GIRAFFE makes use of an avalanche photodiode (APD) to pick off a fraction of the collimated light within the spectrograph, to give the observer an indication of the relative brightness of a target, and therefore how well it is centred on the fibre.

The APD is extremely sensitive, and should only be switched on when taking target or arc exposures. Switch the APD off when taking flats, and ensure that it is off before entering the Coude room or switching on the lights.

The APD is switched on and off by a button marked "https://topswiki.saao.ac.zaAPD"https://topswiki.saao.ac.za in the "https://topswiki.saao.ac.zaControl"https://topswiki.saao.ac.za panel of the QUARTZ software; a yellow light appears when the APD is on.

A LabView program running on "https://topswiki.saao.ac.zaPiet's Old Laptop"https://topswiki.saao.ac.za (located to the left of the TCS monitor) is used to monitor the APD count rate. If the laptop is not running when you arrive:

- Switch on laptop and wait to boot - no username or password required.
- Double click on *Shortcut to APD Count Plotter* icon on Desktop.
- When plotter window opens, under *VISA resource name* in the bottom right of the window, **select *ASRL1::INSTR*** from the pull-down menu.
- To start counting, **click on the small white arrow** at the top left to start plotting the APD counts.
- To stop plotting, click on the red button. To rescale the plot, click the red button followed by the white arrow.

The quality of the fibre alignment is gauged by the count rate recorded with the arc lamp switched on (for a steady light source). As of January 2015, you should expect ~80,000 counts/sec with the arc lamp switched on.