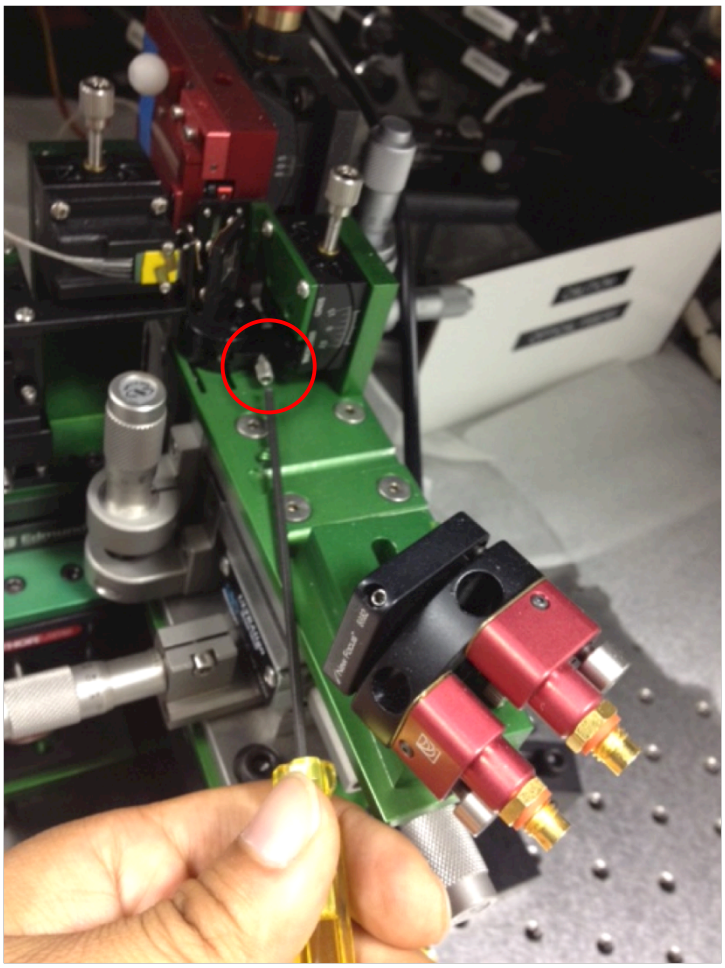
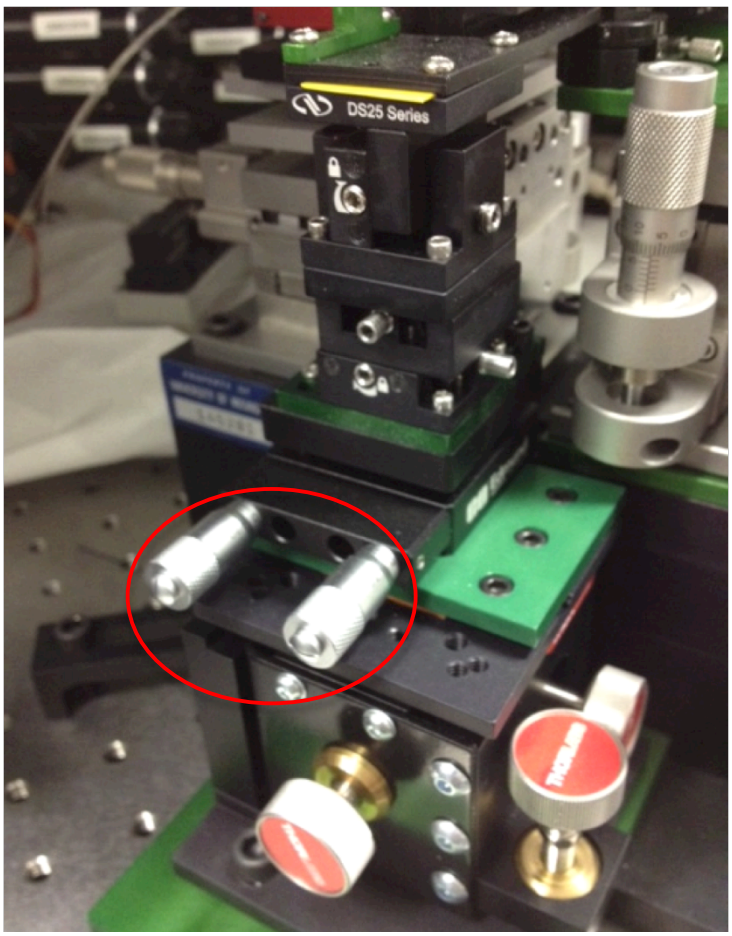
Xchan alignment

1. Align CHARA white light source to MIRC detector. Do a fiber explorer to maximize the light input.
2. Use beam 3 and 4 to align xchan because they are the farthest apart.
3. There are three main adjustments that need to be checked. The first one is the rotation angle of the beamsplitter (Fig. 1). There is a little screw perfect for that as also shown in the figure, you can find it in the lab. The second and third ones are the tiptilts of multimode fibers (Fig. 2) . These knobs are very sensitive, you should be able to see light intensity variation with a few degrees of adjustments.
4. Make sure you have the cross section of the IRCam gui running on the screen. Watch how the intensity varies while adjusting those knobs so that you can find the optimal positions.
5. A sequence I have been using is to do a grid search on beamsplitter rotation. At each point, try to maximize the ratios of the peaks of xchan and fringe light by adjusting two tiptilt knobs of multimode fibers. In this way you will know how bright the xchan can be, then try to reproduce that brightness after the grid search.
6. Also keep in mind it is important balance the ratios of beam 3 and 4. We were able to get both of them to ~ 5.




DS25 Series