



DUAL-SYSTEM MICROSCOPE

Instruction Manual

November 2010

Ver. 1.3

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1. Features

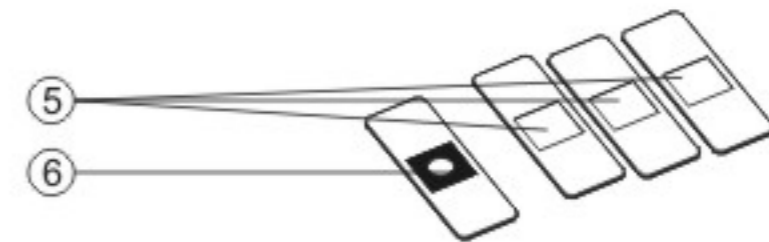
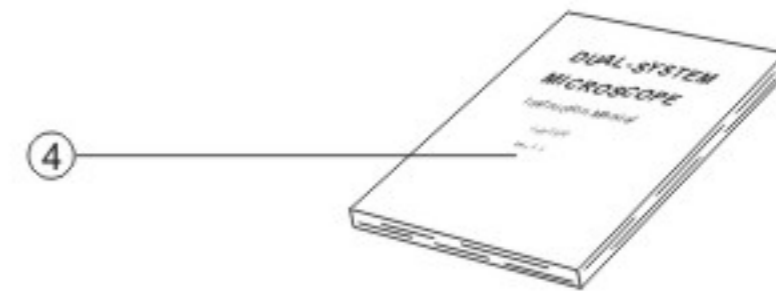
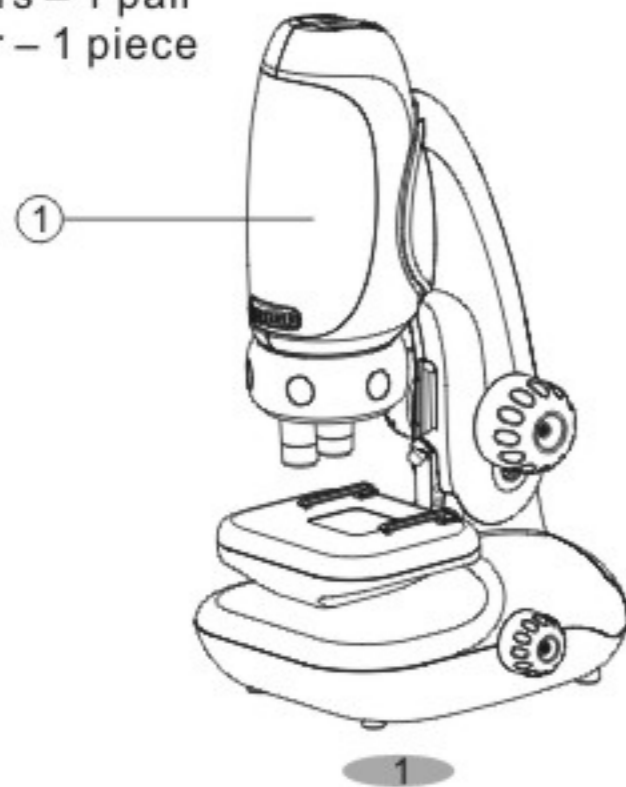
This microscope is a dual-system, optical and digital, device. It can be used as a conventional microscope by viewing through an eyepiece as well as via a computer by attaching the Digital iCam™.

The microscope have three (3) Objective Lens of magnification power 50x, 100x and 200x, in addition to the 2x Zoom lens built within the microscope body which together can provide up to 400x magnification power.

The main microscope body can be detached from the microscope stand and used as a handheld microscope if lighting is sufficient.

2. Package Content

1. Microscope (consists of Microscope Body and Stand) - 1 set
2. Digital iCam™ - 1 set
3. Digital Viewer™ Software Installation CD – 1 Disc
4. Instruction Manual – 1 booklet
5. Blank Specimen Slide – 3 pieces
6. Prepared Slide with Cotton Swatch – 1 piece
7. Tweezers – 1 pair
8. Dropper – 1 piece



3. Minimum Requirement for Digital iCAM™

3.1 For PC

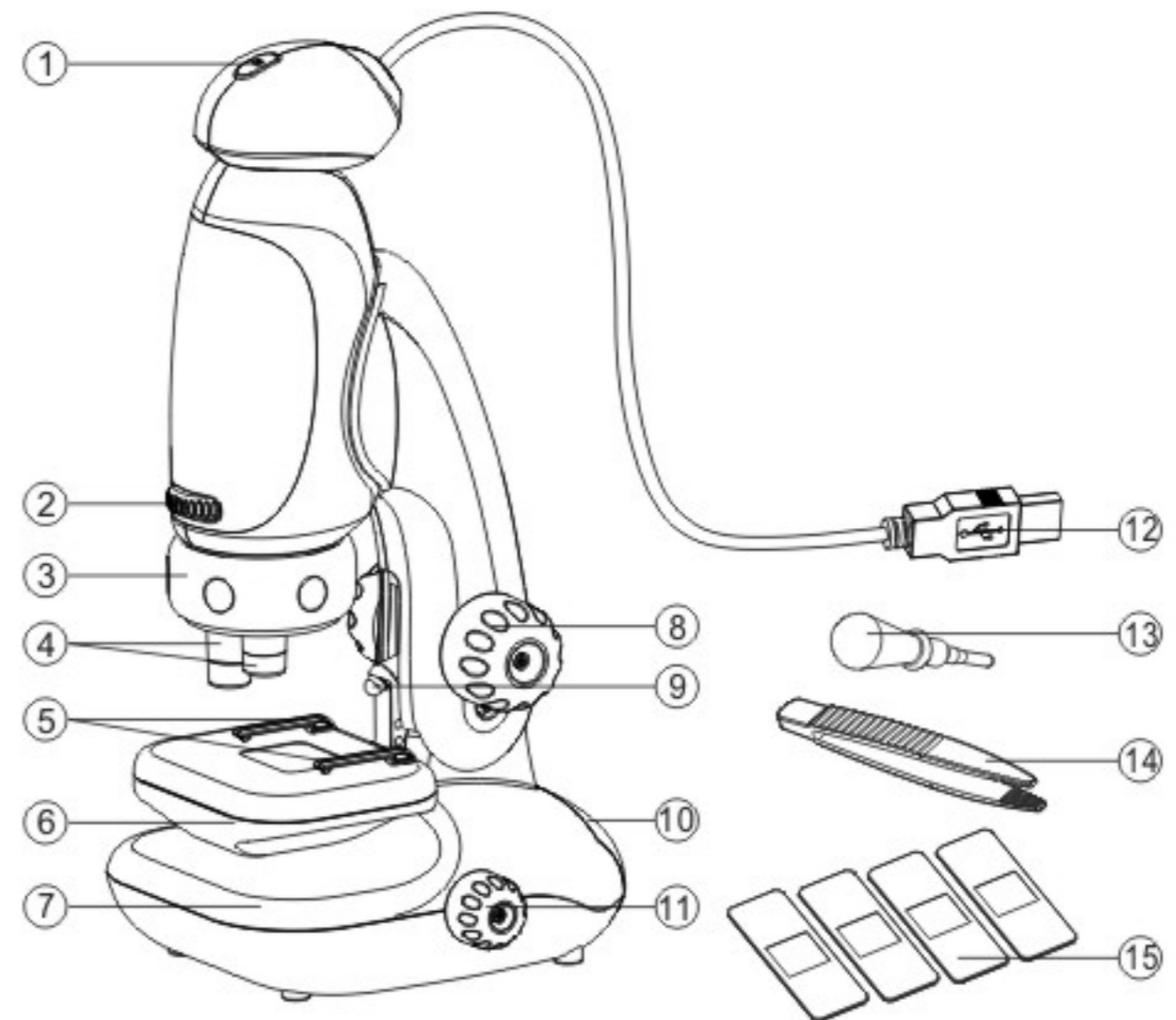
1.8 GHz Intel / AMD Processor;
256 Mbytes of RAM;
USB Version 2.0;
A Compact Disc Drive;
Free Hard Disk Space of 10 Mbytes;
Windows® XP SP3, Windows® Vista and Windows® 7.

3.2 For MAC

PowerPC G3, G4, G5 or Intel-based Processors;
256 Mbytes of RAM;
USB Version 2.0;
A Compact Disc Drive;
Free Hard Disk Space of 10 Mbytes;
OS X version 10.4.8 – 10.6.2;
QuickTime 6.5.1 or above

4. Part and Control Location

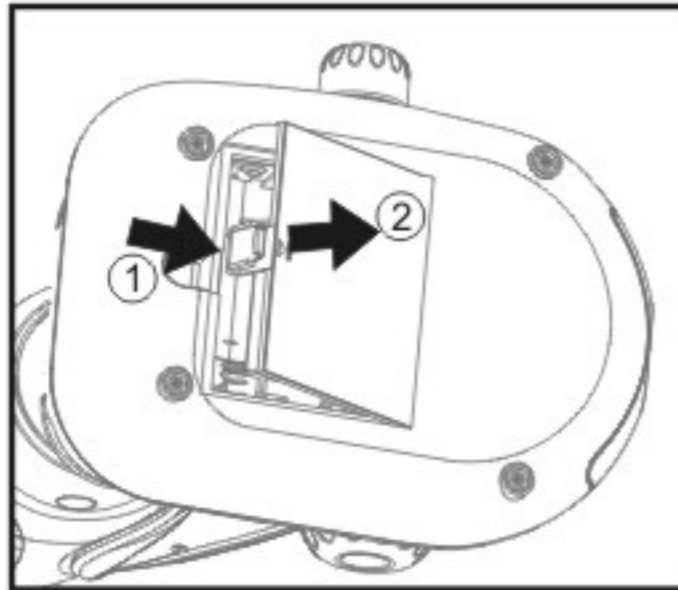
- | | |
|--------------------------|---------------------|
| 1. Snap Button | 9. LED Illumination |
| 2. Optical Zoom Wheel | 10. Storage Drawer |
| 3. Objective Lens Turret | 11. LED Switch |
| 4. Objective Lens | 12. USB Cable |
| 5. Stage Clips | 13. Dropper |
| 6. Specimen Stage | 14. Tweezers |
| 7. Microscope Base | 15. Specimen Slide |
| 8. Focusing Knob | |



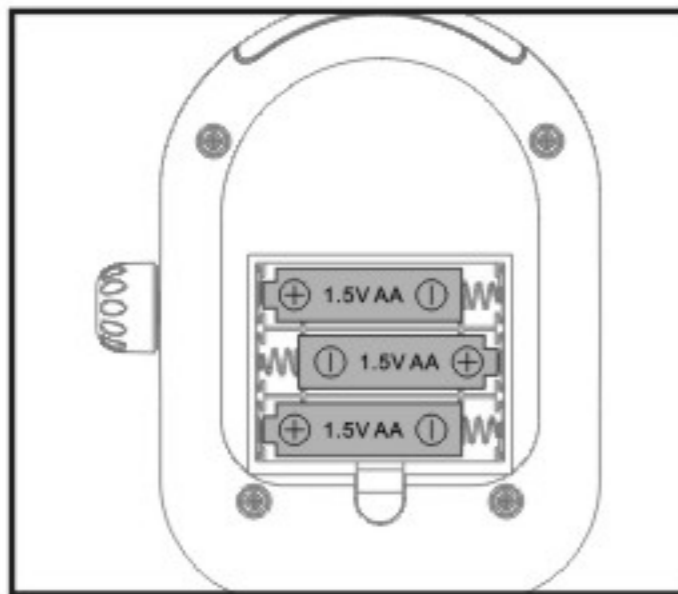
5. Using the Microscope

5.1 Battery Installation

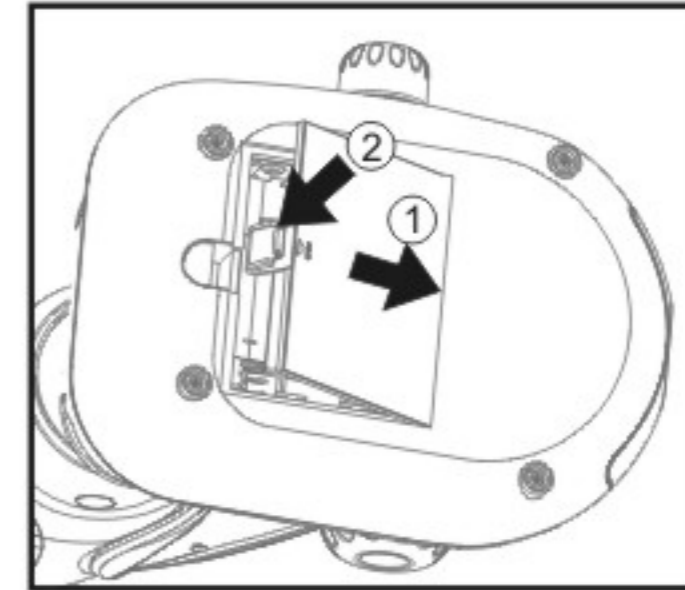
1. Open the battery compartment door, located at the bottom of the Microscope Base, by lifting and pushing the compartment door latch in the direction shown in the below diagram.



2. Install three (3) alkaline AA size batteries with the correct polarity shown inside the battery compartment.



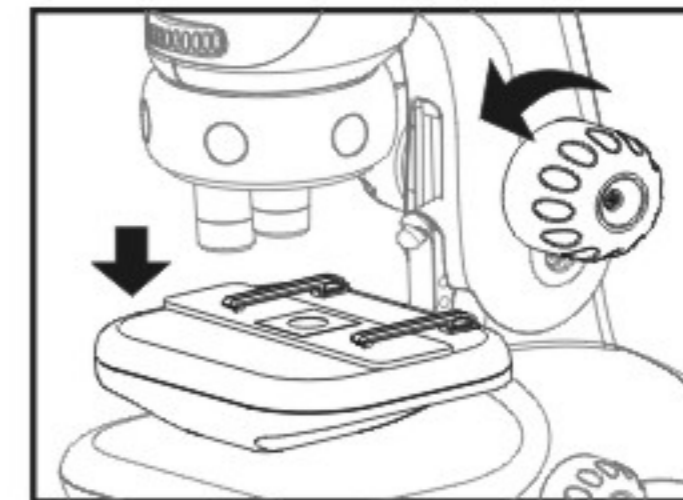
3. Replace the battery compartment door.



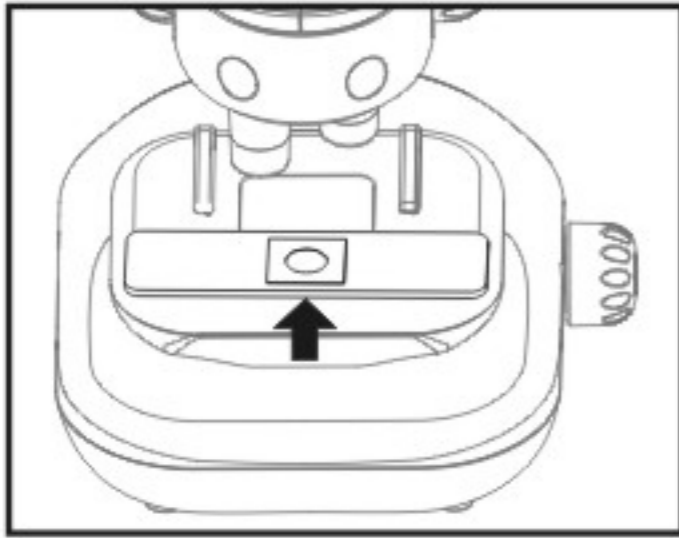
Note: Please avoid using mixture of new and used batteries; Remove all batteries from the battery compartment if the microscope is not is used for a prolonged period.

5.2 Installing Specimen

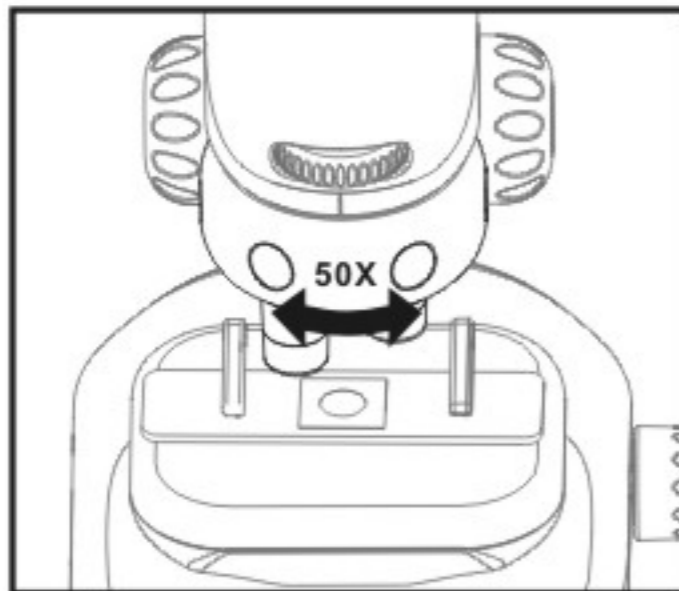
1. Rotate the Focusing Knob counter-clockwise to fully lower the Specimen Stage.



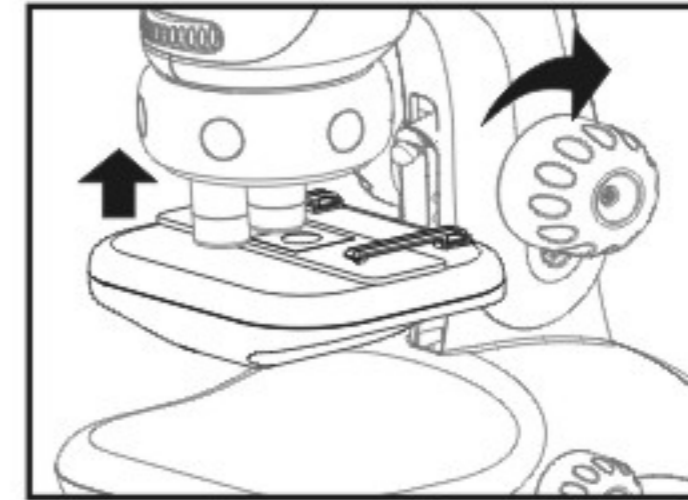
2. Place a Specimen Slide on the Specimen Stage and secure the slide with the Stage Clips.



3. Rotate the Objective Lens Turret to obtain the desired magnification power. It is recommended to start with a magnification power of 50x.



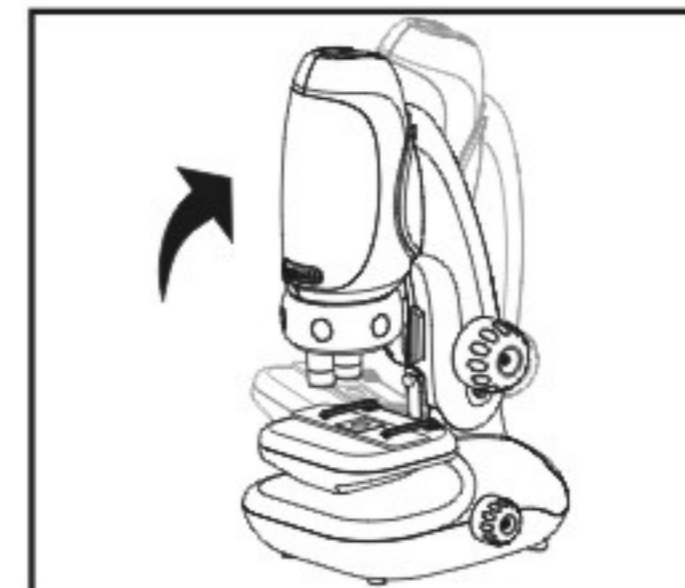
4. Rotate the Focusing Knob clockwise to raise the Specimen Stage towards the Objective Lens as far as you can but avoid collision with the Objective Lens.



Note: Collision between your specimen slide and an Objective Lens may cause damage to your specimen and the objective lens.

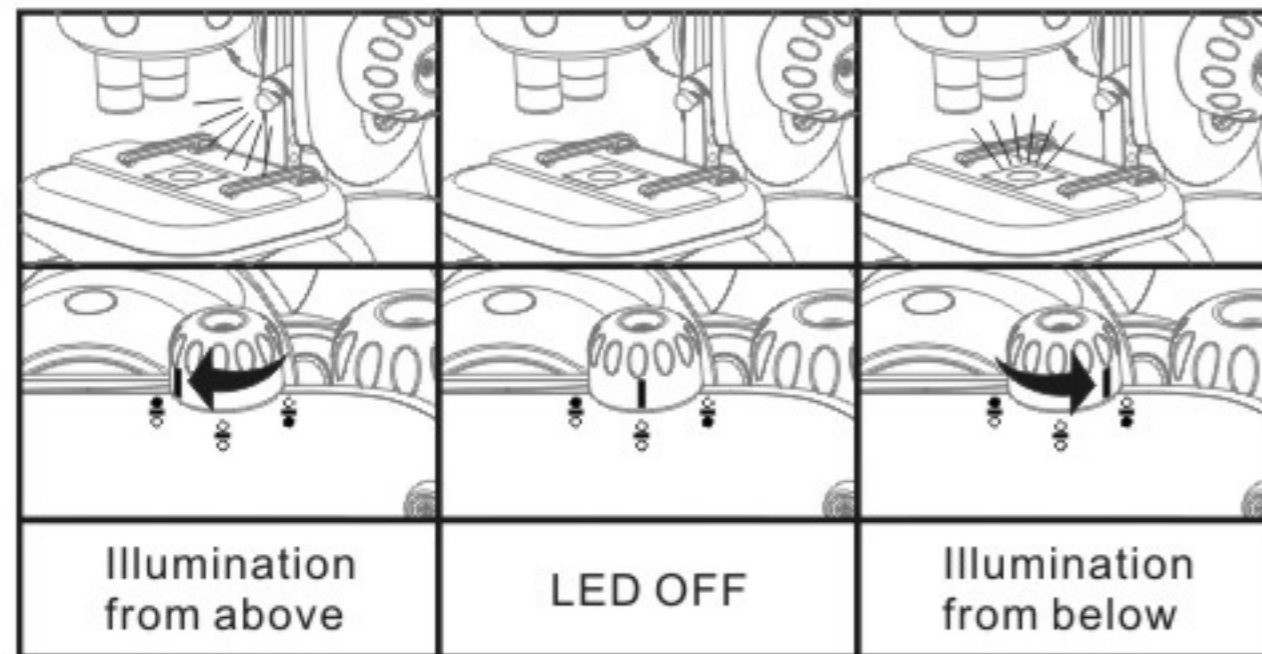
5.3 Viewing Angle

For your comfort when using the microscope, the Microscope Stand Column can be adjusted backwards for approximately 30° from vertical. Explore this feature to obtain a suitable, comfort viewing angle.



5.4 Select Illuminations Source

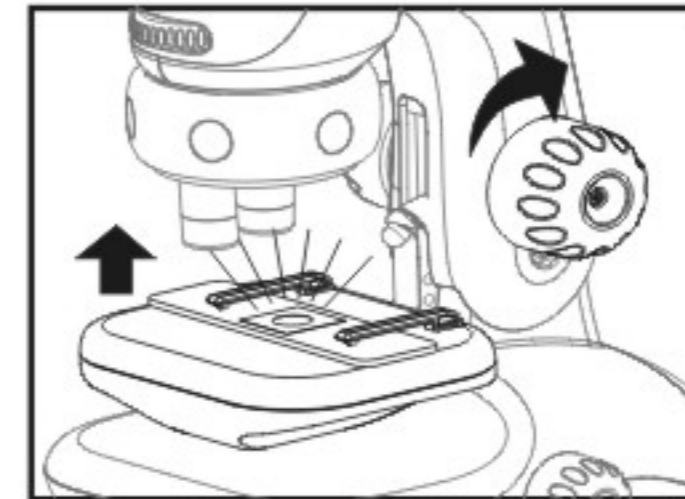
There are two LED Illumination source on your Microscope, one above the Specimen Stage and one below the Specimen Stage. You may select one of them at a time by rotating the LED Switch to an appropriate location. The Illumination modes are shown in the diagram below.



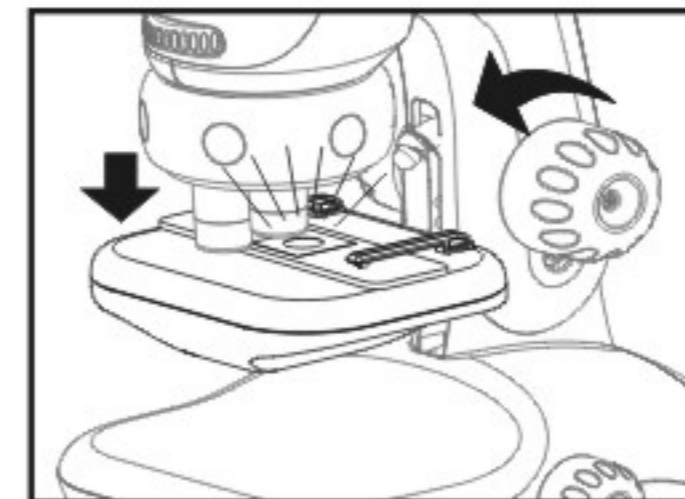
5.5 Focusing and Zooming

Focusing is carried out by rotating the Focusing Knob. It is recommended you followed the following steps.

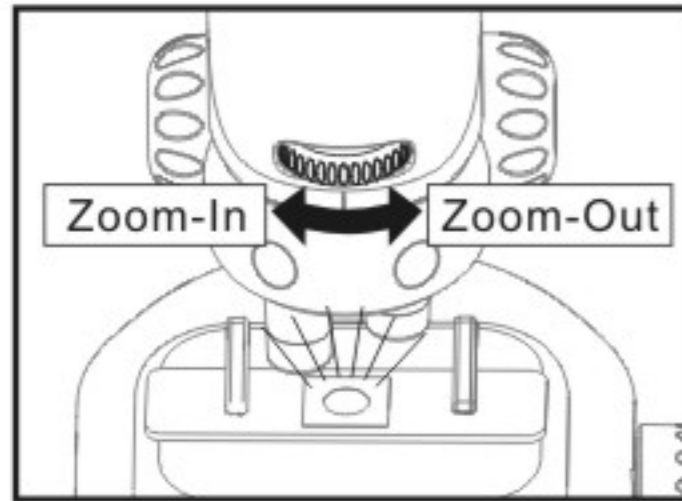
1. Rotate the Focusing Knob clockwise to raise the Specimen Stage towards the Objective Lens as far as you can but avoid collision to the Objective Lens.



2. While viewing through the Eyepiece or using Digital iCam™, Rotate the Focusing Knob counter-clockwise to lower the Specimen Stage until you see a clear image. You may also need to move the Specimen Slide to locate the desire area of examination.



3. If you require a higher magnification power, rotate the Optica Zoom Wheel to zoom into the image. After zooming into the image, you may require to fine-tune your focus by repeating steps 1 and 2.



2. Click Next



3. Click "Finish". Installation Completed.



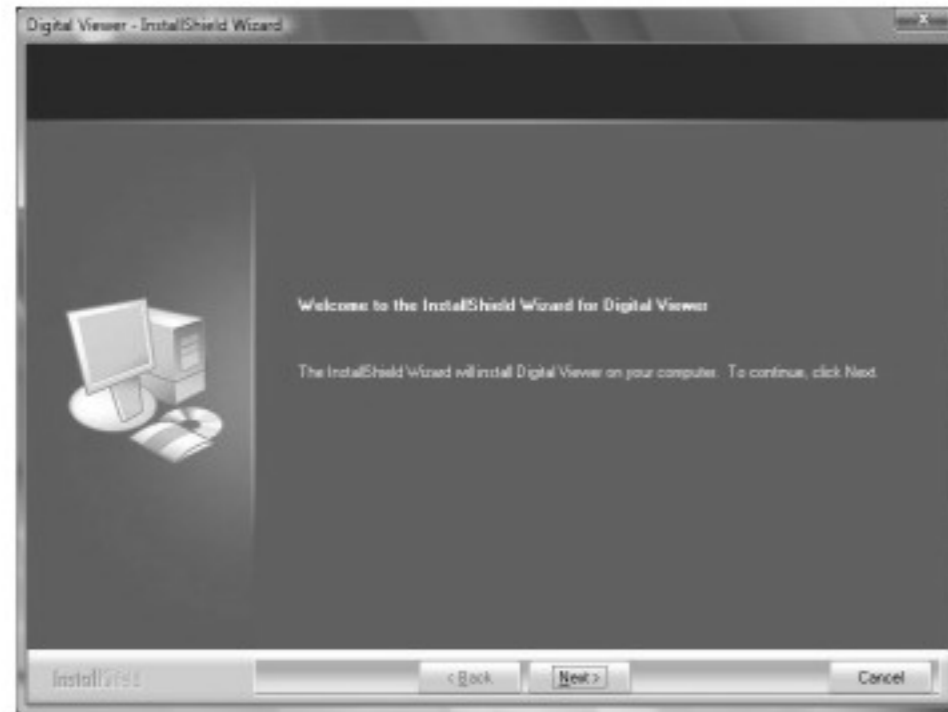
6. Installing Hardware Driver & Application for Digital iCam™

6.1 Windows XP SP3

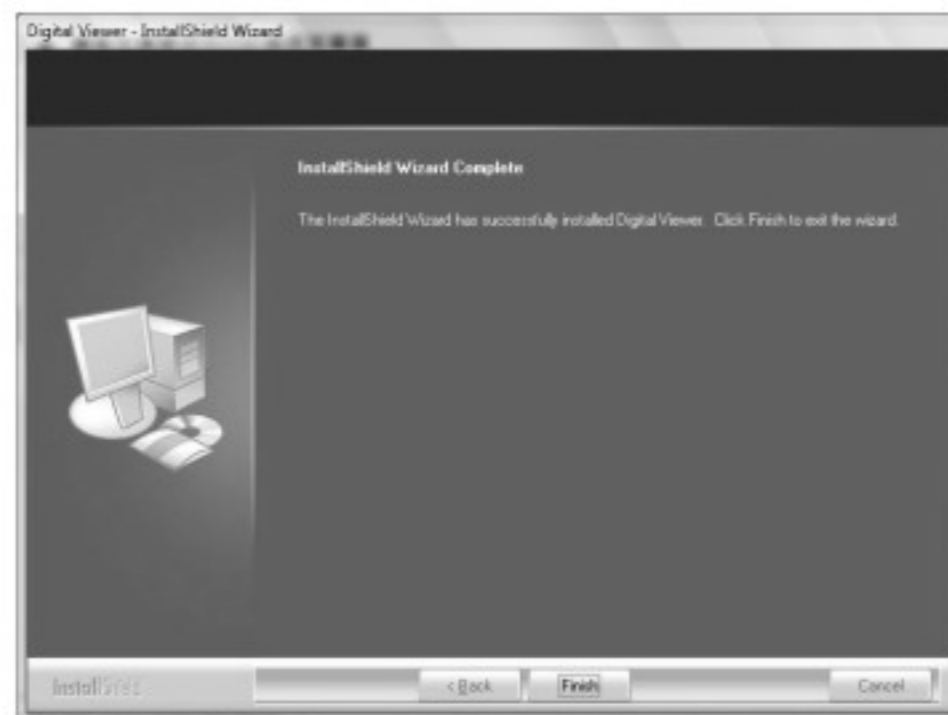
1. Insert Installation CD to your optical drive, the Digital iCAM™ Installer should be launched automatically. Otherwise, go to "My Computer" than double click on the optical drive that your CD is inserted.

6.2 Windows Vista / Windows 7

1. Insert Installation CD to your optical drive, the Digital iCAM™ Installer should be launched automatically. Otherwise, go to "My Computer" than double click on the optical drive that your CD is inserted.
2. Click Next

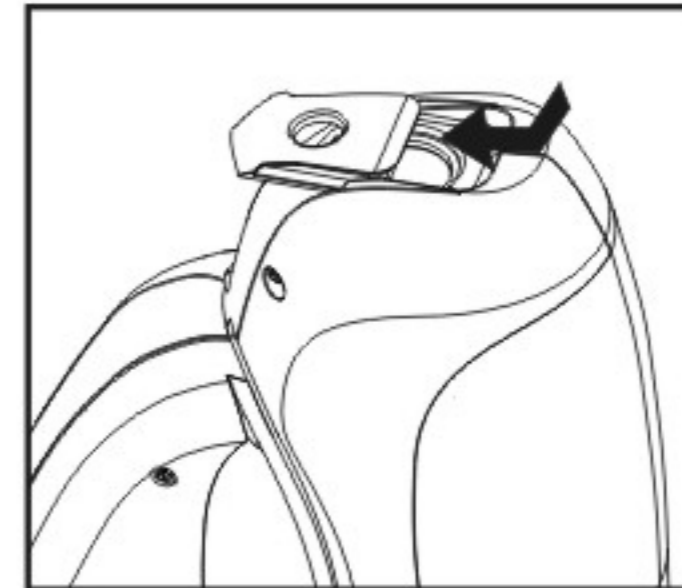


3. Click "Finish". Installation Completed.

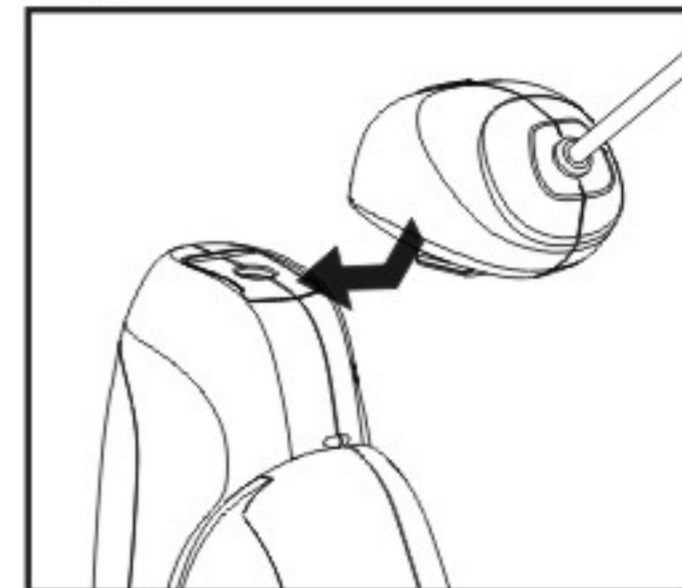


7. Using Digital iCam™

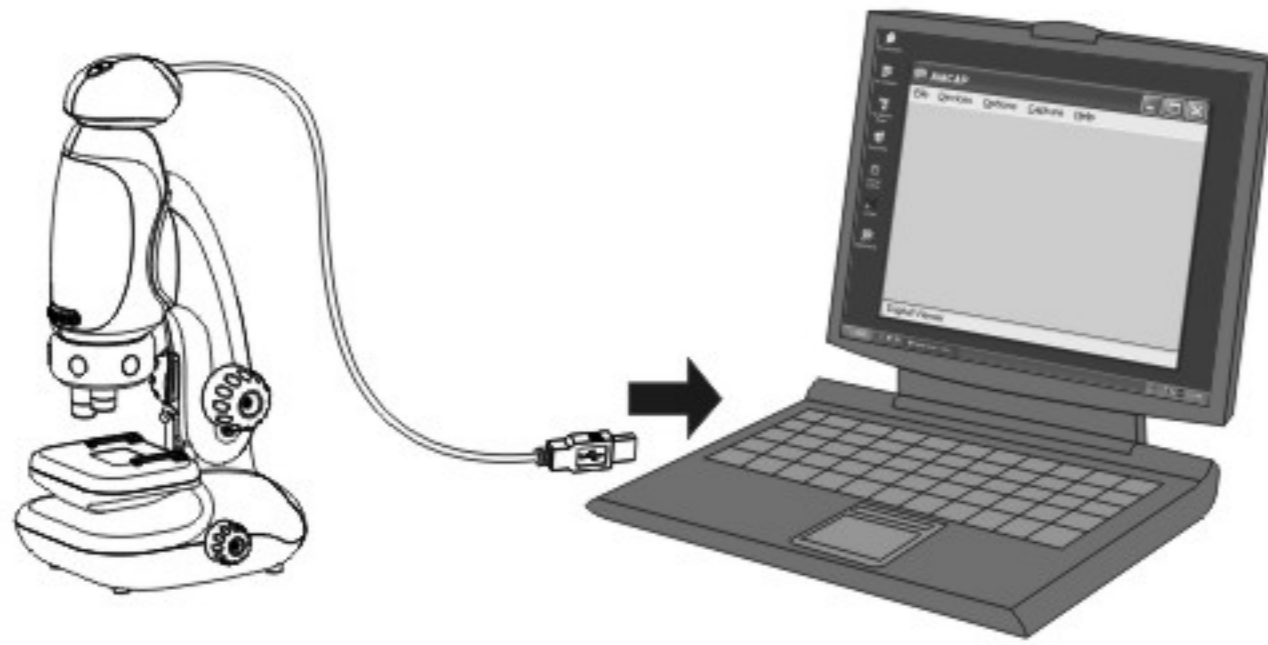
1. Remove the eye piece cover to expose the iCam™ connection slot by sliding the cover as shown in the diagram below.



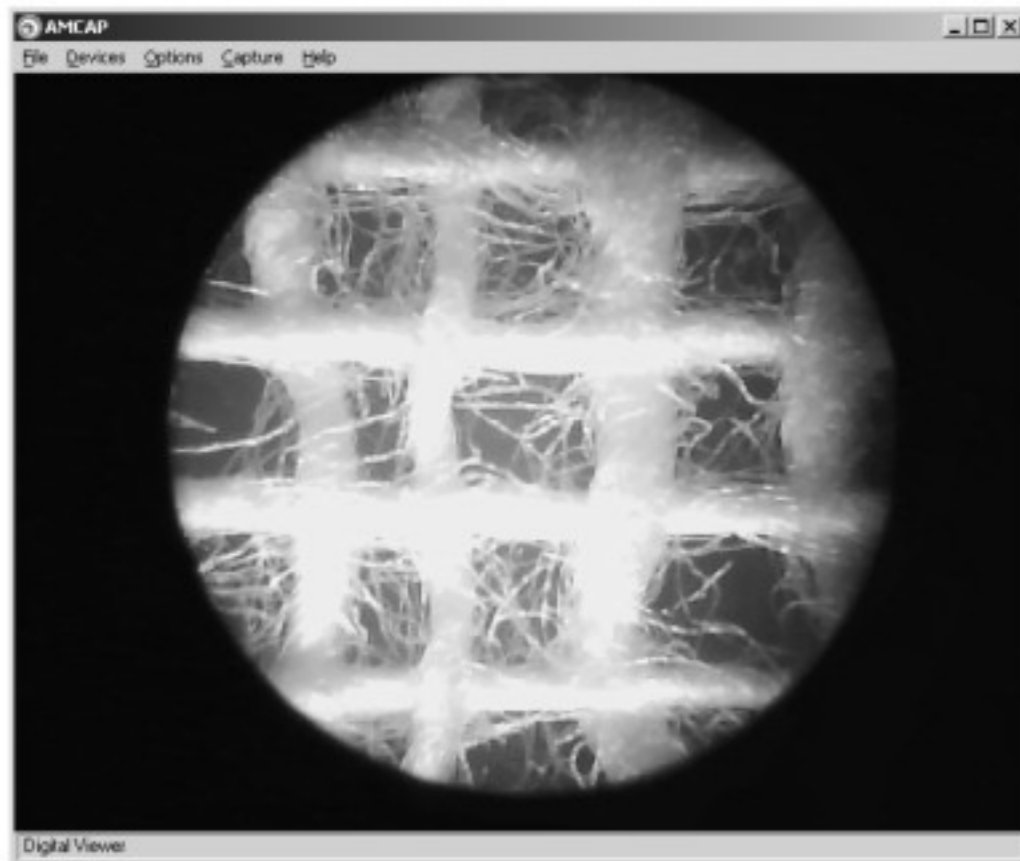
2. Slide in the Digital iCam™ onto the microscope.



3. Connect your Digital iCam™ to your PC/MAC via USB.



4. Double click on the Digital Viewer icon to launch the Digital Viewer application. After the application launched, you should see the following Window.



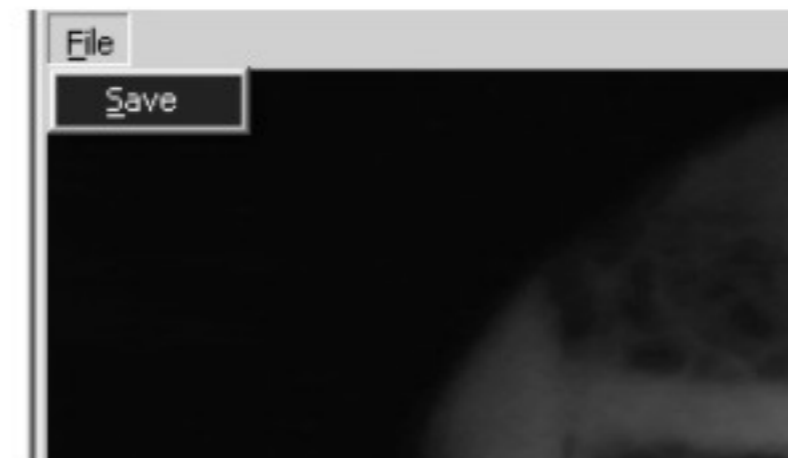
5. Refer to the section "Using the Microscope" for Microscope Operation.

7.1 Taking a Photo

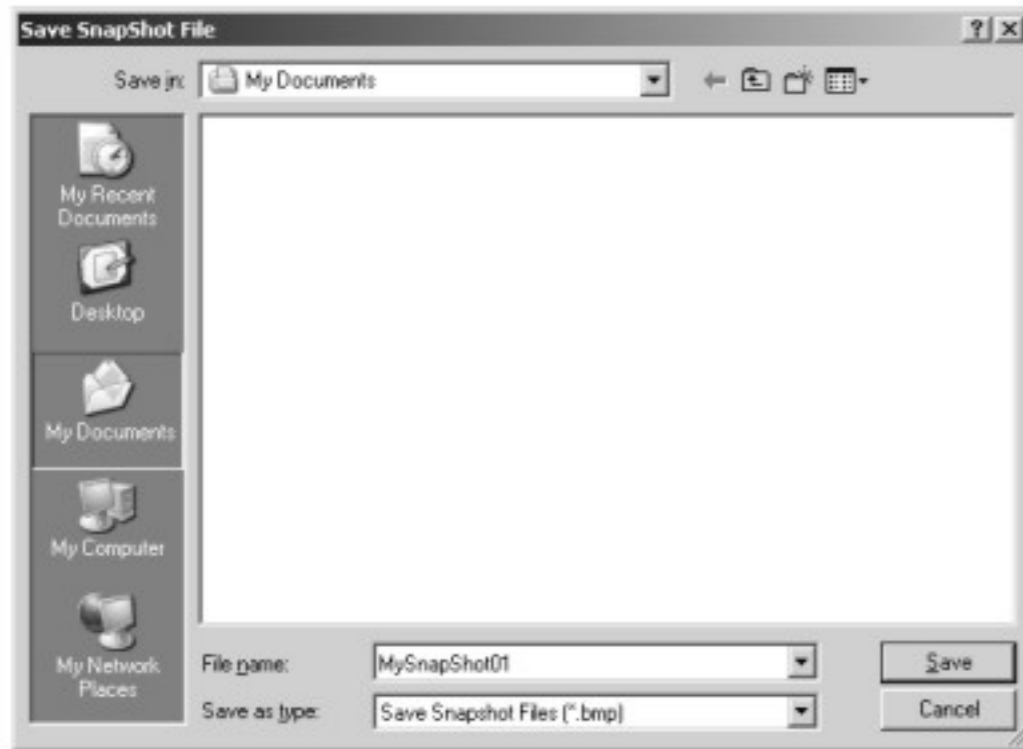
1. To take a photo of the image you are viewing with your Digital iCAM™, press the Snap Button on your Digital iCAM™.



2. A window named "SnapShotView" will pop-up. Click File then select "Save" as shown below:



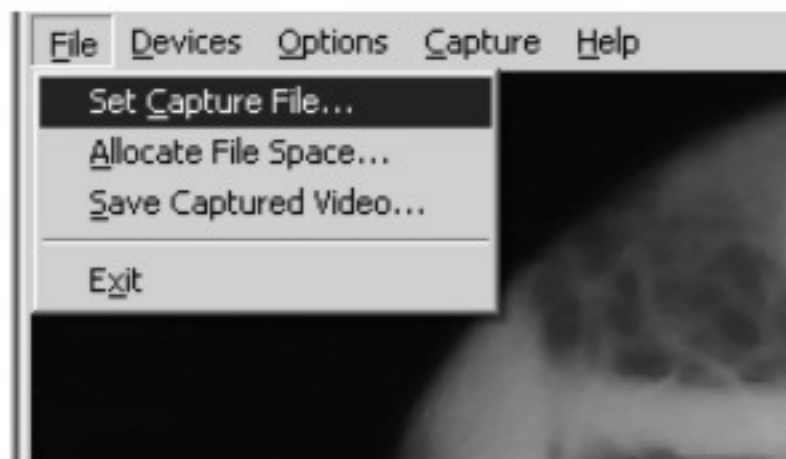
3. Select a desired location and name your photo in the "Save Snapshot File" window as shown below:



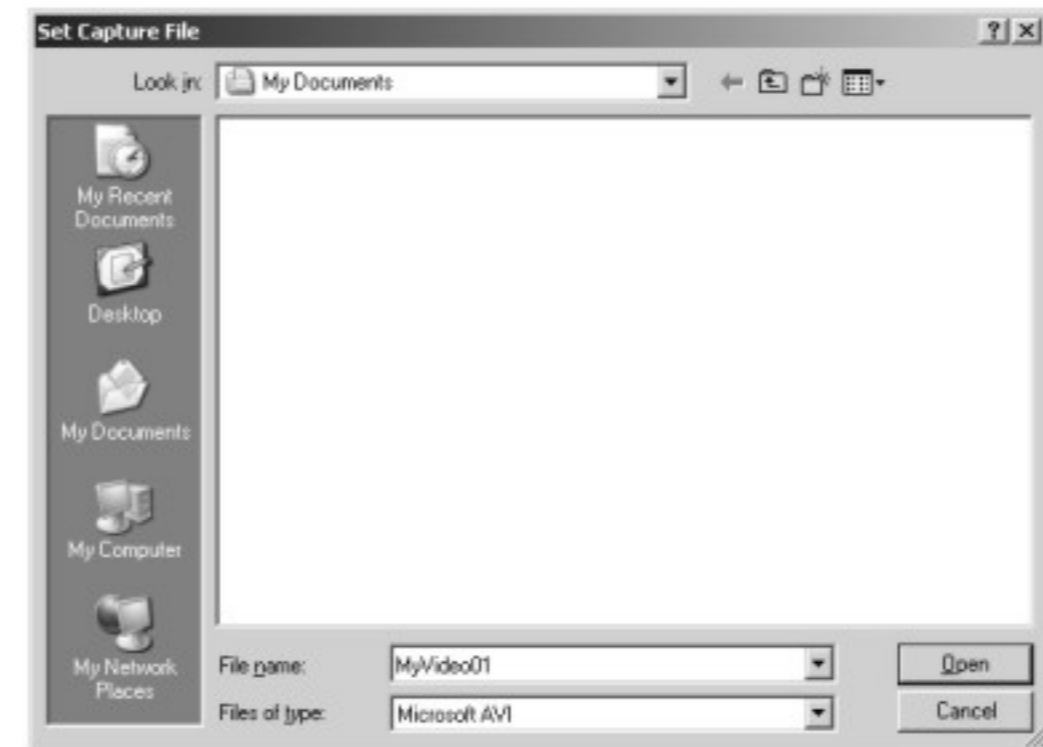
7.2 Capture a Video

To capture a video of your specimen with your Digital iCAM™, it is recommended you use the following procedure.

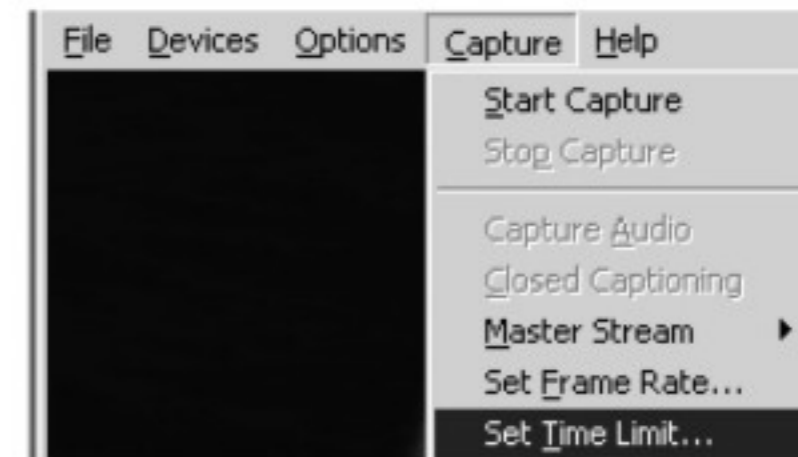
1. Click File then select "Set Capture File" as shown in the figure below.



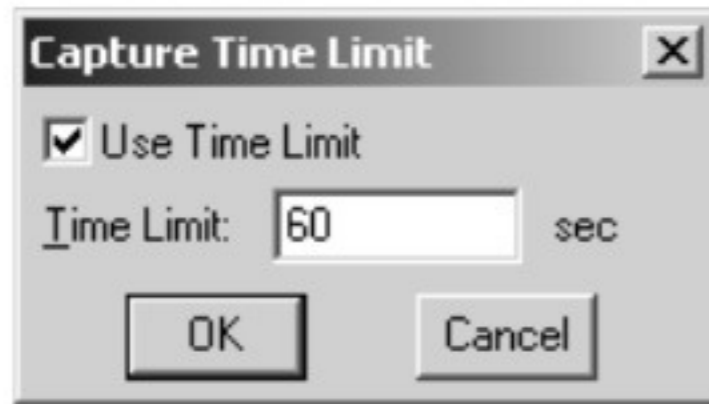
2. When the "Set Capture File" window appears, select a desired location and name your video file as shown below. Please note that video file will be overwritten if the filename already exists in the selected location without warning. Click "Open" when you finish.



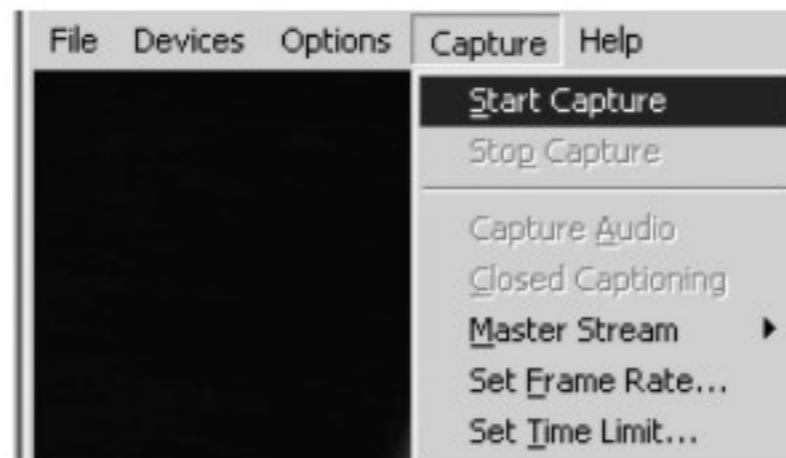
3. Click Capture then select "Set Time Limit" as shown in the figure below.



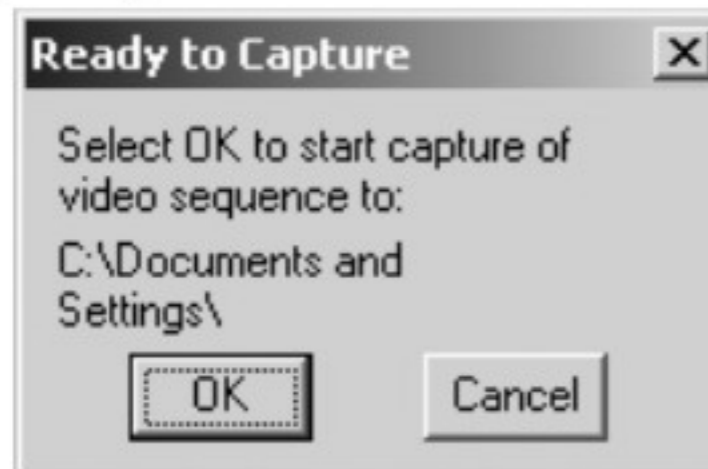
4. When the "Capture Time Limit" window, as shown below, appears, enable Use Time Limit and type in a desired duration of your video. Click OK when you finish. Please note that if you do not use a time limit, your video file size may be very large due to a prolonged period of recording.



5. Click "Capture" then select "Start Capture".



6. When the "Ready to Capture" window appears, select "OK" to start capturing video.

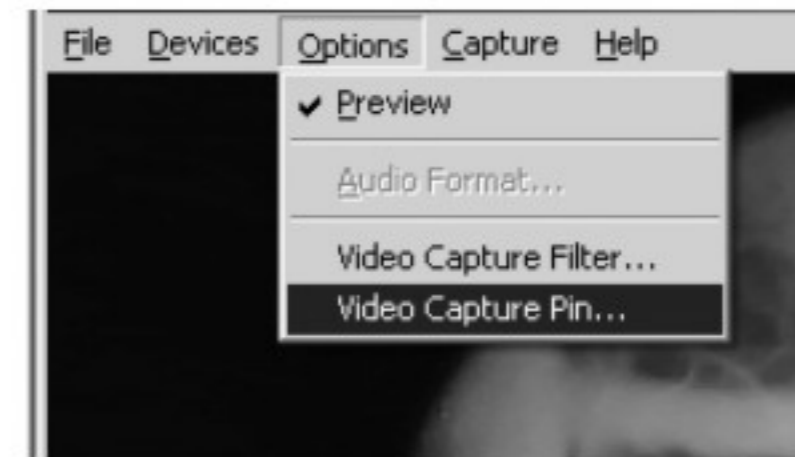


7. At anytime if you would like to stop recording, you may do so by clicking "Capture" then "Stop Capture" or simply by pressing the "Esc" button on your keyboard.

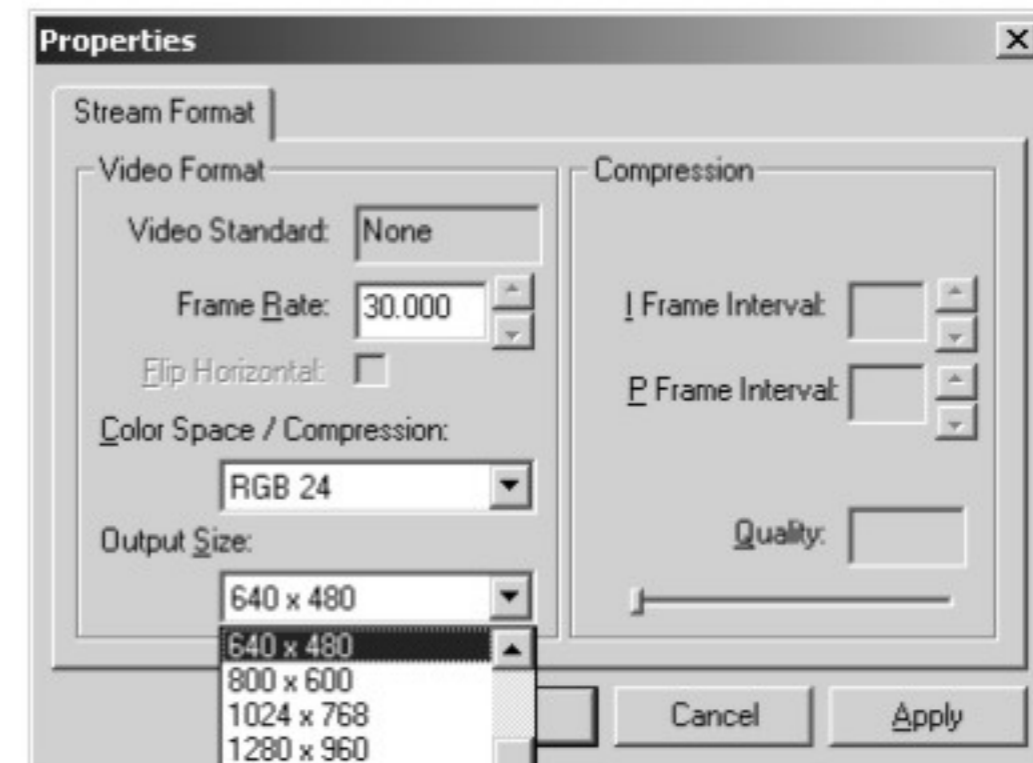
7.3 Advance Settings

7.3.1 Changing Resolution

1. Click "Option" then select "Video Capture Pin".



2. Select the available resolution from the Output Size List then select "OK"



8. The Digital iCam™ Operation for Mac Macintosh Operating System (OSX. 10.4.8 ~ 10.6.2)

Digital iCam™ does not need a driver for Mac OSX 10.4.8 -10.6.2.

To use Digital iCam™ on Mac, plug in the USB cable and follow the below instructions.

Note: Shutter Button function is unavailable.

8.1 Using Digital iCam™ in iChat

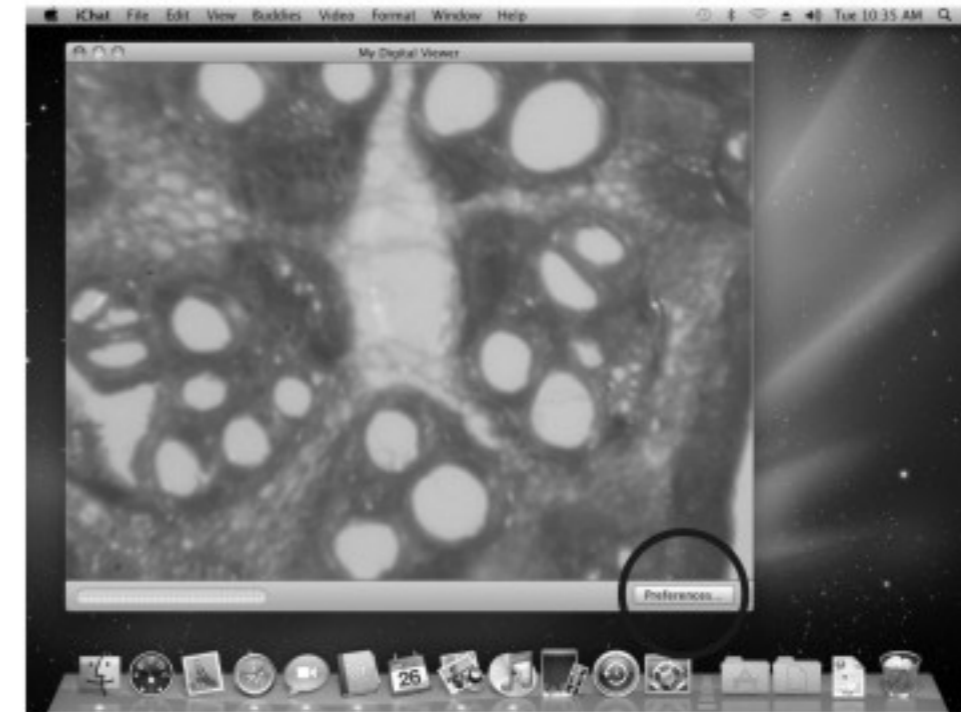
- Open iChat.



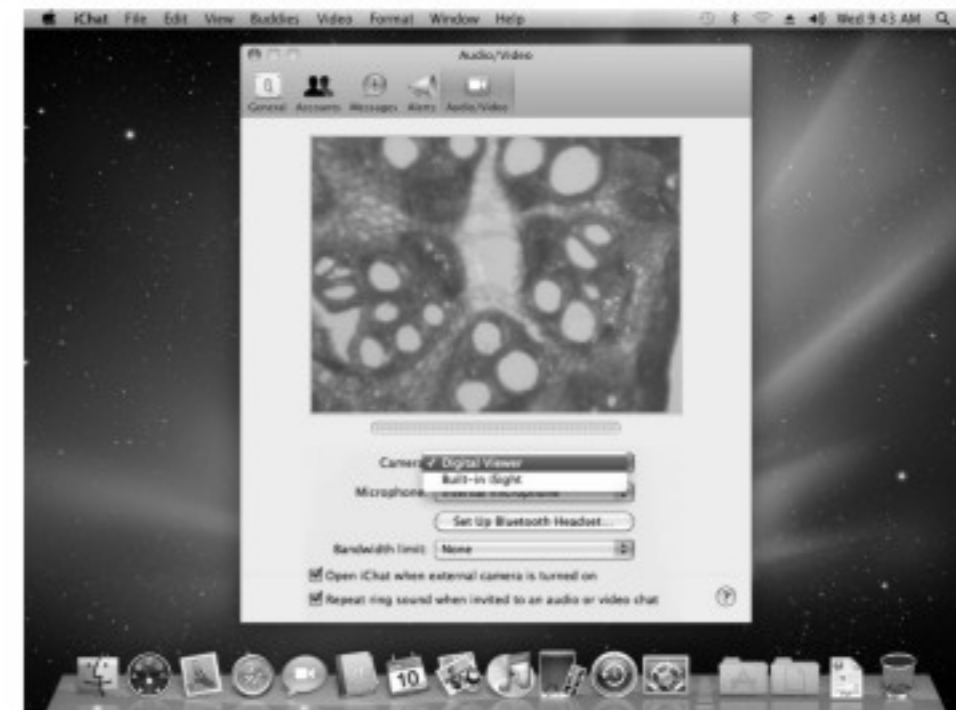
- Select "Video Preview" under "Video".



- When a preview window pops up, click "Preferences" on the bottom right corner.



- The window below pops up. Choose "Digital Viewer" in "Camera" option.



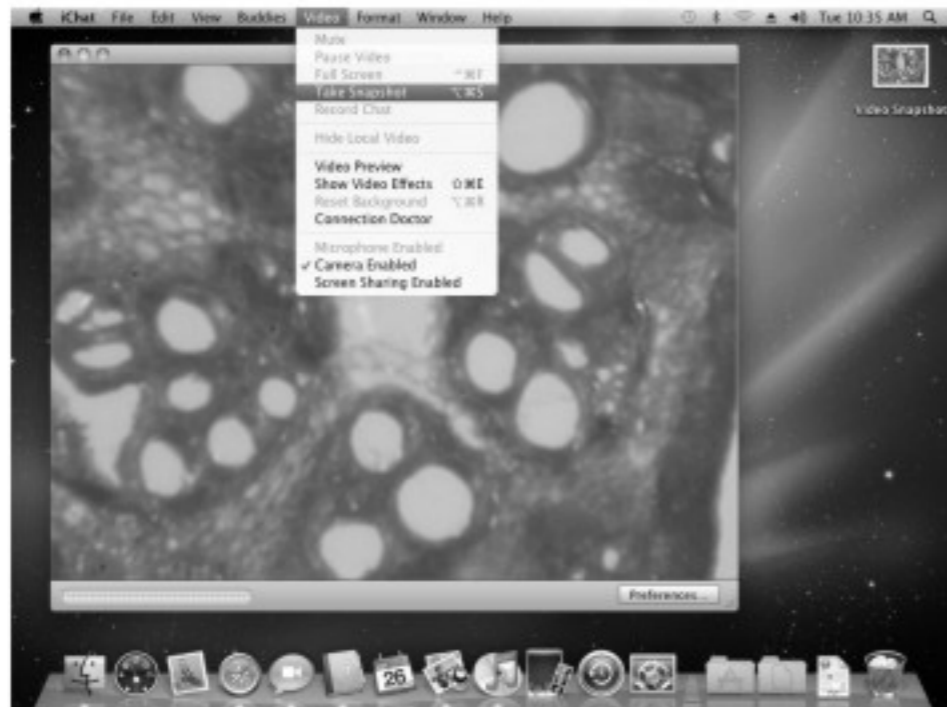
- Follow section 5.5 to control focus and zoom.

- Camera option is unavailable if your mac is not connected to a webcam / does not have a built in webcam.



8.1.1 Take Snapshot

- Select "Take Snapshot" under "Video".
The image will appear on Desktop.



8.1.2 Show Video Effects

- Select "Show Video Effect" under "Video" .



Note: Video recording function is disabled when using with iChat.

8.2 Using Digital iCam™ in PhotoBooth

- Open Photobooth.



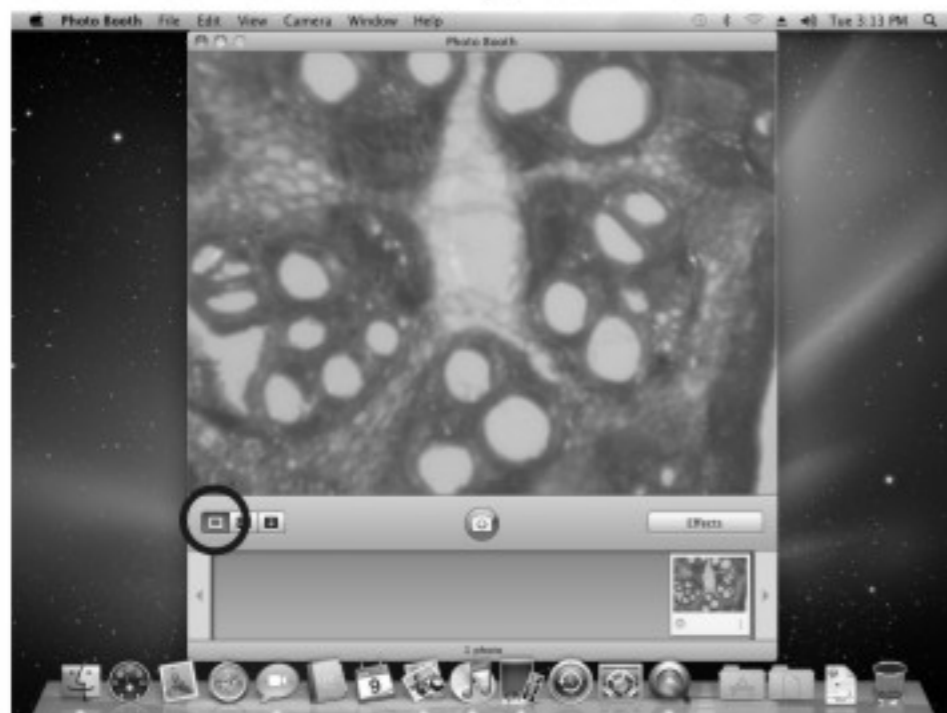
- Select "Digital Viewer" under "Camera".



- Follow section 5.5 to control focus and zoom.

8.2.1 Take a still picture



- Click "Take a still picture" , then click the camera button . The photo will be taken after 3 seconds. The image will appear as an icon at bottom right corner.



- Select "Reveal in Finder" under "File" to locate the image.



8.2.2 Take four quick pictures

- Click on the "Take four quick pictures"  button then the camera button . Four consecutive photos will be taken after 3 seconds. The images will appear as an icon at the bottom right corner.

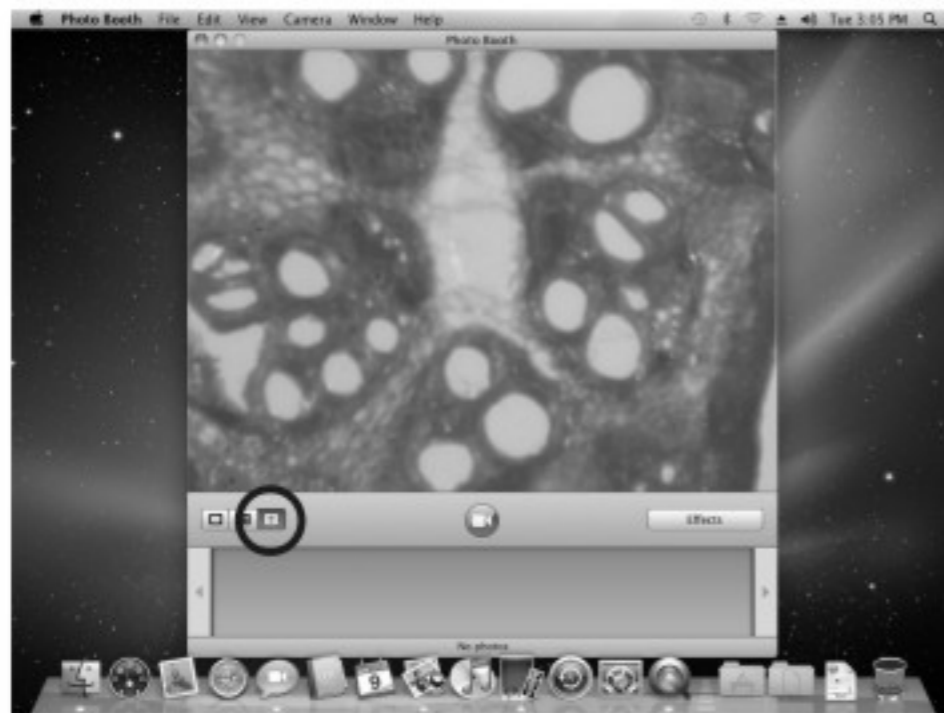


- Select "Reveal in Finder" under "File" to locate images.

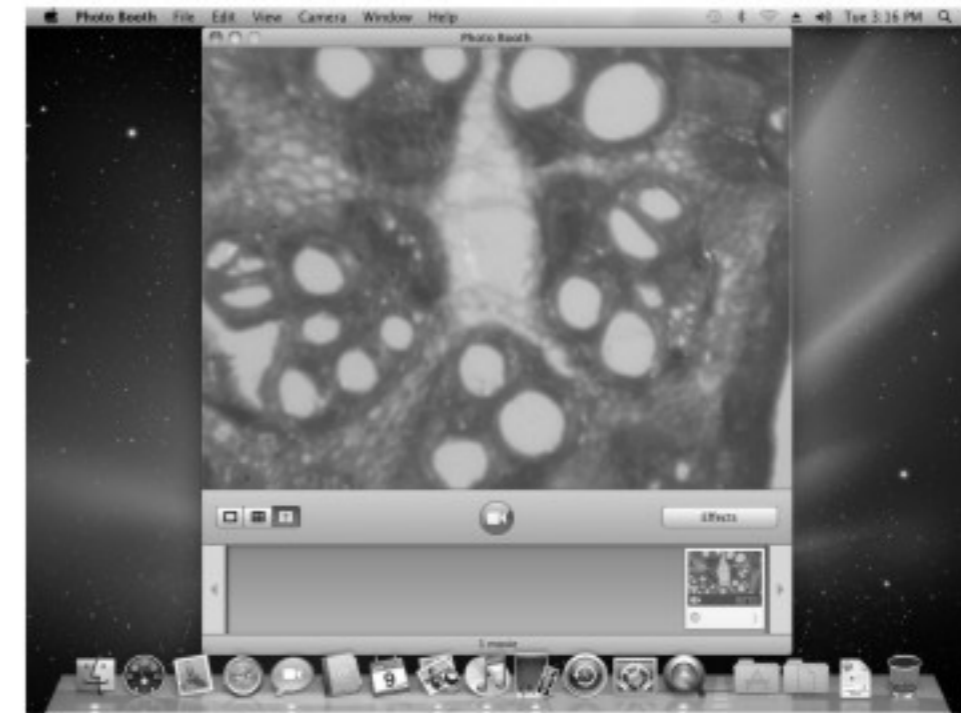


8.2.3 Record a movie clip

- Click on the "Record a movie clip" button then the camera button. Video recording will start in 3 seconds.



- Click the "Stop" button to stop recording. The video will appear at the bottom right corner.



- Select "Reveal in Finder" under "File" to locate the video.



8.2.4 Adjusting different recording effects

- Click on the "Effects" button to adjust different recording effects.

