

# DX56P

## Zoom Digital Microscope

### User's Manual

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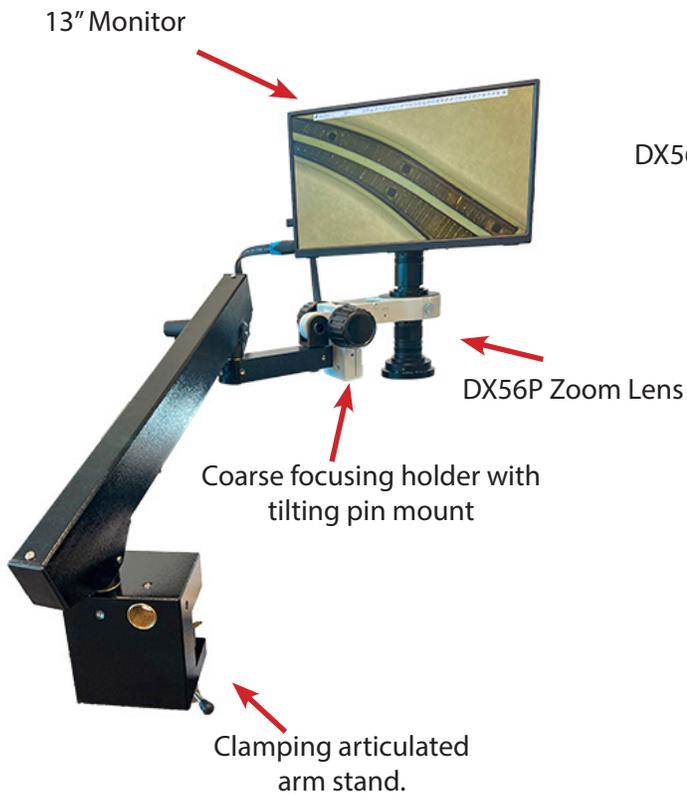
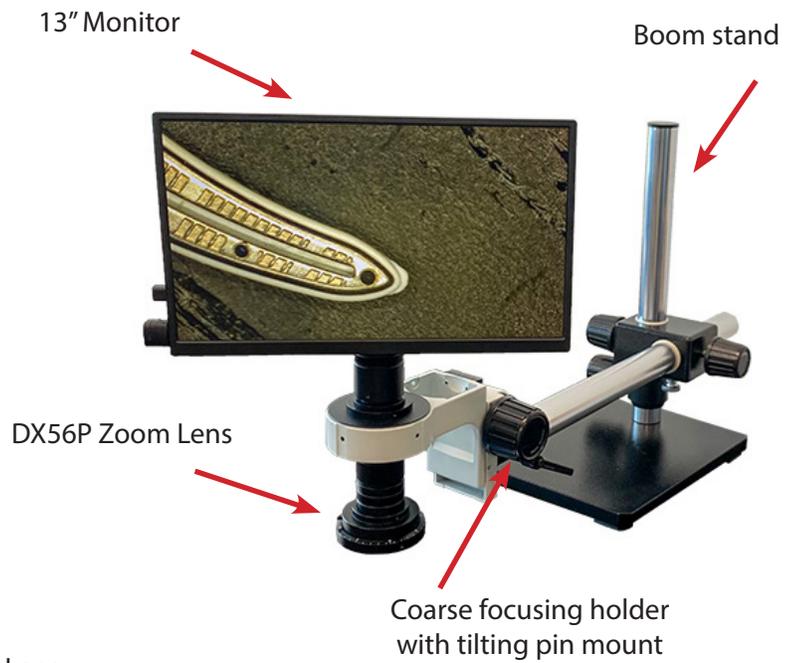
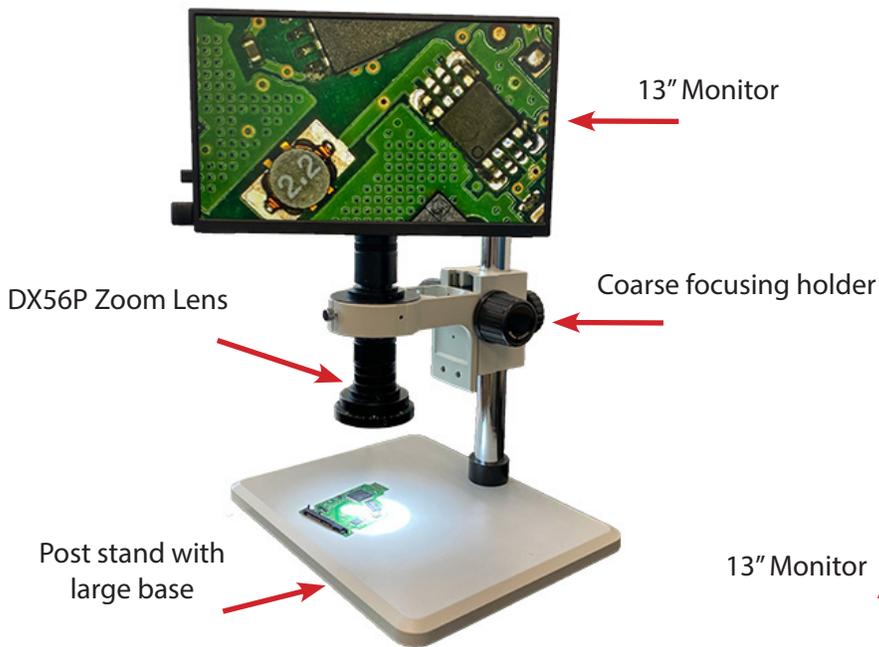


[info@feinoptic.com](mailto:info@feinoptic.com)

# DX56P Zoom Digital Microscope Components



# DX56P Zoom Digital Microscope System Components



# 2mp HD & 8mp UHD 4K Camera Components

## 2mp HD Camera Components



## 8mp UHD 4K Camera Components



# 13" HD & 13" UHD Monitor Components

## 13" HD & 13" UHD Monitor Components

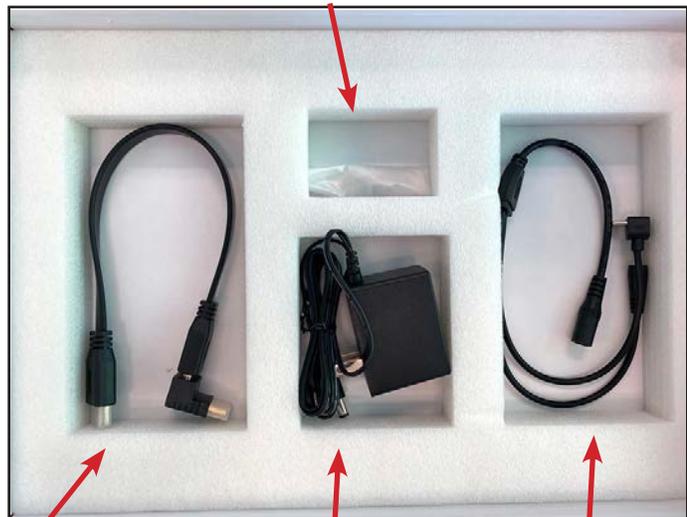


13" Monitor



Allen key and screws to mount camera to monitor.

Mounting bracket used only for 8mp UHD 4K camera



HDMI Cable for connecting monitor to camera

Power Adapter

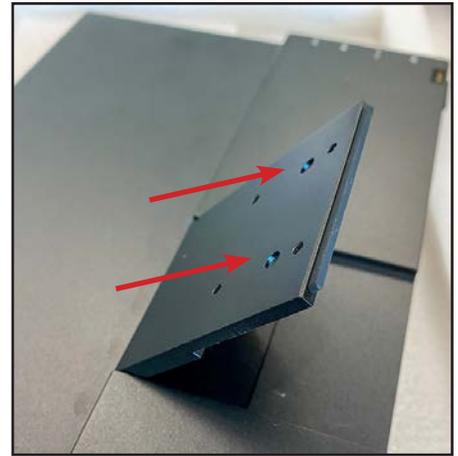
Power Adapter Splitter

# Camera and Monitor Assembly

## 2mp HD Camera and Monitor Assembly



Locate the 2 holes on the camera and the 2 holes on the monitor mount.



Line up the camera as shown below. Fasten the screws to the mount so the camera is secure as shown below.



The allen key and screws required to secure the camera are located beneath the monitor and the foam in the camera box.

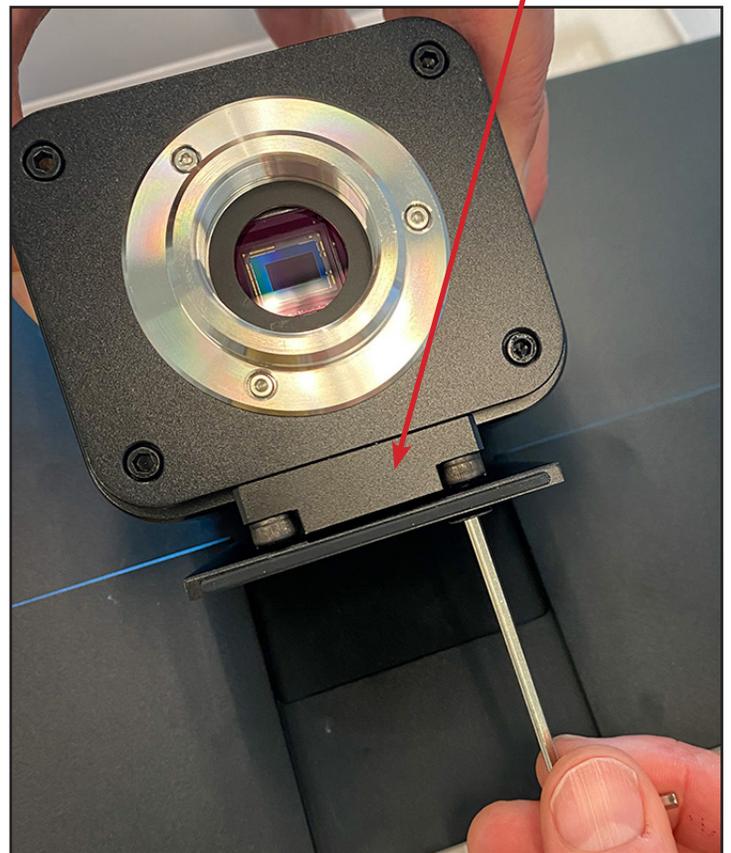
## 8mp UHD 4K Camera and Monitor Assembly



Follow the same steps as the 2mp HD camera to assemble the 8mp UHD 4K camera and monitor. There is a bracket included with the 8mp UHD 4K camera that is used to attach the camera to the monitor.



Locate the 2 holes on the camera and the 2 holes on the monitor mount. Line the holes up with each other. Fasten the screws to the mount using the allen key.



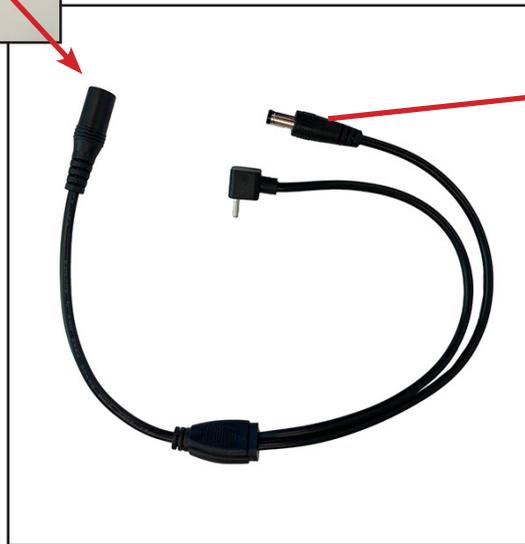
# Camera and Monitor Assembly



Insert the main power adapter into the remaining connection of the power adapter splitter.



Attach one end of the power adapter splitter to the DC12V power adapter input on the camera.



Attach the other end to the DC12V power adapter input on the HD monitor.



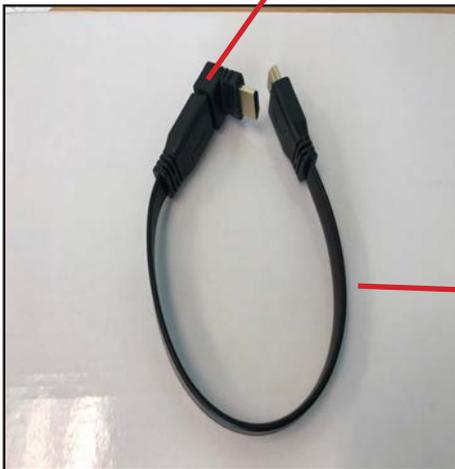
# Camera and Monitor Assembly



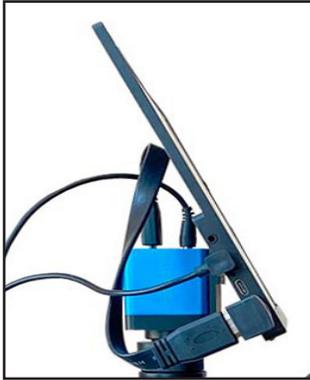
Insert the USB mouse into the USB Mouse slot on the camera.



Insert one end of the HDMI cable into the HDMI slot on the camera, and the other end into the monitor as shown below.



# Camera and Monitor Assembly



Now that the monitor and camera are assembled, attach the monitor and camera to the DX56P lens. Remove the dust cap revealing the c-mount adapter threads. Align the bottom of the camera with the c-mount adapter threads and screw the camera on until securely attached to the lens.



# Getting Started



Now that the camera and monitor are assembled to the microscope, power on the camera and monitor.



The 2mp HD camera will power on upon plugging in the power cord. The blue indicator light will be illuminated.



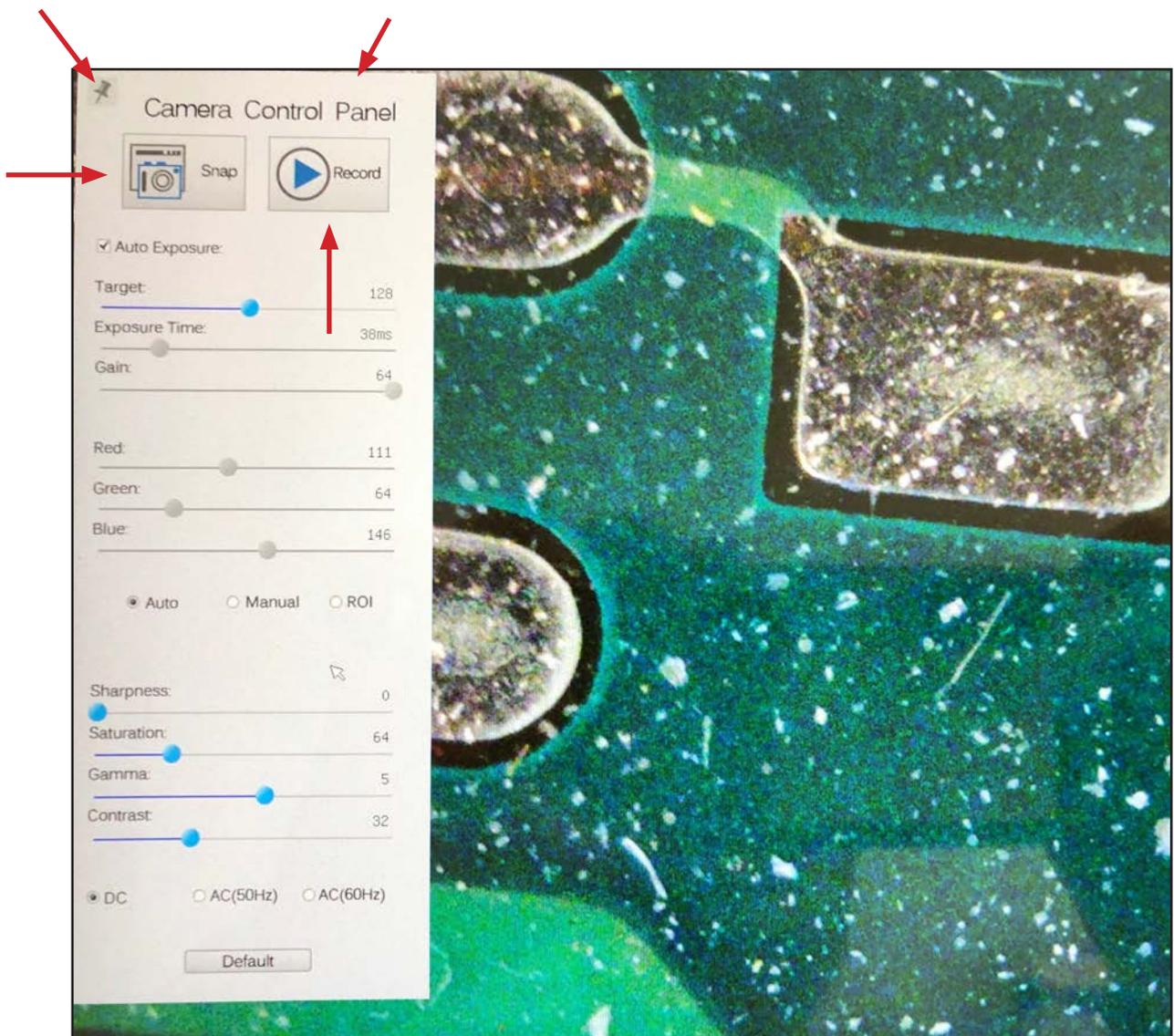
The 8mp UHD 4K camera requires the power cord plugged in. Press the ON/OFF button located on the top of the camera.



Power on the monitor by pressing the ON/OFF button located on the side of the monitor. After a few seconds, a live image of your stage/specimen will appear on the monitor.

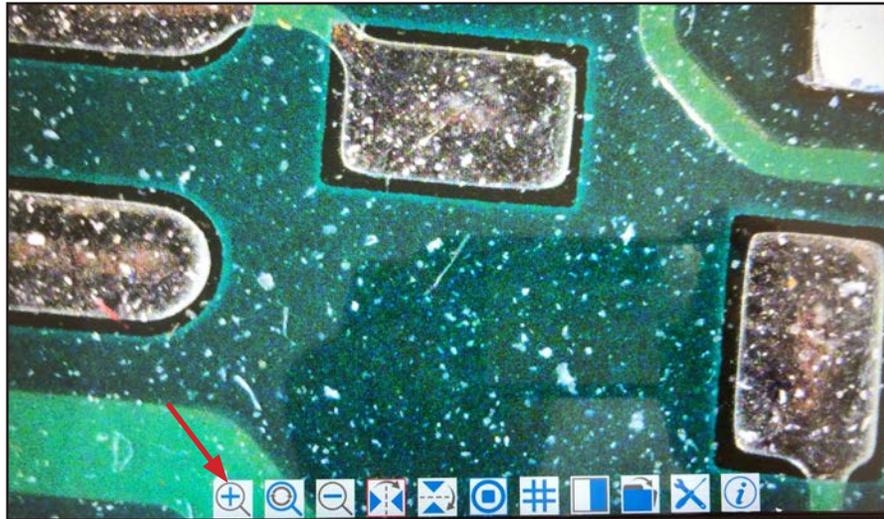
# Working with the Tool Bars

- Hover the mouse cursor on the left hand side of the monitor.
- A control panel will appear.
- Here you can enhance the appearance of your image by adjusting the settings.
- To capture an image click the Snap button. The image will be saved directly to the SD card.
- To begin recording a live image, click the Record button. To stop the recording, click the Record button again.
- This tool bar can be pinned by clicking on the thumb tack.



## Working with the Tool Bars

- Hover the mouse cursor in the lower center portion of the monitor.
- A tool bar will appear with additional options.



- Zoom In- Select this button to zoom in on the image.



- Reset Zoom- Select this button to reset the zoom on the image back to the default zoom setting.



- Zoom Out- Select this button to zoom out on the image.



- Horizontal Flip- Select this button to horizontally flip the image.

# Working with the Tool Bars



- Vertical Flip- Select this button to vertically flip the image.

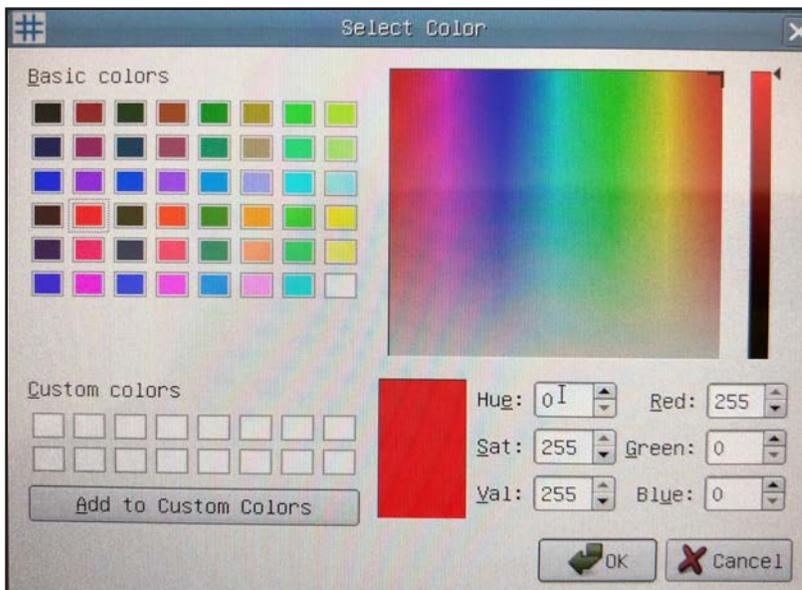
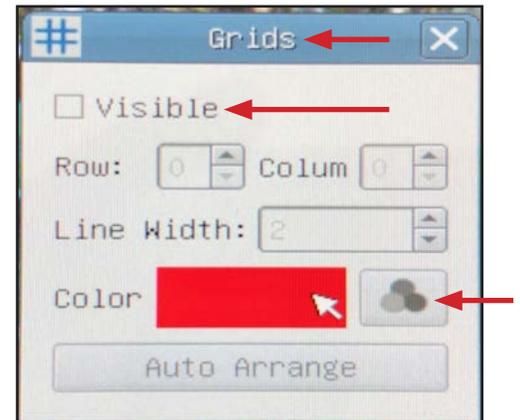


- Freeze / Resume- Select this button to freeze or resume.



- Grids- Select this button to create a grip overlay on your live image.

- A grid box will appear with options to select the number of rows and columns.
- There is also an option to change the color of the grid lines. By selecting the "Color" button. A "Select Color" box will display allowing the grid color to be customized.
- To remove the grid overlay, uncheck the "Visible" box.



# Working with the Tool Bars



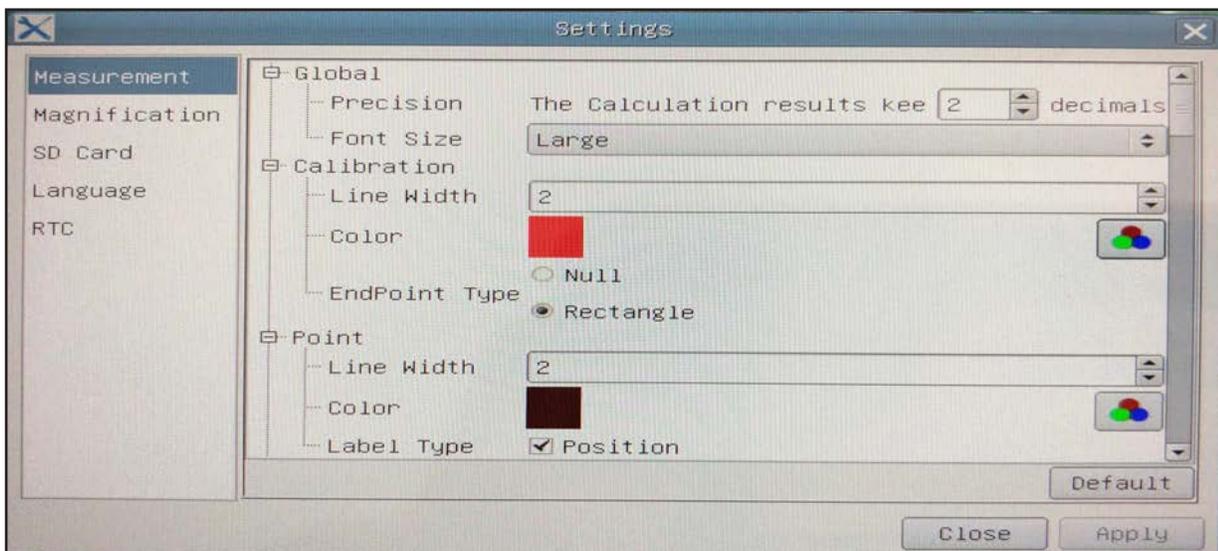
- Compare image- will split the monitor allowing for a side by side comparison of a chosen captured image and the live image.



- Browser- Allows access to the captured images saved to the SD card.



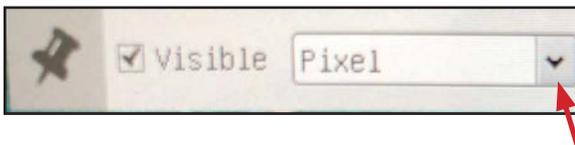
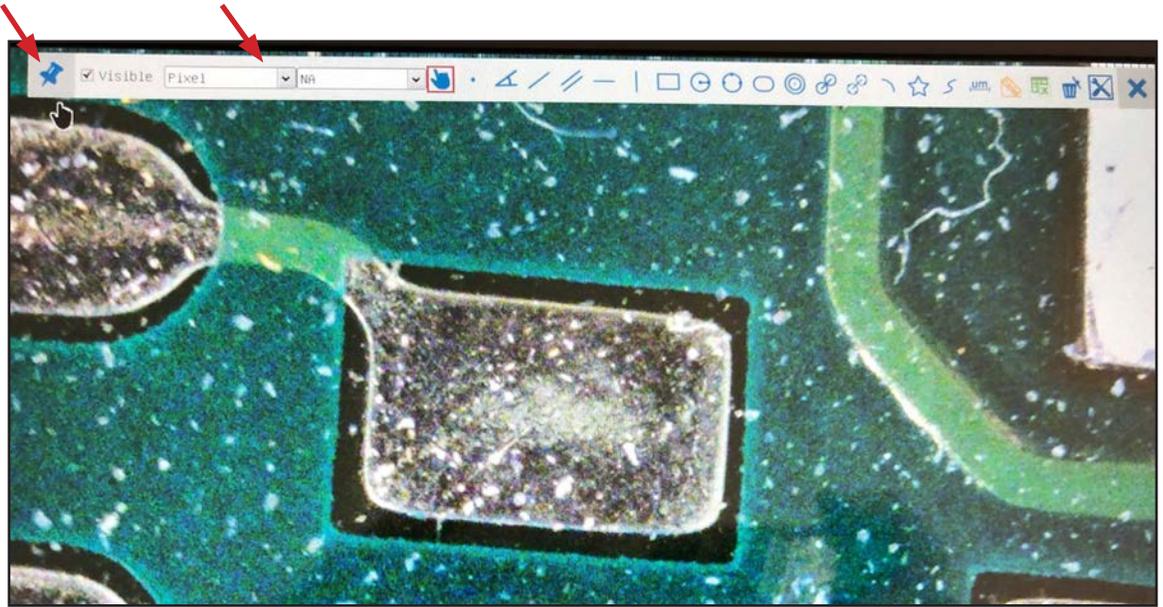
- Settings- Access camera and feature settings to customize preferences.



- Info- Advises the software version.

## Working with the Tool Bars

- Hover the mouse cursor in the upper center portion of the monitor.
- A tool bar will appear with additional options.
- The tool bar can be pinned by clicking on the thumb tack.

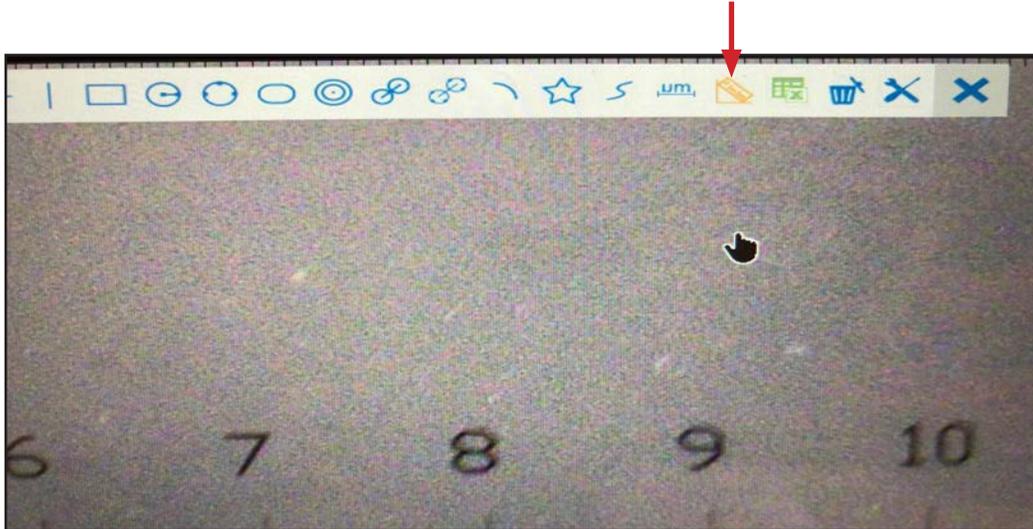


- Select the drop down arrow to select the unit of measure.

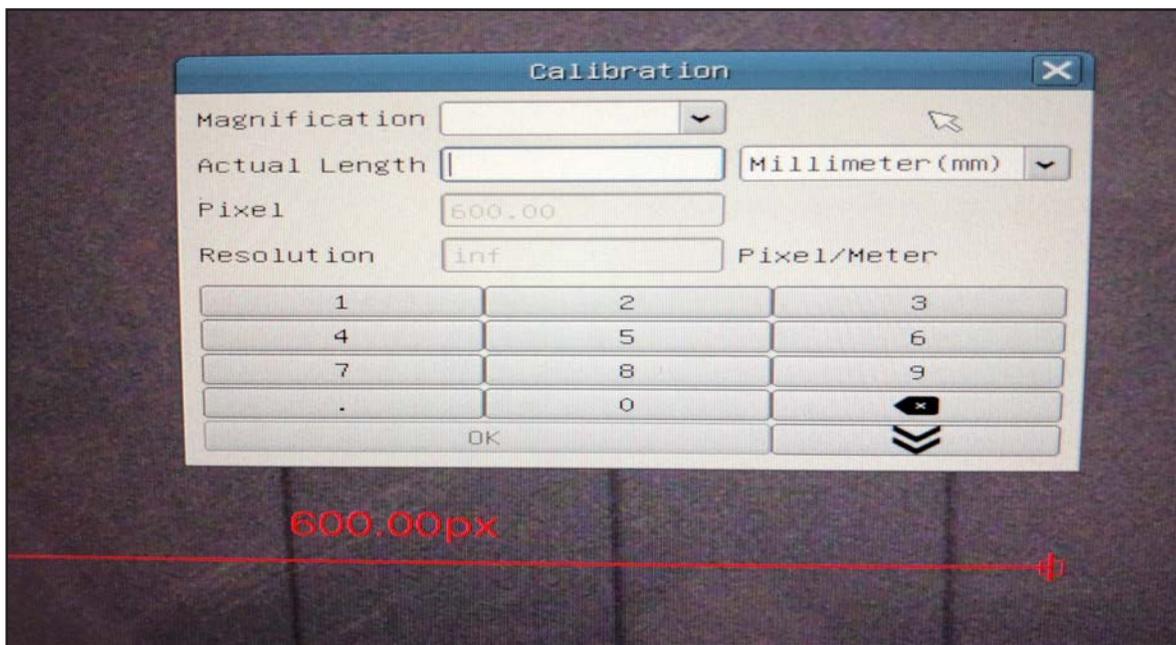
- This tool bar offers many options for different measurement methods.
- The microscope and camera must first be calibrated for accurate measurements.

# Calibrating and Measuring

- Place a stage micrometer on the specimen stage and bring it into focus. Hover over the top tool bar and select the calibration icon.

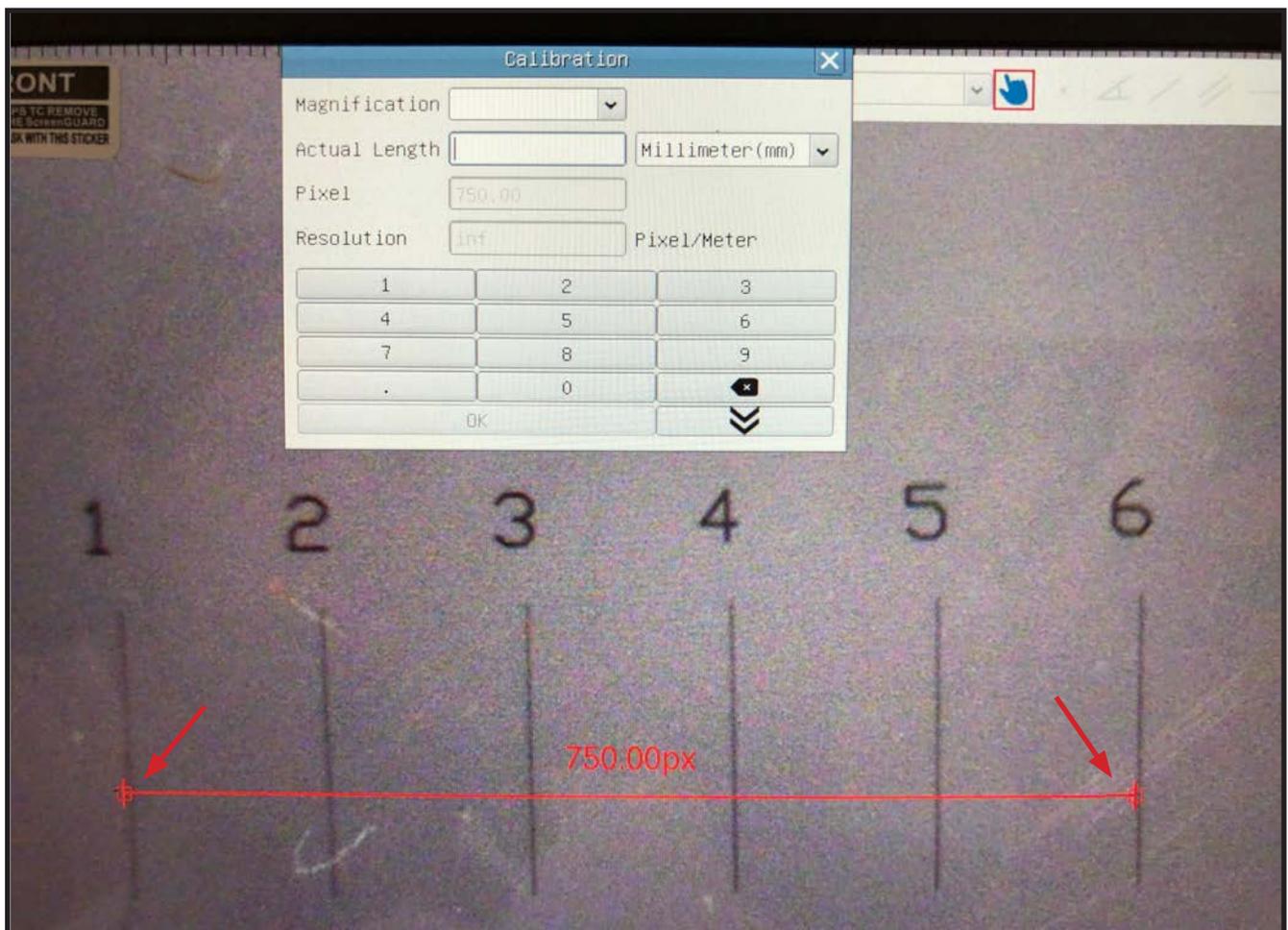


- A calibration box and a measurement line will appear.



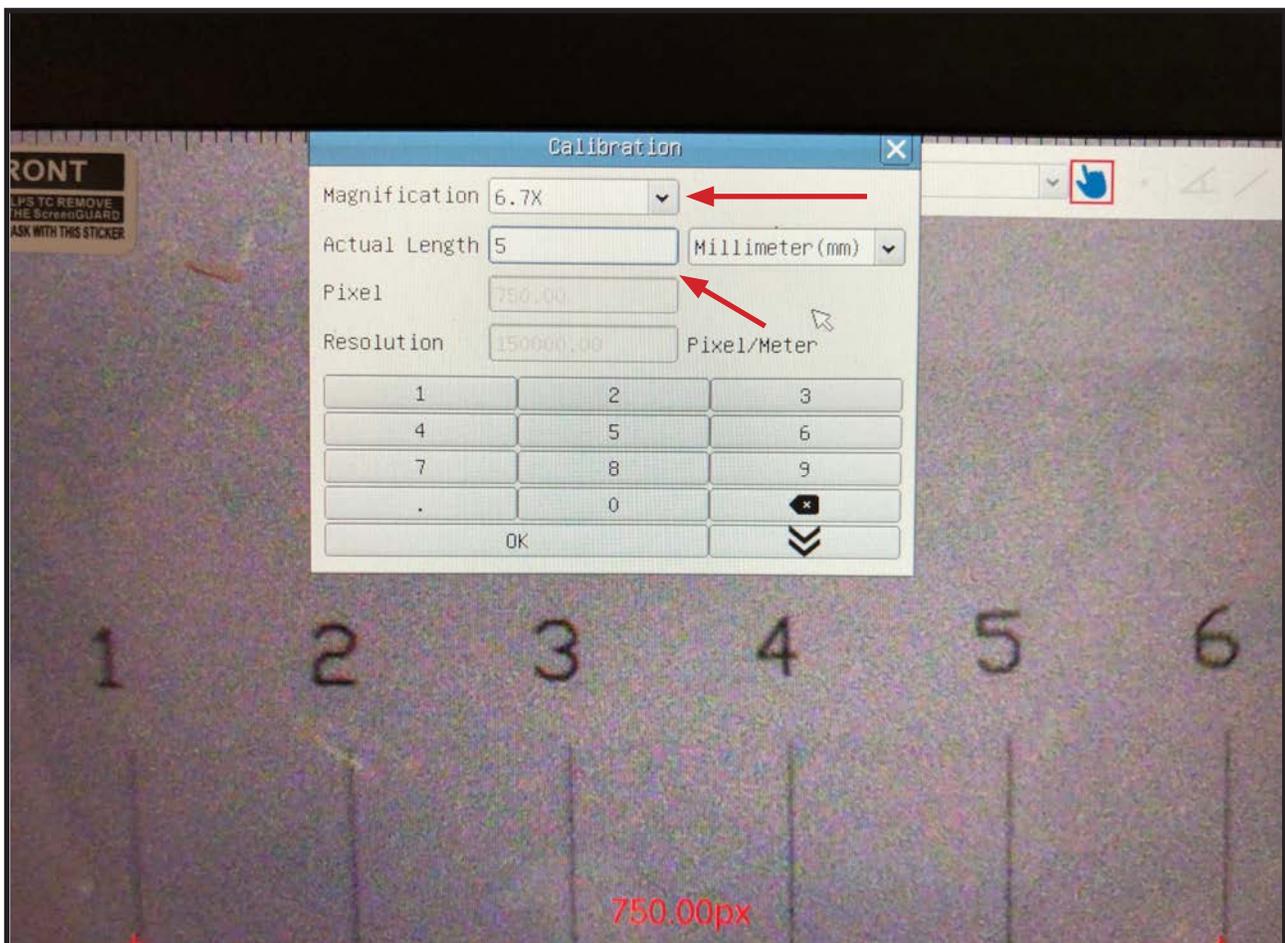
# Calibrating and Measuring

- Use the mouse cursor to place the left side of the measurement line on the leading edge of the stage micrometer. In this case it is the 1 mm line.
- Then move the right side of the measurement line to the inside edge of the furthest visible line. In this case it is the 6 mm line.



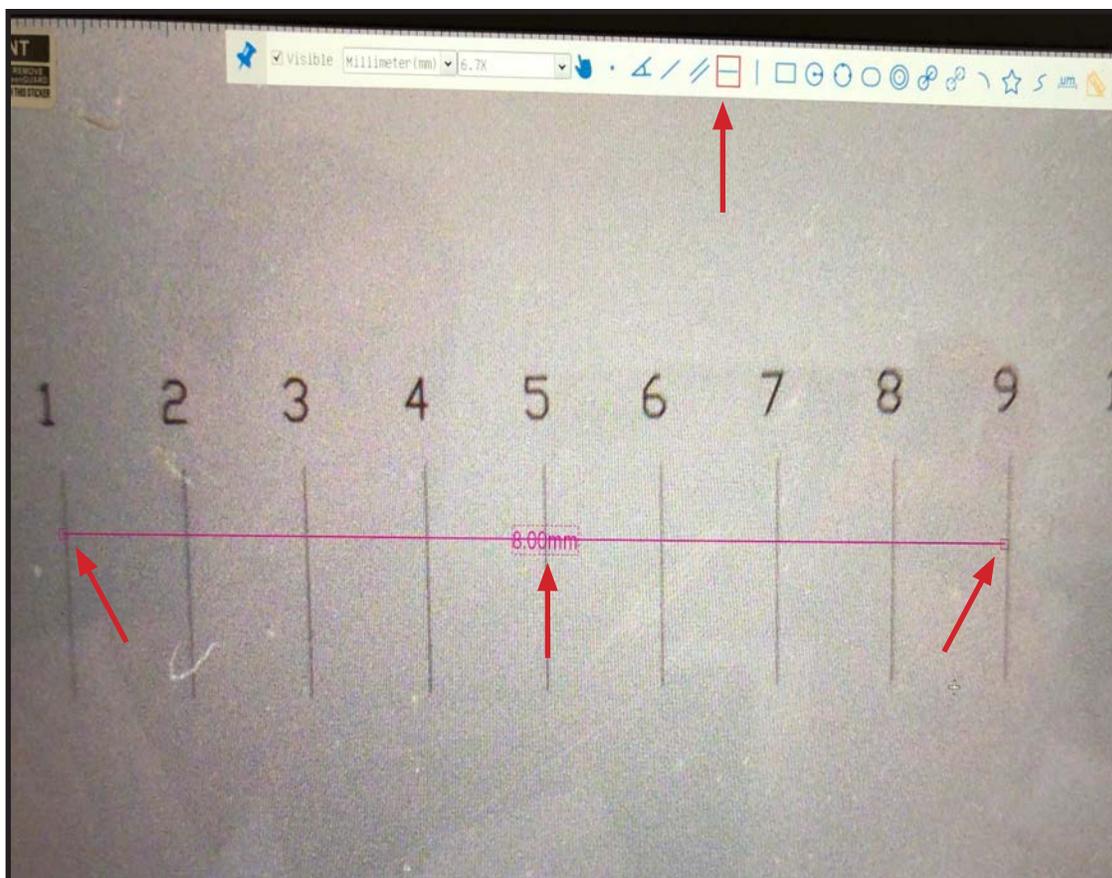
# Calibrating and Measuring

- Input the total magnification by using the drop down box or the mouse to select the magnification with the numbers provided in the keypad.
- In this example the total magnification is 6.7x (10x eyepieces with .67x detent on the stereo microscope)
- Next input the actual length which appears above the measurement line. In this example it is 5 mm.
- Click OK and the calibration is complete.



# Calibrating and Measuring

- Test the calibration by selecting the horizontal line option from the top tool bar.
- Using the cross-hair cursor that appears, click on the leading edge of the stage micrometer line.
- Then move the measurement line to the inside edge of a stage micrometer line.
- The measurement of the line will appear in the unit of measurement that was initially selected when the calibration was performed.



## Problem

## Solution

No live image displayed	Camera or monitor are not powered on. Check the power cord and press the ON/OFF buttons.
Live image is dark	Adjust the illumination on the microscope. Use the white balance option on the control panel.
Live image is upside down or backwards	Use the Rotate and Flip features on the tool bar.
Dust or dirt is visible in the live image.	Clean the sample Clean the C-mount Clean the lens on the camera