**Optical Microscope-Zeiss Smartzoom 5**

**Warning:**

1. Maximum size and weight: 13 x 10 x 12 cm and 4kg.
2. Ensure that there is no object on the scanning stage before setting up the microscope.
3. Changing the objectives lens –handle carefully and keep properly.
4. Turn the microscope light off and don’t forget to log off from the FOM after finishing.

**Basic Operation Instruction**

**A. Starting the smartzoom 5**

* Ensure that there is no object on the scanning stage before setting up the microscope.
* Switch on the microscope.
* Open the Smartzoom software.
* Click on **System administrator** and then **Free examination**.

**B. Setting up sample**

* Click on **Setup** and then **Acquire overview image**.
* Place sample on the scanning stage.
* Wait for a while for initialization of the stage.
* Name the job- Name/Part ID and Sample ID.
* Click on **Apply**. You can see the image on the display screen.

**C. Focusing the image**

* Click on the **Illumination** for high intensity light.
* Click on the **Edit** and **AF** for auto focus.
* Select the image position by double clicking on the desired place.

*Note: You can also control your image illumination, focusing, image position and magnifying using Touch screen, control box, knob and mouse.*

**D. Performing and acquiring the image**

* To perform the image- You can use **Best image**, **Tools Details**, **Tilting** and **Image enhancement** to get the qualified image.
* If you get the desired image, click on **Acquire**.
* Click on **Export** after adding scale to save image (one by one).

**E. Image processing**

**1. Stitching the image**

* Live the image with the desired magnification.
* Click on the **Image processing** and then **Stitching.**
* Switch on the stitching (Green)
* Select the area which should cover the desired area.
* Click on **Acquire**.

**2. Acquiring 3D image**

* View the image with the desired magnification.
* Click on the **Image processing** and then **3D.**
* Switch on the 3D (Green).
* Focus on the lowest part of image and click on **Assign** (lower limit).
* Focus on the highest part of image and click on **Assign** (higher limit).
* Click on **Acquire**.

**F. Saving and getting data**

* Click on **Export** to save the image one by one. OR
* If you want to save all results after imaging, click on **Result** and chose **Configured report**.
* A small screen will pop up and select **Full report doc** (Middle one).
* Choose the designation to save the report (in Document>User Data>Your folder) and then click **OK.**
* After clicking on **Export report**, you will see your data.
* After getting all results, transfer your results from the **User Data** to **Data Share$ Folder**.
* Use MMCL server computer in room **532b** to get your data by Flash drive. Password (532b).

**G. Changing sample / Changing lens** (Pg-21)

* Live the image.
* Click on **Setup** and then **Acquire overview image**.
* *Note: You can change your sample after this step.*
* Go to the right top corner- click on the  icon and subsequently click on the  icon.
* Change the lens.

**H. Finishing**

Click on **Setup** and then **Acquire overview image** to set back the original position of the stage.

Click on **Home** button and when small window will pop up, click on **Save** to save your task. You can check your task in Archive.

Click on **Log in system administration** on the top right area and click on **Exit**.

Take the sample on the stage.

Switch off the microscope. Cover it. Log out from the FOM.

Log in to MMCL server computer and get your results from **Data Share$ Folder.**