

# How to use camera on the Stereo Zoom scope.

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Step 1. Turn on the camera power, it might be ON already, if so turn OFF and then back ON.



On / Off switch location

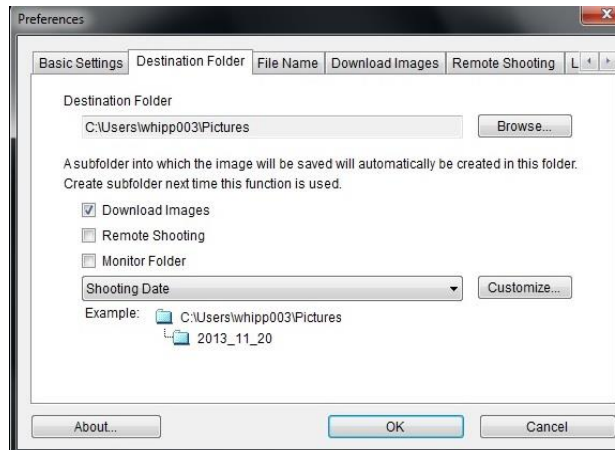


To make image viewable pull knob out.

Log into the computer using your X.500 account name and password. If you do not have one contact Matt Lowe for help. The first turn on the light to the microscope, start at a low amount at first.

## -> Starting the software

You can find a program called “EOS Utility” start that program, it might be in the start menu under Canon Utilities.



Select the ‘ Camera settings /remote shooting ’ option. The program will open a new window displaying all the options you can select. Preference button can set where to save images at and naming methods. Remember that if your sample is very reflective then a small amount of light is needed, if it is dark or has a rough surface than more light might be needed to make it visible.



Manual mode

Click to take image

Shutter speed( fraction of second)

Image brightness/quality

White balance selection  
Can select or scroll options

Change lighting view  
Tungsten seems best mode

Click here to have live image

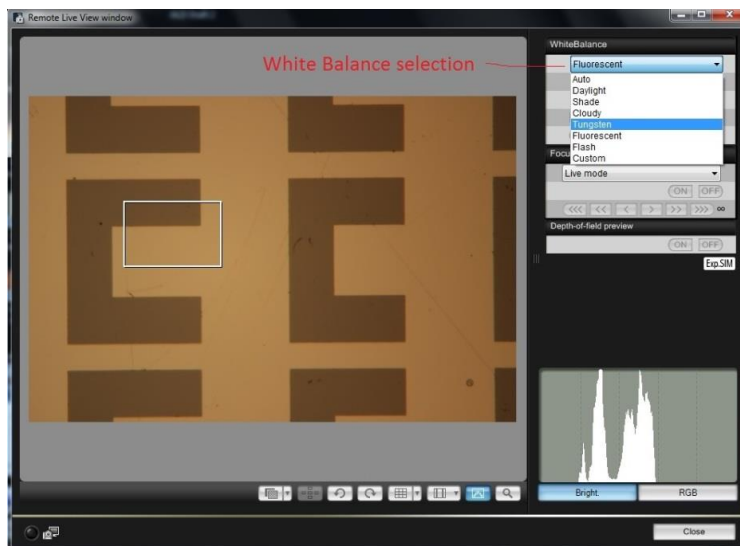
**EOS control panel – select Live View first thing for on screen image.**

-> Setting up to get an image

The fastest method is to just click on the 'Live View Shoot' to get a live view window open. Once the window is open you can see what the camera has for an image. While adjusting the three controls on the microscope ( the lamp power, polarizer, and the Iris ) to get a good image - and moving the focus. The EOS control panel has several things that can be adjusted to get a working image. Adjust shutter speed and ISO to get the image looking the best. Keeping the ISO from 100 to 400 is the best range. Going higher will result in an image that has more of grainy look to it.



Remember this needs to be pulled out to get light to the camera.




Live View window with White balance options, Tungsten seems to be best for image color.

-> Capture the image

Once the sample has the correct lighting, now press the large button in the upper right corner of the EOS control panel. This will capture the image, a small window with the captured image will open. The image is now saved in the directory that was setup from the Preference section. Clicking on the image will make the DPP ( Digital Photo Professional ) program open up. This has other options that can be used help manage the images. There are other programs that can be used to edit the images. The images can be removed from the computer by USB drive or mailing them to yourself.

->Video recording – HDR movie recording

Rotate main dial to movie icon  then power on, start software – Live View on – get image focused and when ready click on **red button** – timer next to button will start counting. When done click the button again. Get you image file from the on camera memory by going to this directory:

Canon EOS Rebel T3i / SD / DCIM / 100 Canon copy or movie the file, copy it to your USB drive or other place. Remove the file from the camera's memory once you know it copied correctly. Move Dial back to **M** when you are done for normal picture capturing.



Rotate this to Movie icon for movie recording or **M** for still images.

### *Programs installed to help with the images:*

**PhotoStitch** - The Stitching program can merge smaller images into one large image, it is best to put all the images to make a larger image into a separate directory. Then start the program and select the images as needed to form the larger image.

**ZoomBrowser** – This has a mix of controls for the camera and editing of the images too.

**Gimp** – This is an open source program that has been around for many years, icon on desktop.



Heicon - Software allows several focal plains to be combined to have a single image that are all in focus. Just like a confocal image but using lower zoom power for large objects. Take photos while varying the focus and start the Heicon software to combine the images for a nice depth of field image.