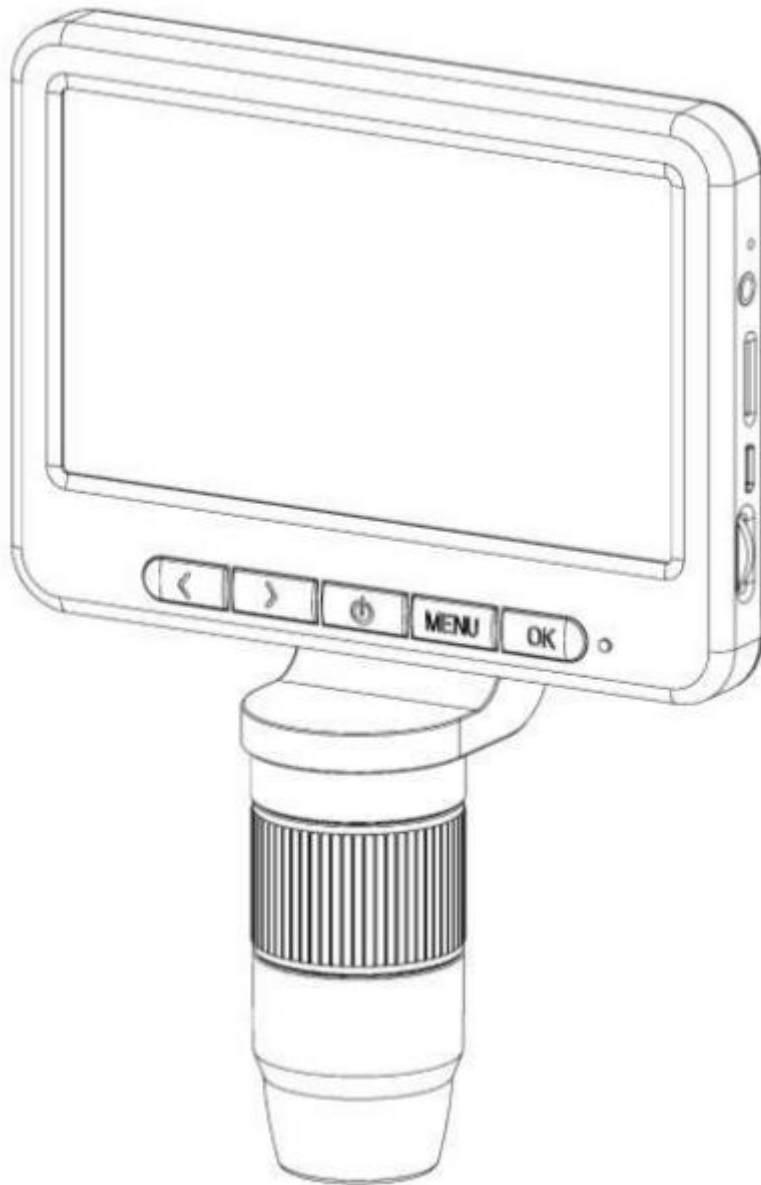# MS2 Digital Microscope   Quick Start Guide V0.1

Product use: electronic circuit board testing, industrial testing, textile testing, clock and mobile phone maintenance, skin inspection, scalp inspection, printing inspection, teaching and research tools, precision object amplification measurement, reading help, hobby research, etc.

Product features: complete functions, clear imaging, exquisite workmanship, large screen display, external wire control, convenient operation, external LED supplementary light, battery replacement, computer connection, support for up to 9 languages, etc.

Note: Please use 18650 rechargeable battery. Please use charger to charge and activate the equipment when installing and replacing the battery for the first time.

1. Parts and Functions

Part No.	Function
1	Up selection key
2	Down selection key
3	Power key
4	Menu key
5	OK key
6	Indicator light
7	Reset key

Part No.	Function
8	Wire jack
9	TF card socket
10	MICRO USB interface
11	Adjust knob for supplementary light lamp
12	Focal length adjusting roller
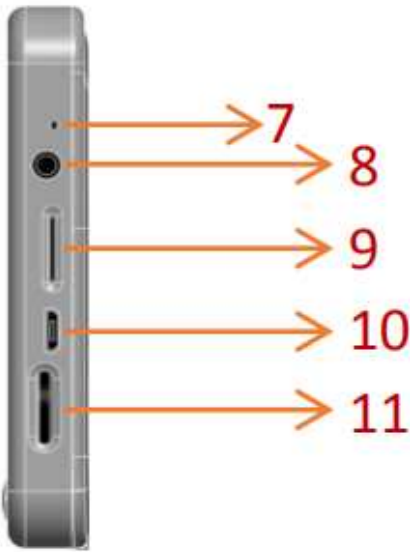
1. Components and Functions

Part No.	Function
13	LED supplementary light lamp
14	Battery rear cover compartment
15	Movable arm
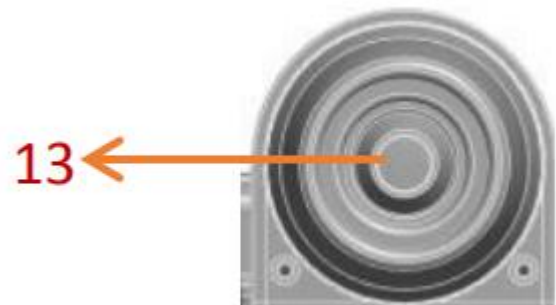
1. Components and Functions

Micro USB charging interface:

When the power of the equipment is low, connect a charger to charge the equipment. It is not recommended to use the equipment during charging (it will reduce the service life of the battery of the equipment).

When USB with signal cable is used to connect the computer terminal, the screen will pop up three options of "Memory Mode/PC Camera Mode/Recording Mode" for users to choose from.

TF card socket: supports minimum 8GB and maximum 64GB memory expansion. In order to ensure that the video recording and playing will not be stuck, please choose C10 specification for TF card.

Wire control socket: the equipment is connected with wire control through this socket.

Photo key: after entering the photo mode in the power-on state, press this key briefly to take photos.

OK key: photographing key in photographing mode, recording key in recording mode, playing/pausing key in playing mode, and confirming key in setting.

Up selection key: zoom-in key; When entering the menu or storing information, this key can switch between different options.

Down selection key: zoom-out key; When entering the menu or storing information, this key can switch between different options.

Menu key: short press is menu key, and long press can switch the three modes of photographing/video recording/file cyclically.

1. Components and Functions

Power key: long press to switch on and off, short press to switch WiFi function.

Focal length adjusting roller: rotate this roller to adjust the focal length and focus the shooting object.

LED supplementary light lamp: turn the brightness level knob (identification 13) to adjust its brightness.

Movable arm: the angle of the display screen can be adjusted back and forth.

Indicator description: indicator includes charging indicator (red) and working indicator (blue). When charging, the red indicator lights up and goes out after filling up; During startup, the blue indicator will flash, and after startup, the blue indicator will always be on.

2. Product Specification Parameters

Item	Parameters
Product name	MS2 digital microscope
Maximum pixels of video	1920*1080
Optical dimension of lens	1/4"
Photographic resolution	3M (2048*1536), 2M (1920*1080), 1M (1280*720)
Video resolution	VGA 720P 1080FHD
Video format	MOV
Focus mode	Manual
Picture format	JPG
Magnification factor	500/1000
Digital zoom	Support
Light source	8 LEDs (adjustable brightness)
Focusing range	10 ~ 40mm (long-range view)
PC resolution and image transmission rate	1280* 720/36 fps
White balance	Automatic
Exposure	Automatic
PC operating system	Windos xp, win7, win8.1, win10, Mac OSx 10.5 or higher
Supported languages	Simplified Chinese, Traditional Chinese, Japanese, English, Korean, French, German, Italian, Polish, Russian
Lens structure	2G + IR
Aperture	F4.5
Lens angle of view	16°
Interface and signal transmission mode	Micro/usb2.0
Operating temperature	-20 °C ~ + 60 °C
Working humidity	30% ~ 85% Rh
Operating current	470mA
Power consumption	2.35 W
APP working environment	Android 5.0 and above, ios8.0 and above
WIFI implementation standard	IEEE 802.11 b/g/n
Charging and discharging time	4H

3. Interface Introduction and Use

3.1 Photography Mode

In the shutdown state, press the power key for 3 seconds to turn on the machine, and enter the photographing mode by default:

As shown in the figure, there is a camera logo in the upper left corner of the screen to represent the photographing mode, and the upper right corner is marked with photo resolution, the lower right corner is marked with TF card and battery identification, and the right bottom is marked with time and date.

3. Interface Introduction and Use

3.2 Video Mode

You can switch to recording mode by pressing the menu key on the device for a long time or pressing the recording key on the wire control for a short time:

As shown in the figure, the video recorder logo in the upper left corner of the screen represents the recording mode, the video resolution is marked in the upper right corner, the TF card and battery logo are marked in the lower right corner, and the time and date are directly below.

3. Interface Introduction and Use

3.3 File Mode

You can switch to file mode by pressing the menu key on the device for a long time or pressing the play key on the wire control for a short time:

As shown in the figure, the upper left corner of the screen has a picture/video logo representing the recording mode, the upper right corner is marked with file format and resolution, and the lower right corner is marked with TFC card and battery logo.

In the file mode, the OK key is the play/pause key, and the up and down direction keys can switch files.

3. Interface Introduction and Use

3.4 Menu Interface

Press the MENU key briefly to enter the menu interface:

As shown in the figure, in the menu, relevant parameters can be set through the up, down direction keys and OK keys. After the setting is completed, press the MENU key briefly to exit the menu setting.

3. Interface Introduction and Use

3.5 Function Description

Video resolution: there are three resolutions to choose from: 1080FHD, 720P and VGA.

Photography resolution: there are 3M, 2M and 1M3 resolutions to choose from.

Screen saver: there are 4 options: off, 30 seconds, 1 minute and 2 minutes. After the set time, the device will automatically turn off the screen.

Automatic shutdown: select the appropriate time to automatically shut down the equipment when no one is operating.

AC frequency: mains frequency setting, 50HZ in China and 60HZ in foreign countries.

Language settings: there are 9 languages to choose from.

Date/time: set date and format/time parameters.

Format: format memory.

Default settings: restore factory settings.

Version: view the version of the current software.

4. USB Function Description

4.1 USB Functions

When the device is connected to the computer through the USB cable, the device will pop up three options of memory mode/PC camera mode/video mode for the user to select. Press the up and down selection keys to select any mode and press OK to confirm.

4.1 USB Function Mode

① **Memory mode:** Enter the device memory on the PC side to view and process the photos and video files inside. At this time, only the on/off key and the light supplement lamp brightness level are available.

② **PC camera mode:** At this time, only the on/off key and the supplementary light brightness level are available. Open the software Amcap on the PC side to display images. If the image cannot be displayed, you can select the device name in the second Devices to check the USB video device, and then select the third Options to check Preview to display the image.

③ **Video recording mode:** The equipment enters the charging state and can be operated normally if necessary.

5. Function Description of External Wire Control Key

Part No.	Function
1	Up selection key
2	Menu key
3	File mode
4	Down selection key
5	Photograph/OK

5. Function Description of External Wire Control Key

When entering the menu or storing information, this key can switch between different options.

When entering the menu or storing information, this key can switch between different options.

Short press is the menu key, and long press can switch the three modes of photographing/video recording/file cyclically.

In the startup state, press briefly to switch to the photographing mode, and press briefly again to take photographs; After entering the menu, you can confirm the selection by pressing this key briefly.

In the power-on state, press briefly to switch to file mode.

In the startup state, press briefly to switch to the recording mode. In video recording mode, press this key briefly to start and end video recording.

6. Use WiFi Digital Microscope on IOS/Android Device

6.1 APP Download

IOS: Search iWeiCamera in App Store to download and install, or scan the following QR code to select IOS version to install.

Android: Scan the following QR code and select Android (Google Play) version (international users) or Android (China) version (Chinese users) to download and install, or enter the address from the browser to download and install.

IOS/Android download QR code:

Or enter the following address in the browser to download:
https://active.clewm.net/DuKSYX?qrurl=http%3A%2F%2Fqr09.cn%2FDu
KSYX&gtype=1&key=bb57156739726d3828762d3954299ca7a957b6172

(IOS APP icon)   (Android APP icon)

7.WiFi Connection and APP Function Introduction

7.1 WiFi Connection Steps

Step 1: When the device is turned on, press the power key briefly to turn on the WIFI switch. At this time, a yellow WIFI logo will flash at the top of the screen.

Step 2: Turn on the WiFi settings of your mobile phone, find the WiFi hotspot named "wifi_camera_MS2_ ..." and connect. After the connection is successful, the WiFi logo on the screen will no longer flash.

Step 3: Open the matching APP and click the "Camera" option in the main interface to enter.

7.WiFi Connection and APP Function Introduction

7.2 APP Function Introduction
7.2.1 APP Main Interface
Open the app and enter the main interface:

My Photo: click to view photos and video files that have been taken.

Camera: click to watch the real-time picture of the equipment and operate the equipment.

Help Center: introduction to functions and operation pages.

7.WiFi Connection and APP Function Introduction

7.2 APP Function Introduction

7.2.2 Preview Interface

Zoom out: click to zoom out the screen (the default is minimum every time you open it).

Zoom in: click to zoom in the screen (used when the picture is too small).

Reference line: click to mark the center point of the picture with a cross.

Photo: click to take photos and save files automatically.

Video record: click to record video/end video recording and automatically save the file.

My photo: click to view photos or videos that have been taken.

Resolution: click to set photo/video resolution.

7.WiFi Connection and APP Function Introduction

7.2 APP Function Introduction

7.2.3 My Photo

Click on the My Photo, and you can view photos or videos after entering, or you can choose to delete photos or videos.

If you have any questions, please contact our company.
The final interpretation right belongs to our company.

FCC Caution：

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.