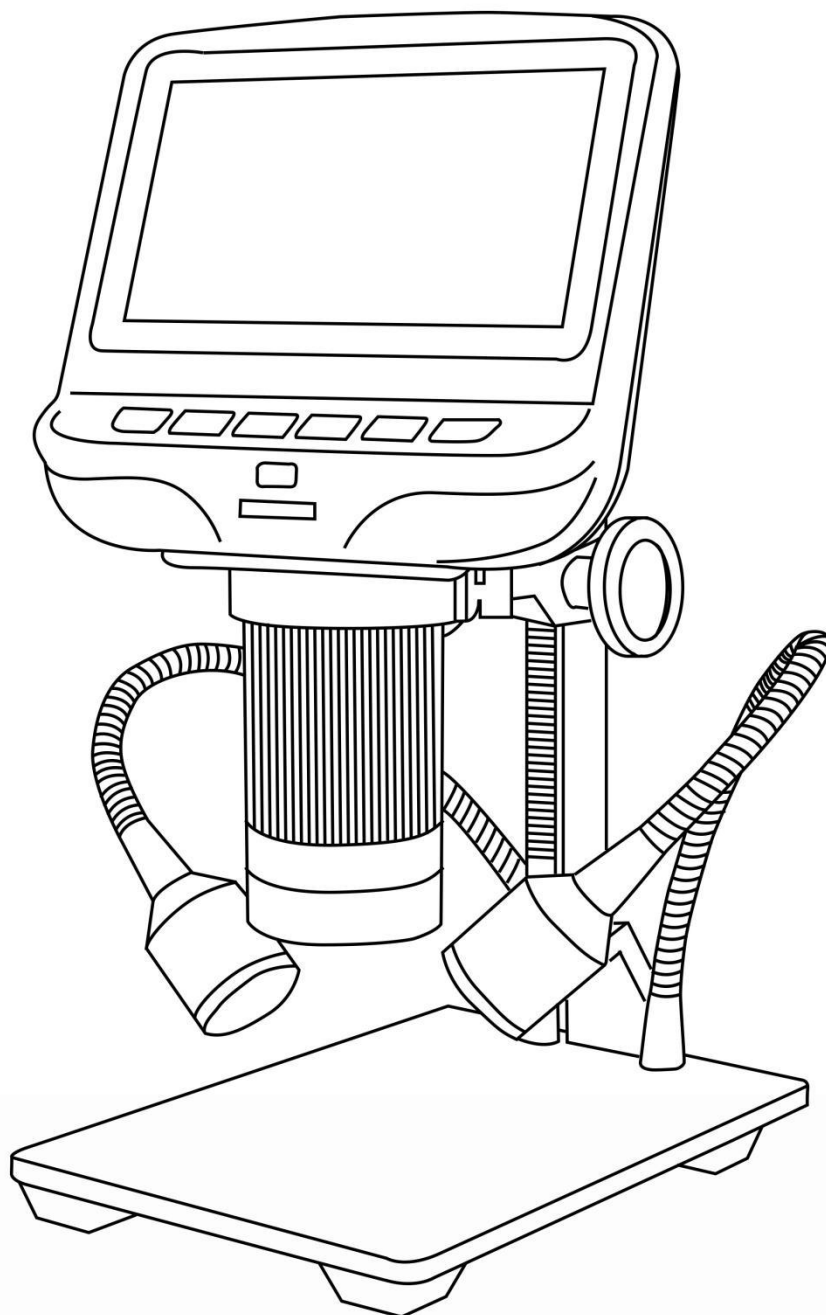


## Instructions of Digital Microscope AD106&AD106S



## Safety and Maintenance

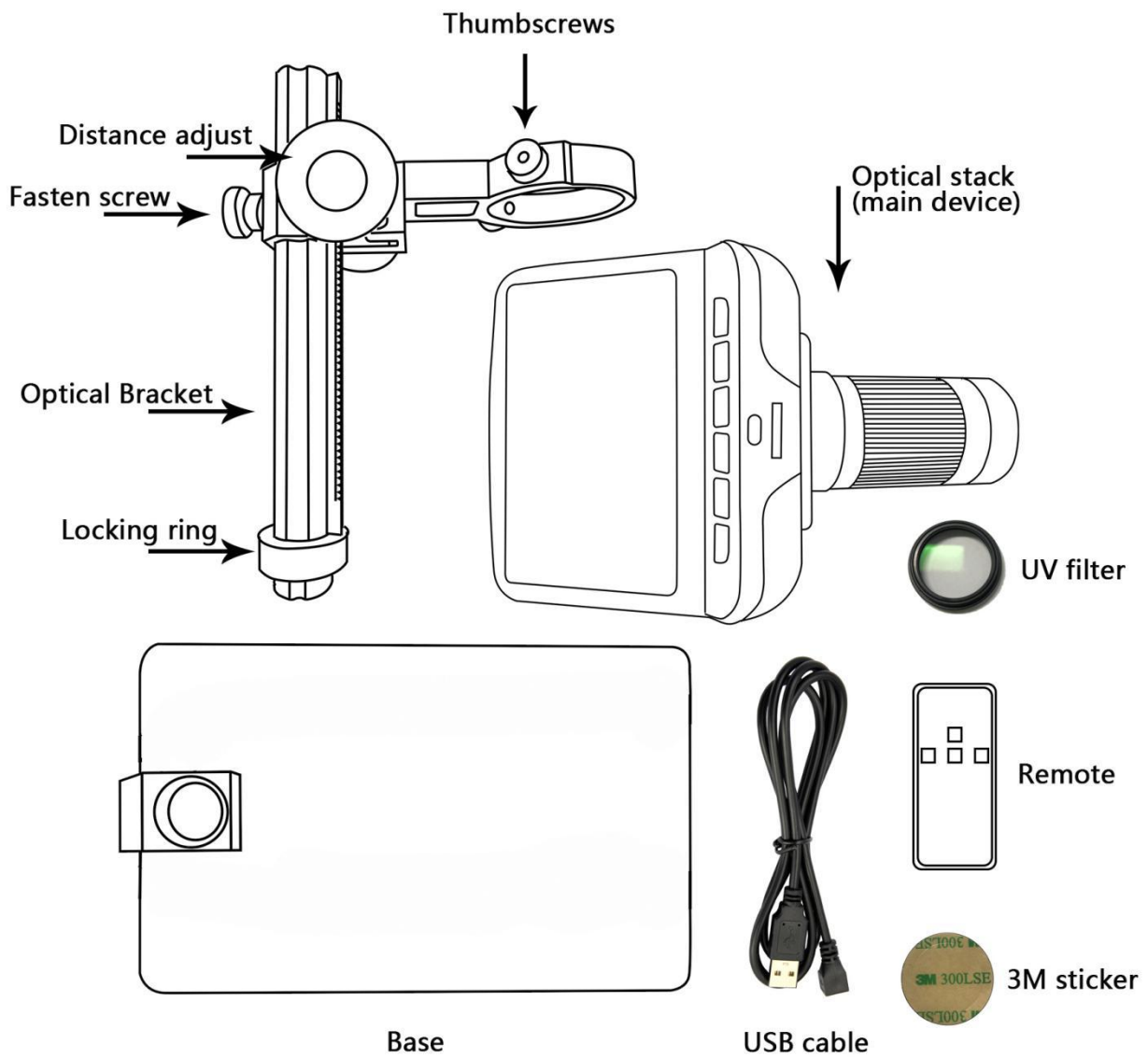
1. This microscope is safe and low-maintenance, as long as common sense is employed.
2. The assembly includes small parts, particularly the thumbscrews used to hold the main device in place. Do NOT allow unsupervised access by infants or toddlers.
3. The microscope is not intended for field use. It is not waterproof, and should not be exposed to extreme temperatures. Treat as you would any other electronic device, such as laptop or tablet.
4. The surface of the lens at the bottom of the main device should be cleaned whenever you start to notice a degradation in image quality. Use a few drops of lens-cleaning fluid on lens tissues or use a microfiber cleaning cloth.
5. The rest of the microscope can be cleaned with a damp cloth.

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# AD106

## What's in the box



## Assembly

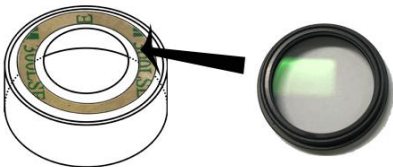
1. Screw the locking ring all the way on to the optical bracket.
2. Screw the optical bracket on to the base. Once you have done so, it is likely the bracket will not be aligned over the base. Unscrew it until it is aligned, and then turn the locking ring clockwise until it is tight. (After doing so, it will still be possible to hold the base and turn the bracket if sufficient force is applied, but it will not spin freely.)
3. Loosen the small thumbscrews on the optical bracket.
4. Slide the optical stack in to the ring of the optical bracket.
5. Tighten the thumbscrews to hold the optical stack in place. If done correctly, you should be able to turn the ridged portion of the optical stack freely while the rest of it remains in place.
6. Remove the protective film from the display at the top of the optical stack.

### UV filter assembly

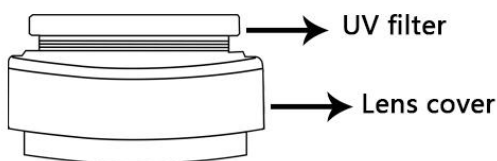
Step 1: Materials: Lens cover(half transparent); 3M sticker; UV filter



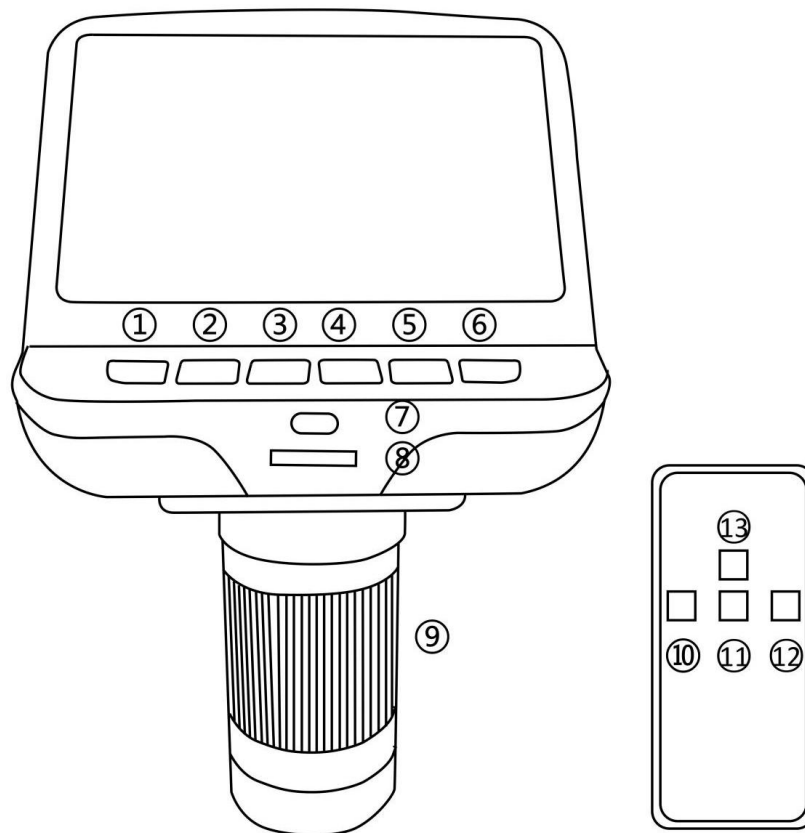
Step 2: Use 3M sticker to stick the UV filter and the lens cover together. The side which has screw threads on of the filter should be stuck to the lens cover.



Step 3:



## Buttons



- |  |   |  |
|--|---|--|
| ① Power  | when the microscope is recording)   | ⑧ LED lights adjustment  |
| ② Mode   |   | ⑨ Focus controller   |
| ③ Up   | ⑦ Infrared sensor (when you are using the remote, please point the remote to this so the device would response) | ⑩ Capture (Only can capture pictures when the microscope is recording) |
| ④ Down   |   | ⑪ Down   |
| ⑤ OK   |   | ⑫ OK   |
| ⑥ Capture (This button Only can capture pictures |   | ⑬ Up   |

### Icons definitions

- |   |                              |
|---|------------------------------|
| 1. : video mode                         | 4.  / : with/without TF card |
| 2. : The microscope is recording        | 5. : Still image mode        |
| 3. : The microscope is taking a picture | 6. : review mode             |

## Quick start

1. To use the microscope without the need for a computer, then connect the optical stack to the power supply via the switch cable.
2. Then press and hold the Power button (number ① from the picture “Buttons”) underneath the display until the display turns on. (It may turn on automatically, and it’s totally fine.)

### \*Troubleshooting

If the display freezes, locate the “reset ” hole on the back of the monitor. Use a narrow object such as an unfolded paperclip to depress the button located inside. This resets all settings to their factory values and restarts the display . It does not erase saved images or video.

## Adjusting the Magnification and Focus

Use the large knobs on the optical bracket to raise or lower the optical stack to the desired height. The lower the height, the greater the magnification, but be careful not to let the bottom of the stack contact the object being imaged. (Note that you may need to reposition the spotlights as you move the stack up or down.)

Turn the Focus controller(number ⑨ from the picture “Buttons”) to focus the image.

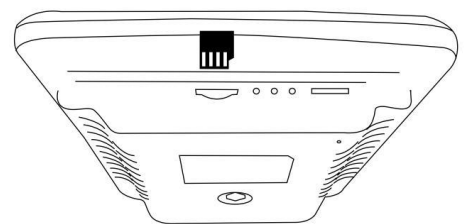
To increase the digital magnification, press and hold the Up button ( number ③/ ⑬ from the picture “Buttons” ) until the desired digital magnification(up to an additional 4x beyond the optical magnification) is reached. Use the Down (number ④/ ⑪ from the picture “Buttons”) button to decrease the digital magnification.

## Displaying on a PC

Before you connect the microscope to a PC, make sure that you have appropriate software on that PC.

To display images on a PC, attach one end of the provided **USB cable** to the USB port on the top of the monitor and the other to the PC. Select “PC camera” on the monitor.


Open your webcam software to view and save images.







## Using a MicroSD Card to Save Images

By using a Micro SD card (not provided), you can save images and videos to review later or export to a computer or other device .


Insert the Micro SD card in to the TF slot on top back of the monitor.

Push it in until you hear a click. (If you don't push it in far enough, it will be ejected.) An icon for the card  will appear at the top right side of the display.

The Mode button(number ② from the picture “Buttons”, marked with an "M") can be used to cycle between three modes: video () , still image () , and review () .

In video mode, press the OK button(⑤/ ⑫ ) briefly to begin recording(the icon becomes to 00:01 ). The elapsed time in the recording will appear at the top right. To stop recording, hit the OK button again.

Note: do not hold in the OK button while starting or stopping a recording, just press and release.

In still image mode, press the OK button(⑤/⑫) briefly to capture an image. Icon  would appear at the top middle for a second, when an image has been captured.

Press Capture button(number ⑥/⑩) to capture images while the microscope is recording. If you capture the image in this way, the resolution of the image could be neither 1080P or 720P, depends on which you choose for the video resolution, FHD or HD.

### Reviewing and Managing Images

To review and manage images on the display, use the Mode button to select review mode. Use the Up and Down buttons to cycle through the pictures and videos.

To play a video, press the OK button. Press the OK button again to pause.

Hit the Mode button again to exit playback.

While reviewing a still image or video, the Menu button can be used to provide additional options. Press the Menu button and hold for a while till options show up.

**Delete:** deleting just the **current** image/video;

**Delete All:** deleting all unprotected images and videos;

**Lock This:** provides protection for the current image/video from deleting accidentally, but not from **Format** function;

**Unlock This:** unlock the current image/video.

### Settings

In video mode, press Menu button and hold it for a while until the Menu shows up on the display.

**Resolution:** There are two options of Resolution: HD(1280\*720) or FHD(1920\*1080).

**Image quality:** There are six options: 1M/2M/3M/5M/8M/12M, resolution of them goes from 1280\*720P to 4032\*3024P.

**EV:** Exposure compensation, from +2 to -2.

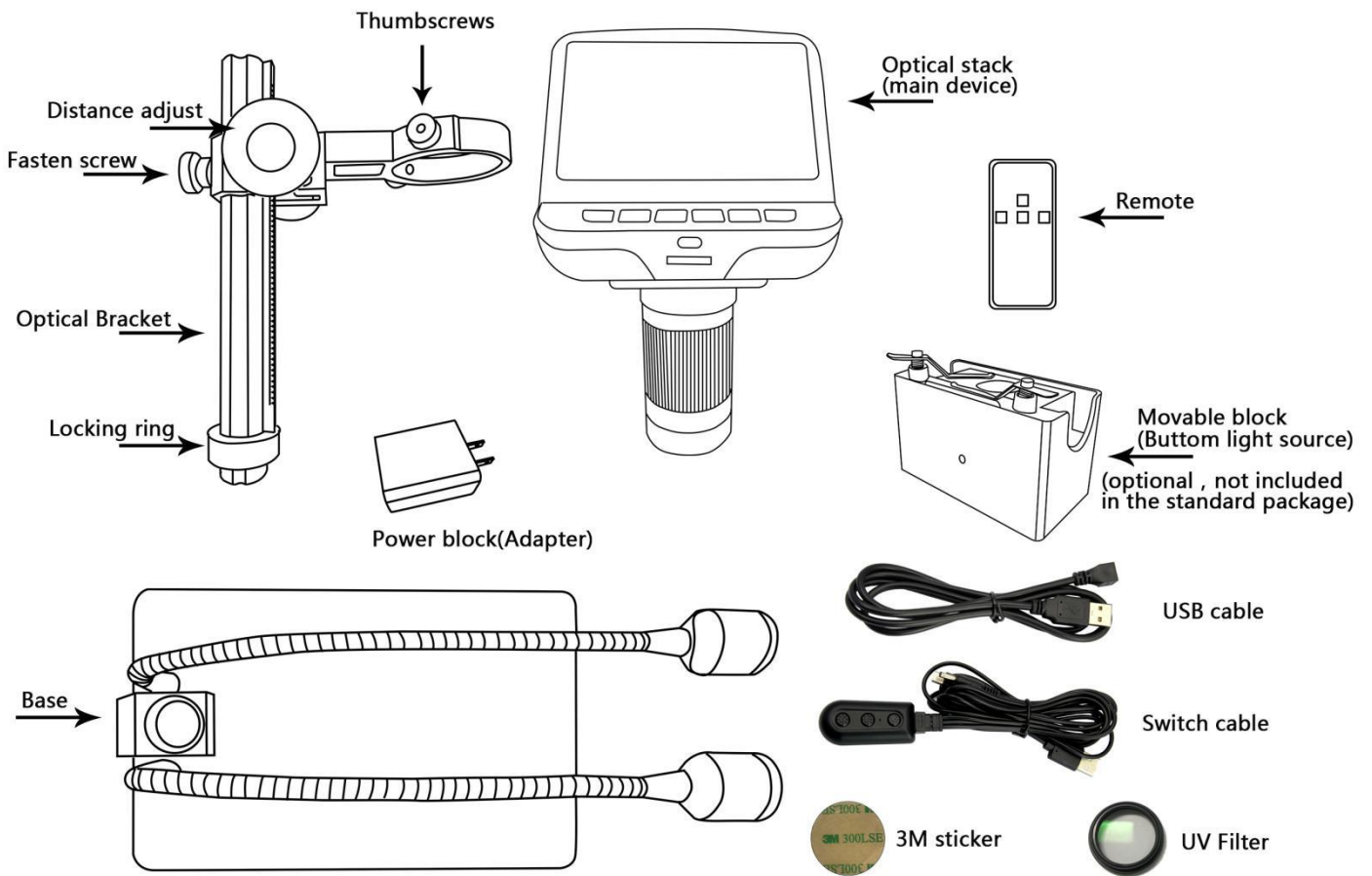
**Language setting:** English, Chinese, Japanese, Korean, Russian, French, Dutch etc.

**Format:** When the memory card is full, use this to format the card. Remember to export all files that you need before formatting.

**Reset system:** Back to the factory values.

# AD106S

## What's in the box





## Assembly

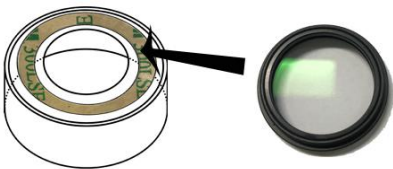
1. Bend the spotlights down, so that they are out of the way.
2. Screw the locking ring all the way on to the optical bracket.
3. Screw the optical bracket on to the base. Once you have done so, it is likely the bracket will not be aligned over the base. Unscrew it until it is aligned, and then turn the locking ring clockwise until it is tight. (After doing so, it will still be possible to hold the base and turn the bracket if sufficient force is applied, but it will not spin freely.)
4. Loosen the small thumbscrews on the optical bracket.
5. Slide the optical stack in to the ring of the optical bracket.
6. Tighten the thumbscrews to hold the optical stack in place. If done correctly, you should be able to turn the ridged portion of the optical stack freely while the rest of it remains in place.
7. Remove the protective film from the display at the top of the optical stack.

### UV filter assembly

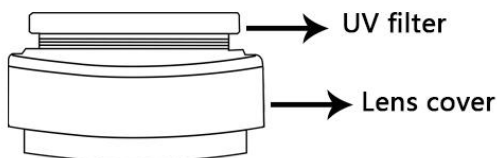
Step 1: Materials: Lens cover(half transparent); 3M sticker; UV filter



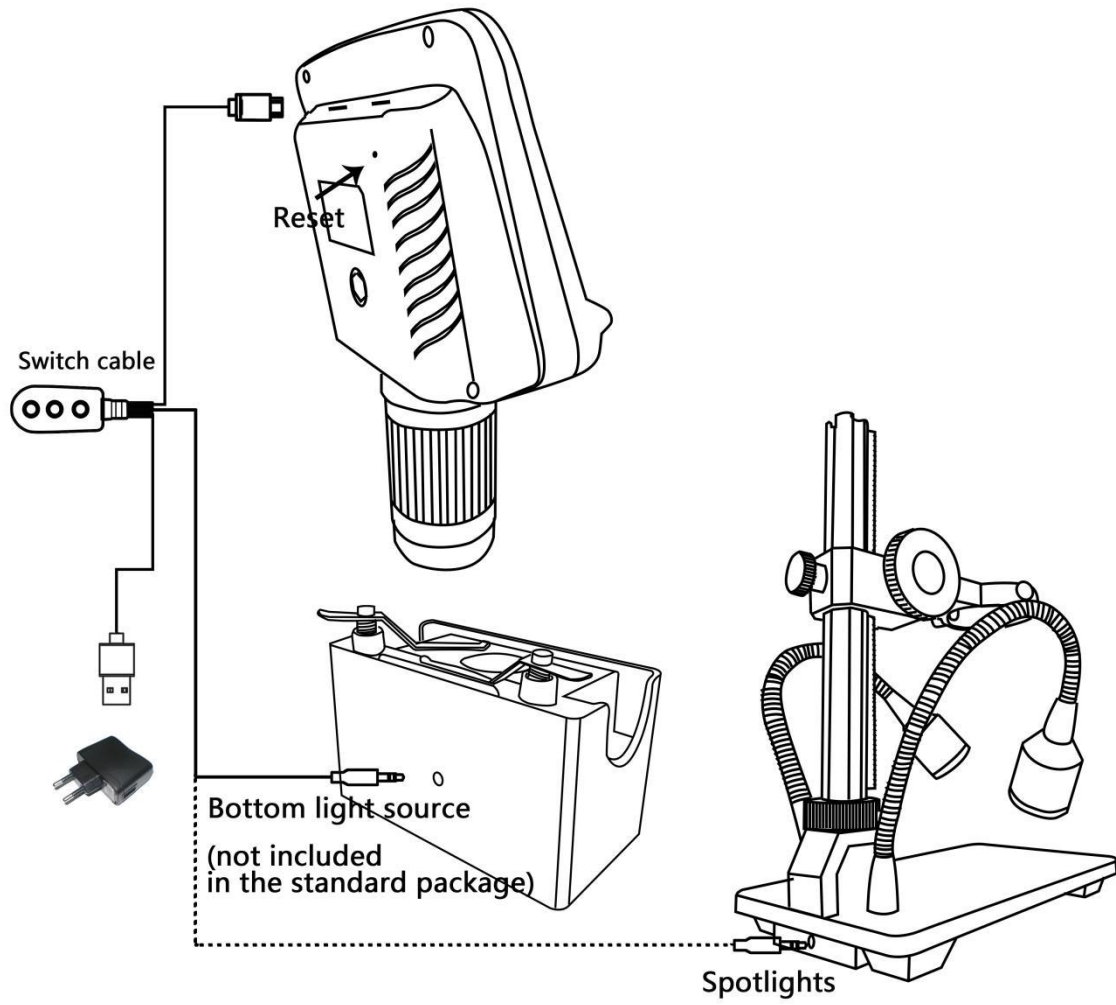
Step 2: Use 3M sticker to stick the UV filter and the lens cover together. The side which has screw threads on of the filter should be stucked to the lens cover.



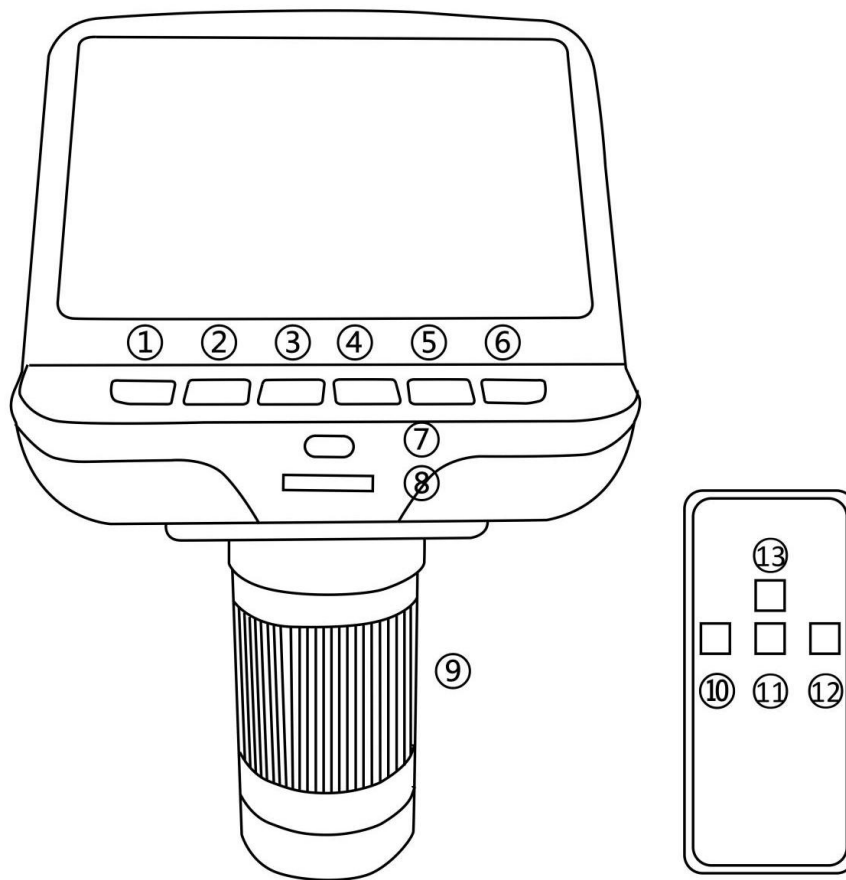
Step 3:



## Connect



## Buttons



- |  |   |  |
|--|---|--|
| ① Power  | when the microscope is recording)   | ⑧ LED lights adjustment  |
| ② Mode   |   | ⑨ Focus controller   |
| ③ Up   | ⑦ Infrared sensor (when you are using the remote, please point the remote to this so the device would response) | ⑩ Capture (Only can capture pictures when the microscope is recording) |
| ④ Down   |   | ⑪ Down   |
| ⑤ OK   |   | ⑫ OK   |
| ⑥ Capture (This button Only can capture pictures |   | ⑬ Up   |

### Icons definitions

- |   |                               |
|---|-------------------------------|
| 7. : video mode                         | 10.  / : with/without TF card |
| 8.  00:01: The microscope is recording  | 11. : Still image mode        |
| 9. : The microscope is taking a picture | 12. : review mode             |

## Quick start

1. To use the microscope without the need for a computer, plug the power block in to an electrical outlet. Then connect every part via the switch cable (Please see the diagram at part "Connect").
2. Then press and hold the Power button(number ① from the picture "Buttons") underneath the display until the display turns on. (It may turn on automatically, and it's totally fine.)

### \*Troubleshooting

If the display freezes, locate the "reset " hole on the back of the monitor (see part "Connect"). Use a narrow object such as an unfolded paperclip to depress the button located inside. This resets all settings to their factory values and restarts the display . It does not erase saved images or video.

## Adjusting the Magnification and Focus

Use the large knobs on the optical bracket to raise or lower the optical stack to the desired height. The lower the height, the greater the magnification, but be careful not to let the bottom of the stack contact the object being imaged. (Note that you may need to reposition the spotlights as you move the stack up or down.)

Turn the Focus controller(number ⑨ from the picture "Buttons") to focus the image.

To increase the digital magnification, press and hold the Up button(number ③/ ⑬ from the picture "Buttons") until the desired digital magnification(up to an additional 4x beyond the optical magnification) is reached. Use the Down(number ④/ ⑪ from the picture "Buttons") button to decrease the digital magnification.

While ambient light may be adequate for many circumstances, the spotlights or bottom light source can provide additional illumination. Choose the one you want, and use the buttons on the switch cable to adjust the brightness.

While using the spotlights, to accentuate the surface contours of an object, position the lights at a low angle. Use a high angle for a flatter, more two - dimensional effect.

Bottom light source(optional) is more useful when the object is transparent or when the object distance is very short.

## Displaying on a PC

Before you connect the microscope to a PC, make sure that you have appropriate software on that PC.

To display images on a PC, attach one end of the provided **USB cable** to the USB port on the top of the monitor and the other to the PC. Select "PC camera" on the monitor.

Open your webcam software to view and save images.

## Using a MicroSD Card to Save Images

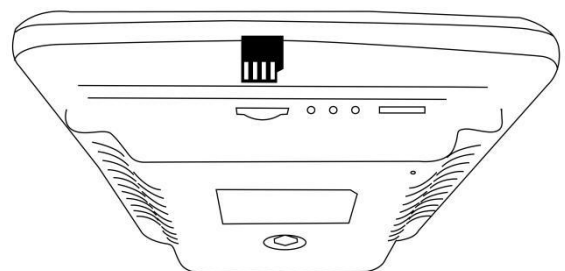
By using a Micro SD card(not provided), you can save images and videos to review later or export to a computer or other device .


Insert the Micro SD card in to the TF slot on top back of the monitor.

Push it in until you hear a click. (If you don't push it in far enough , it will be ejected.) An icon for the card "TF" will appear at the top right side of the display.




The Mode button(number ② from the picture "Buttons, marked with an "M" ) can be used to cycle between three modes: video(📹), still image (📷), and review(▶).



In video mode, press the OK button(⑤/ ⑫ ) briefly to begin



recording (the icon becomes to ). The elapsed time in the recording will appear at the top right. To stop recording, hit the OK button again.

Note: do not hold in the OK button while starting or stopping a recording, just press and release.

In still image mode, press the OK button(/ ) briefly to capture an image. Icon  would appear at the top middle for a second, when an image has been captured.

Press Capture button (number /) to capture images while the microscope is recording. If you capture the image in this way, the resolution of the image could be neither 1080P or 720P, depends on which you choose for the video resolution, FHD or HD.

### Reviewing and Managing Images

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