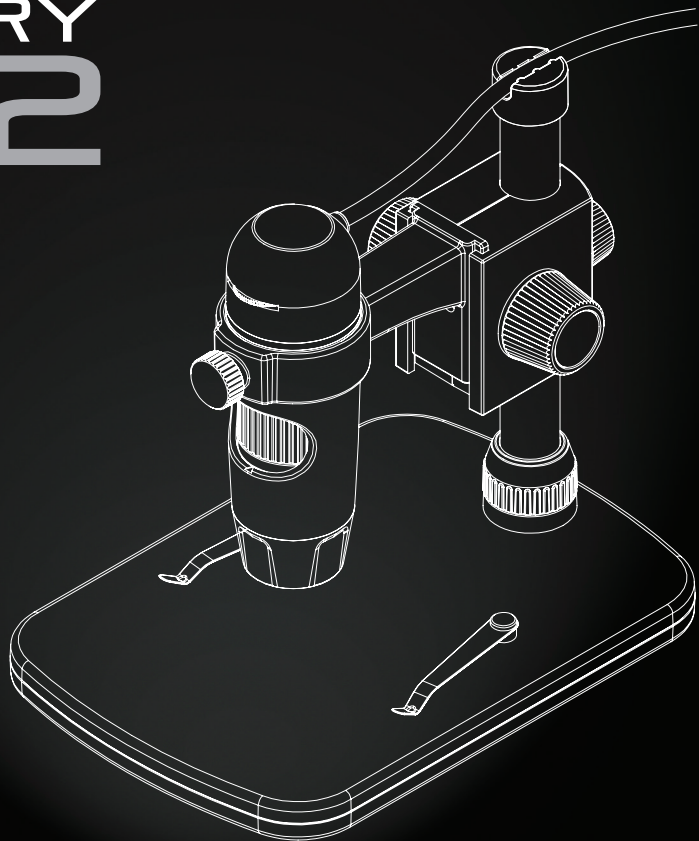


# DISCOVERY DX-2

User manual



The Veho DX-2 microscope allows you to explore the microscopic world. Highly useful for students, teachers, laboratory research, medical analysis, repair services or hobbyists.

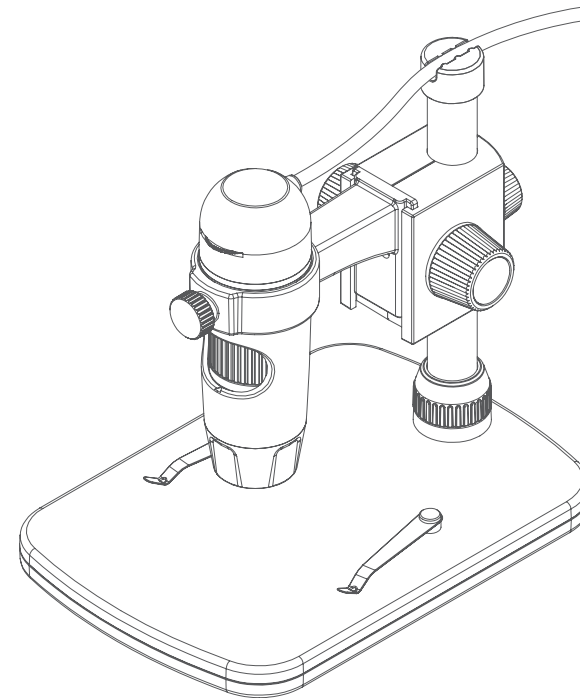
Please take a moment to read through this manual to ensure you get the most out of the microscope. Keep this manual safe for future reference.

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

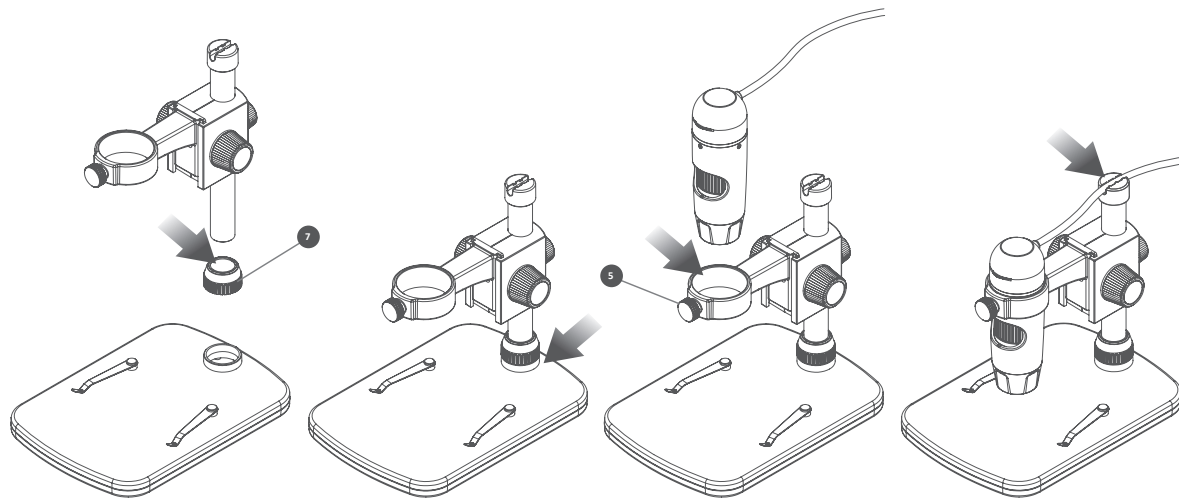
- The DX-2 microscope is not waterproof
- Use and store within a cool, dry environment (-5°C – 50°C), avoid using in damp conditions
- Do not point the lens towards the sun or a strong light source, this may damage the microscope
- Avoid touching the lens, unless with the supplied cleaning cloth
- Do not stare directly into the LEDs; they may damage your eyes

If you require assistance or have any questions about the DX-2 Microscope, please contact us through our Live Chat on our website at:

[veho-world.com](http://veho-world.com)



- Veho DX-2 Microscope
- Height adjustable stand
- Software CD
- Quick start guide
- Calibration ruler
- Cleaning cloth



1

Place the metal pole and mount through 'Screw 7'.

2

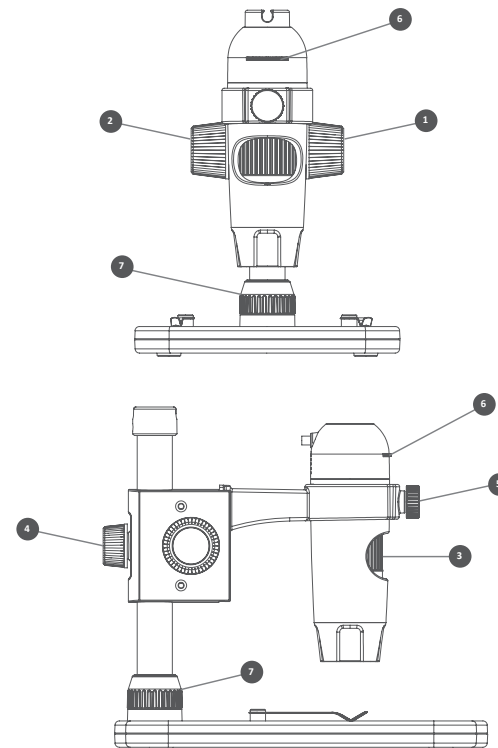
Next, insert metal pole into the stand and tighten 'Screw 7'.

3

Slide microscope through mount ring and tighten 'Screw 5'.

4

Ensure the USB cable is secured in top of metal pole.



- 1 **Height Adjustment Wheel** To adjust the distance between the scope and object
- 2 **Lock and Unlock Wheel** Used to lock the vertical height position
- 3 **Focus Wheel** Adjusts the focus of the microscope on the object
- 4 **Pole Screw** Secures the mount carriage to the metal pole
- 5 **Clamp Screw** Secures microscope in mount
- 6 **Brightness Wheel** Adjust the brightness of the 8 LED's
- 7 **Stand Screw** Secures the pole and mount to the stand

# Installing microscope software

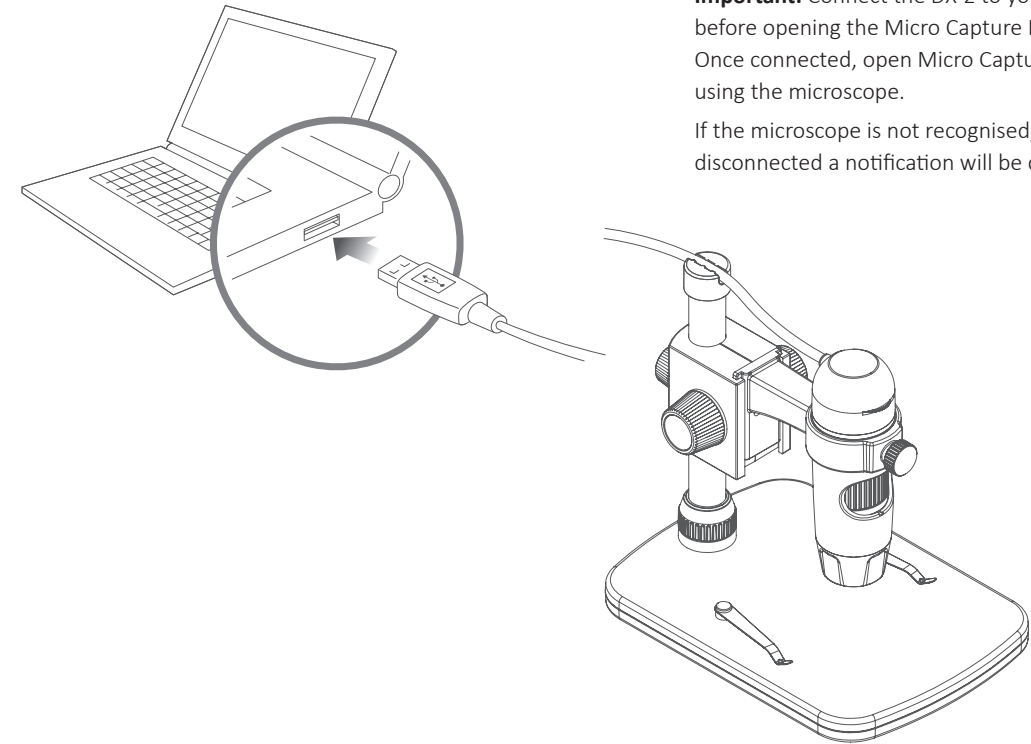
To install the Micro Capture Plus software, use the supplied software CD or visit our website download area at:

[veho-world.com/downloads](http://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



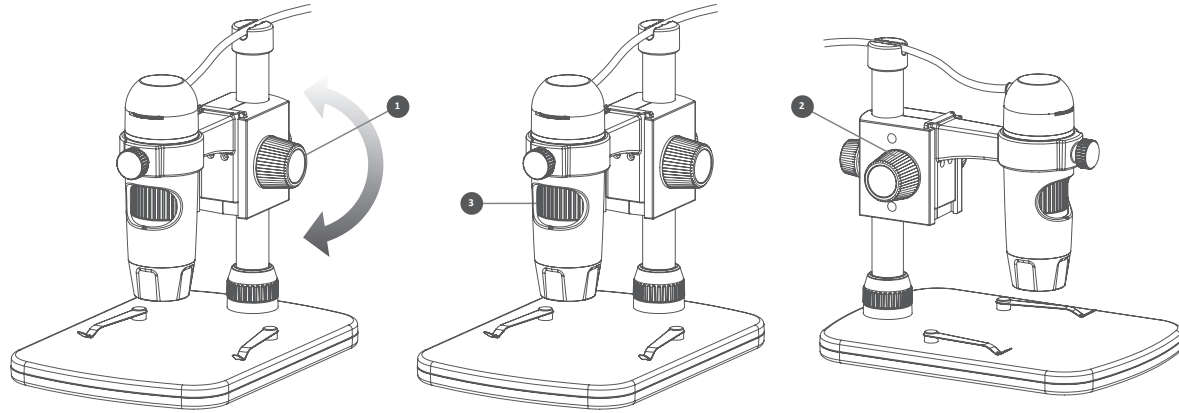
**Important:** Connect the DX-2 to your computer before opening the Micro Capture Plus software. Once connected, open Micro Capture Plus to start using the microscope.

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

# Using the microscope

## How to focus the microscope

Use the Height Adjustment Wheel (1) to get a rough focus, fine tune the focus using the Focus Wheel (3). When you have the correct focus use the Lock/Unlock Wheel (2) to secure the mounts position.

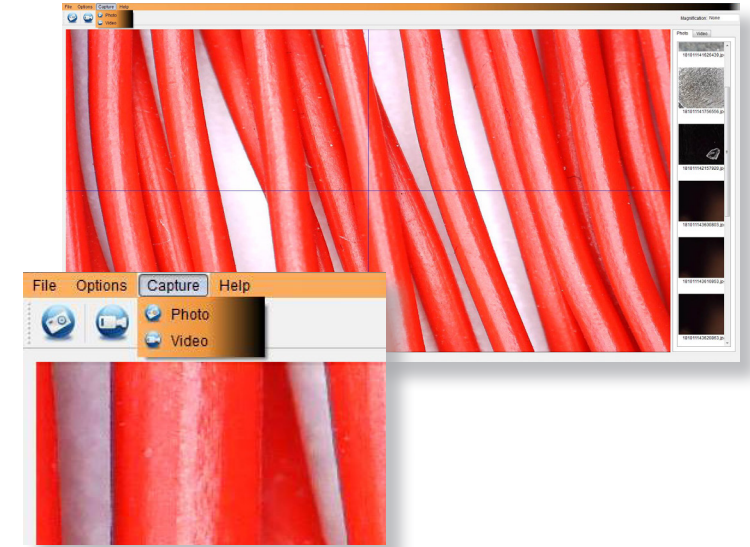


## Using the software

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



# Calibration & Measurements

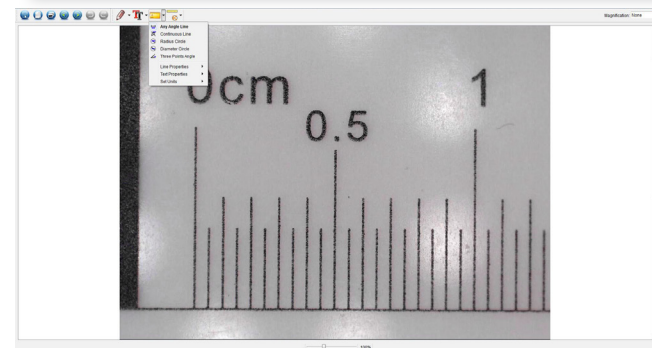
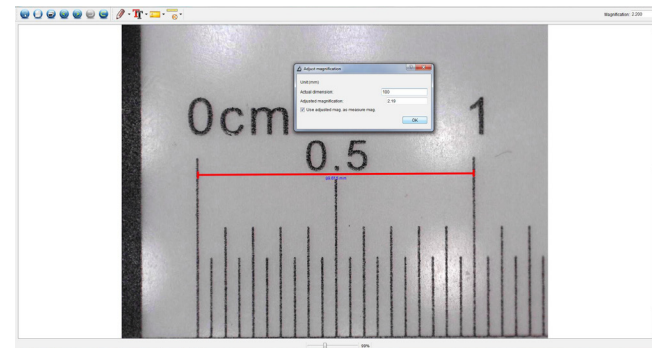
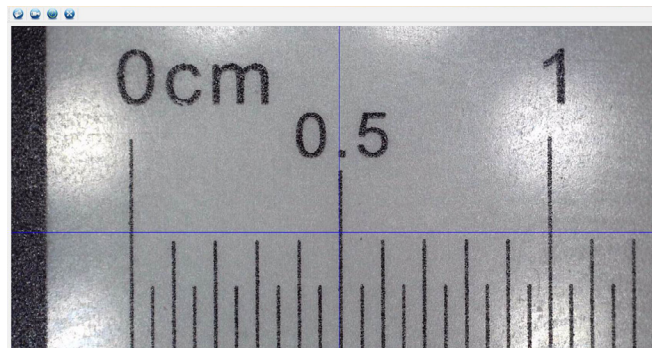
## Calibration

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.

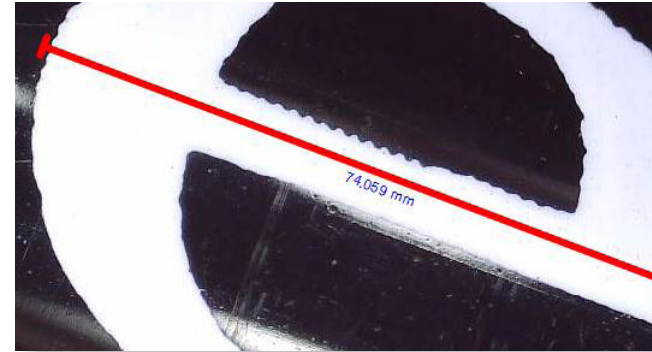
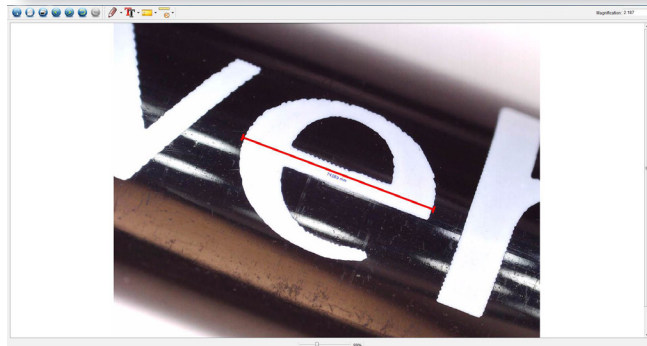
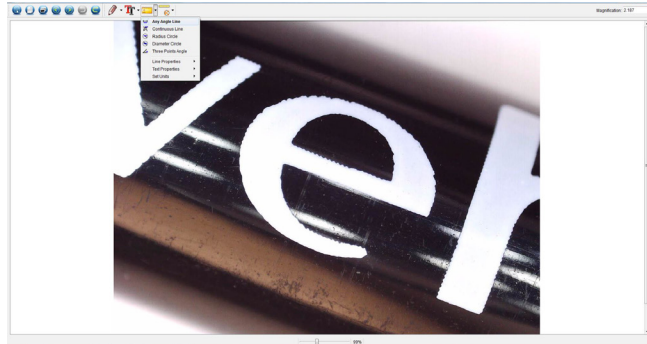
## Measurements

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.



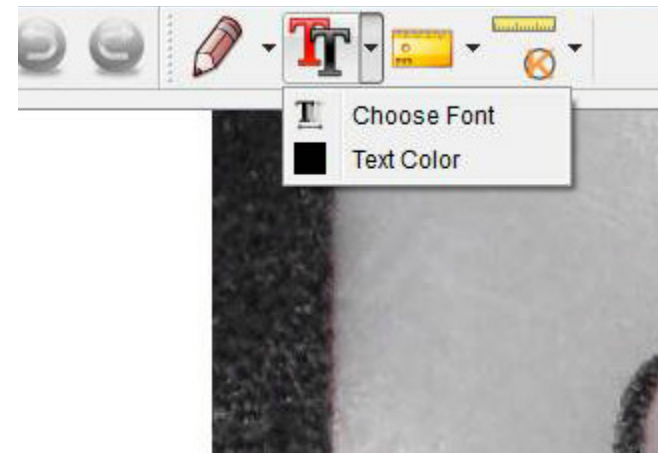
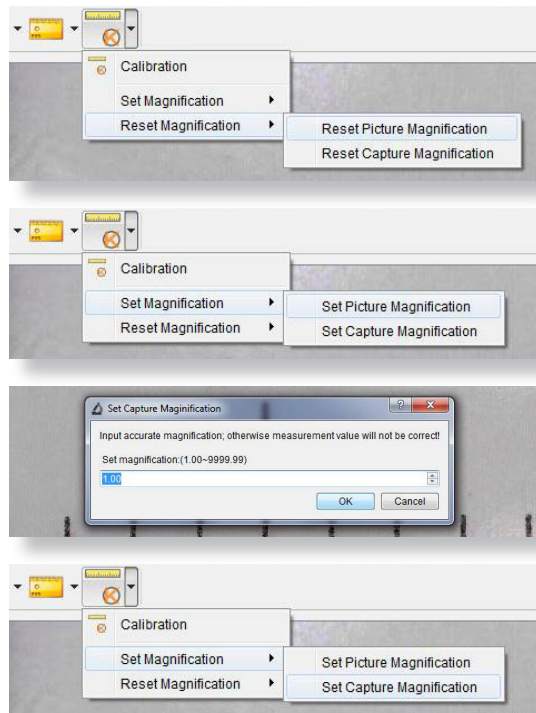
**Diameter Circle Measurement** Click, hold and extend out to the chosen diameter. The diameter, circumference and area of the circle will be calculated.

**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.



|                            |  |
|----------------------------|--|
| <b>Image sensor</b>        | 5 Mega Pixels  |
| <b>Photo resolution</b>    | 2592 x 1944, 2320 x 1744, 2048 x 1536, 1920 x 1080, 1280 x 1024  |
| <b>Video resolution</b>    | 2592 x 1944, 2320 x 1744, 2048 x 1536, 1920 x 1080, 1280 x 1024  |
| <b>Focus range</b>         | Manual focus from 0mm to 150mm   |
| <b>Magnification ratio</b> | 10x or 300x  |
| <b>Video format</b>        | AVI  |
| <b>Photo format</b>        | JPEG   |
| <b>Light source</b>        | 8 LEDs (brightness adjustable)   |
| <b>PC interface</b>        | USB2.0   |
| <b>Power source</b>        | 5V DC from USB port  |
| <b>System requirements</b> | Windows 7/8/10, Mac 10.12 and later  |
| <b>Languages</b>           | English, German, Spanish, Russian, Italian, French, Portuguese, Dutch, Polish, Japanese, Korean, Chinese |
| <b>Bundle software</b>     | MicroCapture Plus (with measurement for Win/Mac)   |
| <b>Dimensions</b>          | Microscope: 110mm x 33mm<br>Stand: 165mm x 118mm x 12mm  |

| Problem                                    | Solution  |
|--|---|
| Photo capture or video is blurred or shaky | The image is not in focus, correct this by turning the Focus Wheel.<br>Use the microscope stand when capturing images to avoid shake.                                 |
| Microscope does not turn on                | Try a different USB port.<br>Download the Micro Capture Plus software.  |
| Screen is blank                            | Ensure that the software is open and the scope is plugged in.<br>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](http://veho-world.com)

# Support

In the event you need to contact Veho for support or troubleshooting for your Veho DX-2 Microscope, please contact us via our Live Chat on our website at:

[veho-world.com](http://veho-world.com)

