Use of the Axiocam 208 on the Leica S8APO in the insect lab

(A) For illustration purposes on wall-mounted screen and simple photo & video applications
Note 1: Images/videos are saved to the memory stick on USB hub. Please clean the stick up after use.
Note 2: The keyboard attached to the USB hub is Swiss, but the key assignment is American.

1) Turn on wall-mounted monitor (indented button at the back, bottom right).
2) Turn on camera with switch on the black power chord.
3) Turn on light on the microscope stand (try different lighting options for best results).
4) Set microscope oculars to zero correction for matching focus of microscope and camera.
5) Call up the on screen menu (cogwheel button on camera), make sure Exposure and White Balance are on 'Auto'.
6) Put your object under the microscope and adjust focus and/or magnification.
   Now you should have an image on screen. For simple observation that should be fine.
   For photography or filming, you may want to make adjustments (see below).
7) To take a picture, click 'Snap', to record a movie, click 'Record'.

Basic adjustments under 'Home' menu:

8) Brightness: Set Exposure to 'Manual' & adjust exposure time with slider or by typing a value.
9) Color: Set White Balance to 'Manual' & adjust with slider (left = warmer colors, right = colder colors). 'Push' button will reset to default.

Advanced adjustments under 'Settings' -> Camera

10) Gamma (a correction function to better match computer-generated colors to colors perceived by the human eye). The default setting (0.45) works well, but can be adjusted according to taste.
11) Optimize options: I recommend to have 'Sharpen' ON, the rest OFF. But check it out.
12) Image Orientation: Is self-explanatory.
13) Scale Bar: Is only useful when Camera is operated via PC & ZEN core software.

Advanced adjustments under 'Settings' -> Microscope

14) Shading Correction: If necessary, follow on-screen instructions. Probably not needed in most cases.

Advanced adjustments under 'Settings' -> Operating System

15) Language: Please leave on English.
16) Date & Time: Please leave (unless summer time/winter time adjustment is necessary).
17) File Options: Custom fields allow you to set a prefix for all pictures you take in a session (e.g. your name). The automatic addition of date & time is useful, but can be turned off.
    For 'File Type' use JPEG for standard imaging and smaller files, TIFF if you want to do a lot of further image editing (generates larger files).
18) HDMI resolution: Leave on 4K (monitor can handle it). May need to be changed if camera were to be attached to other monitor (not foreseen).
19) Bright Pixel Correction: Do not use.
20) Firmware Update: Ignore.

(B) For operating the camera from your laptop computer

Install ZEN core software on your laptop (current version is 3.5, stored on memory stick in the USB hub & downloadable: www.mikroskoptechnik.ch/download/zeiss/ZEISS_ZEN_Core_V3.5-MTD.zip).
I also put it into our folder on our server:
Q:\Abteilungsprojekte\eco\ResGroups\Vorburger\Zeiss_Axiocam_Software\ZEISS_ZEN_Core_V3.5

Instructions for offline installation:
https://mikroskoptechnik.ch/de/kundenbereich/zeisssoftware/coreoffline/index.php

Connect camera to your laptop using the labelled cable provided at the microscope table.

Self-educate on using the camera from your computer. A good starting point is the "Kurzanleitung" (in German) provided by Diethelm Microsopes, available on our server space:
Q:\Abteilungsprojekte\eco\ResGroups\Vorburger\Zeiss_Axiocam_Software\ZEISS_ZEN_Core_V3.5
An English Quick Guide seems to be available here:
file:///C:/Users/vorburch/Downloads/EN_quick-guide_ZEN-blue-edition_first-steps.pdf
There may be other online resources I have not discovered yet.

Note: We use the free version of the ZEN software. Therefore, not all functions of the software are available.

CV, 18/1/2023