

LabView Set-up files for Profile Detectors and Polarimeter

If the motion seems uncontrolled or erratic, check that the following parameters are correctly set.

Board 1: Čerenkov detectors

Parameters are stored in a set-up file residing on the PC in the tunnel, named

C:/Program Files/National Instruments/LABVIEW/Project/Profile Detector/feb1.fsf

Config_Axes_Setup.flx

All axes enabled and closed-loop

AXIS	1	2	3	4
	Č1	Č2	Č3	Č4

Motion_IO_Setup.flx

Home Polarities and Enable

Home Polarity	Non-Inv	Inv	Non-Inv	Non-Inv
Home Enable		All Disabled		

Limit Polarities and Enable

Forward limit polarity	Inv	Non-Inv	Inv	Inv
Reverse limit polarity	Non-Inv	Non-Inv	Non-Inv	Non-Inv
Forward limit enable		All Enabled		
Reverse limit enable		All Enabled		

Inhibits

Axis inhibit		All Enabled		
Inhibit polarity		All Inv		
Inhibit must on		All False		
Inhibit must off		All False		

Axis_Setup.flx

Trajectory	1	2	3	4
Velocity (rpm)		All 100		
Acceleration (rps/s)		All 100		
Deceleration (rps/s)		All 100		

Encoder Counts/rev.

All 4000

Stepper Exclusive

Counts/rev All 2000

Stepper polarity				
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Board 2: Scintillators, Annulus rotation, Polarimeter

Parameters are stored in a set-up file residing on the PC in the tunnel, named

C:/Program Files/National Instruments/LABVIEW/Project/Profile Detector/jan02.fsf

Config_Axes_Setup.flx

All axes *enabled* and *closed-loop*, except for the axis 4—the polarimeter—which is *open-loop*. (Currently, there is no rotary encoder on the polarimeter which is controlled in LABVIEW only by means of counting stepping motor micro-steps. A rotary encoder has been ordered, and may be reinstalled at a later date.)

AXIS	1	2	3	4
	<i>Scin1</i>	<i>Scin2</i>	Rot.	Pol.

Motion_IO_Setup.flx

Home Polarities and Enable

Home Polarity	Non-Inv	Inv	Non-Inv	Inv
Home Enable		All Enabled*		

(*For automated scanning with rotation, disable Axis 3)

Limit Polarities and Enable

Forward limit polarity		All Non-Inv		
Reverse limit polarity	Inv	Inv	Non-Inv	Non-Inv
Forward limit enable		All Enabled		
Reverse limit enable		All Enabled		

Inhibits

Axis inhibit		All Enabled		
Inhibit polarity		All Inv		
Inhibit must on		All False		
Inhibit must off		All False		

Axis_Setup.flx

Trajectory

	1	2	3	4
Velocity (rpm)	100	150	100	250
Acceleration (rps/s)	100	100	100	100
Deceleration (rps/s)	100	100	100	100

Encoder Counts/rev.

	4000	4000	15	(500)
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Stepper Exclusive

Counts/rev	2000	2000	2000	2000
Stepper polarity	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/>