

User instructions

Wi-Fi Microscope

KERN

ODC-9

ODC 910

Version 1.0
09/2017





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User instructions Wi-Fi Microscope

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1 Before use

1.1 General notes

You must open the packaging carefully, to make sure that none of the accessories in the packaging fall on the floor and get broken.

You should also avoid getting dirt or finger prints on the lens surface, because in most cases this will reduce image clarity.

The white LEDs which illuminate the microscope target field are very bright. Do not stare directly into these LEDs as it may damage your eyes.

The clear plastic distance shell sometimes picks up dirt or toxic material from a microscopically observed surface. Be careful that this doesn't get in contact with the human skin. Always wash carefully or disinfect as needed.

Do not point the microscope lens to the sun or strong light for a long time. Powerful light may hurt the light-sensitive electronics.

Do not use it in a humid place like bathrooms. A dry environment will maintain its life to maximum.

1.2 Storage

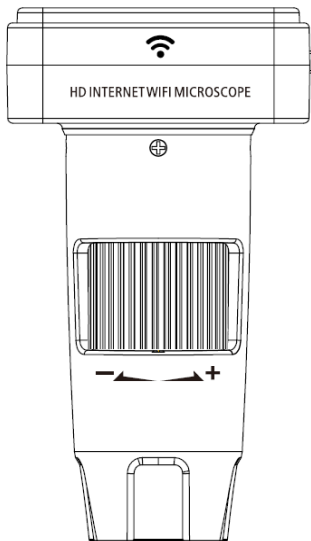
You should ensure that the device is not exposed to direct sunlight, temperatures which are too high or too low, vibrations, dust or a high level of humidity.

The ideal temperature range is between 0 and 40°C and a relative humidity of 85% should not be exceeded.

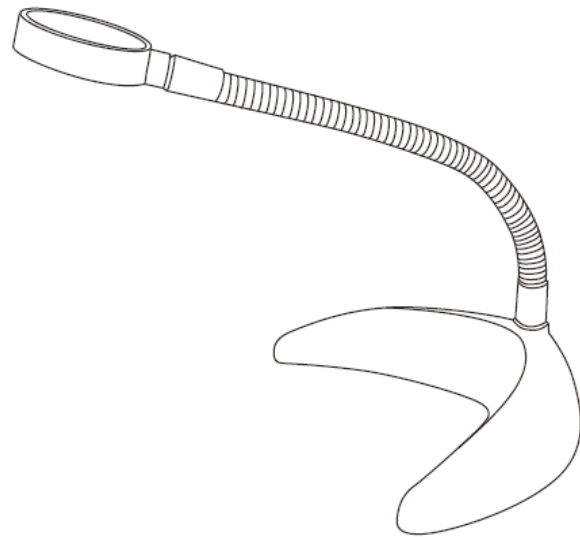
The device should always be located on a rigid, smooth, horizontal surface.

Sudden temperature change may form dew inside the microscope like entering a warm room in cold winter. Put it inside a handbag or plastic bag to slow down temperature changes.

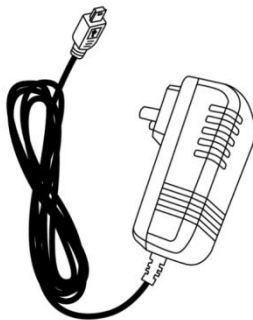
2 Scope of delivery



Wi-Fi Microscope



Gooseneck Stand

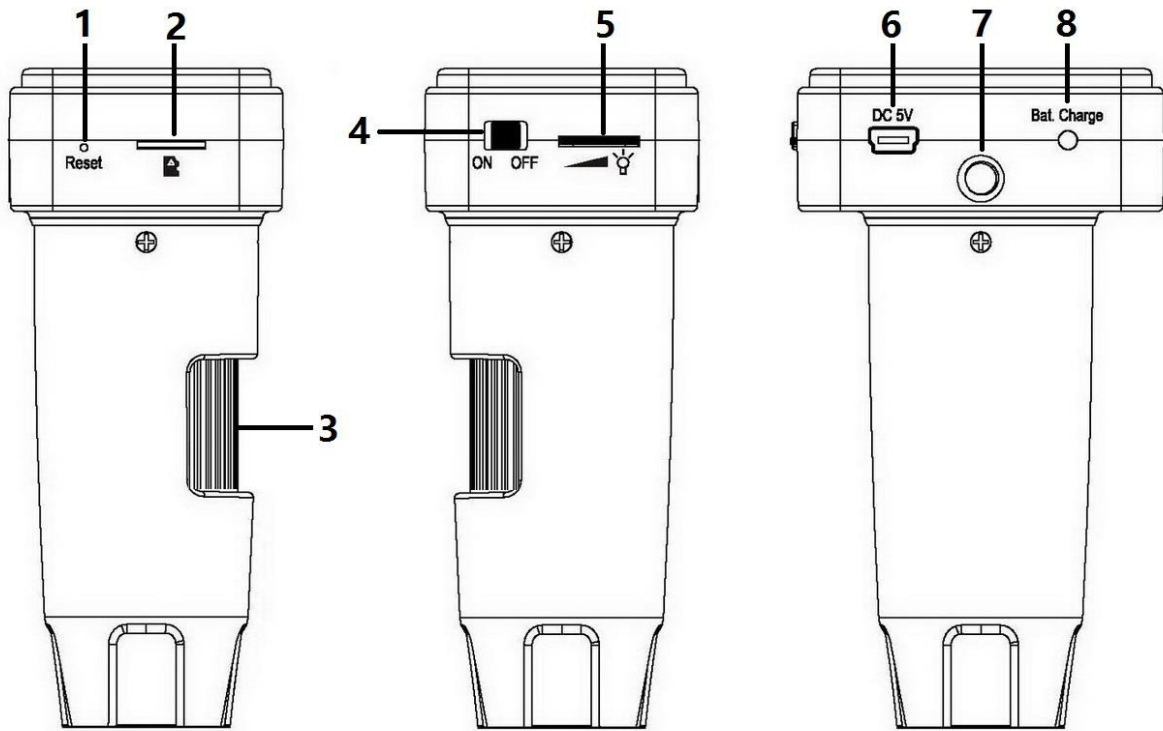


DC adapter



User manual

3 Nomenclature



Part number	Description	Part number	Description
1	Reset	5	LED dimmer
2	Micro SD slot	6	DC in
3	Focus wheel	7	¼-inch hole (For the attachment on the stand)
4	ON/OFF	8	Charging indicator

4 Technical data / Features

Magnification levels	10x, 200x
Still capture resolution	1920x1080, 640x480, 320x240
Video capture resolution	1920x1080, 640x480, 320x240
Sensor	1/4" CMOS
Focus Range	Manual focus from 0mm to 50mm
Video format	AVI
Photo format	JPEG
Frames per second	15 - 30
Light source	6 LED (brightness adjustable)
Power source	Rechargeable Li-ion battery Working time: 100mins, Charging time: 120mins Charging power: 5V DC
System requirements	iOS: 5.1 and later Android: 4.3 and later
iOS/Android interface	Wi-Fi
App	iOS: TinyCapture at App Store Android: TinyCapture at play.google.com
Size	Microscope: 106mm (L) x 36mm (Ø)

5 Operation

5.1 Connect Microscope to iOS/Android Device

5.1.1 Download App

iOS:

Search and install TinyCapture from App Store.

Android:

Search and download TinyCapture from play.google.com or the download link provided by the seller and install it.



iOS



Android



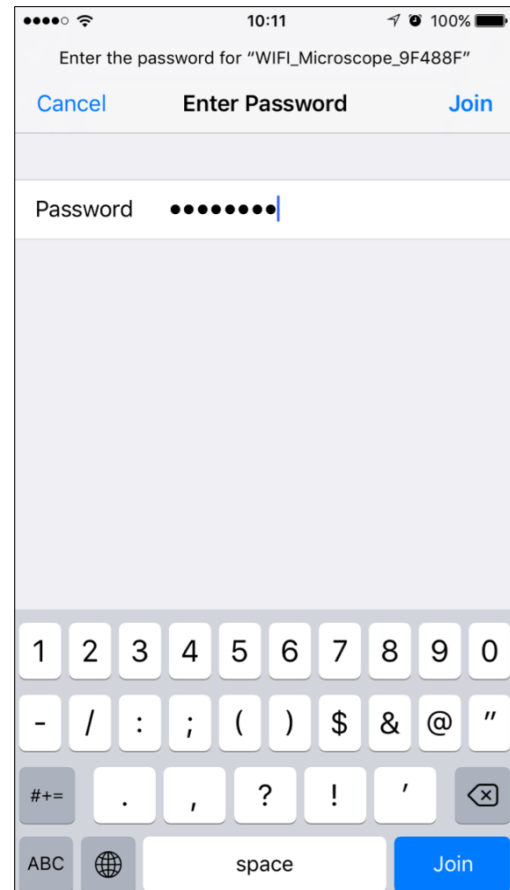
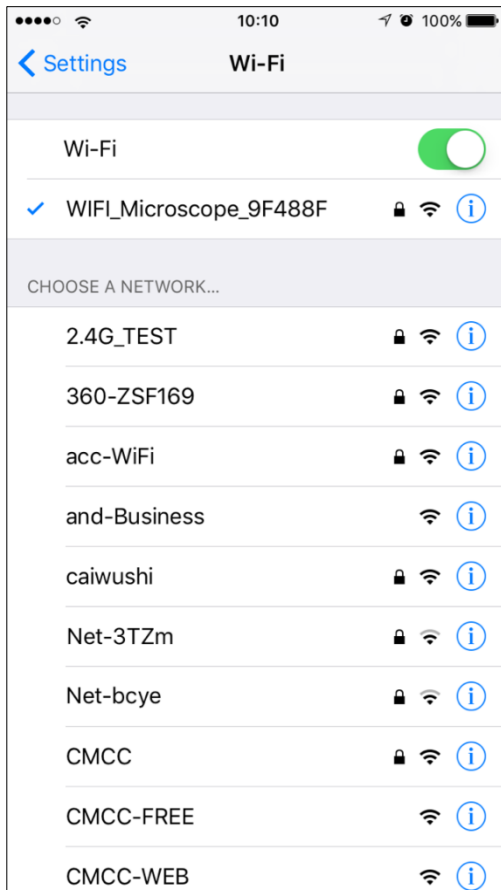
5.1.2 Connect the Wi-Fi Microscope to the iOS/Android device

(Here we take the iOS device as an example)

- Power on the microscope by sliding the ON/OFF switch to ON position. The camera's hotspot will be shown on the Wi-Fi list of your smart phone in around 30 seconds.
- Turn on the Wi-Fi of your iOS/Android device. Search the Wi-Fi Digital Microscope from the Wi-Fi device list. The Wi-Fi Microscope name is Wi-Fi Microscope_xxxxxx (xxxxxx is the last 6 digits of the camera ID).

The password to connect the device is **12345678**.

Please see page 17 on how to change the password.

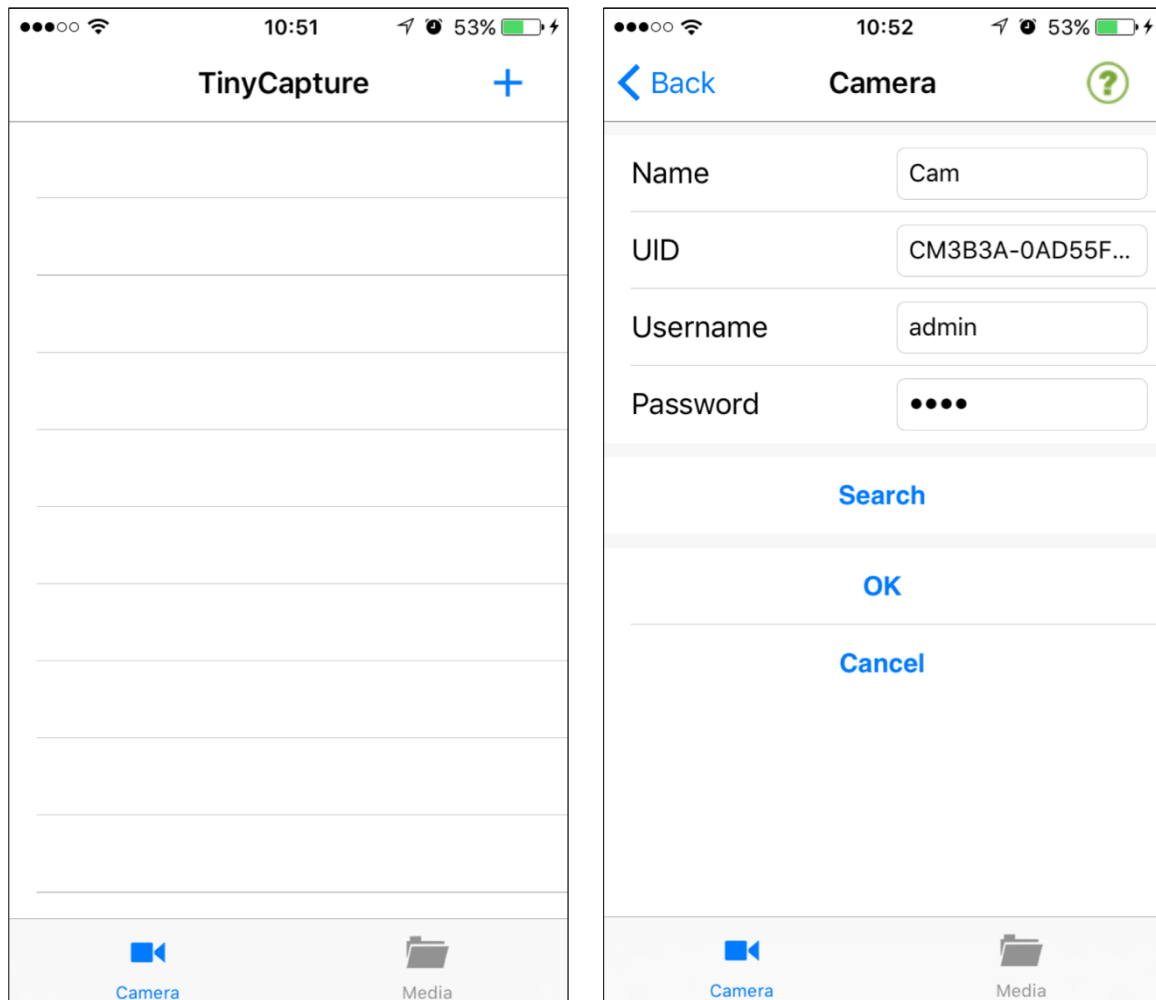


5.2 Add Camera to App and Start Preview

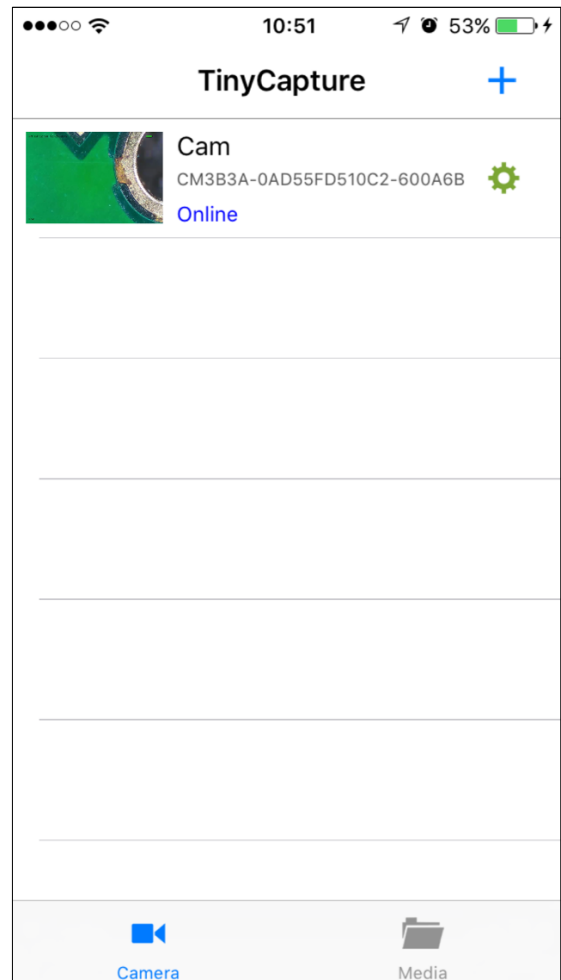
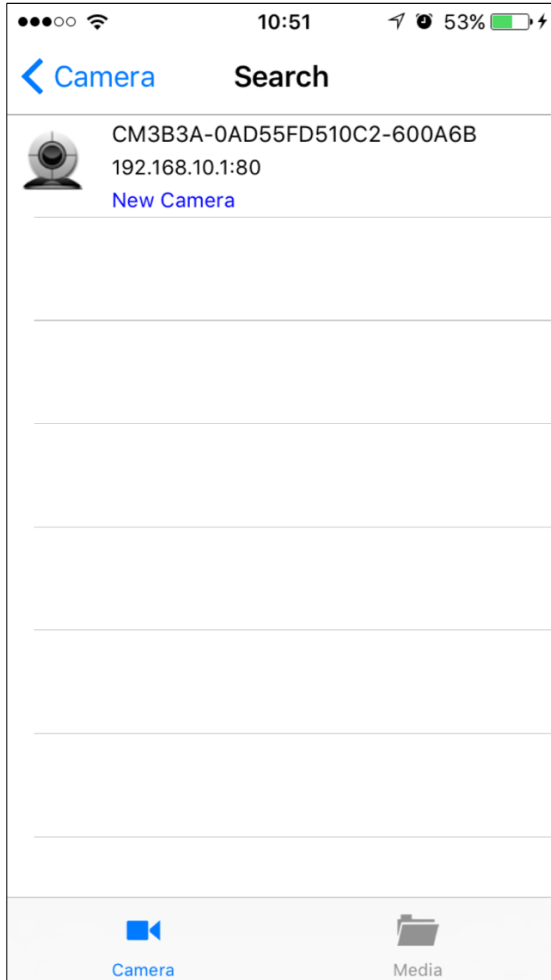
- Start the app, click “+” at the right corner, then click “**Search**”, finally click “**OK**” to confirm.

Input password, it is **8888** by default.

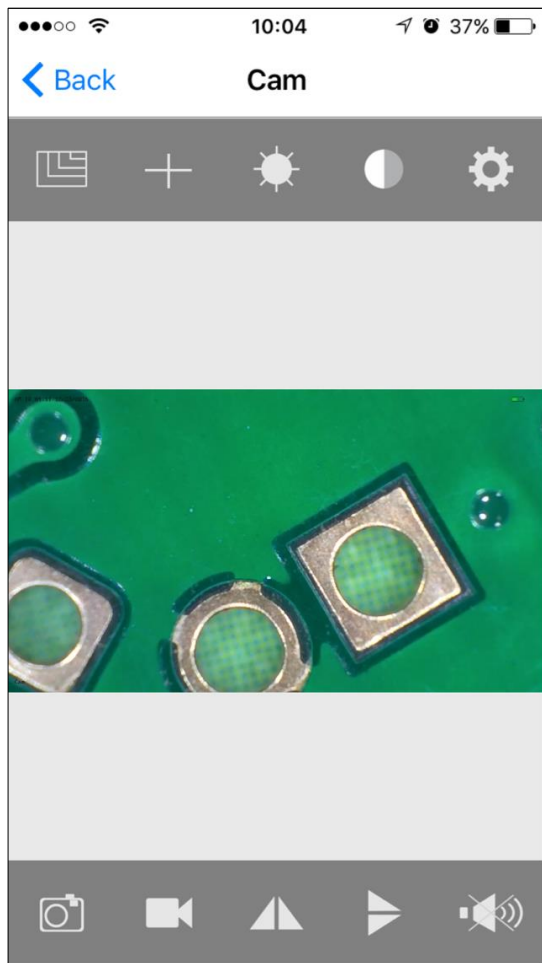
Please see page 17 on how to change the password.













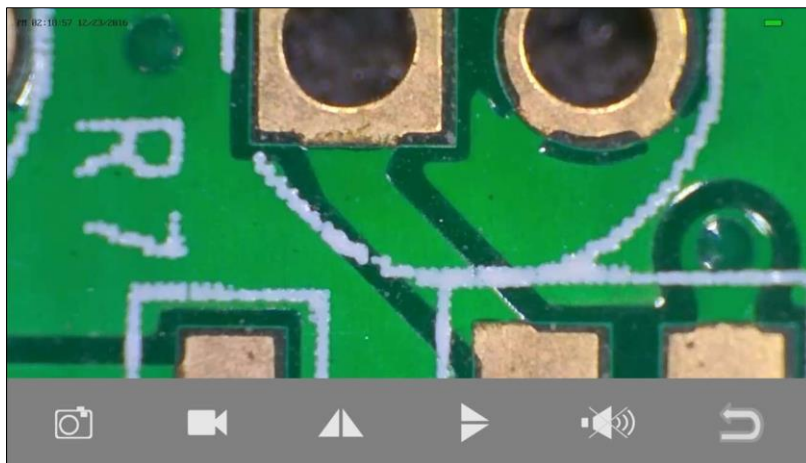
- The camera will be listed as follows. After clicked, it will list as online.



- Click the online camera, you can then start preview.



-  HD/VGA/QVGA
-  Crossing
-  Brightness
-  Contrast
-  Camera settings
(Page 13)
-  Photo capture
-  Video capture
-  Mirror
-  Flip
-  Speaker



5.3 Capture and Playback

5.3.1 Capture photo

Click 

and then a photo will be taken!

5.3.2 Record video

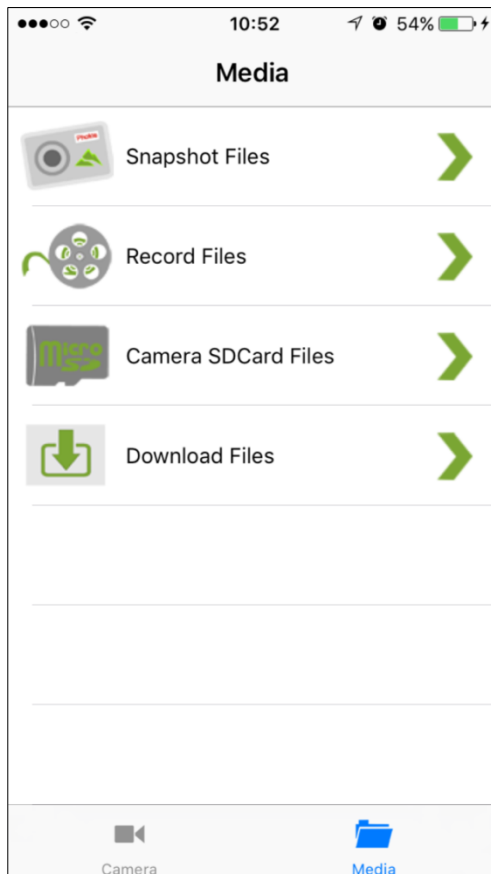
Click 

and there will be a red dot in the icon , which means video is on recording.

Press again to finish the recording (then the red dot will disappear).

5.3.3 View recorded files

From the main page, click “**Media**” at the bottom.



Snapshot Files:

Photos captured.

You can save photos to an album by pressing it for 2 seconds.

Record Files:

For Android, the files are stored under album.

For iOS, you can access the files by iTunes (see page 18).


Camera SDCard Files:

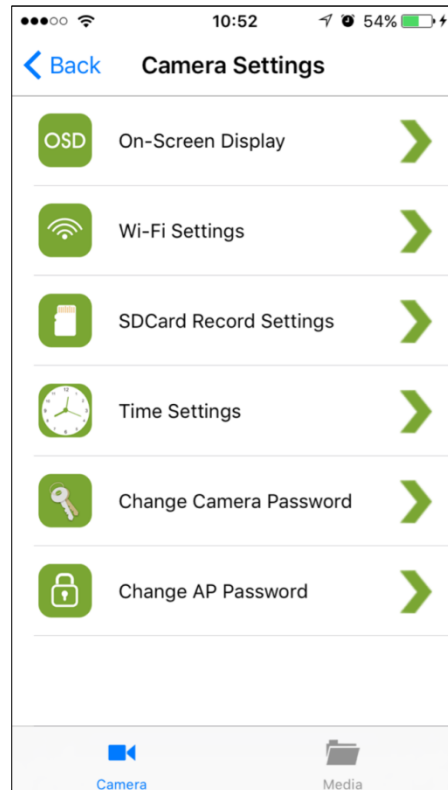
Video captured and stored on Micro-SD card.

Download Files:

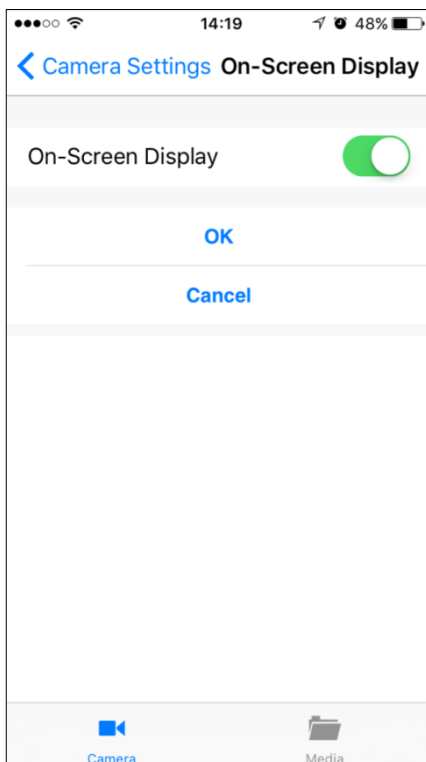
Files downloaded from Micro-SD card to Smart phone.

5.4 Camera Settings

When a camera is online, click  to enter the setting page as follows:



5.4.1 On-Screen Display

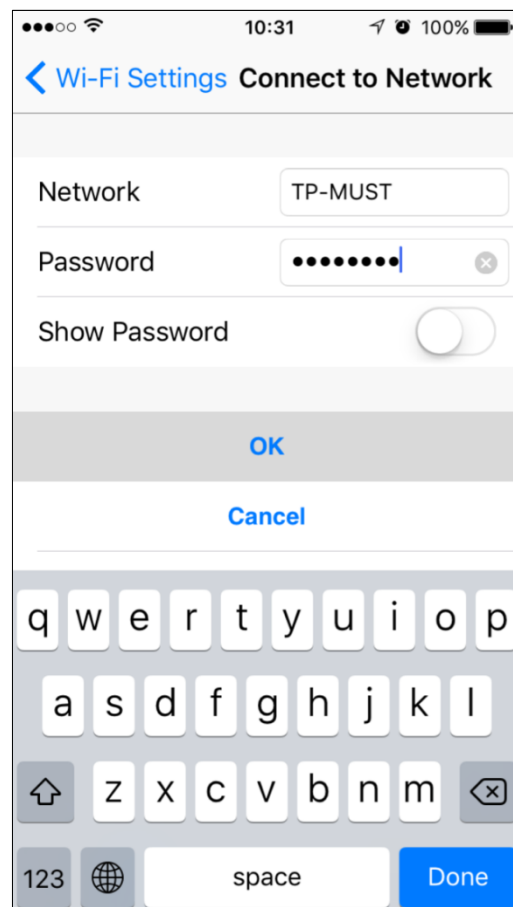
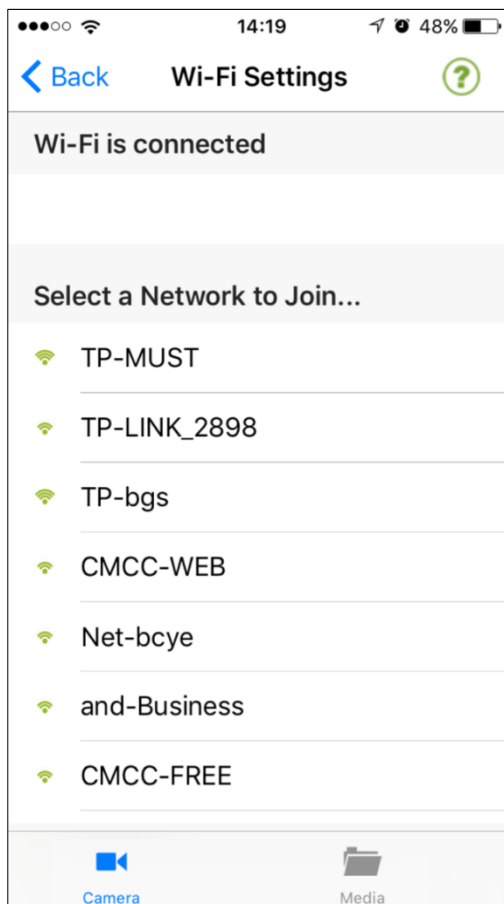


Here you can choose whether to display the on-screen info including time/date at the left-top corner and camera name at the left-bottom corner.

5.4.2 Wi-Fi Settings

Here you can configure the camera to connect to a router (network) and then your smartphone can access to the camera via internet, which means you can visit the camera anywhere in the world so long your phone has access to internet.

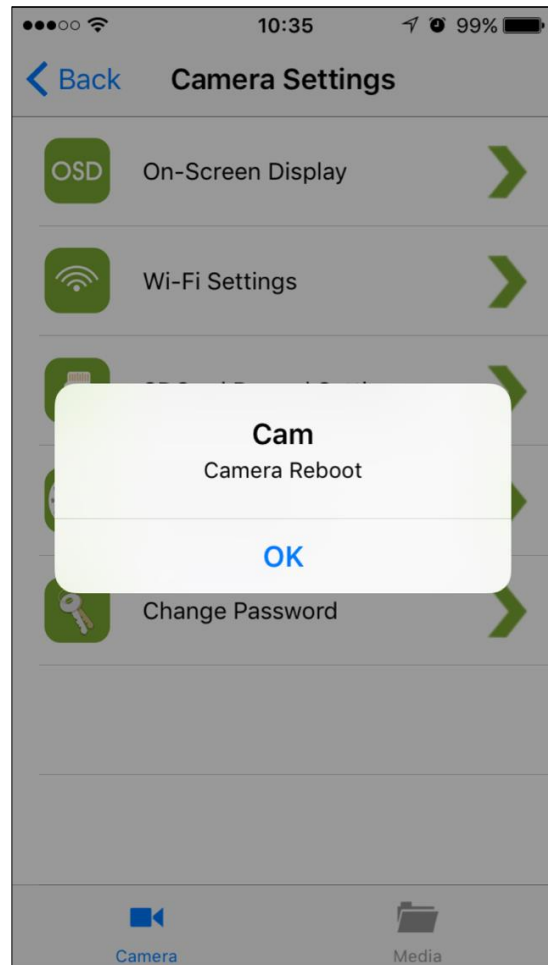
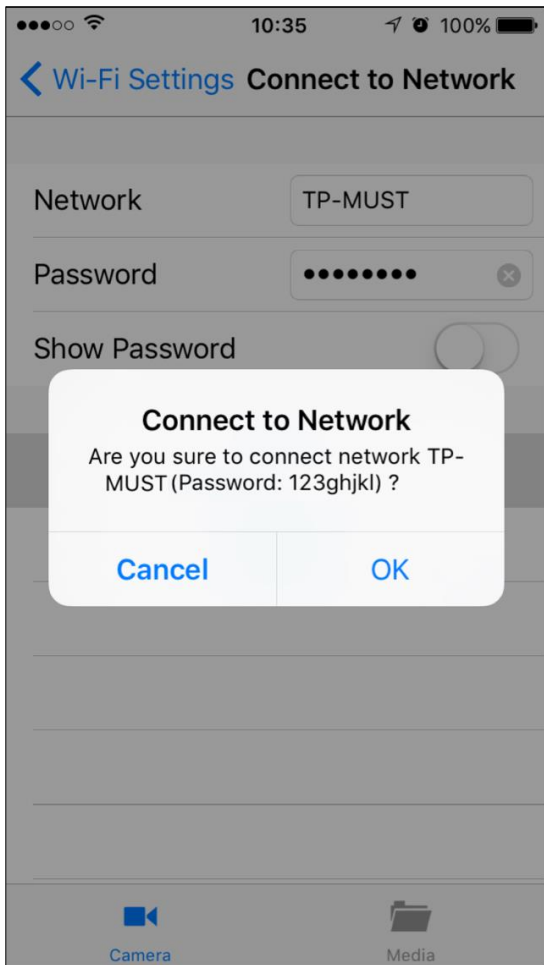
Choose a new network (router) to join, for example, “**TP-MUST**”. And then input password of the network, and then click “**OK**”.



Confirm the input. The camera will reboot to join the new network. The rebooting process will need around 40-60 seconds.

After rebooting successfully, the camera will connect to the router (new network) and can access to internet if the router has internet access.

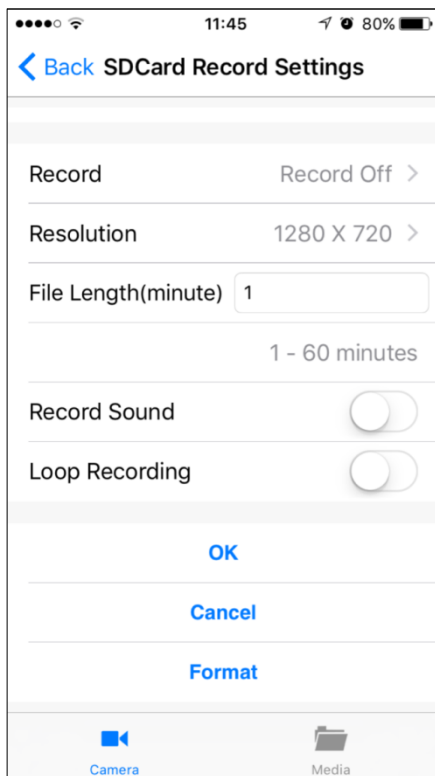
Then your smartphone can access to the camera via internet. Even your smartphone is far away from the camera, it can still access the camera so long your phone has internet access. Now the camera is an Internet Microscope.



If the Wi-Fi setting is failed (for example, the password is wrong), please reset the camera (see page 19).

Under internet connection mode, if you power on the camera again, it will take around 90s for it to search and connect the router. If the router does not exist, the camera will switch to AP (point to point connection) again in 90s. You can remove the internet connection mode by reset.

5.4.3 SD Card Record Settings



You can setup whether to start recording videos by the inserted Micro-SD card.

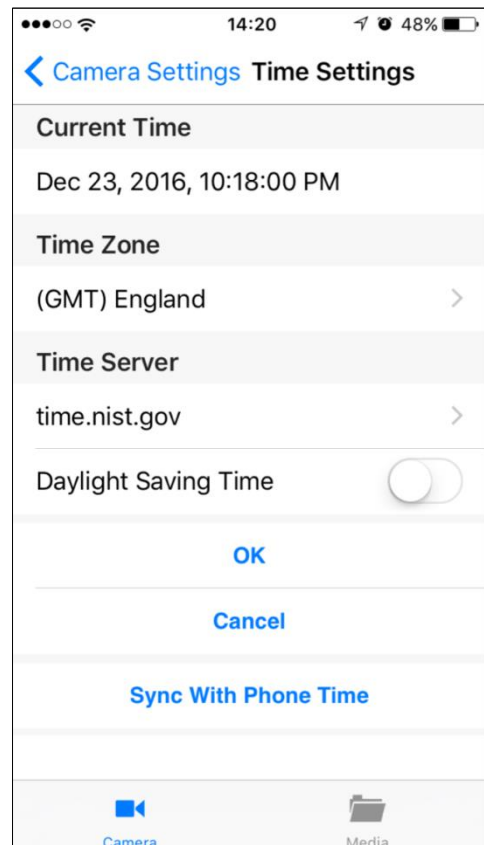
File Length means the video length of each clip.

Loop Recording means when the SD card is full, recording will overwrite the card from the earliest file.

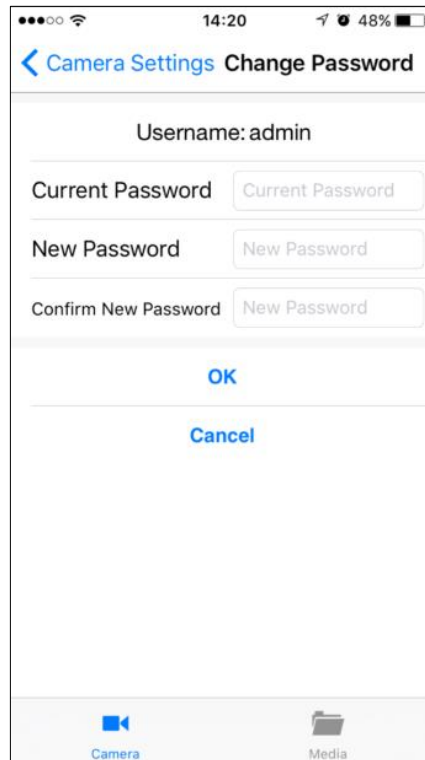
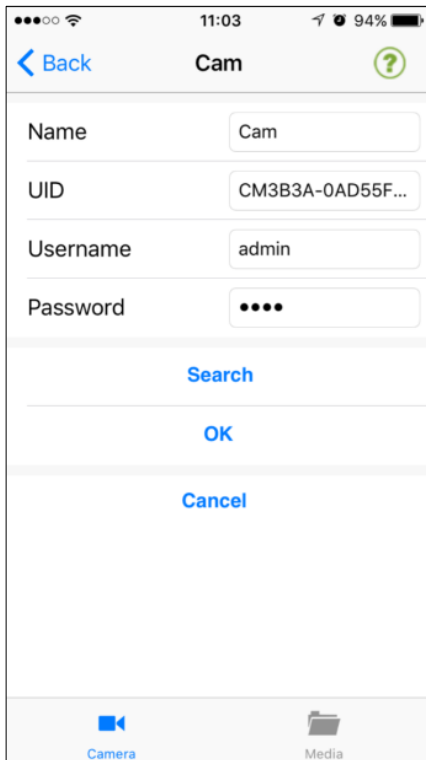
You can format the Micro-SD card by clicking the **“Format”**-button.

5.4.4 Time Settings

You can sync the camera time with your phone time.



5.4.5 Change Camera Password



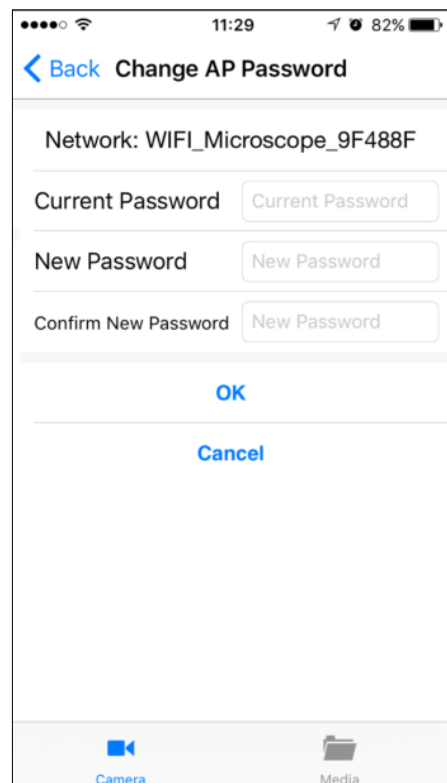
This enables you to change the password that is used on the adding camera page (the left one) as follows.

The new password will become valid when the camera is reconnected.

5.4.6 Change AP Password

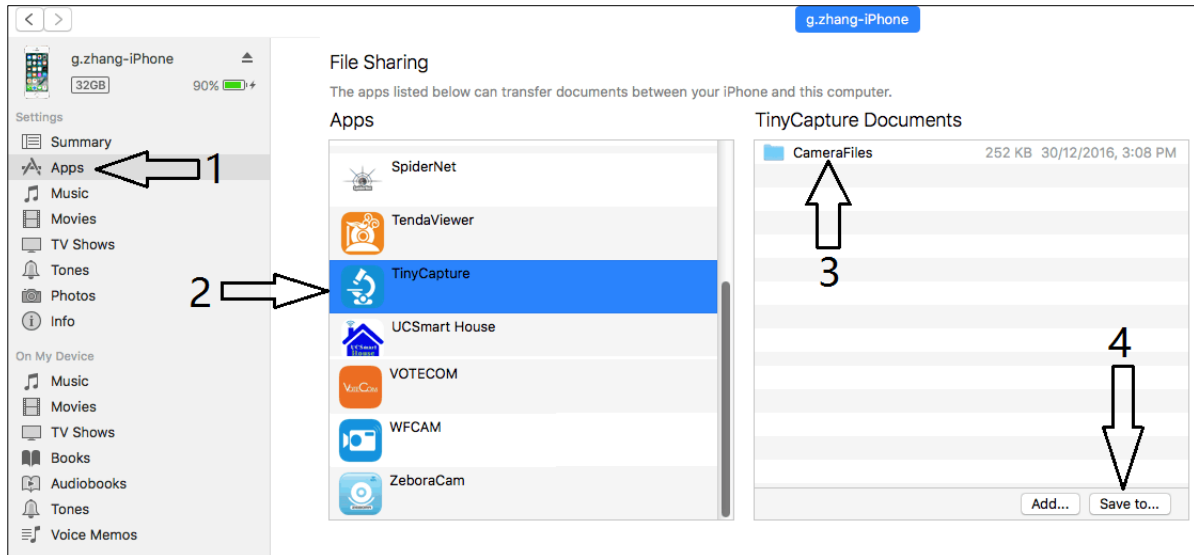
This enables you to change the password used to connect your phone with camera by Wi-Fi (shown on page 8).

The password should be at least 8-digit.
The new password will become valid when the camera is powered on again.

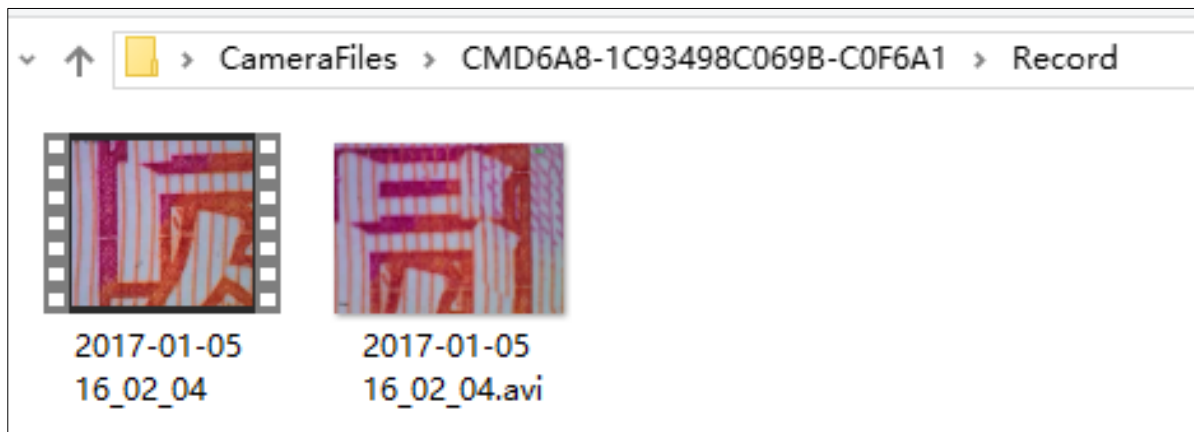


5.5 Download Recorded Videos by iTunes

Connect your phone with your computer by cable, start iTunes, choose **TinyCaputre** > **CameraFiles**, and then choose **Save to** in order to download files to computer.



Open the saved **CameraFiles** from your computer, the recorded video files will be listed as follows.



5.6 Reset the Camera

If you cannot find the hotspot of the camera on the Wi-Fi list of your smartphone, or the camera is somehow halted, you can reset it.

To reset the camera, please use a pin to press the Reset button for around 5 seconds. Release the pin when the LEDs go off, and then the camera will reboot. The rebooting process will need around 40 seconds.

5.7 Trouble shooting

Problem	Solution
After switched to ON position, the LED does not light.	1) Rotate the LED dimmer to check if it is on. 2) Charge the battery.
The microscope is halted.	Reset the camera.
The hotspot of the camera cannot be found on the Wi-Fi list of the smartphone.	Reset the camera.
There is a small dot on the preview image.	Use a soft fabric to clean the lens of the camera.

6 Service

If, after studying the user manual, you still have questions about commissioning or using the microscope, or if unforeseen problems should arise, please get in touch with your dealer. The device may only be opened by trained service engineers who have been authorised by KERN.

7 Disposal

The packaging is made of environmentally-friendly materials, which you can dispose of at your local recycling centre. Disposal of the storage box and device must be carried out by the operator in accordance with all national or regional laws in force in the location of use.

8 Further information

The illustrations may differ slightly from the product.

The descriptions and illustrations in this user manual are subject to change without notice. Further developments on the device may lead to these changes.



All language versions contain a non-binding translation.
The original German document is the binding version.