# StepNShoot

This application provides a means to move and expose samples automatically (remotely). Originally designed for the SEE circuit board project. The coordinates of the parts of the circuit that are to be exposed are tabulated. The table is part of a comma separated file (.csv) is read in and displayed in a Qt table. Items from the table are selected. On ‘go’ the motors are driven to that coordinate, and the shutter opened and closed.

June 2025 modifications

A programmed sequence in which each coordinate is actioned in order would be useful.

A pick-and-select for the sequence list would be an additional feature.

It appears the internal timer is limited in its maximum exposure time. It will do 4 seconds, but 4.5 seconds fails. Probably an integer wrap around in the firmware!

For the short Snap exposures could use the shutter timer, rather than the EPICS software control via AD. This would keep the x-ray exposure to a minimum but would require more complex detector triggering from the shutter signals. This has worked in the past but in the first instance let’s keep with the simple method of using the AD shutter control.

For the long exposures this will have to be done using a software timer. QTimer would seem to be useful.

August 2025 – modifications

A shutter state indicator which reflects the shutter status. Got using a camonitor on the imaging shutter.