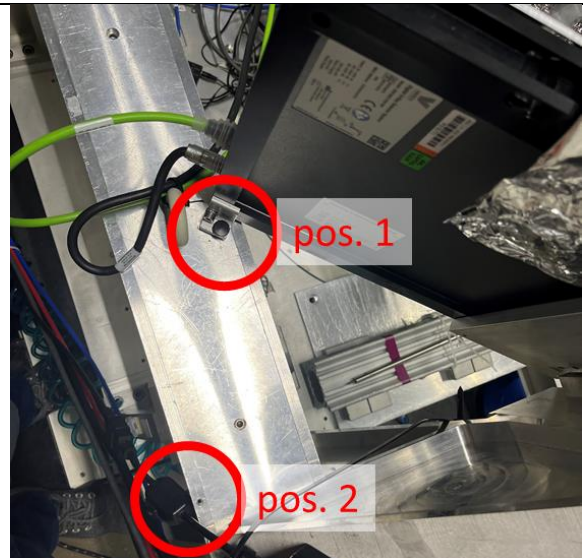


# Varex Notes

## Mount

- 



There are two positions for the varex. This is the measurement position, where the normal of the varex is, as much as possible, pointing at the sample.

To switch to the non-measurement (out-of-the-way) position, move the set screw from position 1 to position 2.

## Connections

- Detector has two connections
  - Power cable to power transformer
  - Green ethernet cable to computer
- Computer has two ethernet connections (+mouse/monitor/power/etc)
  - On the right, the green ethernet cable connects the computer to the detector. The top ethernet port definitely works – have not tested the bottom one.
  - On the left, ethernet connection to internet



## Software

1. Log into the gotthard computer with “.\sec27admin” and the password welcome\*1
2. Click “start epics” to start the ioc.
3. Click “CAQTDM” to start the interface.



4. Note that the XRD0822 has only two gain capacitors: 1.0pF and 4pF.
5. Make sure to take a background image
6. To take an image
  - Image mode: Single
  - Sync mode: DDD No Clear
  - Trigger mode: Internal

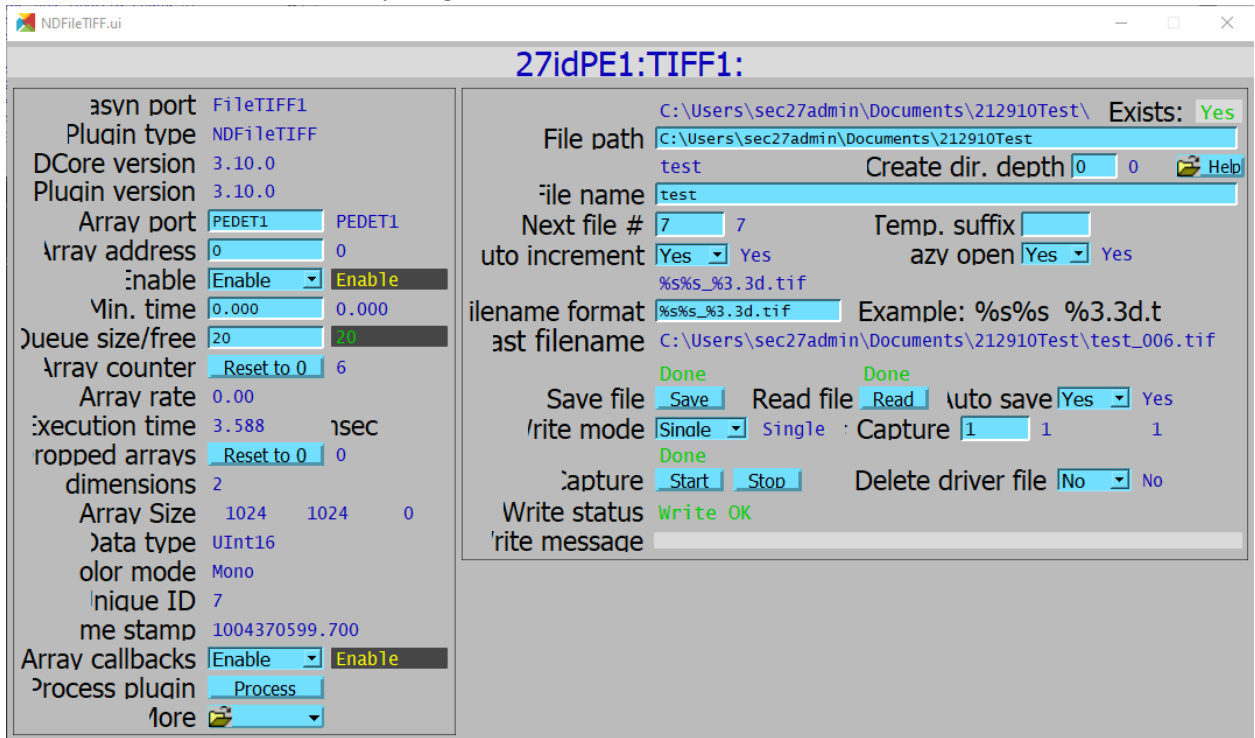
- Make sure to take a background image using the "Acquire Offset Correction" button without beam. (It's the box on the top of the center column.)

The screenshot shows the Perkin Elmer Control software interface for device 27idPE1:cam1. The interface is organized into several panels:

- Setup:** Contains device information such as ICS name (27idPE1:cam1), manufacturer (Perkin Elmer), model (XRD 0822 x0), and connection status (Connected).
- Corrections:** This panel is highlighted and contains sub-sections for Offset, Gain, and Bad Pixel File. The 'Acquire Offset Correction' button is visible in the Offset section.
- Shutter:** Controls shutter mode (None), status (Closed), and timing parameters like delay (0.000).
- Collect:** Controls acquisition parameters like exposure time (1.000), gain (4pF), and image count (1).
- Readout:** Displays sensor size (1024 x 1024) and image size (1024 x 1024).
- Buffers:** Shows buffer usage statistics, including buffers used (0) and memory allocation.
- Attributes:** Displays file information, including the file name and status (File not found).

- The PV prefix for the area detector is "27IDPE1". So the acquire PV then would be "27idPE1:cam1:Acquire".

9. Here is the tiff screen with everything correct.



## Reading the data

Open ImageJ in \$HOME/ImageJ-new and look at 27idPE1: image1:

If you don't see anything on the screen, but do see counts in the ROI, it may be a problem with ImageJ.