www.gtvision.co.uk
GT VISION
Microscopes • Imaging • Analysis
No.1 Independent UK Microscope Company
For Expert, Friendly Advice call us now on 01284 789697

GXCAM HiChrome-Met User Guide

Thank you very much for purchasing our GXCAM HiChrome-Met camera. To ensure safety and to obtain optimal performance we recommend that you read the manual thoroughly before operating the camera.

Chapter 1 Introduction

Advanced Design

With superb color fidelity, the GXCAM HICHROME-MET camera provides a perfect solution for high definition scientific photography. To meet the customer's individual requirements, the flexible parameter settings allow you to quickly obtain live images and freeze the screen simply to observe the details.

THE GXCAM HICHROME-MET camera inherits all the advantages of the previous generations of HDMI cameras cameras and has significantly improved on both the hardware and software, bring a more fluent visual experience and intuitive user interface.
You can now capture images, record videos and perform measurements in the HDMI mode directly. No PC is needed.

For more information about the GXCAM HICHROME-MET camera, please read this document completely.

Chapter 2 System Standard Items

One GXCAM HICHROME-MET camera,

One 12V/2A power adapter,

One HDMI cable (2-meters length),

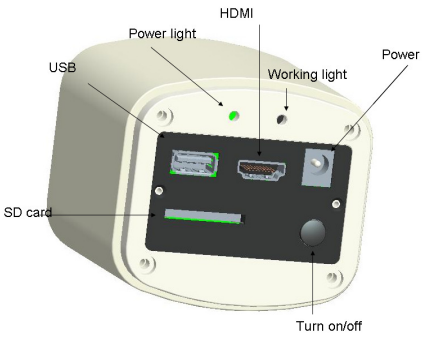
One SD card (8G capacity, class 10),

One mouse (with 1.5-meters cable),

One USB2.0 cable (gold plated connector).

1. **USB interface**:
A: Connect the mouse to the USB port. Use the mouse to control the camera directly.

B: Connect the USB port to PC to make the camera work as a **Driver-Free** camera. Use GXCapture software to control it (similar as using the other USB cameras).



Note: No driver installation is needed when connecting the GXCAM HICHROME-MET camera to a PC via the USB port.

2. **THE HDMI interface**:
Use the HDMI cable to connect the GXCAM HICHROME-MET camera to the monitor. Image data is transferred and displayed on the monitor according to the HDMI protocol.

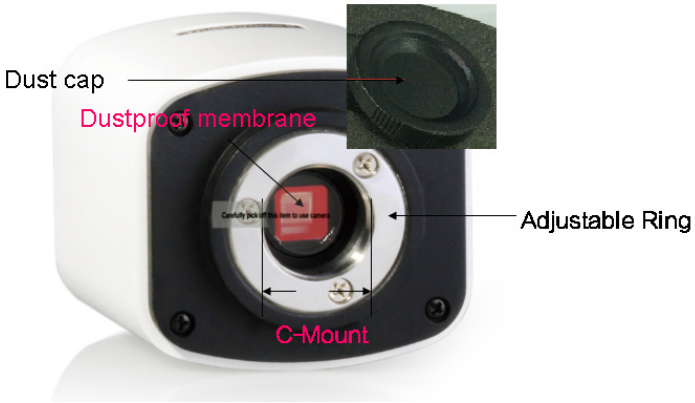
3. **Power interface**:
Please use the provided 12V/2A power supply. When power is plugged in, the red light is on. When the camera is switched on, the blue light is on.

4.**ON/OFF key**:
Press and hold ON/OFF key until the blue light is on or off to turn on or off the the GXCAM HICHROME-MET camera.

5.**SD card**:
To get faster and more stable data transfer, we recommend using a Class10 SD card.

6.**C mount**:
Standard C-mount optical port.

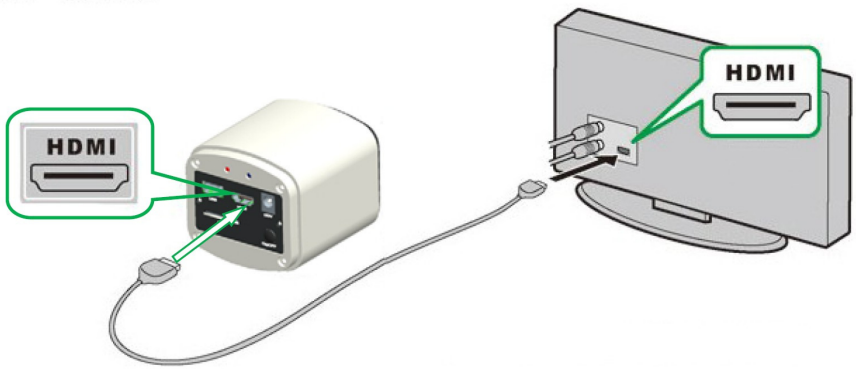
7. **Anti-dust seal:**
Please remove the seal when using the camera for the first time.



The seal was placed on the camera optical port when it left the factory. It is used to avoid dust accumulating during the transport.

www.gtvision.co.uk
GT VISION
Microscopes • Imaging • Analysis
No.1 Independent UK Microscope Company
For Expert, Friendly Advice call us now on 01284 789697

Chapter 3 HDMI Operation



Step 1. Connect the camera.

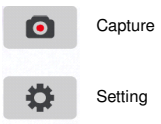
1. Plug in the 12V/2A power supply. Use HDMI cable to connect the camera to the monitor. Press and hold ON/OFF key until blue light is on.

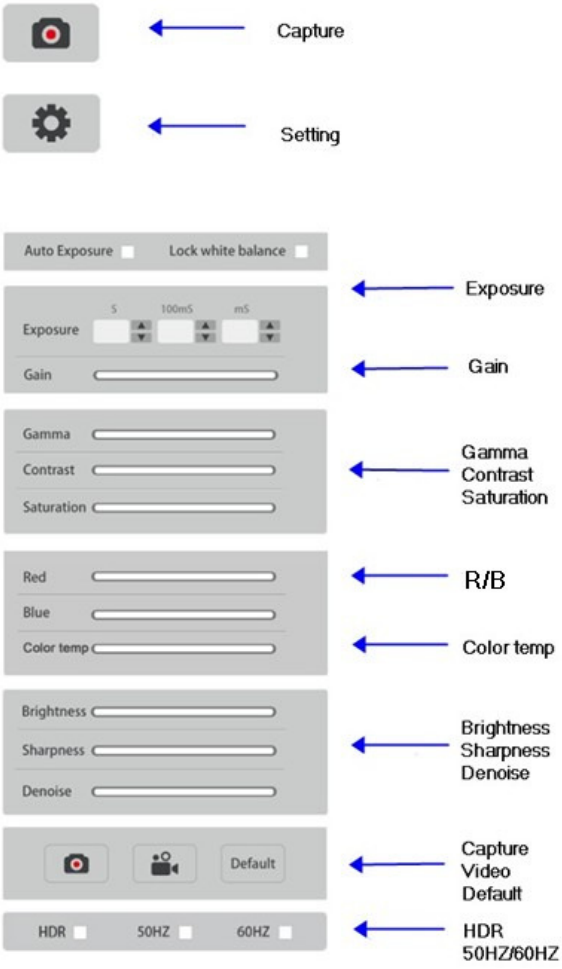
2. Connect the mouse to the USB port. Move the cursor to get the settings on the screen.

3. Insert the SD card. Capture images or videos to the SD card.

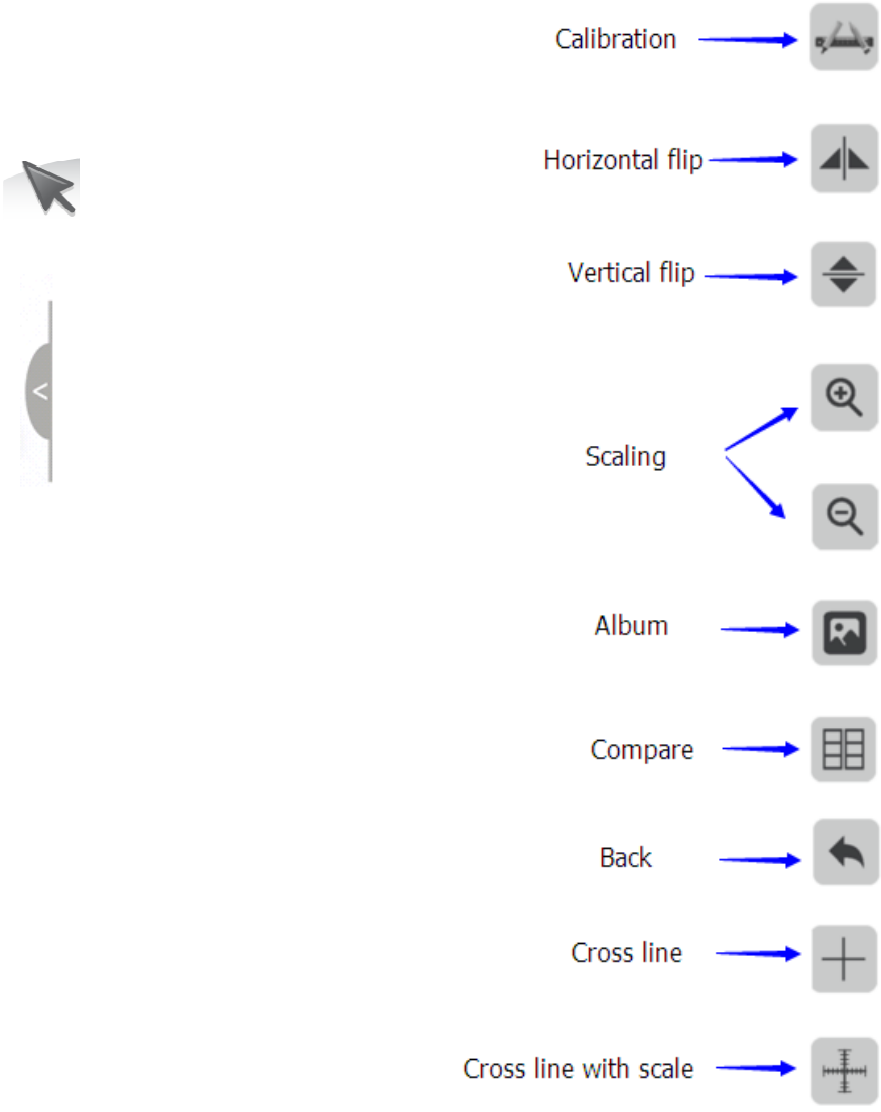
Step 2. Move the cursor to the left of the screen.

When move the cursor to the left of the screen, ‘Capture’ and ‘Setting’ icons will appear (See image on the left hand side). Click ‘Setting’ to get parameter setting menu (See image on the right).

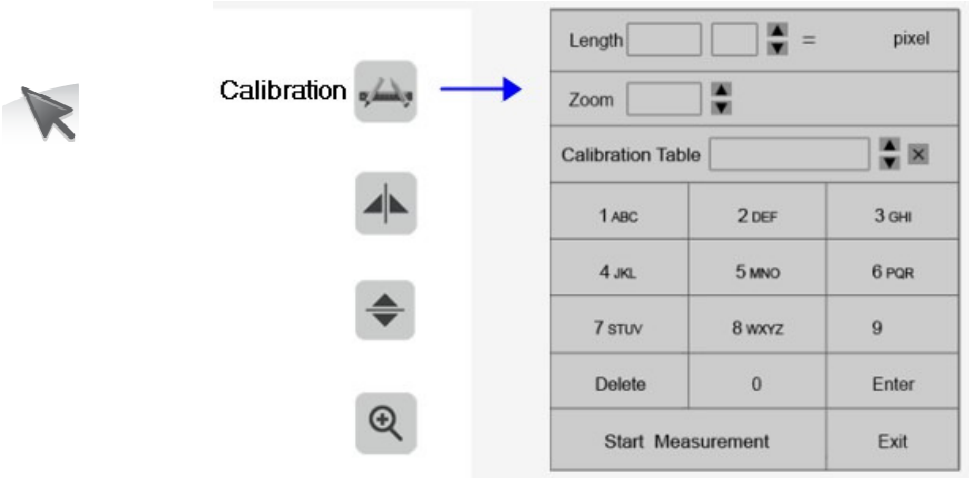




Step 3.Move the cursor to the right of the screen.

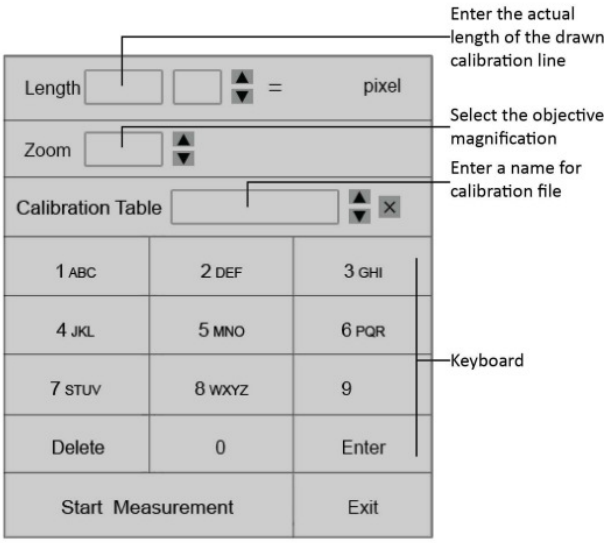


How to do calibration and measurements in HDMI mode:



1. Calibration

1. Click on the calibration icon to get the calibration table.
2. Move the cursor out of the calibration table to start the calibration. 1) The live image should be the calibration slide or some known dimensions specimen at this moment. 2) Draw a line to get a reference length.
3. Enter the actual length of the line drawed in Step2. Three units options available: CM, MM and UM.
4. Select the objective magnification in "Zoom" option. 1) This data just need to be entered if the user will use the same camera to get images at different objective settings and do the measurement for them. In this case, no need to create calibration files for images at all the objective settings, just change "Zoom times" to get the corresponding calibration file. 2) If only need to use one objective in your application, select "N/A" for "Zoom".
5. Click on the rectangle area next to the "Calibration Table" to enter a name for the newly created calibration file. Click on "Enter" key to confirm the name. Allow to create 10 calibration files.
6. If already have calibration file, go to "Calibration Table" to select the correst calibration file and click on "Start Measurement" to do the measurement.



(1) Anchor Point
Get the coordinates of the selected point.

(2) Line
Arbitrary direction, horizontal and vertical line measurement.

(3) Freehand Line
Get a freehand line length

(4) Rectangle
Measure rectangle perimeter and area. Selectable to have the data of perimeter or area. By default, both of perimeter and area are selected.

(5) Circle
Center Point: Use center point and point on the circle to draw a circle.
Two Point: Draw a circle according to the diameter.
Three Point: Use 3 points on the circle to draw a circle.
Selectable to have the data of diameter, perimeter or area.
By default, all of diameter, perimeter and area are selected.

(6) Polygon
Measure polygon perimeter and area.
Selectable to have the data of perimeter or area.
By default, both of perimeter and area are selected.

(7) Point-line Distance
Measure the perpendicular length.

(8) Concentric Circles
Get the diameters of two concentric circles.

(9) Bicircle
Get the distance between two circles' center points.

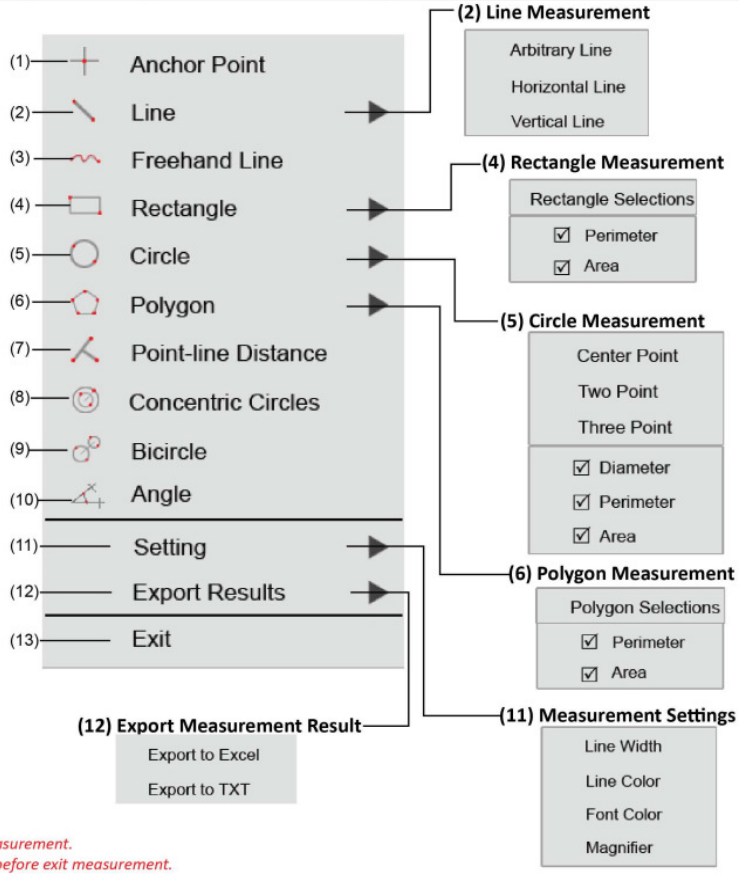
(10) Angle
Measure the angle.

(11) Setting
Set the measurement line width, color and font color.
Magnifier On/Off: Switch on/off the magnifier. When switch on the magnifier, the cursor located area will be zoomed in and placed at the corner to help accurately locate the measurement point.

(12) Export Results
Select to export the measurement results to a excel or a text file.
The exported results will be saved in the SD card\MEASURE folder.

(13) Exit
Exit the measurement.

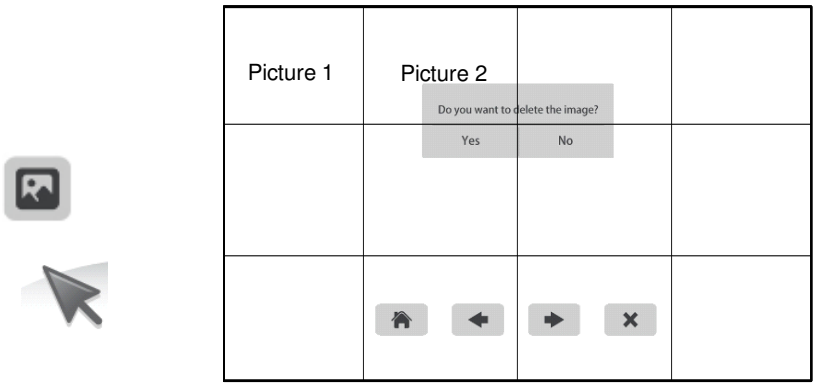
2. Right-click anywhere on the live image to get the Measurement Menu.

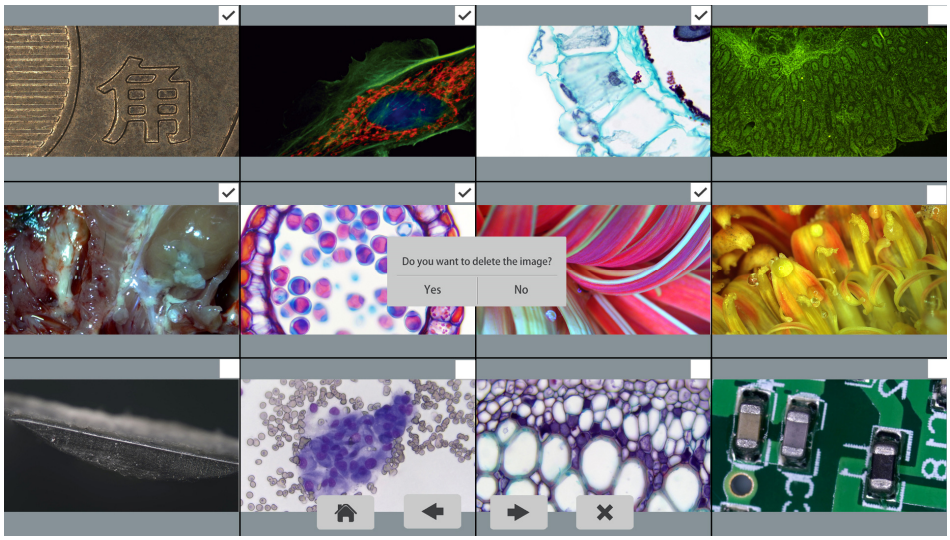


NOTE: All the measurements on the live image will be removed when exit the measurement.
The measurement result can be saved on the captured images if capture images before exit measurement.

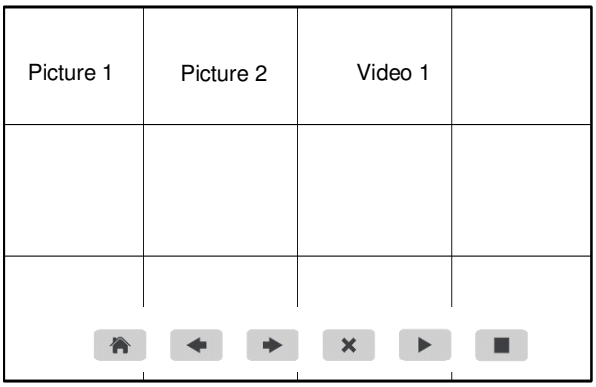
Step 5. Check the photo album and videos

1. Check the album and delete the pictures.

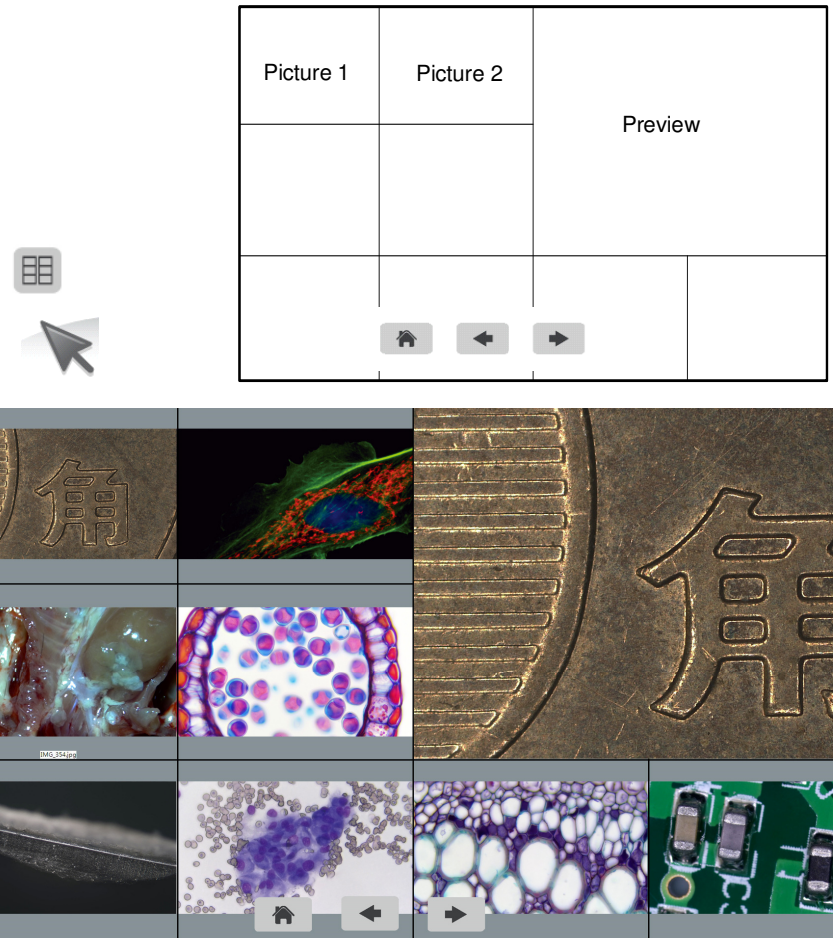




2. Check the video and delete the video. To delete the video successfully, be sure this video is not in use.



Step 6. Compare preview with the captured images.



Chapter 4 Connecting the GXCAM HICHROME-MET camera to a PC

1. Use the USB cable to connect the the GXCAM HICHROME-MET camera to the PC.
2. Plug in the 12V/2A power supply. Press and hold the ON/OFF key until blue light is on to turn on the camera.
3. No driver installation is needed when connected to PC. Install software to adjust parameters and acquire images.

Cleanliness

When the camera is NOT in use, please screw in the dustproof cap to avoid the dust from the environment accumulating on the optical port.

When get dust accumulates on the surface of the optical port, we recommend using a blower bulb to blow away the dust first. If it is still there, please use a very soft lint free cloth (Micro Fiber cloth) with absolute ethyl alcohol or a similar cleaning agent to gently clean the surface.

If you find the dust inside the camera, please DO NOT open the camera case. Please contact our support team to get further advice.

Maintainance

If the camera needs repair, please contact our customer support team. Do not open the camera case.

CAUTION：Please DO NOT open the camera case and assemble it back by yourself. If you open the camera, it will attract dust and moisture inside the cameras. Any sensor scratch or moisture issue brought by opening the camera case yourself is not covered by the warranty.