

NFPM files

New Focus Pico Motor control files for Labview. These are simple implementations of the NFPM_CMD vi, using it to send and receive information via a serial connection to the motors.

Note: Definition of “Steps” – 1 step is the distance that the screw rotates through one piezo actuated cycle. 1 step is ~ 30nm (though this will depend on the motor environment).

NFPM_CMD – stock serial control interface for commands

NFPM_MR – Move Relative. Input the Axis and Driver (motor selection) which you want to move, and the number of steps the motor should take. +/- will determine the direction in which the steps are taken.

NFPM_SelectAxis – Subroutine which selects a specific motor given axis and driver information.

NFPM_TellPos – Tell Position, the current position of a specified motor is returned (in steps). The motors used are not closed loop, so this is not necessarily representative of actual position

NFPM_Velocity – Causes a motor to move at a specified velocity (Steps/s) for a given amount of time or until the stop button is pressed.

NFPM_Velocity_Aquisition – Acquires data from a specified channel (detector X or Y usually) during movement. The sampling rate can be adjusted internally, default set at 500 Hz

Play Spreadsheet – Causes the picomotor to “play” a piece of music in spreadsheet form. The spreadsheet contains a note “number” and duration information. The note to number subvi converts a note number to the correct, specified frequency. The Superstar.txt file is a spreadsheet for a short part of Jesus Christ Superstar (Andrew Lloyd Webber). Watch to make sure you don’t run the picomotor beyond the limit of screw travel.