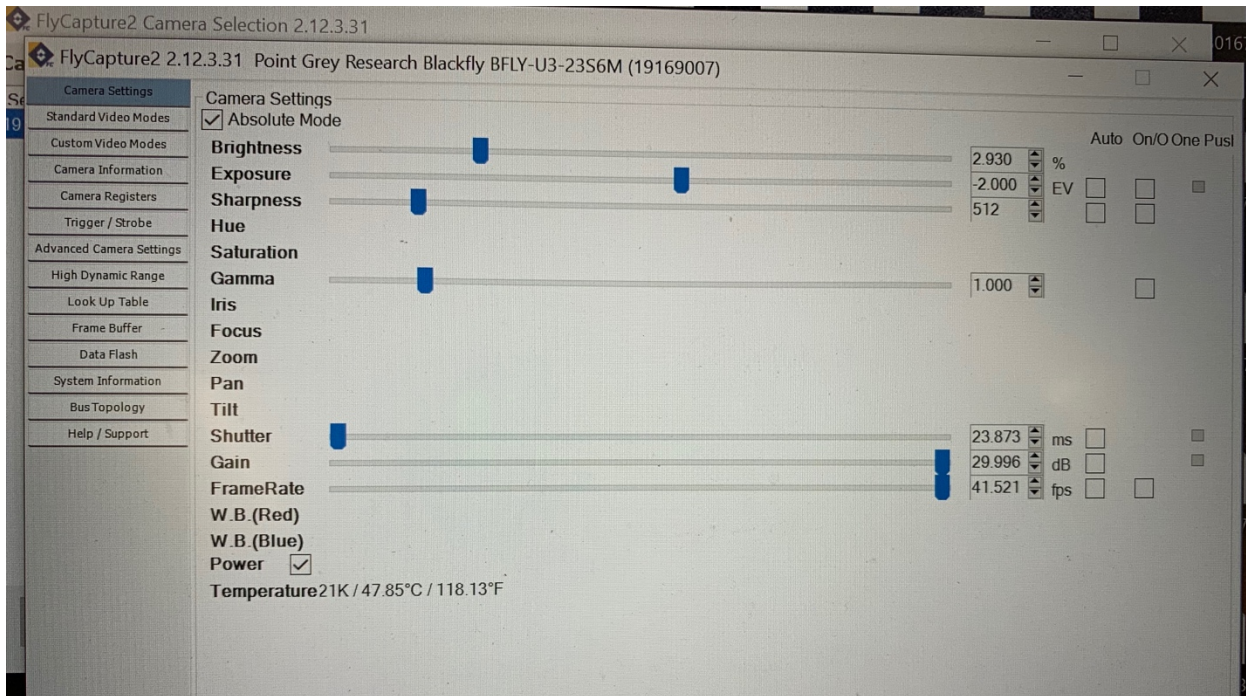


Aligning the FP3001

After you have set up your system, you will need to align it to your patch cord. Your system was aligned in our shop, but all patch cords have different tolerances. Therefore, your system may need to be adjusted to focus on your specific patch cord. We also recommend that you check your alignment prior to each new day of recording, as it may need adjustment from time to time.

Begin the alignment by inserting your patch cord into the system. Be sure that it is fully connected via the FC connector; it should not twist or jiggle. Once connected, turn the system on and set all LEDs to 100% power.

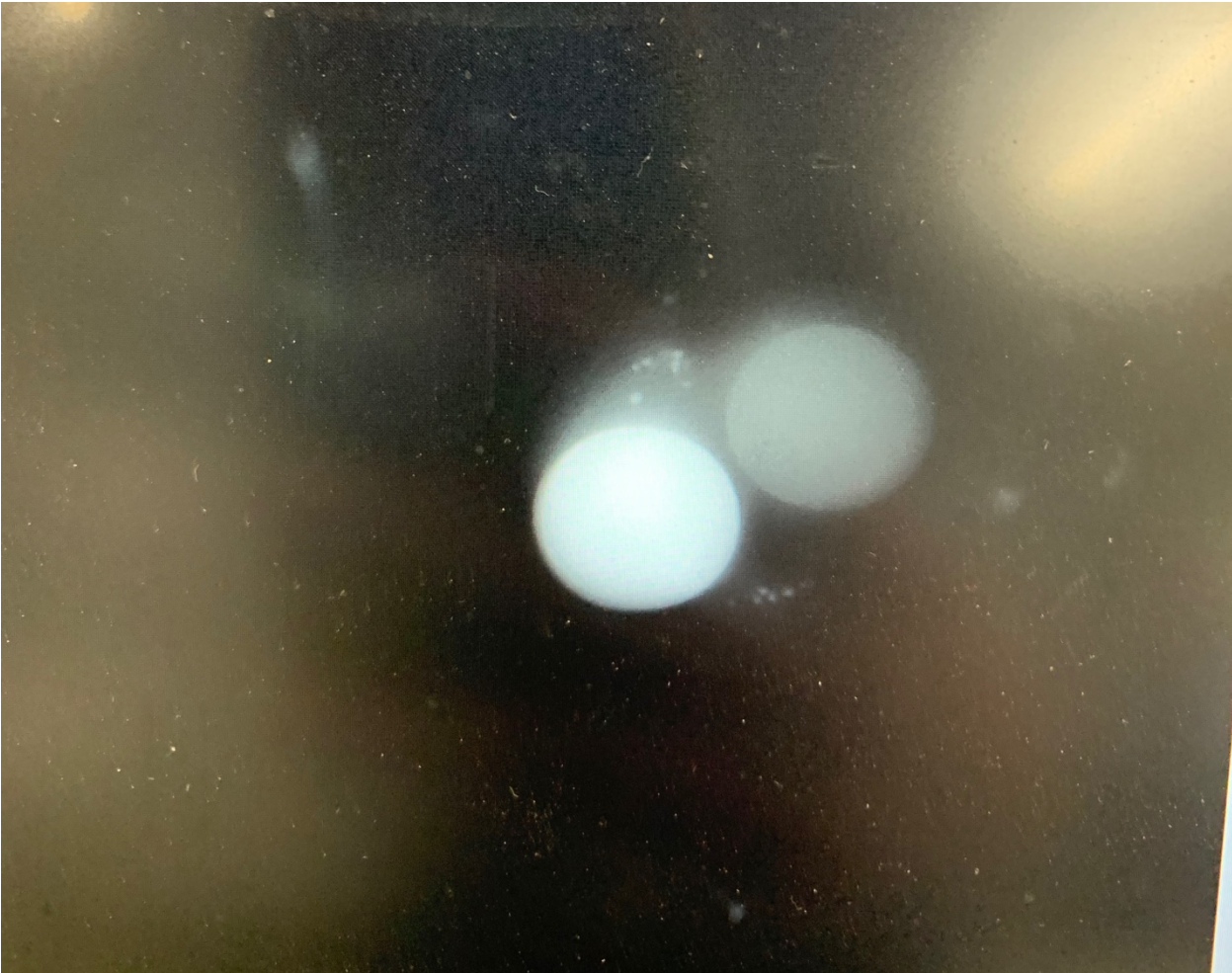




Open flycapture (or if you are using the FP3001 node, then you can use the ROI picker!) and click on “Configure Selected”. Turn “Gain” all the way up and then press ok. This gain adjustment will help you better visualize your cores.

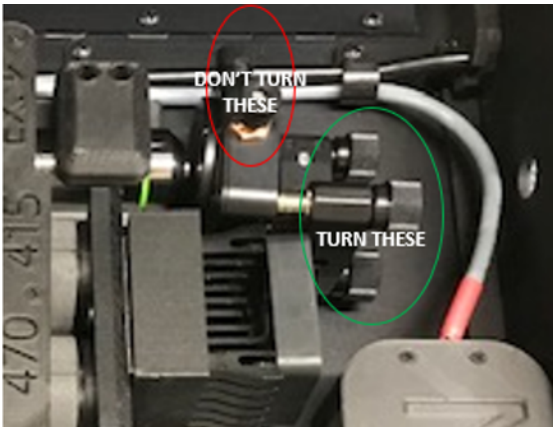
When looking at FlyCapture, you should see a mirror image of the cores on your screen. For example, if you have a 2 branch patch cord, you will see a total of 4 cores mirrored over the midline. The green channel is on the right, and the red channel is on the left.

Tap on the tip of the patch cord to saturate the signal. This will help you better see the current alignment of the cores. They should be crisp, concentric circles with minimum flare.



Example of flare that indicates poor alignment.

The FP3001 has a 5-axis translator that can be used to adjust the alignment of your system if needed. There are five knobs on the translator, but only three should be used during the alignment; these three knobs are larger and have white writing on them.



We strongly recommend that you avoid turning the two smaller knobs on the 5-axis translator. These were lined up with the objective lens prior to shipment and very rarely need to be adjusted. They are also *very* sensitive; a little turn can go a long way towards throwing off your alignment!

To adjust the alignment, slightly turn these three knobs, adjusting one at a time while tapping on the tip of the patch cord until the image comes into focus. Once the cores are in focus, lower the gain halfway to visualize the flare. The cores should not bleed into each other; we want them to be independent in order to not confound your data.

Once your system is aligned, remember to turn the gain back down to <10 before recording. You're now ready to go!

