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The University of Florida		Title: Lecia MC 120 HD Camera		

- *Personnel performing this procedure will have training provided by trained UF personnel.*

I. PURPOSE

The purpose of this SOP is to describe the usual steps for using the Lecia microscope camera.

****TURN OFF THE LIGHT SOURCES AND REPLACE DUST COVERS WHEN DONE IMAGING SAMPLES****

II. SIMPLIFIED PROCEDURE: DM IL LED

1. Log in to the computer using your gatorlink username and password.
2. Ensure the camera is switched to the ON position. A green light should be lit below the SD card slot on the camera.
3. Ensure the “PC-HD” toggle is set to PC (left position).
4. Launch the “LAS V4.3” software. If a message pops up asking for registration, click cancel.
5. Bring the sample into focus while looking through the eyepieces of the scope. NOTE: filter block slide should be pushed all the way to the right.
6. Pull the pin on the right side of the microscope out to send light to the photo tube. The image of your sample should be displayed on the screen. NOTE: If the image is completely white, decrease the brightness by twisting the small knob at the base of the photo tube and/or click the auto white balance button in the imaging software.
7. Click “Acquire Image” (bottom-left of screen).
8. Click the “Process” tab, then click export (the icon looks like a floppy disk with an arrow pointing away from it).

III. SIMPLIFIED PROCEDURE: POLYMER SCOPE

See (II). There is no pin to pull in order to send light to the photo tube. Brightness control is located on the left side of the scope, below the focusing knob.

IV. ADDITIONAL FEATURES

A. SWITCHING THE CAMERA BETWEEN MICROSCOPES

1. Locate hex key (it should be in the left drawer of the table).
2. Loosen the clamping screws on both scopes.
3. Remove the cover from the tube holder.
4. Transfer the camera to the other scope.
5. Tighten the clamping screw to secure the camera.
6. Place the cover on the scope that used to have the camera attached.

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B. ADDING SCALE BARS

1. Before the image is acquired, select a manual calibration that matches the zoom level of the objective lens on the scope (e.g. if the 50x objective lens is being used, select the “50x” configuration for “Calibration Settings.”)
2. Acquire image (don’t worry about the scale bar displayed on the image, it will be adjusted after the image is captured)
3. Go to the “Process” tab and adjust the scale bar using the Annotate→Scale Bar menu

C. CALIBRATING SCALE BARS

1. Place the calibration slide on the microscope and bring it into sharp focus
2. Go to the “Acquire” tab of the software and locate the “Calibration Settings” menu, then click “New.”
3. Type a name for the configuration file then press “OK.”
4. Drag the scale bar to match it with the markings on the calibration slide, then type the actual length of the bar into the field and click “SAVE”. NOTE: check the unit before saving the file.

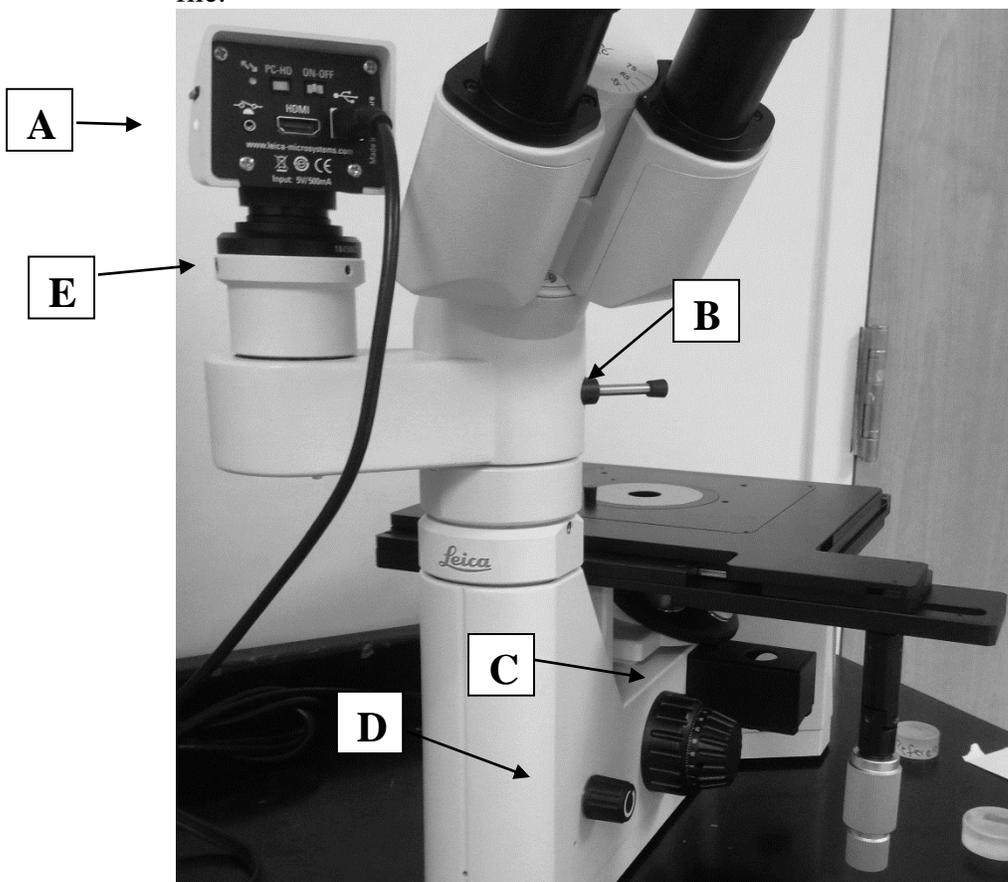


Figure 1: Leica DMIL LED with camera. a) camera ON light
b) photo tube pin c) filter block slide d) brightness control e) clamping screw