

# Parametrization

In order to configure the integrated motor drive, please use the PC software Motolab Starter:

[https://www.nilab.at/download/motolab\\_starter\\_ver0-0-1-0/?wpdmdl=6631&refresh=635638e9ee1601666595049](https://www.nilab.at/download/motolab_starter_ver0-0-1-0/?wpdmdl=6631&refresh=635638e9ee1601666595049)

The screenshot shows the Motolab Starter configuration tool. On the left, there is a sidebar with 'DRIVE STATUS' (READY), 'ON/OFF' buttons, 'FAULT RESET', and 'I/O Status'. The main area displays the 'Motion Table' with the following data:

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 rise
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

Below the table are 'Motion control' buttons (START MOTION, STOP MOTION) and a 'Digital Outputs Setup' section.

The screenshot shows the Motolab Starter configuration tool with the control loop diagram. The diagram illustrates the 'Position Loop', 'Speed Loop', and 'Current Loop' with various gain blocks and feedback paths. Below the diagram is the 'Motion Command' section:

Parameter	Value	Unit
412B Current setpoint	0,000	A
413A Speed setpoint	0,000	RPM
84 Acceleration time	2	msec
85 Deceleration time	2	msec

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The screenshot displays the Motolab Starter Configuration Tool interface. The top navigation bar includes buttons for DISCONNECT FROM MOTOR, DOWNLOAD, UPLOAD, and STORE. The main interface is divided into several sections:

- DRIVE STATUS:** Shows 'READY' status with ON/OFF buttons and a FAULT RESET button. It also includes options for AUTOMATIC HOMING and MANUAL HOMING.
- I/O Status:** Displays Digital Input 1, Digital Input 2, Digital Output 1, and Digital Output 2.
- Actuator Status:** Shows Motor Speed (-4 RPM), Linear Speed (-0.3 mm/sec), Motor Current (0.0 A), and Current Position (1,900 mm).
- Statistics:** Shows 'NO FAULT' and 'Statistics' for MODBUS ADDRESS 1222. It includes a timer for 'DEVICE ON TIME' (3 Days, 15 Hours, 45 Minutes, 5 Seconds) and other metrics like 'NUMBER OF CYCLES REACHED' (14808) and 'TRIP (DISTANCE TRAVELED)' (25,746 meters).
- Load conditions:** Displays various parameters: 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. It also shows a 'MOTOR LOAD' gauge at 0%.
- UPDATE SCOPE:** A graph showing 'Scope', 'Motor / Drive Temp', and 'I2T CURRENT (1 sec) integral' over time (0 to 12 minutes).

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