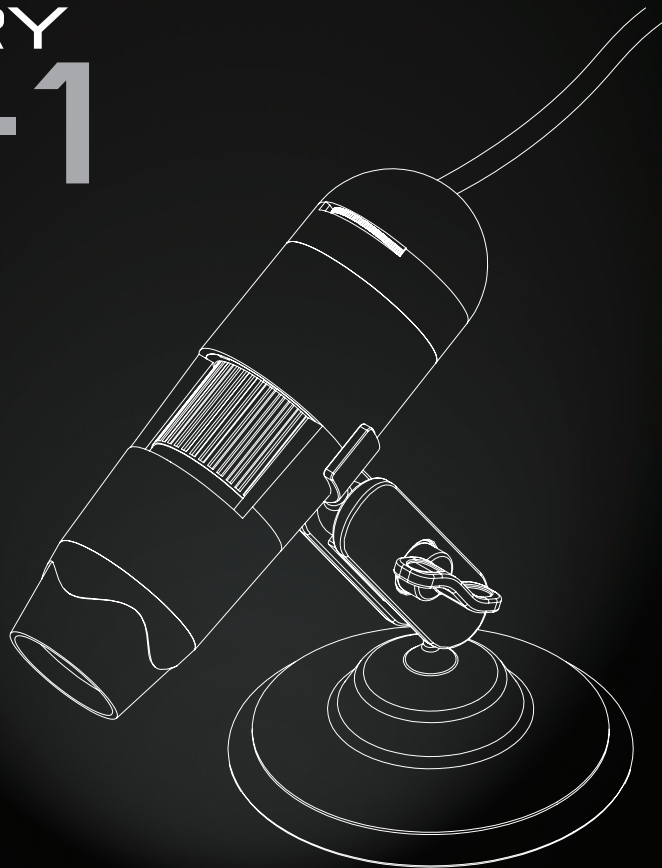


DISCOVERY DX-1

User Manual



VMS-006-DX1

veho®

The Veho DX-1 microscope allows you to explore the microscopic world. Highly useful for students, teachers, laboratory research, medical analysis, repair services or hobbyists.

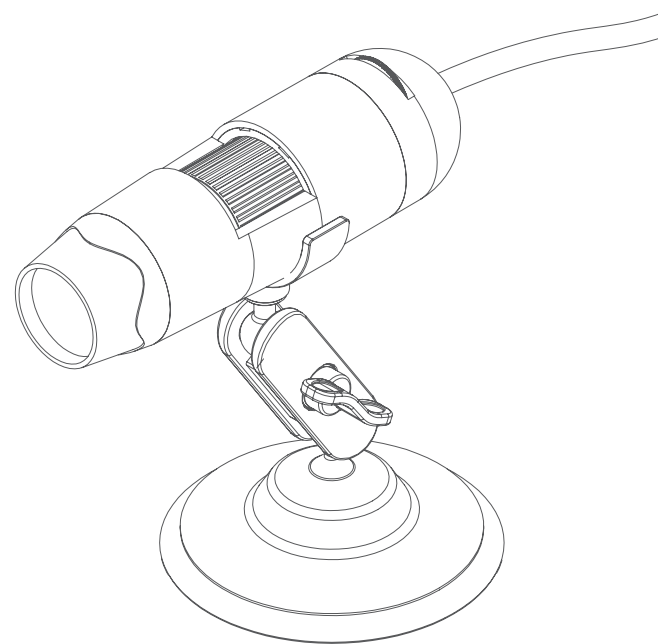
Please take a moment to read through this manual to ensure you get the most out of the microscope. Keep this manual safe for future reference.

Before using the microscope, please read the safety precautions below. Always ensure that the unit is operated correctly:

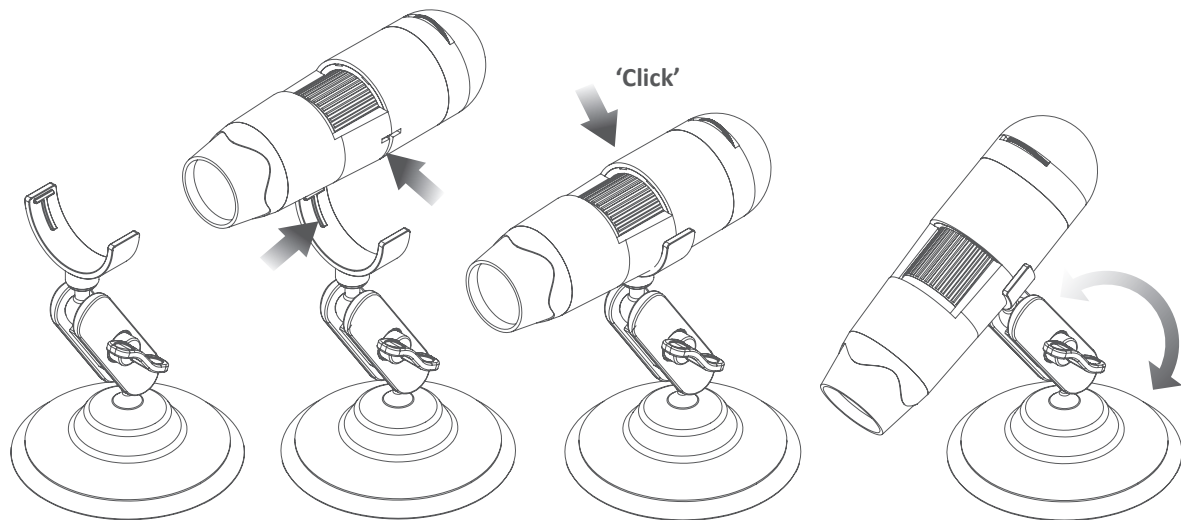
- The DX-1 microscope is not waterproof
- Use and store within a cool, dry environment (-5°C – 50°C), avoid using in damp conditions
- Do not point the lens towards the sun or a strong light source, this may damage the microscope
- Avoid touching the lens, unless with the supplied cleaning cloth
- Do not stare directly into the LEDs; they may damage your eyes

If you require assistance or have any questions about the DX-1 Microscope, please contact us through our Live Chat on our website at:

veho-world.com



- Veho DX-1 Microscope
- Adjustable cradle stand
- Software CD
- Quick start guide
- Calibration ruler
- Cleaning cloth



1

Position the cradle stand upright with the locking nut tightened.

2

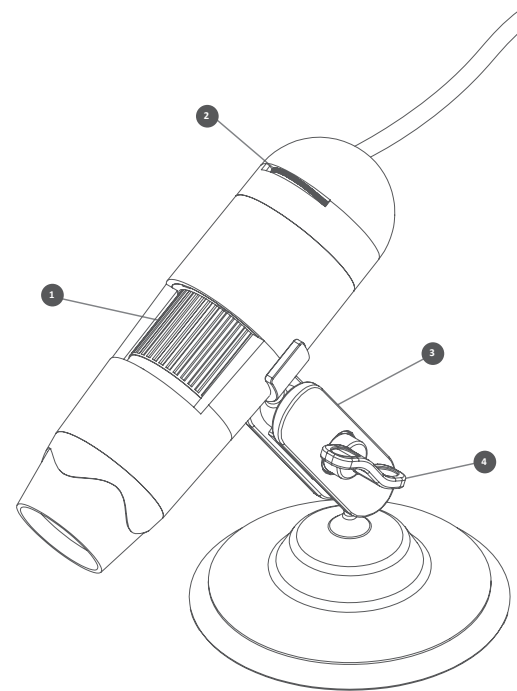
Align fixing points on microscope with fixings on cradle.

3

Gently push microscope until clicks into place.

4

The angle of the cradle can be adjusted by undoing the locking nut.



- 1 **Focus Wheel** Adjusts the focus of the microscope on the object
- 2 **Brightness Wheel** Adjust the brightness of the 8 LED's
- 3 **Cradle Stand** Fully adjustable alloy stand
- 4 **Locking Nut** Loosen to adjust the angle of the stand, once in position tighten the nut

Installing microscope software

To install the Micro Capture Plus software, use the supplied software CD or visit our website download area at:

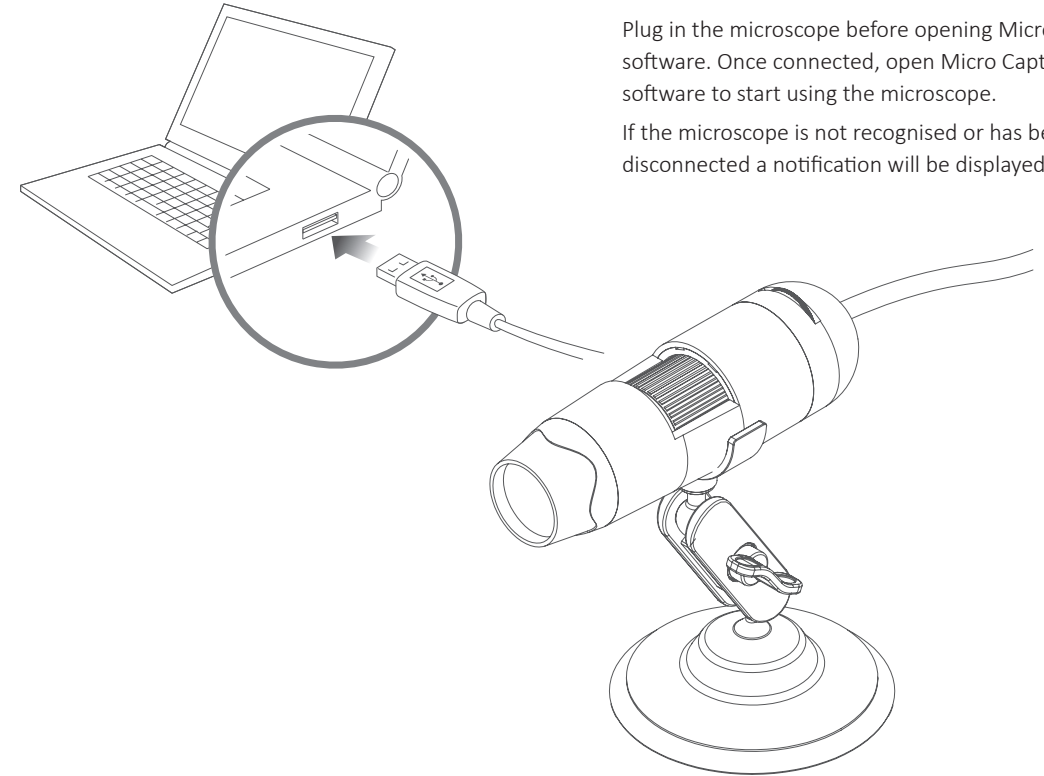
veho-world.com/downloads

Once downloaded onto your desktop, double-click the install button for 'Micro Capture Plus' and accept to install the software onto your PC; the installation will begin.

Operating system requirements

- Windows - 7/8/10
Mac OS - 10.12 and later
- P4 1.8 or above
- RAM 1GB
- Video Memory 126M
- USB port 2.0

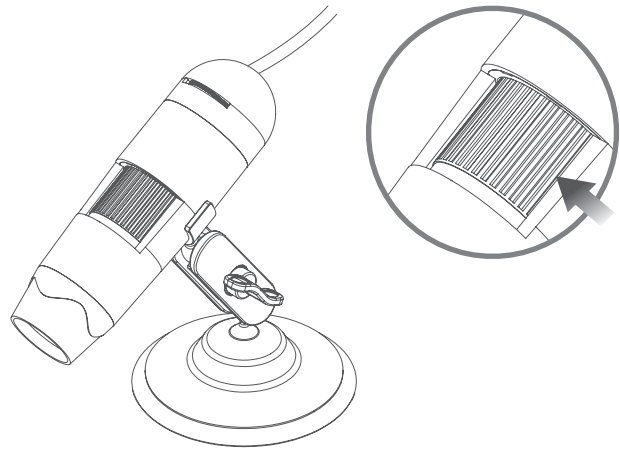
Connecting the DX-1 Microscope



Plug in the microscope before opening Micro Capture software. Once connected, open Micro Capture software to start using the microscope.

If the microscope is not recognised or has been disconnected a notification will be displayed.

Focusing the microscope



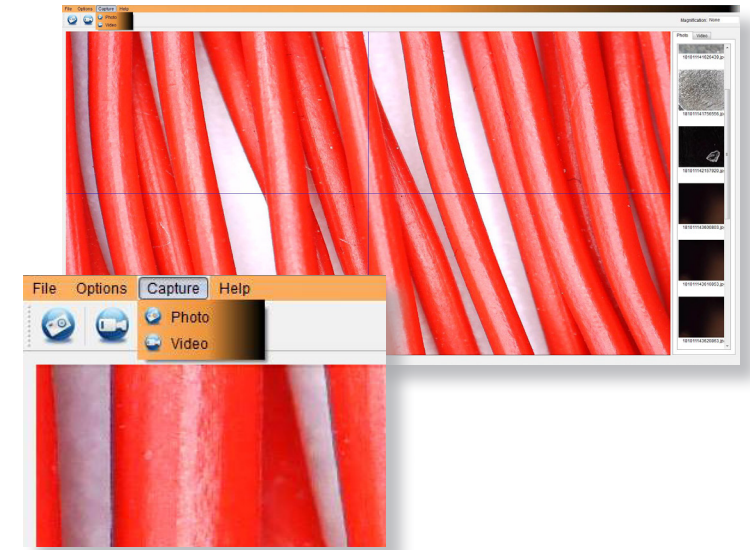
To focus the microscope rotate the focus wheel on the front of the microscope; clockwise to zoom-in or anti-clockwise to zoom out. Using the software, you will be able to see on screen whether the DX-1 is focused.

Capture a still photo or video footage at any point when using the microscope, use the icons or dropdown menu within the Micro Capture Plus software.

Setting and preferences can also be adjusted within the software, these include:

- Resolution
- Date and time
- Interface language
- Full-screen mode
- Timer for photo/video capture

Using the software



Calibration & Measurements

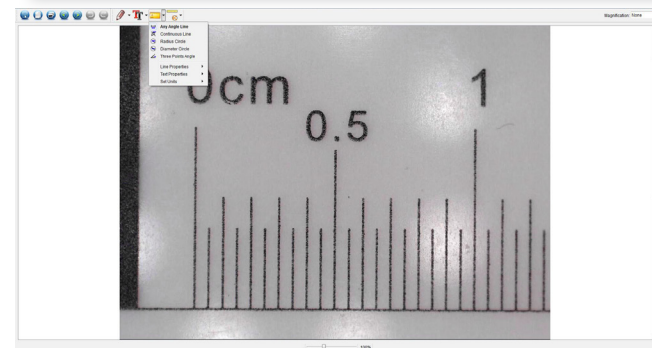
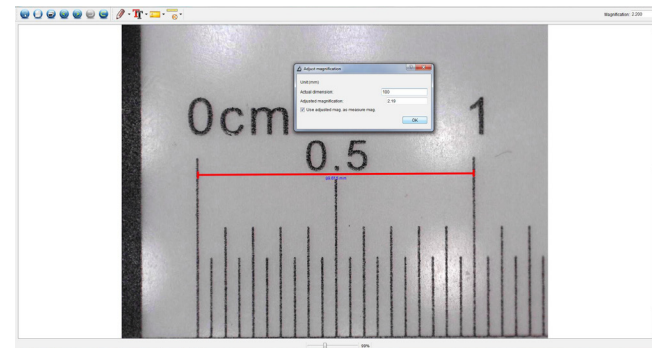
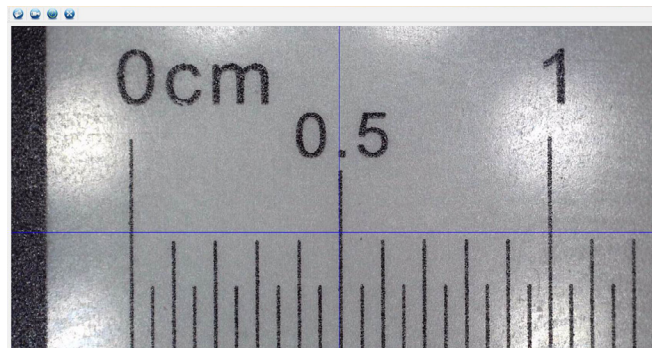
Calibration

Ensure 'Display Crossing' is turn on, go to 'Options > XY Guide > On/Off'.

The microscope will default to crossing 'On', we recommend that this is left on.

Step 1 Focus the microscope on the supplied calibration ruler, adjust the magnification wheel until the picture is clear. Take a picture of the selected area when the ruler lines are parallel to the blue xy guides, as shown in the image.

Step 2 Double-click on the image captured to enter the measurement interface.



Step 3 Once the image is open, click on the calibration icon. Using the mouse, click on the beginning and ending points; you must know the distance between the points (using the ruler). A dialogue box will pop up, enter the exact value of the measurement into 'Actual dimension'. The software will automatically calibrate the magnification rate. Click 'OK' and the adjusted magnification rate will show in the upper right corner.

Step 4 Now using 'Any Angle Line', under the measurement icon, measure the same distance again. If the value measured is approximately the same as the actual value, then calibration has been successful.

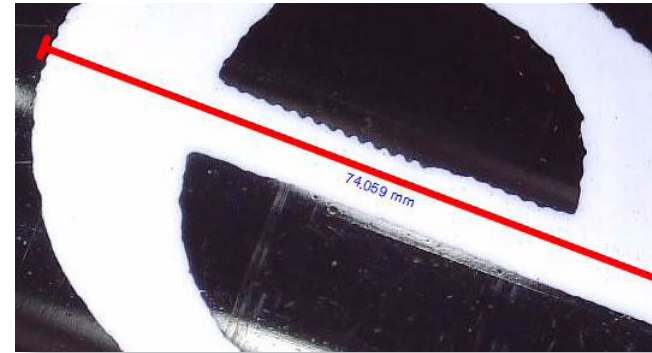
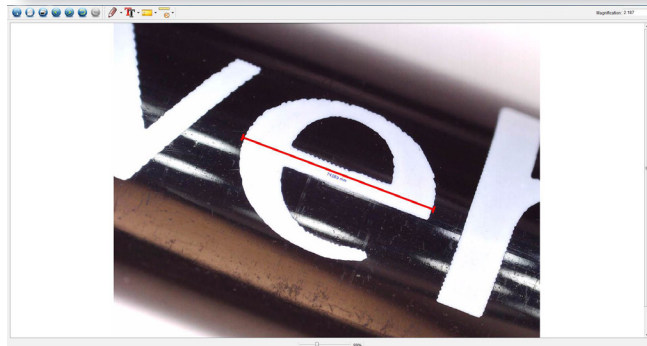
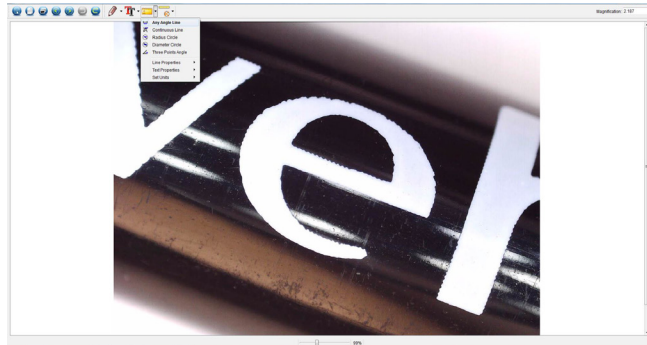
Measurements

Double-click on the image to enter the measurement interface. Under the 'Measurement' icon, choose any of the following options to measure.

Any Angle Line Measurement Click and hold from one point and drag to the next point, then release.

Continuous Line Measurement Allows you to measure any continuous length. Click, hold and drag from one point to other points, then release.

Radius Circle Measurement Click, hold and extend out to the chosen radius. The radius, circumference and area of the circle will be calculated.



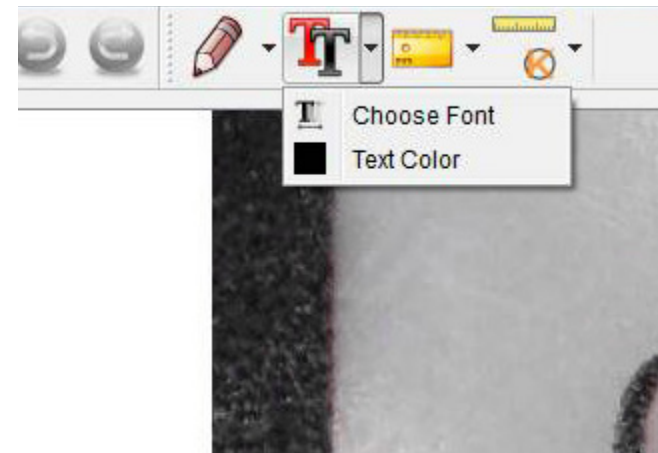
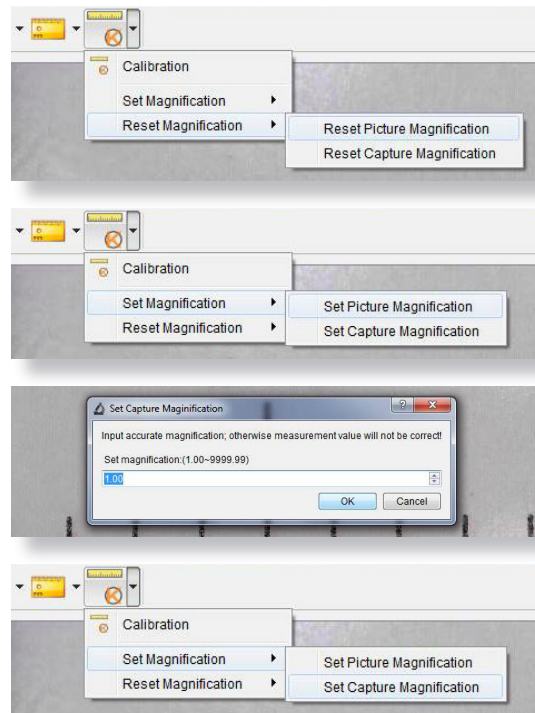
Diameter Circle Measurement Click, hold and extend out to the chosen diameter. The diameter, circumference and area of the circle will be calculated.

Three Points Angle Measurement Select any three points, the angle values will be calculated and displayed.

Changing Calibration

Use the following steps to change calibration settings.

1. Double-click to open the image, click the 'Calibration' icon, and select 'Reset Magnification' and then 'Reset Picture Magnification'. Then start calibration again.
2. Change the magnification rate and capture several images, click on the image to enter measurement interface. Select 'Set Magnification' then 'Set Picture Magnification', a dialogue box will appear; enter your chosen magnification rate and click 'OK'.
3. If you want to use the same magnification rate to capture pictures, click 'Set Magnification' then 'Set Capture Magnification' to save settings. All pictures will use the same magnification rate.



You can annotate captured images using the draw or add text features; this is useful when using for later analysis.

1. Click the pencil icon to bring up the drawing dropdown list. Select your preferred tool, and start drawing on the image.
2. Click the text icon to add writing to your captured image. From the dropdown select your preferred font, size and text colour.

Image sensor	2 Mega Pixels
Photo resolution	1920 x 1080, 1280 x 720, 640 x 480
Video resolution	1920 x 1080, 1280 x 720, 640 x 480
Focus range	Manual focus from 0mm to 150mm
Magnification ratio	10x or 200x
Video format	AVI
Photo format	JPEG
Light source	8 LEDs (brightness adjustable)
PC interface	USB2.0
Power source	5V DC from USB port
System requirements	Windows 7/8/10, Mac 10.12 and later
Languages	English, German, Spanish, Russian, Italian, French, Portuguese, Dutch, Polish, Japanese, Korean, Chinese
Bundle software	MicroCapture Plus (with measurement for Win/Mac)
Dimensions	Microscope: 110mm x 33mm

Problem	Solution
Photo capture or video is blurred or shaky	The image is not in focus, correct this by turning the Focus Wheel. Use the microscope stand when capturing images to avoid shake.
Microscope does not turn on	Try a different USB port . Download the Micro Capture Plus software.
Screen is blank	Ensure that the software is open and the scope is plugged in. Check the item you want to view is positioned correctly under the lens. Ensure the scope is focused.
Image looks smudged or blurred	Clean the screen and lens carefully with supplied cloth.

If these do not solve your problem please contact us via our Live Chat on our website at:

veho-world.com

Support

In the event you need to contact Veho for support or troubleshooting for your Veho DX-1 Microscope, please contact us via our Live Chat on our website at:

veho-world.com

