#### MICROSCOPE CAMERA - MOTICAM

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# Kirkhouse Trust

#### WHAT YOU NEED

Motic microscope (compound or stereo)

Motic Moticam X or Moticam 2 camera and accessories

Motic Images Plus software CD

Laptop

Microscope slide with samples for viewing



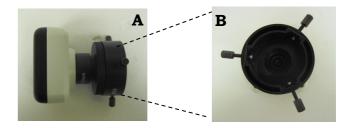


### 1. Load the Moticam software onto the laptop:

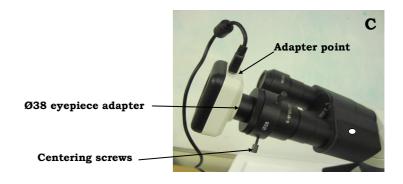
- 1. Insert the Moticam software CD into the laptop.
- 2. The software will run automatically upon loading.
- 3. Install the software for the program "Motic Images Plus".

# 2a. To attach the Motic Moticam camera to the microscope eyepiece:

- 1. Remove the dust cap from the Moticam case.
- 2. Screw the 12 mm focusable lens to the Moticam case.
- 3. Attach the Ø38 eyepiece adapter to the 12mm focusable lens making sure that the three centring screws are loosened (A and B).



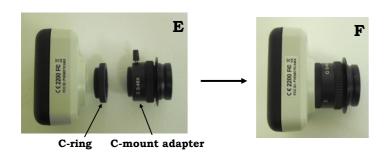
4. Place the camera assembly onto the microscope eyepiece (C) by attaching the Ø38 eyepiece adapter and tightening the three centring screws. Connect the USB power supply from the computer (or via the plug) to the adapter point (on the Moticam case). The light will flash and turn solid blue when the camera is ready.



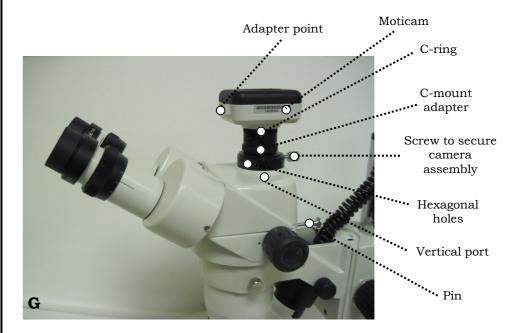
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# 2b. To attach the Moticam camera to the trinocular head (stereo or compound):

- 1. Remove the dust cap from the Moticam camera and screw in the Cring **(E)**.
- 2. For the stereo microscope use the 0.45X C-mount camera adapter. For the compound microscope use the 0.5X C-mount adapter. Screw the C-mount adapter to the C-ring **(F)**.



- 3. Loosen the screw and place the camera assembly onto the vertical port . Tighten up the screw to secure the camera assembly in place. In addition, there are small hexagonal holes that can be tightened with a hexagonal key to further secure the camera assembly **(G)**.
- 4. Connect the USB power supply from the computer (or via the plug) to the adapter point (on the Moticam case). The light will flash and turn solid blue when the camera is ready.
- 5. Pull out the pin located downwards from the vertical port **(G)** in order for the image to be visible on the laptop. When you are viewing the specimen through the microscope only, push the pin back in.



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### 3. To view and save images with the laptop

- 1. Turn on the power to the microscope.
- 2. Place your specimen onto the microscope stage (and position it using the x and y adjustment controls if necessary). **Start by using the lowest objective on the microscope to visualise your sample.**
- 3. On the laptop, connect to the Motic Moticam X WiFi by clicking on the wireless network and double clicking to connect to the MC\_WiFi Wireless network. The password is 12345678. The Moticam 2 camera connects directly to the laptop via a USB port.
- 4. Open up the Motic Images Plus programme, and click on the capture tab. This will open up a new window entitled "Motic Live Imaging Module". On the Motic Live Imaging Module click the open button and you will see the live image being broadcast from the microscope eye piece.



Motic Images Plus software programme opening screen

- 5. Use the different objectives on the microscope to further zoom in on your specimen. For sharper focusing use the fine focusing control.
- 6. To capture your image, click on the Imaging Module.
- 7. On this tab, you can select from the drop down menu, the format that you wish your image to be captured in. The chosen format for the captured image will depend on how much detail is required and file size (the larger the format numbers, the bigger the file size and the more detail captured).
- 8. You can save (as different file types) and edit the image by referring back to the Motic Images Plus window in which the image will appear on the right-hand side of the screen.

## 4. Disassembly:

- 1. Turn off the power to the microscope.
- 2. Remove the USB cable from the laptop (or plug) and from the adapter point on the Moticam case.
- Unscrew the camera assembly in the reverse order that you constructed it, and replace the dust cap back onto the Motic camera.
- 4. Store the Motic Moticam camera and its accessories in a safe place.

# 5. To edit images:

1. Image editing software ("Paint.net") has been preloaded into the laptop. Images can be edited including file size reduction in this programme.

In addition, you can also download a free program such as Image J: http://imagej.nih.gov/ij/