

Transcript: Hard shutdown and switch on procedure for the 3i LatticeLightSheet

Note, closed captions are available on the video.
11th March 2021

This video describes the hard switch on and shut down procedure for the 3i Lattice LightSheet.

This video is relevant for switching on after, and shutting down before, a weekend or holiday. If you are using the system during the week please use the soft shutdown procedure in the other video.

A hard shutdown turns off all the hardware in the box which significantly reduces the temperature. It is therefore important to turn on the system the day before imaging if you want to use it at 37 degrees.

Firstly ensure the computer is on. Switch the master switch on the top most box, This controls the central circuit which most of the hardware is on. It will beep twice. Then switch the middle two boxes below the keyboard on. These are SlideBook Control Module and Glavonometer Control Module. These are not on the master circuit so need to be switched on and off independently.

Next toggle the keys of the 560 and 640 laser boxes if you will be using them.

Toggle the shutter key on the top box under the keyboard.

Open the laser control software which looks like a green arrow in the bottom tool bar on the computer. Select the top icon which looks like a serial port. Select 5 in the COM drop down menu for 560 or 6 for 640. Click the on button. A white LED will light on the box under the keyboard to show it is lasing.

To repeat for the other laser, right click on the software icon to open another instance of the GUI. The writing on the bottom of the GUI shows which window is controlling which laser.

Open SlideBook. Various pieces of hardware will initialise. When it gets to z stage, a dialog box will pop up. Check that nothing is on or obstructing the piezo then click OK. The stage will raise up to register. If the bath was in the home position it would lower to escape automatically before registering.

Another dialog box will appear for XY stage registration. Click OK.

When initialisation has finished, wait for the blank Slide to open. Then click LightSheet > lattice LightSheet to open the user interface.

You can now continue with alignment and imaging.

After you have finished your session you will need to turn the lasers off and shut down the instrument. If someone is going to use it soon please complete a soft shutdown following the other video.

To shut the instrument down before a weekend, break or holiday please follow the rest of this video.

After washing down well, making sure the objectives are clean and dry, leave the bath in the escape position and the door to the scope closed.

Close SlideBook. Click off in each of the laser control interfaces and close them.

Toggle the laser shutter key on the top box underneath the keyboard and the 560 and 640 boxes if used.

Turn off the middle two boxes called SlideBook Control Module and Glavonometer Control Module.

Turn off the master button on the top box.

If it is a very long shutdown or of unknown length such as the nation Lockdown, turn off the temperature control.

Don't forget dispose of any samples and the waste beaker before leaving. I hope that this video has been useful. Please email camdu@warwick.ac.uk with any questions or comments.

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