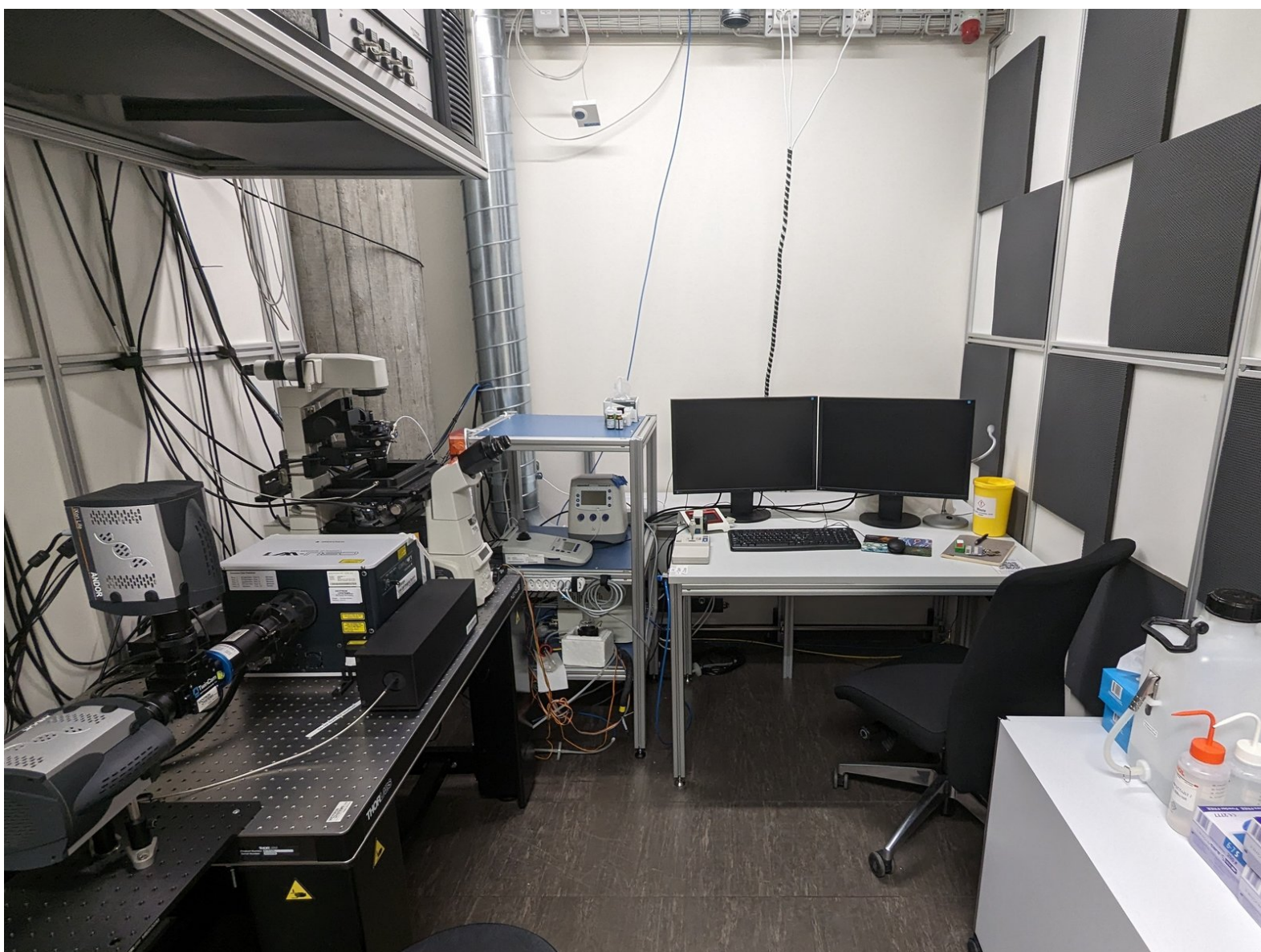


Visitron Spinning Disk - 1: Start Up

How to start up the Visitron Spinning Disk hardware at the Center for Microscopy and Image Analysis, Room Y23-F-14.

Written By: Jana Döhner

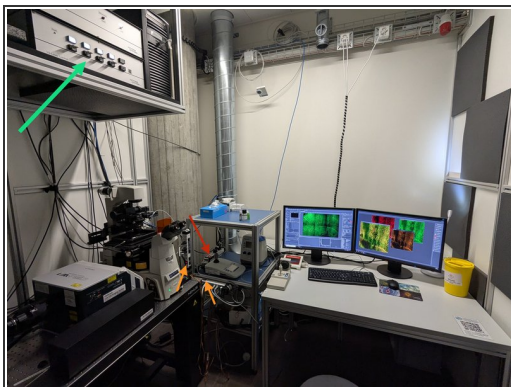
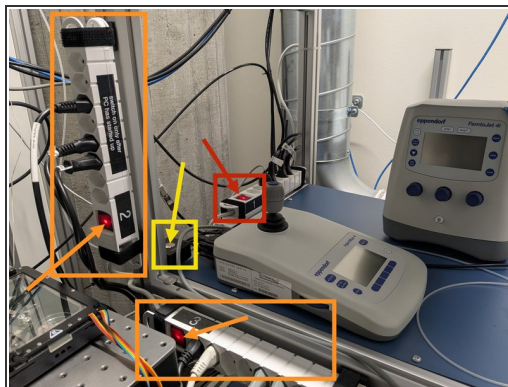


INTRODUCTION

In this guide of the Center for Microscopy and Image Analysis we show how to start up the Visitron Spinning Disk hardware, located at Room Y23-F-14.

Please find more information about the system [here](#).

Step 1 — Switching ON Hardware



⚠ The correct start up sequence is important for proper microscope function. Please carefully follow the next steps.

- Switch ON **power strip [1]** and wait until PC has started up.

① *Power supply [1]: Monitors, PC and Airflow for CSU unit.*

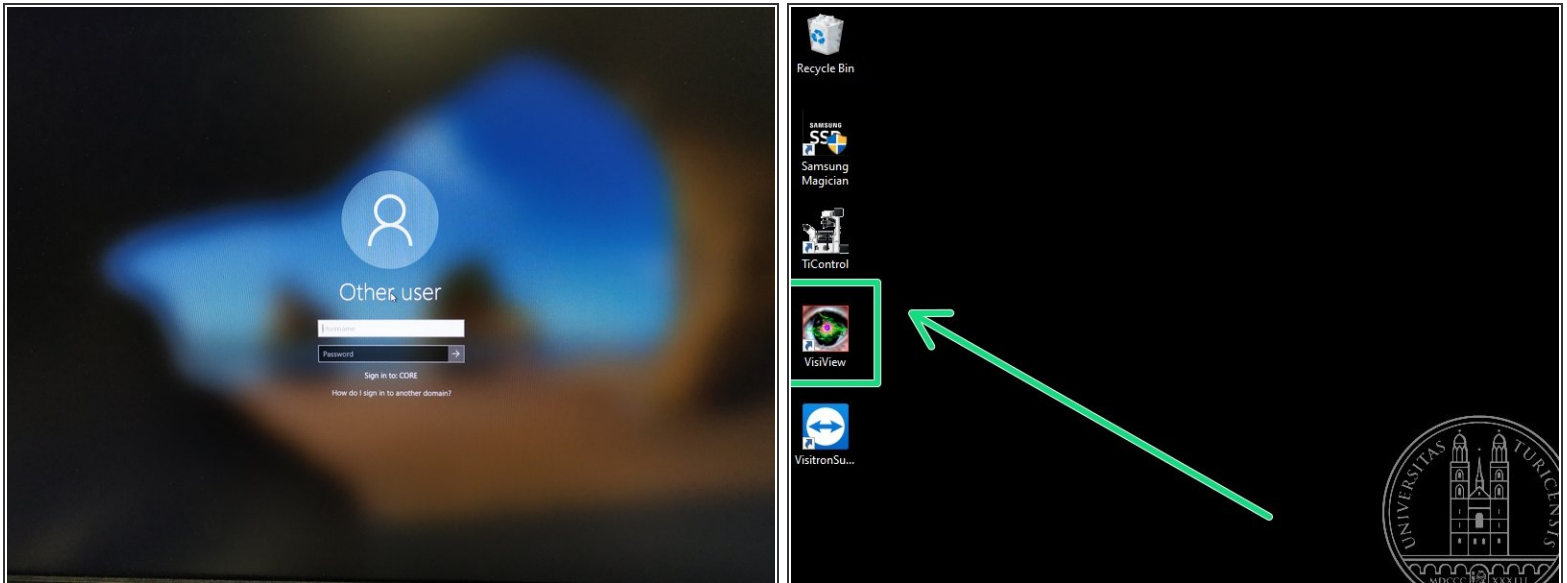
- In case the PC is not starting up, press this button in addition to switch it on.

- Switch ON **power strips [2] and [3]** after PC has started up.

① *Power supply [2]: Microscope, cooled LED for TL, cameras. Power supply [3]: Lasers, LEDs, Okolab, microinjection devices*

- Check if all **laser keys** are **turned ON** [4].

Step 2 — Sign-in and start software



- **Sign-in** with your **ZMB core** credentials.
- Start the **"VisiView"** software by double clicking on the icon.

Step 3 — Choosing an objective



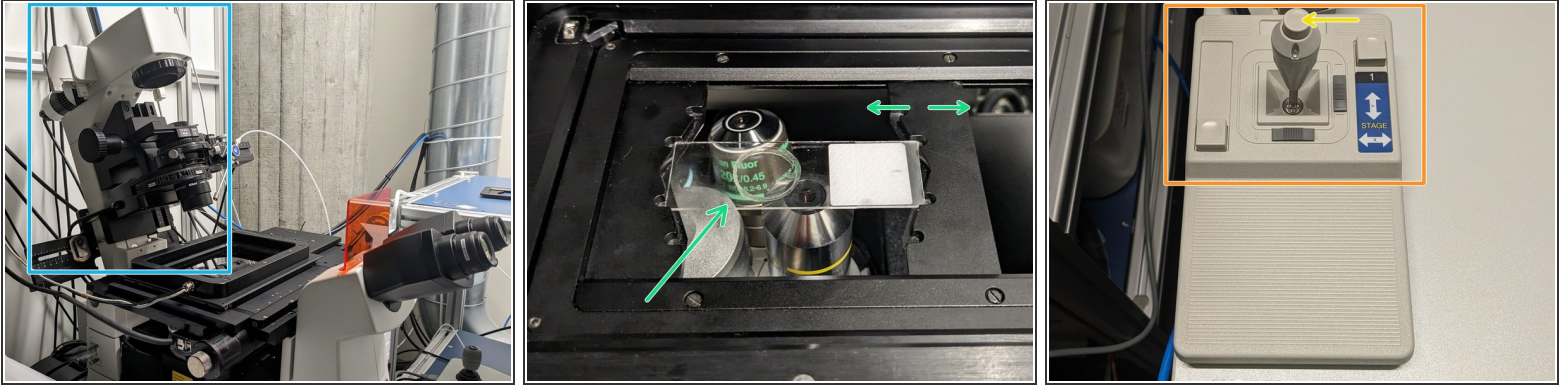
- **Lower** the objectives by using the "Focus wheel" (check on the front panel if the "Z"-value decreases)
 - ⚠ This is a mandatory step as it avoids possible collision of the stage and objective during exchange of inserts and/or samples.
- You can now toggle between objectives within the software (right hand side menu).
- Select the **10x dry objective**.
 - ① *In order to facilitate the focusing it is recommended to start with the 10x dry objective.*

Step 4 — Check Stage Inserts



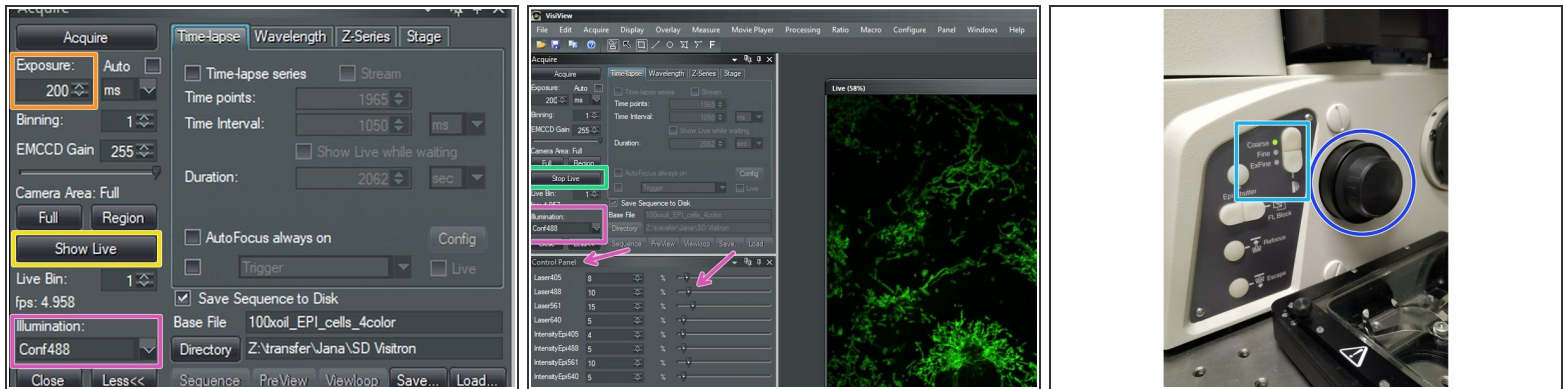
- ☑ Make sure the objective turret has been lowered before exchanging stage inserts.
- Stage inserts can be found in the drawer.
 - ⓘ Available **stage inserts**: for environmental control (with associated inserts for slides, petri dishes and different well plates) and a universal holder.
- **Install** the needed stage insert and tighten it with the **little screw** (arrow direction indicates how to tighten the screw).

Step 5 — Mount and position your sample



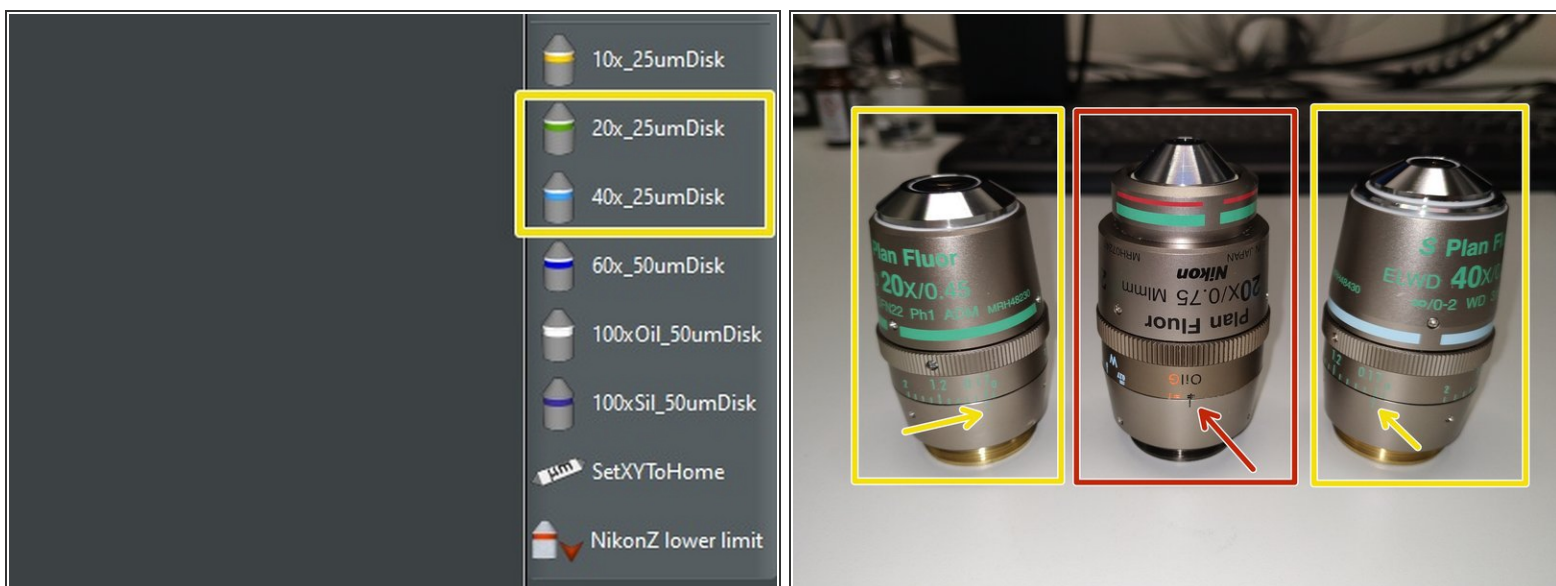
- **Push** the condensor arm of the microscope to the **back**.
- **Mount** your sample on the stage.
 - ❗ *If using the universal stage insert adjust the variable clamping range to properly fix your sample.*
- **Move** your sample above the objective with the help of the **Joystick**.
 - For fast movement simply press the button on the joystick while moving.
- ☑ Bring back condenser arm to its straight position.

Step 6 — Focus your sample



- Within "VisiView" software choose the light source under "**Illumination**".
- Set corresponding intensity in the "**Control Panel**" window with the slider.
- Set "**Exposure**".
- Click "**Show Live**".
- **Focus** your sample via the focus wheel on the microscope stand.
 - You can toggle in between "Coarse", "Fine" and "Exfine" mode for the focus.
- Click "**Stop Live**" once you've focused.
- ❗ The "Live" image will disappear.

Step 7 — Objectives

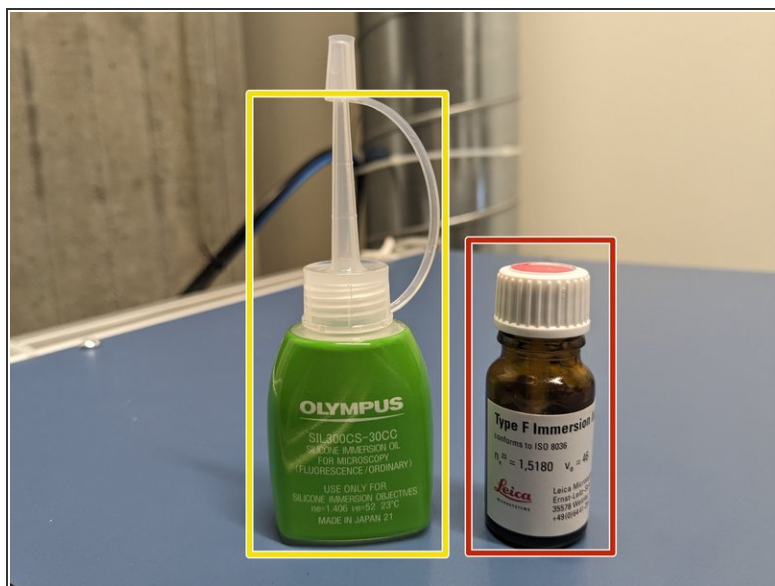


⚠ For some objectives the **correction collar** has to be adjusted.

- On the **20x** and **40x dry** the **cover glass thickness** needs to be adjusted (0 - 2 mm). Standard is usually 0.17 mm.
- On the **20x MI** (multi-immersion, Oil, Glycerin or Water) it needs to be set to the **immersion media** applied (Oil, G, W).
 - ☑ Please note, this objective is currently not installed. If required please inform the ZMB staff.

⚠ Please, DO NOT remove the objectives for adjustment. They can be easily accessed on the system.

Step 8 — Switching objective, and/or exchanging sample



- ① After focusing you might want to switch to a higher magnification.
- Press the **"Escape"** button and toggle to the appropriate objective via the software.
- ☑ Check the correction collar and in case of immersion objective - apply the appropriate immersion liquid (either on the sample or directly to the objective).
 - Oil objectives: *"Type-F" immersion liquid*.
 - Sil objectives: *"SIL300CS" immersion liquid*.
- Press **"Refocus"** and focus your sample as described in the previous step.

Step 9 — Acquiring images



- ① For acquisition of multicolor images in 2D, 3D, live cell and/or at multi-positions refer to the corresponding guides.