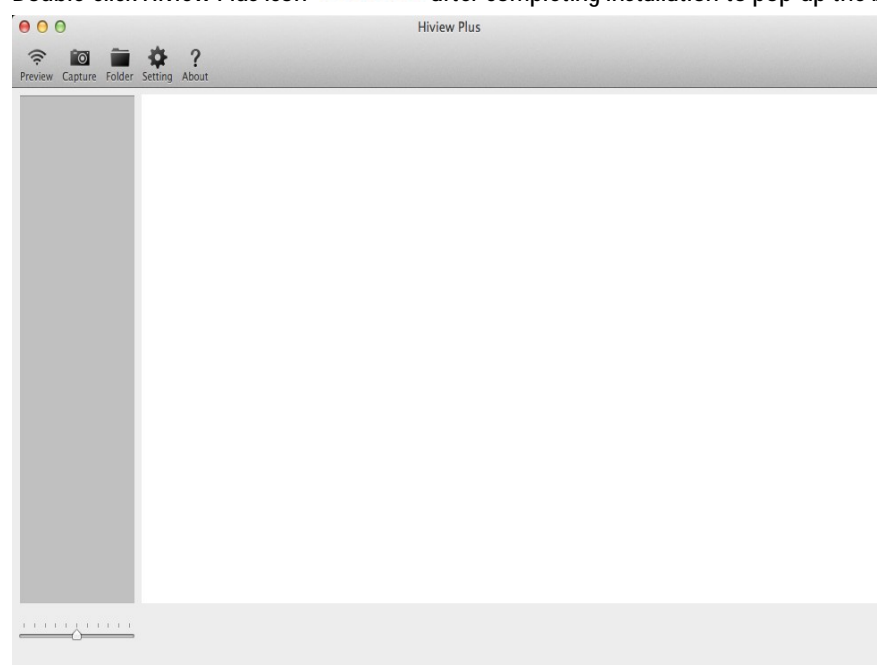



: Calibration.

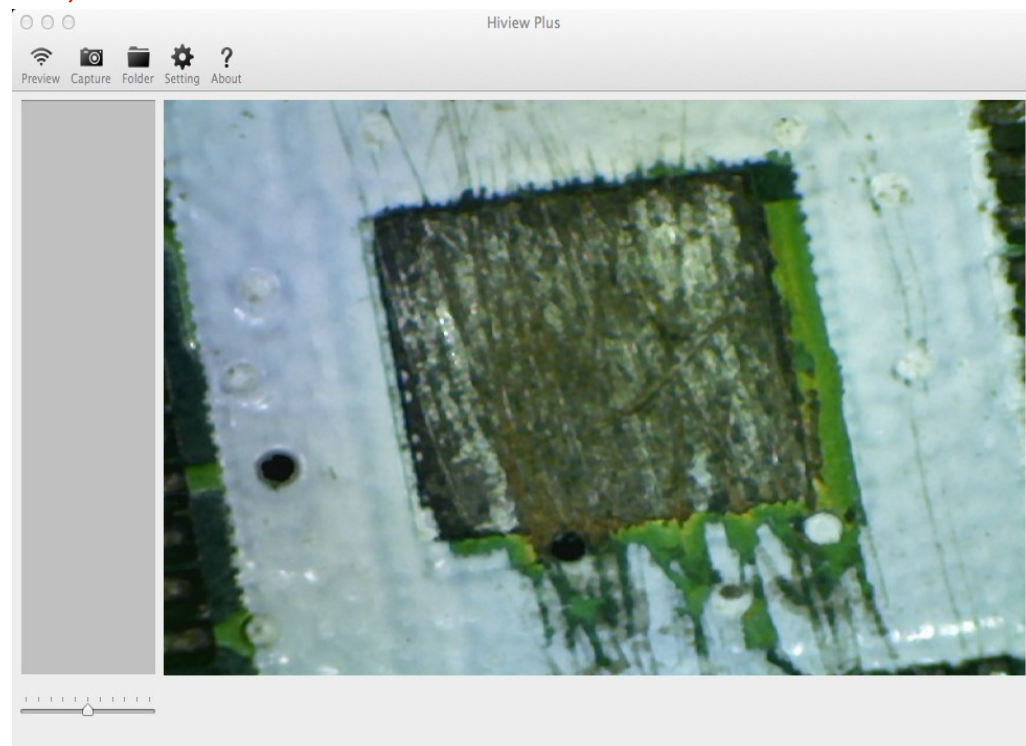
Hiview Plus on Mac Computer



Double-click Hiview Plus icon **Hiview Plus** after completing installation to pop-up the below window:





Click “Preview”  icon and then the Hiview Plus main screen will display video as below: (it waits about 5 seconds to display video).

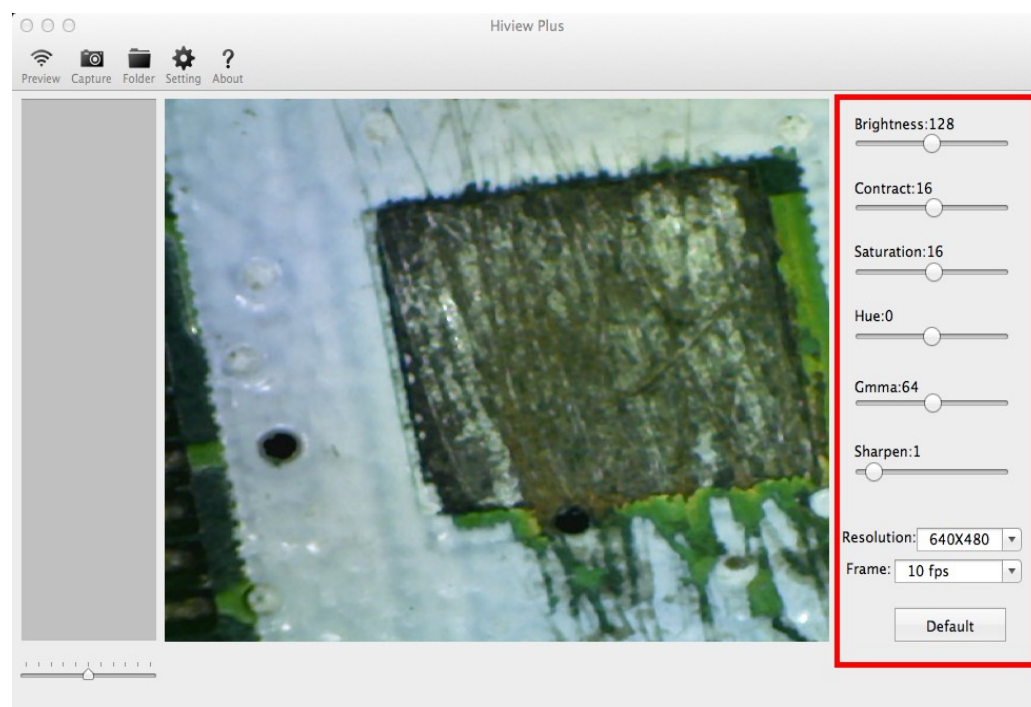


 : Preview (Connect the WiFi microscope and display video).

 : Capture photo.

 : Photo folder: Open the folder which contains the captured photos.

 : Setting (Show / Hide).



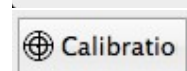
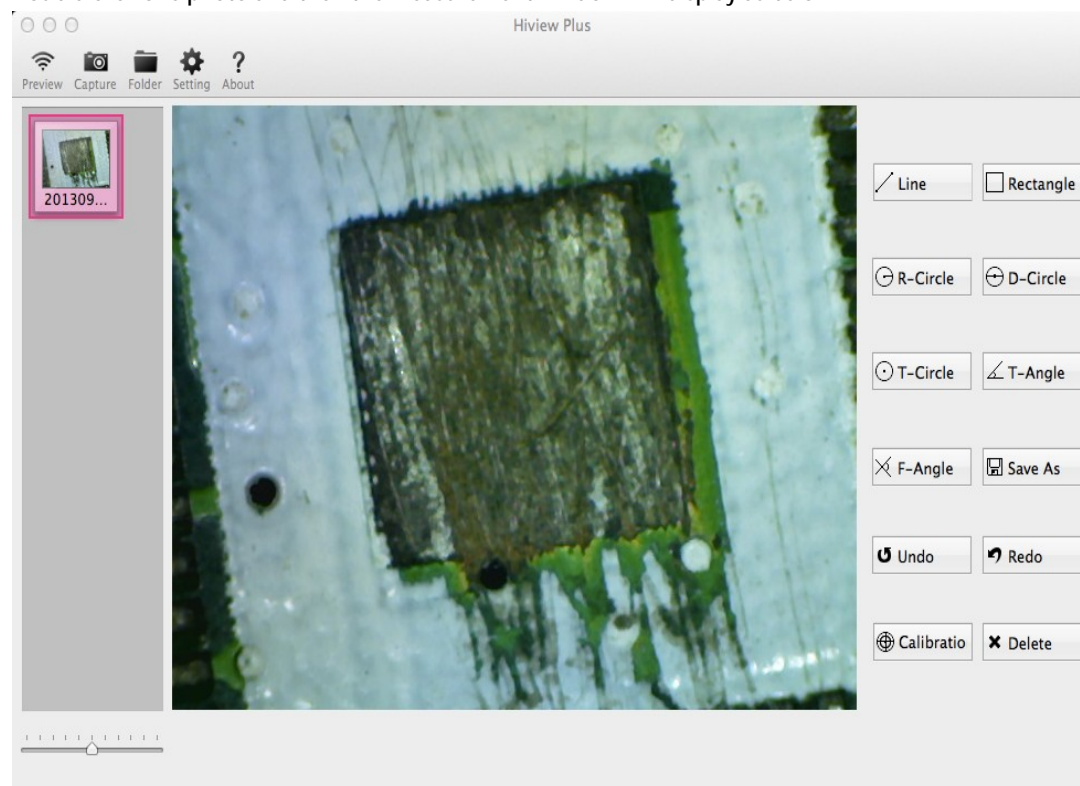
When changing the resolution, you must wait until the illumination LED is off and lights up again - it takes about 5seconds.

? : “About”.

Photo Measurement

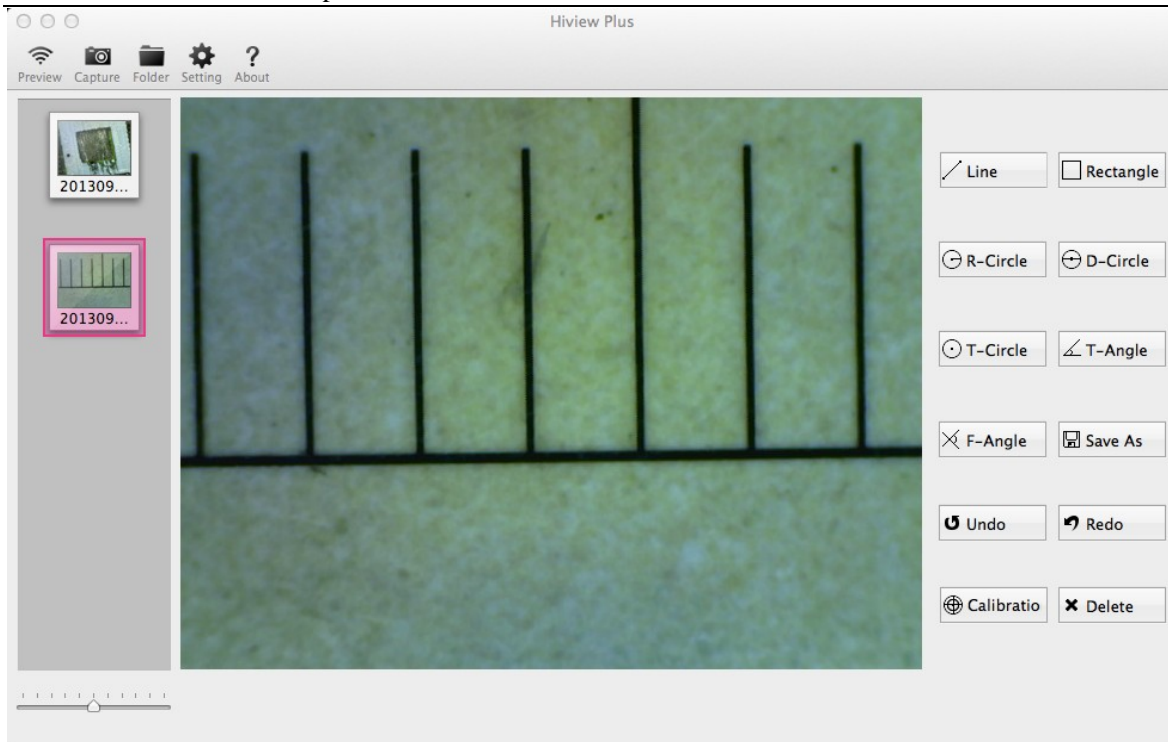
Click “Preview”  to resume the live video after finished operation of photo measurement.

Double-click one photo and then the measurement window will display as below:

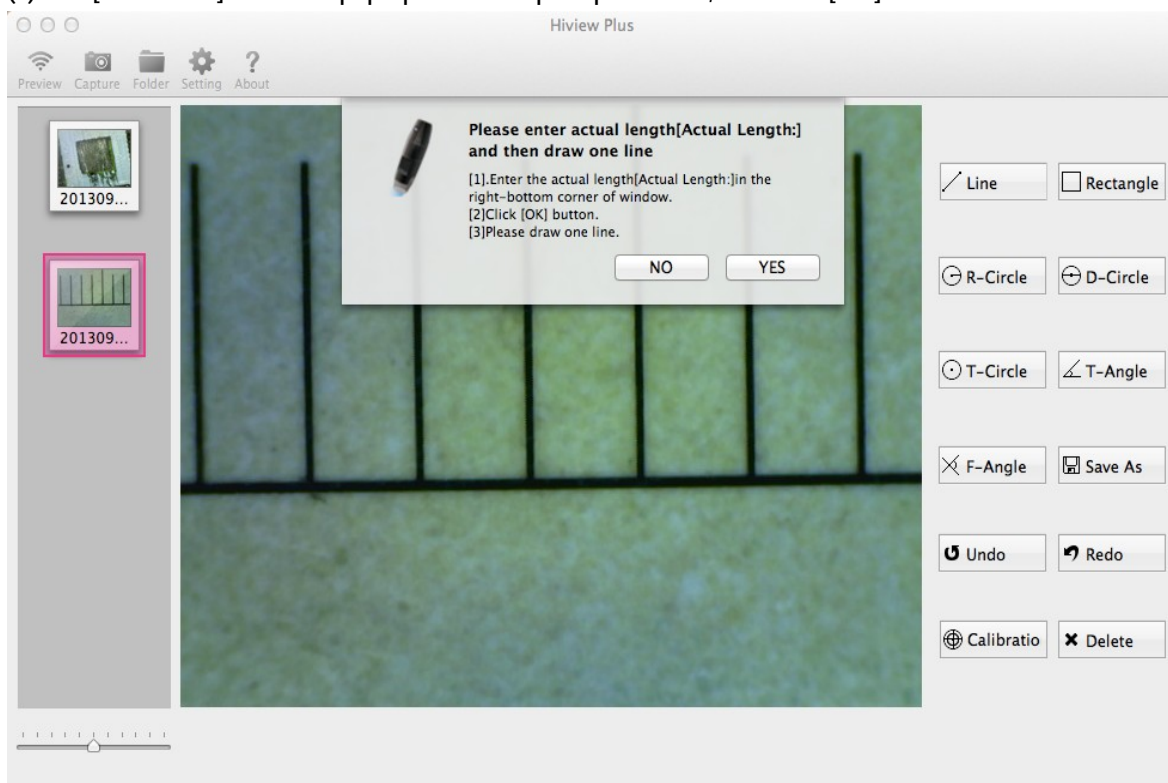


Calibration: To obtain more accurate the measurement data, please calibrate before any measurement function.

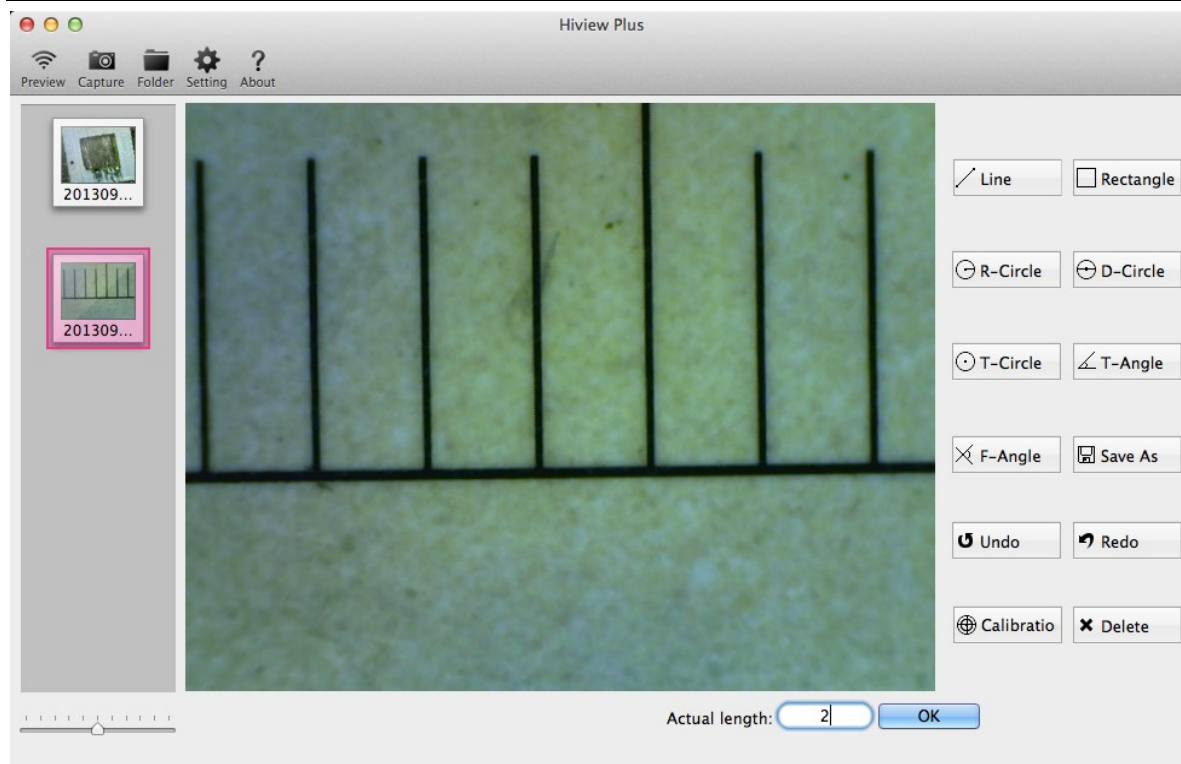
(1) Select the standard ruler photo and double-click it to pop-up the below window:



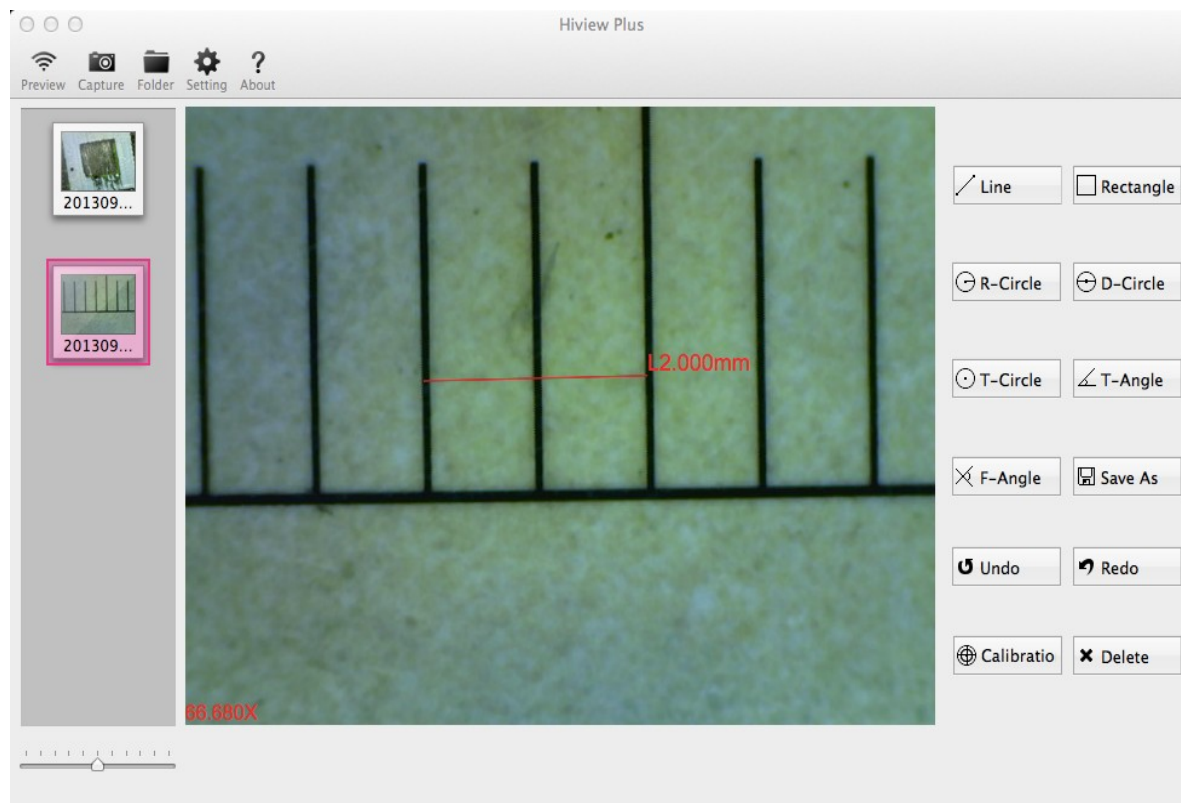
(2)Click [Calibration] Button to pop-up the below prompt window, then click [YES].



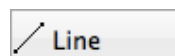
(3) Input a desired exact knew value (2mm in this example) in [Actual Length] box of the below screen and then click [OK] Button.



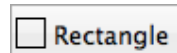
(4) Finally, you must draw one line with the exact length 2mm to complete the calibration.



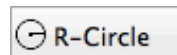
Now the calibration is completed, you can make measurement features accurately on photos which were taken at this focus point afterward the calibration. *(Don't subsequently adjust the "Focus & Magnification adjustment wheel") If the new photo object is not in focus, please only adjust the distance between the microscope and the object till the photo is clear, and then captures the photo to measure it.*



Measurement Line: This allows you to measure the linear distance between two points. Simply click and drag to the desired length, and click again to finish.

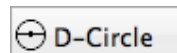
**Rectangle**

Measurement rectangle: This allows you to measure the width, height, and area of a rectangle.

**R-Circle**

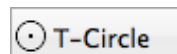
Measurement Radius Circle: This allows you to measure the circumference, area, and radius of a circle.

Simply click and extend out to the desired radius.

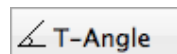
**D-Circle**

Measurement Diameter Circle: This allows you to measure the circumference, area, and radius of a circle.

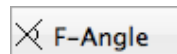
Simply click and extend out to the desired diameter.

**T-Circle**

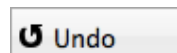
Measurement Three Points Circle: This allows the measurement of the circumference, area, and radius of a circle. Simply click on any three points on the circle you wish to measure.

**T-Angle**

Measurement Three Points Angle: This allows the measurement of an angle. Start at the pivot point and extend out to start measuring an angle.

**F-Angle**

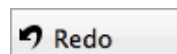
Measurement Four Points Angle: This allows the measurement of an angle by selecting four points. Simply select two points from one line segment and another two points from another line segment to complete the angle measurement.

**Undo**

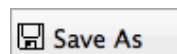
Undo: Undo the last action.

**Delete**

Delete: Delete all measurements.

**Redo**

Redo: Redo the previous action.

**Save As**

Save: Save the Measurement on photo.

Troubleshooting

❶. In WiFi microscope mode, there is no video display after changing the resolution to 1280 x 1024, but it works well at 640x480.

1. Low battery, please charge your microscope.

❷. WiFi microscope video stops after working for a long time:

1. Check if the WiFi microscope is low battery or the battery is exhausted.

2. Power off WiFi microscope and close Hiview Plus to restart it again.

❸. If the live video's frame rate of WiFi microscope is slow:

1. Click "Preview"  icon again on "Hiview Plus" app when using on Window PC or Mac PC.

2. Set the video resolution to 640 x 480 if the current resolution is 1280 x 1024.

3. Check if the WiFi microscope is low battery or the battery is exhausted.

4. Power off WiFi microscope and close Hiview Plus to restart it again.

❹. There is no video display on "Hiview plus" application after successful WiFi connection:

1. Click "Preview"  icon again on "Hiview Plus" app when using on Window PC or Mac PC.

2. Power off WiFi microscope and close Hiview Plus to restart it again

❺. Why does the screen stop video displaying after changing the resolution?

When changing the resolution, you must wait until the illumination LED is off and lights up again before clicking OK - it takes about 5seconds. Please close and restart Hiview Plus.

❻. Why does the device feel rather warm after WiFi microscope has been working for some time?

The Power dissipation of WiFi microscope is about 2.5W, so the highest internal temperature of the device can reach about 60°C.