

Software di programmazione

Questa pagina descrive il **software di programmazione** per l'attuatore Motolab. Il drive motore integrato viene configurato con il software PC.

Per configurare il drive motore integrato, utilizza il software PC chiamato Motolab Starter:

https://www.nilab.at/download/motolab_starter_ver0-0-1-0/?wpdmdl=6631&refresh=635638e9ee1601666595049

The screenshot shows the Motolab Starter Configuration Tool interface. The top bar includes buttons for DISCONNECT FROM MOTOR, DOWNLOAD, UPLOAD, and STORE. The OPMODE is set to Digital Speed / Motion controller Positioning. The Progress Bar is at 0%.

DRIVE STATUS (COM Link): READY. Buttons: ON, OFF, FAULT RESET, AUTOMATIC HOMING, MANUAL HOMING.

I/O Status: Digital Input 1, Digital Input 2, Digital Output 1, Digital Output 2.

Actuator Status: Motor Speed (-1 RPM), Linear Speed (-0,1 mm/sec), Motor Current (0,0 A), Current Position (1,897 mm).

Motion Table (MODBUS ADDRESS):

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

Table Mode: 1 Maps - 10 positions pro map. 121 ☐ Enable Control from Input 1.

Motion control: START MOTION (4149 Mot Index), STOP MOTION (0).

Digital Outputs Setup: Digital Output 1 Setup (Brake Control), Digital Output 2 Setup (In Position (active low)).

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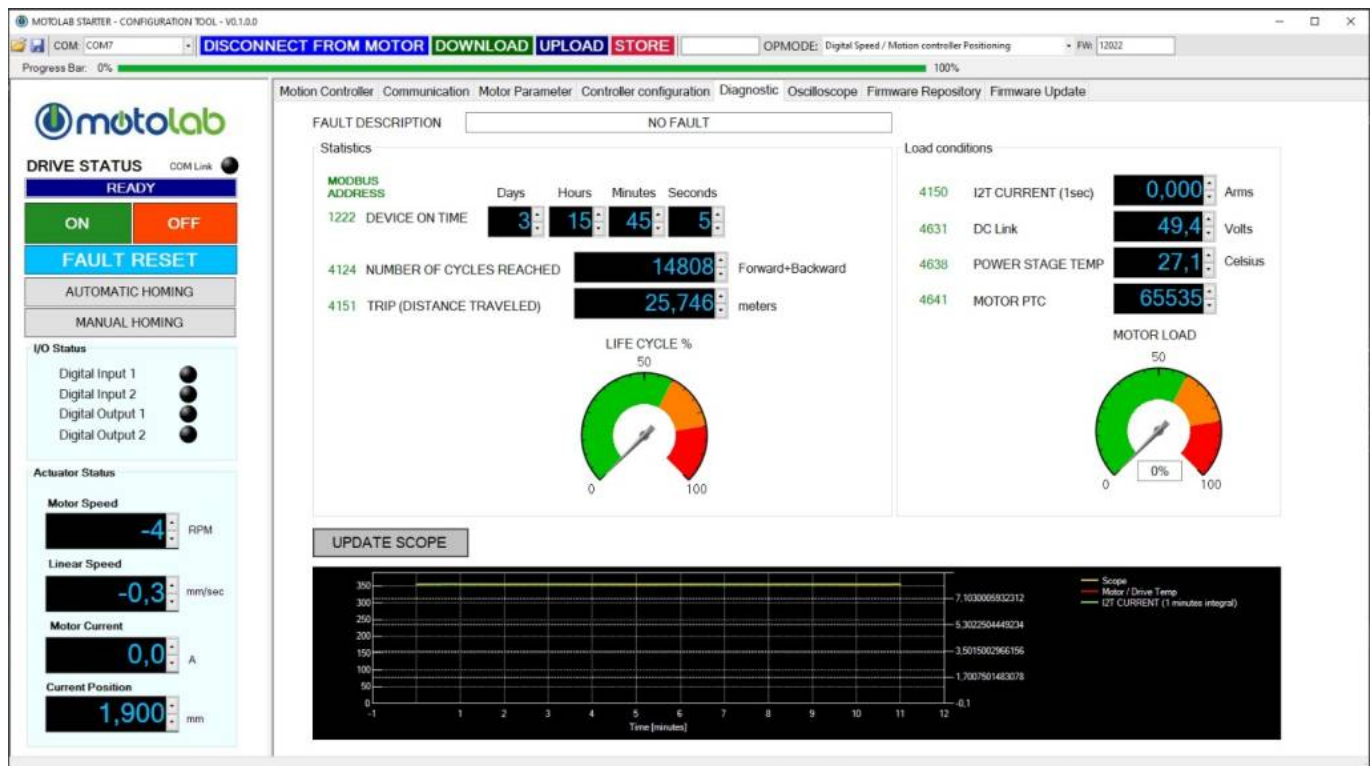
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Motion Command:

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

The diagram shows the control loops: Position Loop, Speed Loop, and Current Loop. The Position Loop uses a PID controller to convert position error into speed. The Speed Loop uses a PID controller to convert speed error into current. The Current Loop uses a PID controller to convert current error into motor output. The motor output is fed back to the current loop.



A cosa serve Motolab Starter

- Configurazione dei parametri e messa in servizio del drive integrato. - Configurazione e test dei profili di movimento e delle sequenze di homing. - Monitoraggio in tempo reale dello stato del drive e della posizione dell'attuatore. - Diagnostica e analisi dei guasti durante la messa in servizio.

Come procedere

- Scarica e installa il software Motolab Starter. - Collega il drive al PC con il cavo di programmazione. - Configura i parametri del motore e le impostazioni di movimento. - Salva la configurazione e verifica il funzionamento dell'attuatore.

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