



MICRODIRECT™ 1080p HD

HANDHELD DIGITAL MICROSCOPE



PC SOFTWARE MANUAL

MODEL #44316

1. COMPUTER SOFTWARE- INSTALL

Although the MicroDirect® 1080p HD microscope is designed to stream video directly to a monitor or projector, you have the option to run the microscope on a Windows based computer with the included CD/DVD ROM disk. If you do not have a CD/DVD ROM drive, the software can be downloaded from our website www.celestron.com.

Note: The software is compatible with Windows systems XP/7/8/10 only. The software is not compatible with MAC operating systems.

1. CD ROM Install

+ Insert the driver CD into CD-ROM Drive and this will automatically display the following interface:

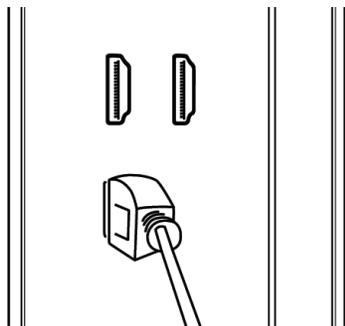


+ SELECT the Install Software button

+ The installation wizard will guide you through the whole process.

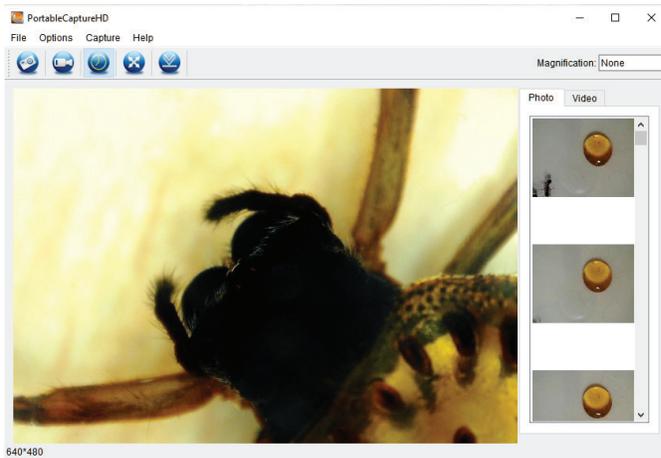
2. COMPUTER SOFTWARE- OPENING

1. Connect your MicroDirect® 1080p HD microscope to your PC using the included USB cable.



2. Open the Portable Capture HD software by clicking the desktop icon.





NOTE: If your MicroDirect® 1080p HD microscope becomes disconnected from your PC the following message box will appear:

No Device detected, please connect your Microscope directly to your PC USB port.

3. COMPUTER SOFTWARE- DETAILS

A. CAPTURE STILL IMAGE

There are 2 ways to capture a photograph with the Portable Capture HD software:

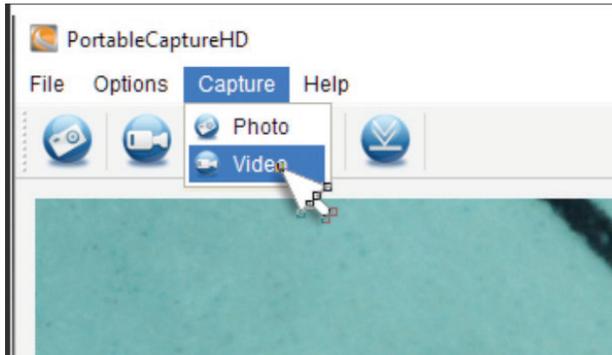
1. Select 'Photo' shortcut icon in the main menu bar.
2. Select 'Capture/Photo' from the drop down menu.



B. CAPTURE VIDEO

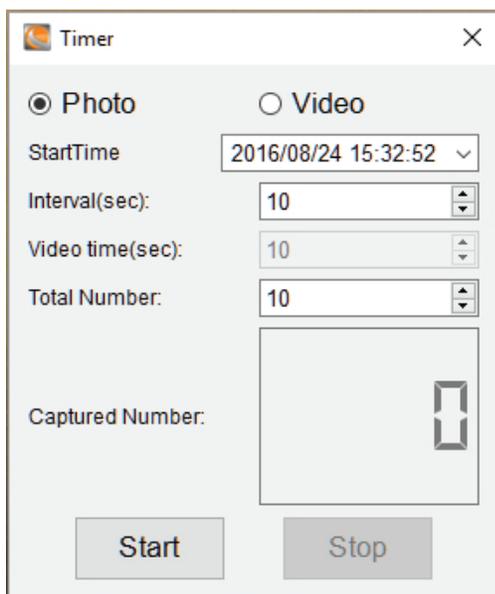
There are 2 ways to capture video with the Portable Capture HD software:

1. Select 'Video' shortcut icon in the main menu bar.
2. Select 'Video' from the drop down menu.



C. TIME LAPSE

1. Select 'Timer' shortcut icon  and then set your time lapse information.
 - a. Choose between Photo or Video.
 - b. StartTime:
 - i. Set the start time- YEAR/MONTH/DAY/SPECIFIC TIME.
 - c. Interval (sec):
 - i. Select the interval between each photo or video (in seconds) to be taken.

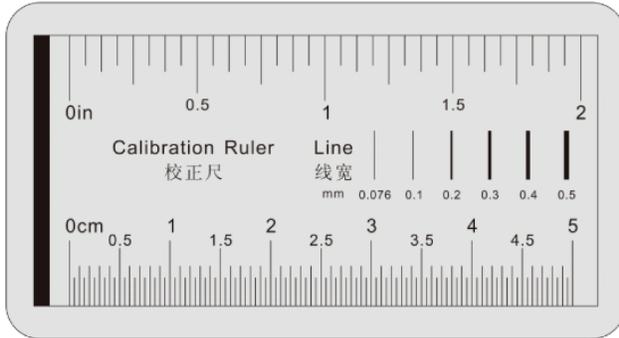


- d. Video time (sec):
 - i. If you have chosen video time- enter the length of the video clip (in seconds) you want to be taken at each interval.
- e. Total number:
 - i. Set the total number of images to be taken.
- f. Once you are happy with your settings, select the 'Start' button and the time lapse will begin.
- g. Select 'Stop' to end the time lapse.

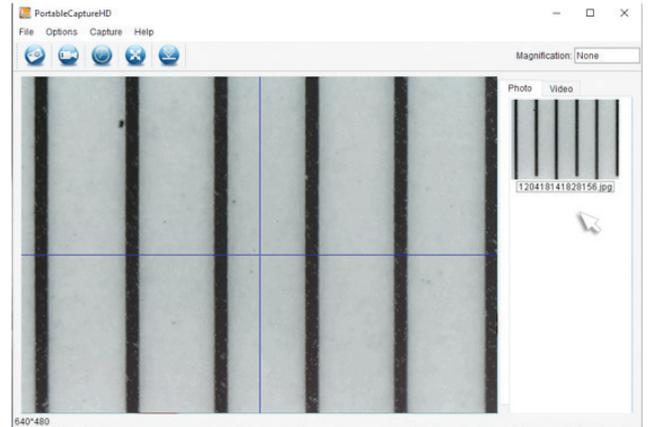
NOTE: Intervals can be from 1-999 for interval and total number of images. This means with still images a maximum time lapse can cover just over 277 hours or 11.5 days. (999 seconds between image for 999 times).

4. CALIBRATION AND MEASUREMENT

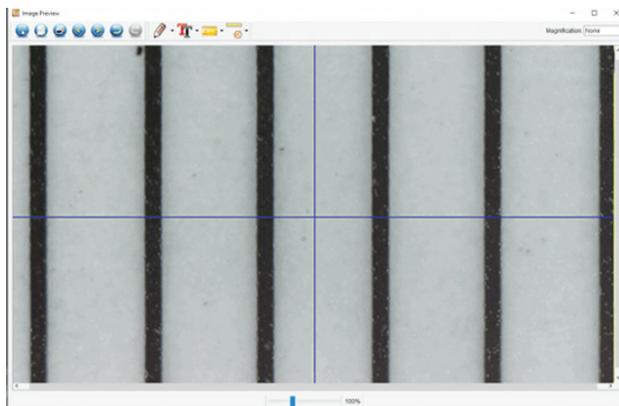
A. CALIBRATION



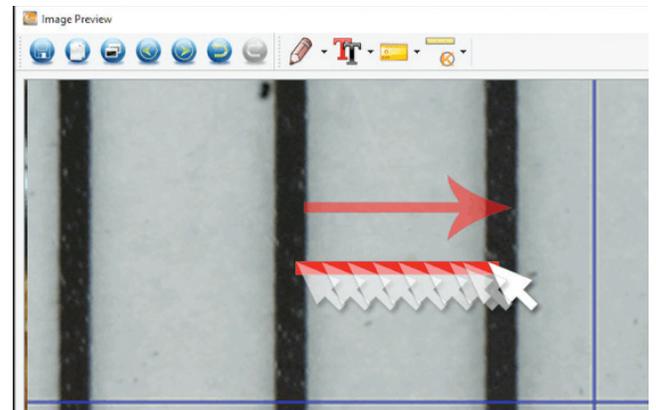
- + Make sure the X,Y Guide is ON (Options/XY Guide).
- + Place the included Calibration ruler on the stage under the microscope lens and focus.
- + Take a still image making sure the X,Y Guide and the lines on the calibration ruler are parallel.



- + Double-click on the image to enter into measurement interface window.



- + Select the Calibration icon and using your cursor, click on a start line on the calibration ruler, hold the mouse button down and drag a dimension line across to the next black line on the calibration ruler.

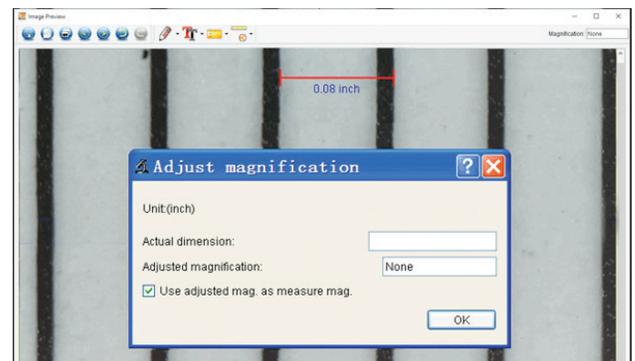


NOTE: The idea here is to measure a “known” distance on the calibration ruler. For example 1mm or .5 mm.

- + A dimension line will appear and a dimension will be displayed above the line and a dialogue box will appear.
- + Enter the “known” distance that you measured, based on the calibration ruler.
- + The software will automatically calibrate the magnification rate.
- + Click ‘OK’ and the adjusted magnification rate will show in the upper right corner.

NOTE: Save this magnification rate, so that you may use it for future settings.

- + Now you can take measurements on the saved image.

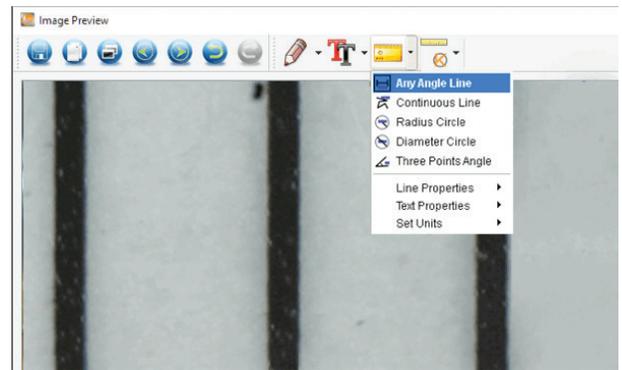


B. MEASURING TOOLS

- + Select the Measurement icon



NOTE: This is a good time to verify your calibration. Using the ANY ANGLE TOOL, take a measurement of the same “known” dimension you used in the Calibration step. If the measurement is the same or very close, the calibration was successful.



C. MEASUREMENT CHOICES

1. Any Angle Line Measurement

- + Click from one point and drag to the next point, and then release the click.

2. Continuous Line Measurement

- + The Continuous Line measurement allows you to measure *any* continuous desired length, not just a straight line. Simply click and drag from one point to other desired point, and then release mouse button.

3. Radius Circle Measurement

- + Click and drag a line out to the desired radius and release the mouse button.
- + The radius, circumference and area of the circle will show up accordingly.

4. Diameter Circle Measurement

- + Click and drag a line out to the desired diameter and release the mouse button.
- + The diameter, circumference and area of the circle will show up accordingly.

5. Three Point Angle Measurement

- + Click any three points in an angle and the value of the angle will be displayed.

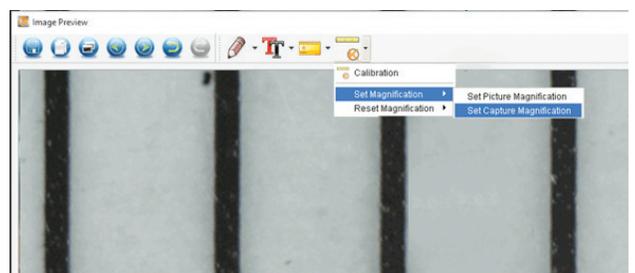
D. SET THE CALIBRATION MAGNIFICATION

+ So far the calibration and measurement features we have discussed involve the measurements on ONE image (your saved image) and the magnification rate was determined by the computer when calibrating.

+ The MicroDirect® Portable Capture HD software allows you to “lock in” a magnification rate, which allows you to take multiple pictures and then make measurements on them based on this “locked in” rate.

NOTE: Once the calibration is completed, you cannot change the physical position or focus range of your microscope, or you will change the actual magnification and your measurements will not be correct.

- + Click  > Set magnification > Set capture magnification. Now any pictures you take from this point forward will use the same magnification rate for your measuring. Remember, you cannot change the position of the microscope or focus point or the magnification will be wrong and you will have to reset it.



5. NOTE TAKING AND MARKING THE IMAGE

HD Portable Capture includes functionality to mark, draw on, or add notes to saved images. This can be handy for quick note taking and pointing out features on your specimen image.

A. MARKING



+ To use this feature, click the Draw icon in the Image Preview window.

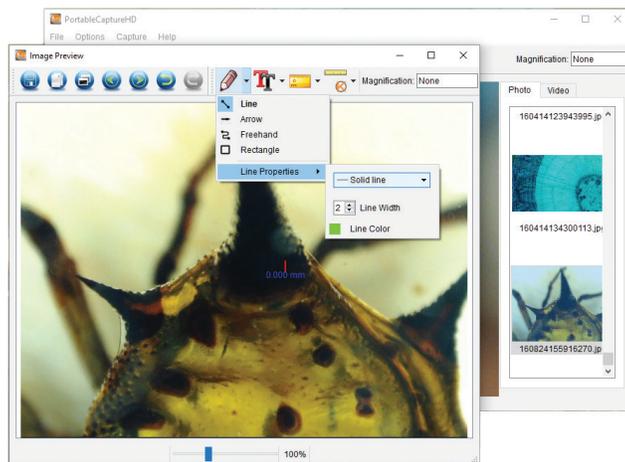
+ The complete choices in the Draw dropdown menu are:

MAIN

1. **Line:** Draws a straight line on the image.
2. **Arrow:** Draws a line with an arrow on the image.
3. **Freehand:** Allows user to draw freehand. Good for quick, handwritten notes.
4. **Rectangle:** Draws a box. Good for calling out features on the image or framing text.

SETTINGS

1. **Line Properties:** Allows for setting the line type, size and color.

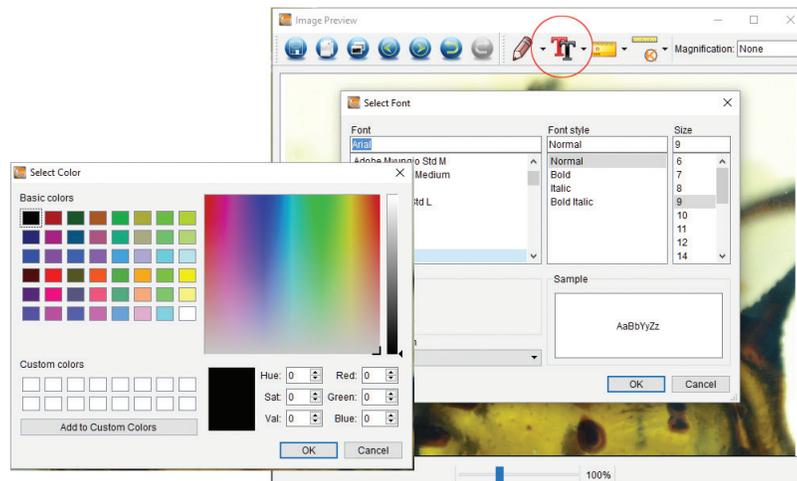


B. ADD TEXT



+ To type notes on the image, select the Type icon.

+ In the dropdown menu, you can choose the font type, size and color.



6. SOFTWARE INTERFACE INSTRUCTIONS

A. MAIN WINDOW ICONS



Photo: Take a still image



Timer: Time Lapse feature



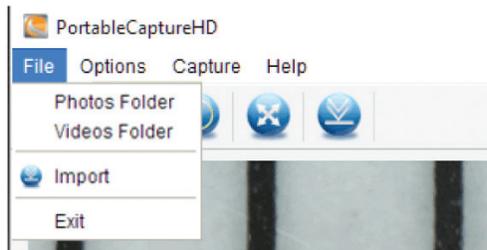
Video: Start / Stop record video



Full Screen: Streaming image- full size
(Press ESC or double-click to exit)

B. MAIN MENU

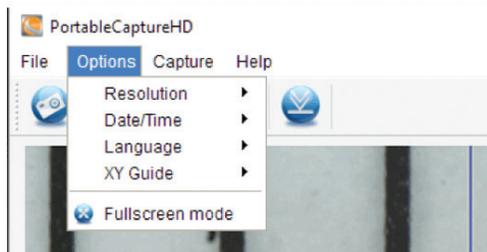
1. File



Photos Directory: Set the directory to store photos taken

Videos Directory: Set the directory to store video taken

2. Options



Resolution: Change preview size

Date/Time: Set to display system date/time on preview window

Language: Choose different OSD language

Crossing: Display cross on preview window

Full-screen mode: Enter into full screen. Click ESC or double click to exit

3. Capture

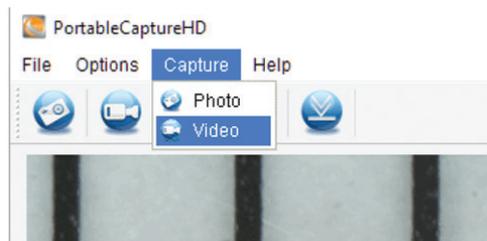


Photo: Take a photo

Video: Record a video clip

C. MEASUREMENT INTERFACE INSTRUCTIONS



Save as



Next



Text note



Copy to
clipboard



Undo



Measurement



Copy file



Redo



Calibration



Previous



Draw

7. CARE AND MAINTENANCE

Your Celestron MicroDirect® 1080p HD microscope is a precision optical instrument and should be treated with care at all times. Follow these suggestions and your microscope will need very little maintenance throughout its lifetime.

- + Store your microscope in a clean, dry place.
- + Never use your microscope where operation of such devices is restricted. Improper use creates the risk of serious accident.
- + Only use your microscope within the 23° to 120°F (-5° to 50° C) temperature range. Try to limit sudden temperature changes as this may create moisture in the microscope housing.
- + Do not try to access the internal components of your microscope or attempt to modify it in any way. Only authorized technicians should perform maintenance or repairs.
- + Keep your microscope away from water and other liquids. Never use it in rain or snow. Moisture creates the danger of fire and electric shock.
- + If the exterior of your microscope needs cleaning, wipe it with a moist cloth.

8. WARRANTY

Your Celestron MicroDirect® 1080p HD microscope has a two year limited warranty. Please visit the Celestron website for detailed information on all Celestron microscopes: www.celestron.com.



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FCC 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.

This product is designed and intended for use by those 14 years of age and older. Product design and specifications are subject to change without prior notification.