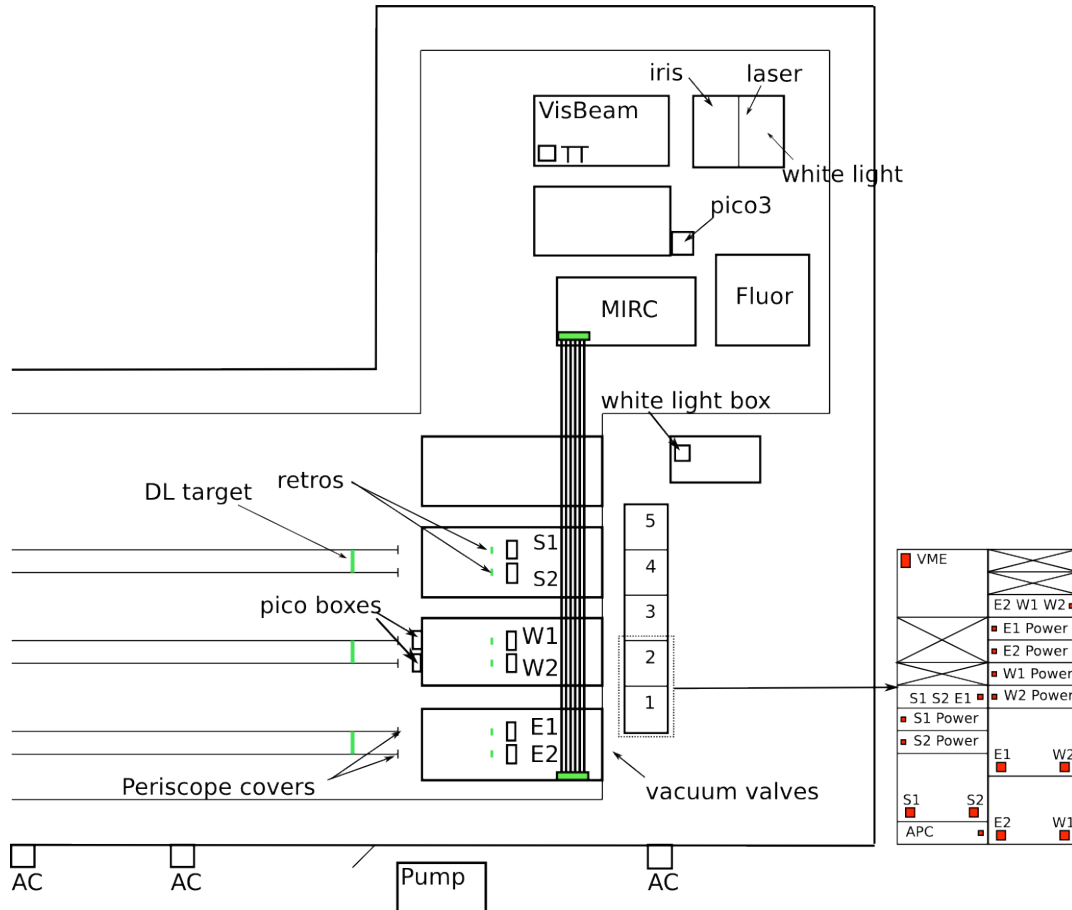


# CHARA alignment procedure



1. Switch on racks in bays 1&2
2. Turn pump ON, turn AC (3 AC units) OFF (outside)
3. Vacuum valves: on vacuum server, check the ones with the higher pressure. Open valves in decreasing order of pressure. If Pressure < 10, wait and open at the end.
4. Check if IR engineering beam is ON (in principle always on).
5. Open laser shutter as well as B1->B6 shutters.
6. Check ND 0.0 is selected in the laser filters GUI.
7. Move visible beams to 5&6 (VIS Beams GUI).
8. Beam sampler: set all beams to beam 5 (or any beam not in use).
9. Close the iris to 13.

10. Switch on pico boxes next to table W1/W2.
11. Check engineering beam alignment on target located on E1 table. If beam needs adjustment, move using PicoController1, P1, B6, Move, adjust position.
12. Move VIS Beams to 2&1.
13. Check alignment, if necessary adjust using PicoController1. Repeat for all beams.
14. Assign telescopes to beams using beam sampler. Current configuration is: 1:S1, 2:E1, 3:W1, 4:W2. (May 05 2007). Set VIS beams to 4&3.
15. Put the target on the DL rails (near the home switch). Adjust the beam position using pico motors (pico box must be set for the correct beam, check note on the pico box 1). Repeat for all beams.
16. Put the retros in place (check labels on retros).
17. Set the target on MIRC table.
18. Open shutters IRB1->IRB6
19. Use pico motors 2 to adjust the beam position. P2, S1IR (E1IR, ...), Move. Remove target once done.
20. Switch on pico box 3 (Tip-tilt box).
21. Turn on white light source (white light box on desk next to lab door), adjust level to reach level indicated on the label.
22. Close laser shutter, open white light shutter.
23. Fiber explorer:
  - Close all IR shutters.
  - Load detector configuration.
  - Reset background.
  - Take background.
  - Use background.
  - Change VIS Beams and shutters for the beam to be aligned.
  - If there is no light:
    - check the shutters
    - check VIS Beams
    - check detector background
    - check fiber position: load optimal positions from file
24. Tip-tilt:
  - Take tip-tilt cover off
  - Turn on CCD cooling
  - Turn on tip-tilt CCD power (from POWER GUI)
  - Close all shutters B1->B6, IRB1->IRB6.
  - From the main menu select tip-tilt, remote, CCD

make bias  
select beam with VIS Beams  
open corresponding shutter  
repeat for all beams

25. Remove the retros.
26. Check all the valves are now open.
27. Remove beam covers from the DL periscopes.