

Programming software

In order to configure the integrated motor drive, please use the PC software called Motolab Starter:
https://www.nilab.at/download/motolab_starter_ver0-0-1-0/?wpdmdl=6631&refresh=635638e9ee1601666595049

The screenshot shows the Motolab Starter software interface. On the left, there is a sidebar with 'DRIVE STATUS' (READY), 'ON/OFF' buttons, 'FAULT RESET', and 'I/O Status' indicators. The main area displays the 'Motion Table' configuration. The table lists 10 motion profiles (Index 0-9) with columns for Index, Motion type, Position, A, B, C, Waiting, and Trigger mode. Below the table are 'START MOTION' and 'STOP MOTION' buttons, and a 'Digital Outputs Setup' section.

Index	Motion type	Position	A	B	C	Waiting	Trigger mode	
793	0	Polynomial	110,000 mm	600 msec	0 msec	300 msec	10 msec	DIG IN risin
804	1	Polynomial	190,000 mm	600 msec	0 msec	300 msec	10 msec	Auto
815	2	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
826	3	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
837	4	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
848	5	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
859	6	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
870	7	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
881	8	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto
892	9	None	0,000 mm	0 msec	0 msec	0 msec	0 msec	Auto

The screenshot shows the Motolab Starter software interface with the control loop diagram. The diagram illustrates the 'Position Loop', 'Speed Loop', and 'Current Loop' with various gain blocks, integrators, and feedback paths. Below the diagram is the 'Motion Command' section with input fields for current, speed, acceleration, and deceleration setpoints and times.

Motion Command

4128	Current setpoint	0,000 A	84	Acceleration time	2 msec
4134	Speed setpoint	0,000 RPM	85	Deceleration time	2 msec

The screenshot displays the Motolab Starter Configuration Tool interface. On the left, the 'DRIVE STATUS' section shows 'READY' and 'ON' buttons, along with 'FAULT RESET', 'AUTOMATIC HOMING', and 'MANUAL HOMING' options. Below this, 'I/O Status' and 'Actuator Status' are visible, with the latter showing Motor Speed at -4 RPM, Linear Speed at -0.3 mm/sec, Motor Current at 0.0 A, and Current Position at 1,900 mm. The main area shows 'FAULT DESCRIPTION' as 'NO FAULT'. The 'Statistics' section includes a MODBUS ADDRESS table with values for 'DEVICE ON TIME' (3 Days, 15 Hours, 45 Minutes, 5 Seconds), 'NUMBER OF CYCLES REACHED' (14808), and 'TRIP (DISTANCE TRAVELED)' (25,746 meters). It also features 'LIFE CYCLE %' and 'MOTOR LOAD' gauges. The 'Load conditions' section shows 'I2T CURRENT (1sec)' at 0.000 Arms, 'DC Link' at 49.4 Volts, 'POWER STAGE TEMP' at 27.1 Celsius, and 'MOTOR PTC' at 65535. At the bottom, an 'UPDATE SCOPE' button is present above a graph showing 'Scope', 'Motor / Drive Temp', and 'I2T CURRENT (1 minutes integral)' over a 12-minute period.

From: <https://dokuwiki.nilab.at/> - NiLAB GmbH Knowledgebase

Permanent link: https://dokuwiki.nilab.at/doku.php?id=motolab_actuator:programming

Last update: 2023/09/28 11:55

