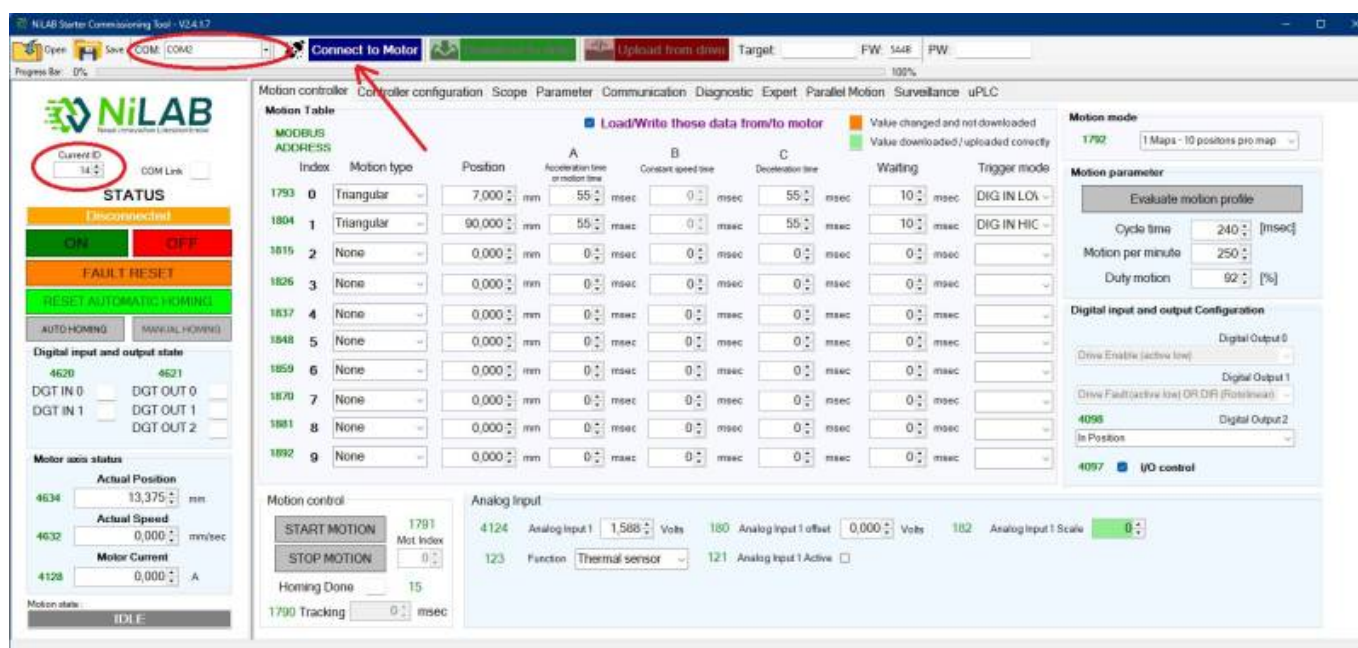


# How to save and reload the configuration

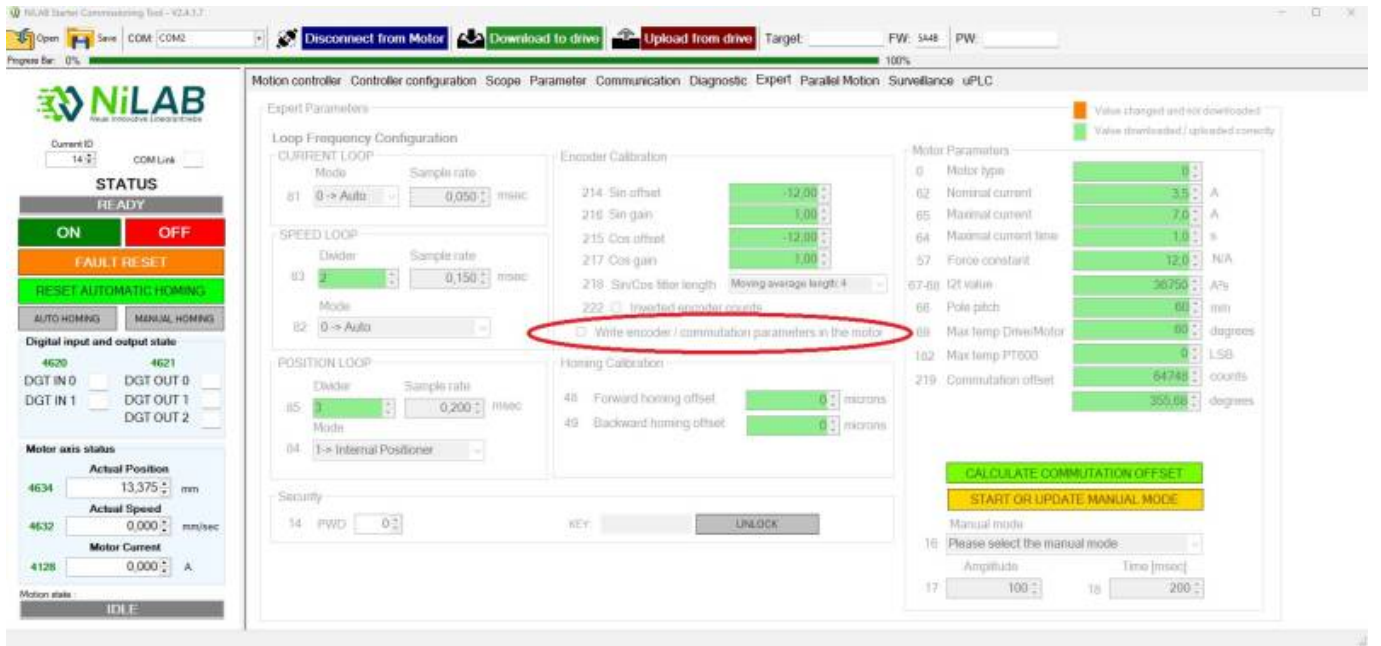
If one motor needs to be replaced with a new one while maintaining the same parameters (such as motion cycle characteristics and control type), follow these steps:

**1. Disconnect the motor from the 24VDC and reconnect the motor waiting 5 seconds (you must see the leds blinking on the motor and then only the green led pulsing or blinking indicating the motor is ready to be used)**

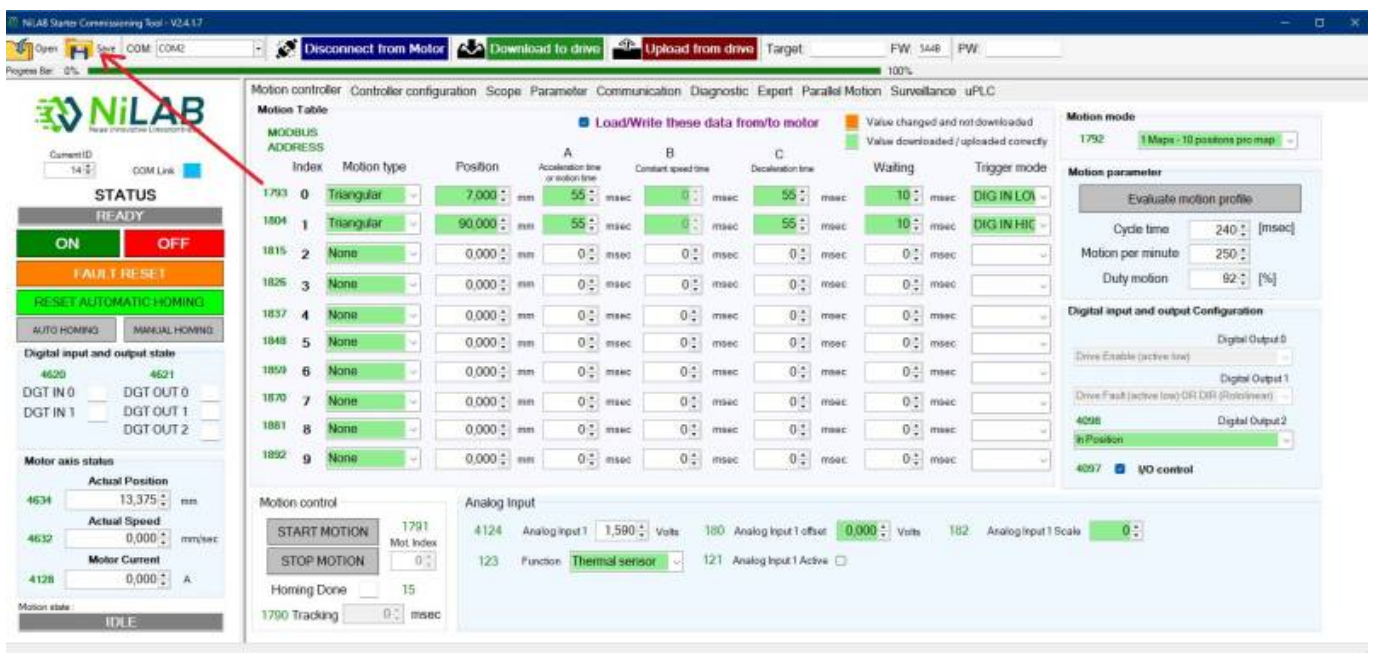
**2. Launch a new session of the NiLAB Starter software. Select the right Current ID of the connected motor and the right COM port for communication using USB to RS485 adapter cable. In the example below the ID of the motor is 14, Please use the right ID of the motor. the default value to be used is the value = 1 . Please note that if you need to know the available motor with the relative ID number use the Communication window and the press the button Scan Modbus Nodes to see the list. Press the button connect to Motor to connect.**



**3. Please verify that the expert window is disable and tghe write encoder / commutation parameters in the motor option is unchecked.**



#### 4. Connect to the motor to be replaced and the save the current configuration:



#### 5. Disconnect the motor from NiLAB Starter pressing the button Disconnect the Motor

The screenshot shows the NiLAB Starter Commissioning Tool interface. The top bar includes buttons for 'Disconnect from Motor', 'Download to drive', and 'Upload from drive'. The main area is divided into several sections:

- Left Panel:** Contains the NiLAB logo, 'Current ID' (14), 'COM Link', 'STATUS' (READY), 'ON/OFF' buttons, 'FAULT RESET', 'RESET AUTOMATIC HOMING', 'AUTO HOMING', 'MANUAL HOMING', 'Digital input and output state', and 'Motor axis status'.
- Motion Table:** A table with columns: Index, Motion type, Position, Acceleration time or motion time (A), Constant speed time (B), Deceleration time (C), Waiting, and Trigger mode. It lists 10 rows of motion profiles.
- Motion control:** Includes 'START MOTION' and 'STOP MOTION' buttons, 'Homing Done' checkbox, and '1790 Tracking'.
- Analog Input:** Shows '4124 Analog Input 1' with a value of 1.589 Volts and '123 Function Thermal sensor'.
- Right Panel:** Contains 'Motion mode' (1790), 'Motion parameter' (Cycle time: 240, Motion per minute: 250, Duty motion: 92), and 'Digital input and output Configuration'.

6. Now replace the selected motor with a new one and waiting the booting cycle of 5 seconds from the powerup.

7. Connect to the motor. Please take into account that a new motor as ID = 1. Change the current ID to 1 and connect pressing the Connect to Motor button

The screenshot shows the NiLAB Starter Commissioning Tool interface after the motor replacement. The 'Current ID' is now 1, circled in red. The Motion Table shows 10 rows of motion profiles with updated parameters:

Index	Motion type	Position	Acceleration time or motion time (A)	Constant speed time (B)	Deceleration time (C)	Waiting	Trigger mode
1793	Triangular	5,000	100	0	100	1000	Auto
1804	Triangular	40,000	100	0	100	1000	Auto
1815	None	0,000	0	0	0	0	
1826	None	0,000	0	0	0	0	
1837	None	0,000	0	0	0	0	
1848	None	0,000	0	0	0	0	
1859	None	0,000	0	0	0	0	
1870	None	0,000	0	0	0	0	
1881	None	0,000	0	0	0	0	
1892	None	0,000	0	0	0	0	

The right panel shows 'Motion mode' (1790), 'Motion parameter' (Cycle time: 2400, Motion per minute: 25, Duty motion: 17), and 'Digital input and output Configuration'.

8. Load the configuration file you saved previously at the step 4 of this list.

The screenshot shows the NiLAB Starter Commissioning Tool interface. The top bar includes 'Open', 'Save', 'COM: COM2', 'Disconnect from Motor', 'Download to drive', and 'Upload from drive'. The main area is divided into several sections:

- Motion Table:** A table with columns for Index, Motion type, Position, Acceleration time (A), Constant speed time (B), Deceleration time (C), Waiting, and Trigger mode. The first three rows (Index 0, 1, 2) are highlighted in orange, indicating differences from the previous state.
- Motion mode:** Set to '1 Maps - 10 positions per map'.
- Motion parameter:** Cycle time: 2400 [msec], Motion per minute: 25, Duty motion: 17 [%].
- Digital input and output Configuration:** Shows configurations for Digital Output 0, 1, and 2.
- Motion control:** Includes 'START MOTION' (1791 Mot Index), 'STOP MOTION' (0), and 'Homing Done' (15).
- Analog Input:** Shows configurations for Analog Input 1 (1594 Volts) and Analog Input 1 Scale (1472).

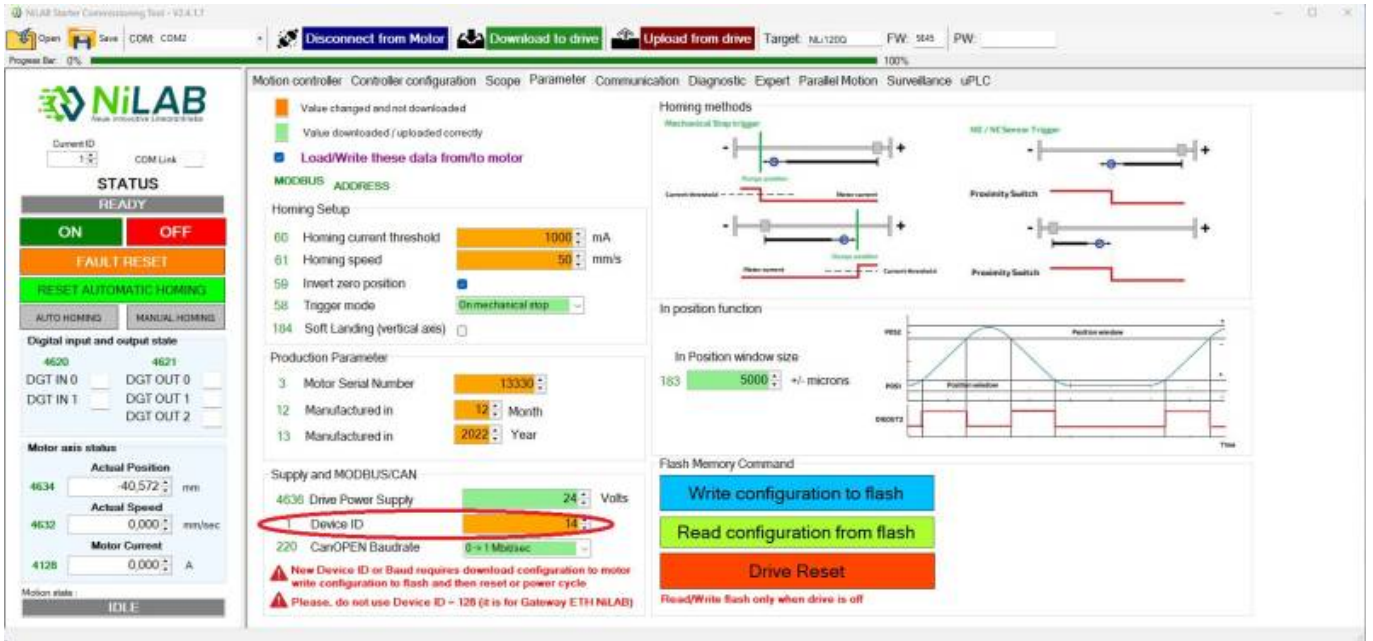
After loading the file all the differences are highlighted in orange color.

This screenshot shows the same NiLAB Starter Commissioning Tool interface after a file reload. The 'Motion Table' now shows updated values for the first three rows, which are highlighted in orange:

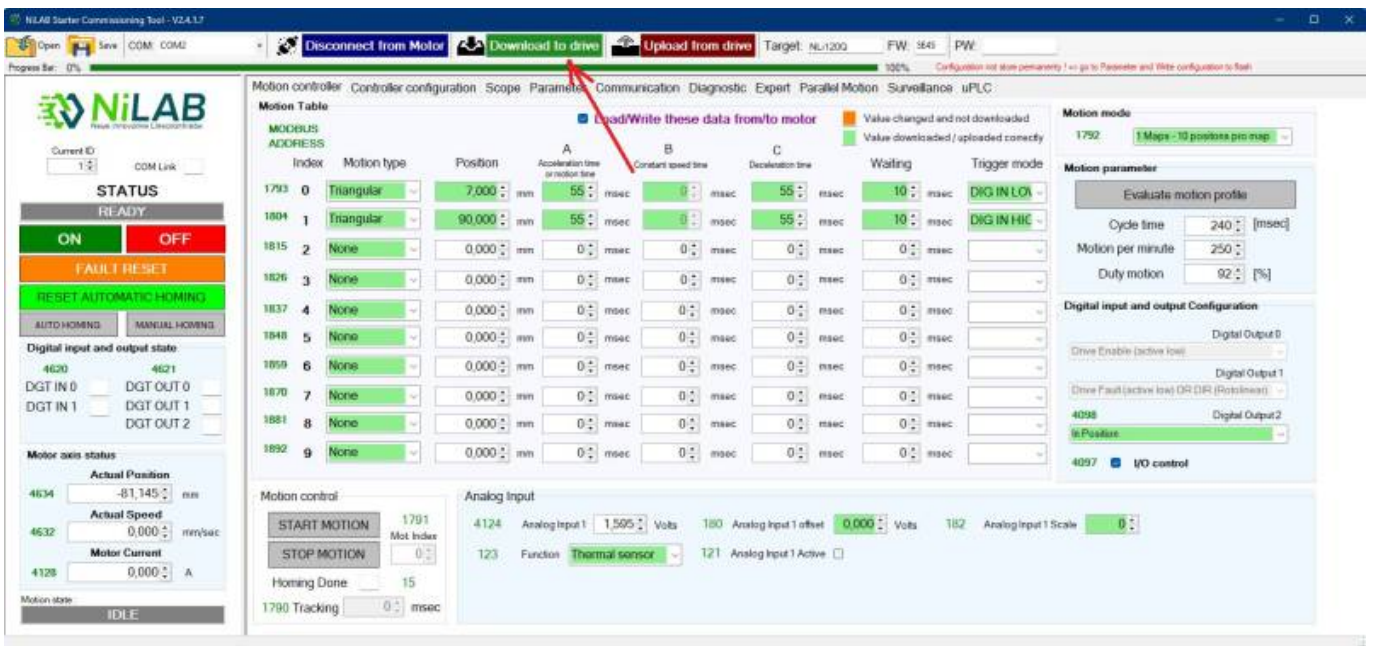
Index	Motion type	Position	Acceleration time (A)	Constant speed time (B)	Deceleration time (C)	Waiting	Trigger mode
1793 0	Triangular	7,000	55	0	55	10	DIG IN LCK
1804 1	Triangular	90,000	55	0	55	10	DIG IN HIG
1815 2	None	0,000	0	0	0	0	

Other sections of the interface, such as 'Motion mode' (now '1 Maps - 10 positions per map'), 'Motion parameter' (Cycle time: 240 [msec], Motion per minute: 250, Duty motion: 92 [%]), and 'Analog Input' (Analog Input 1: 1592 Volts, Analog Input 1 Scale: 0), show updated values. The 'Motion control' section remains the same.

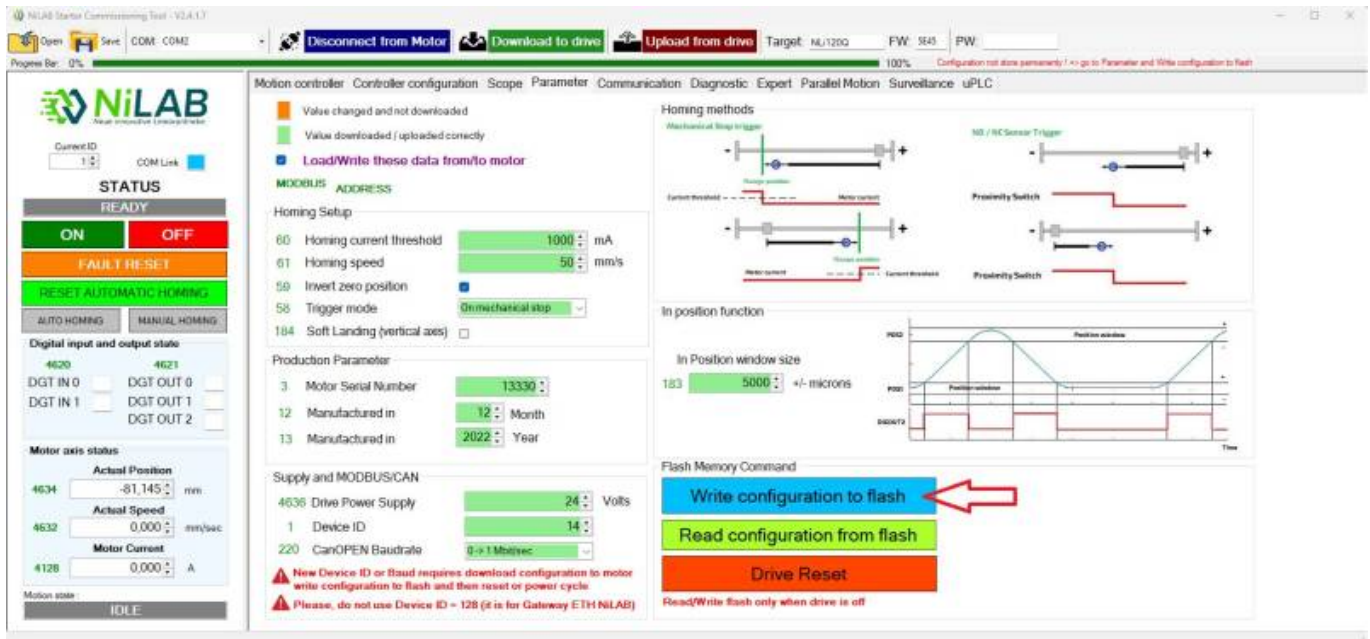
Please note that the Device ID is updated with the right one loaded from file.



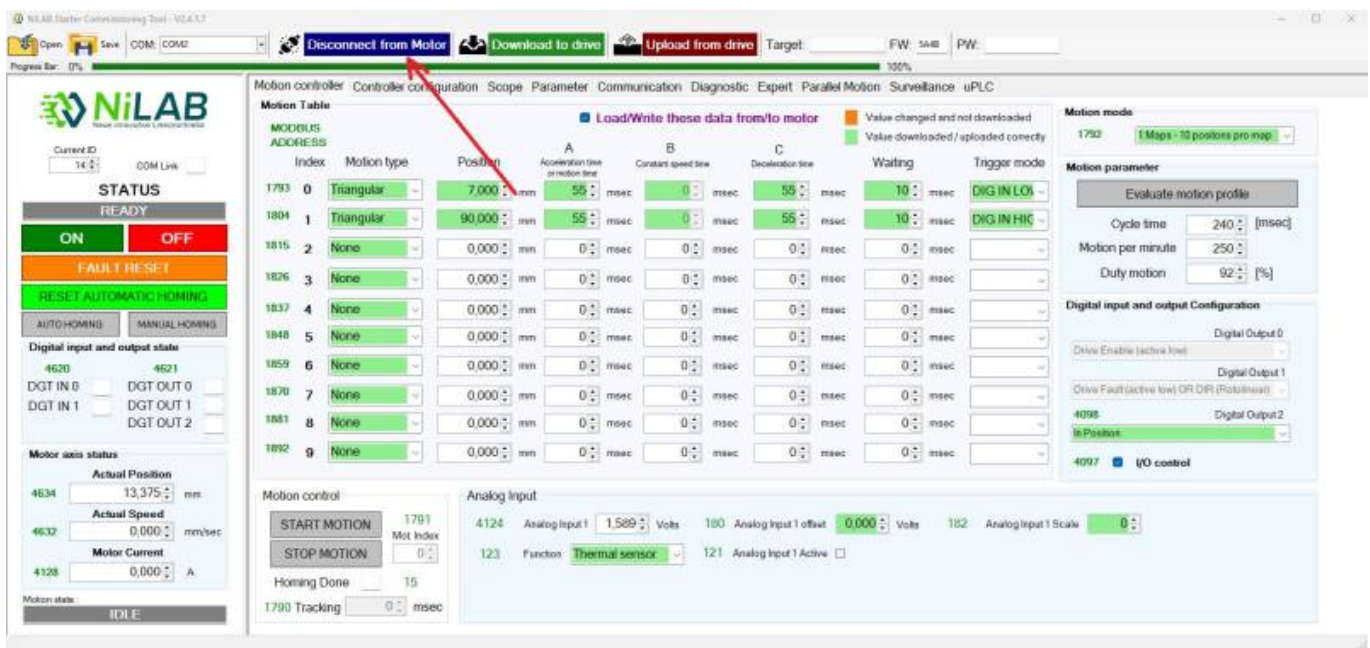
9. Download the configuration to the motor pressing Download to drive button and all the differences change to green color.



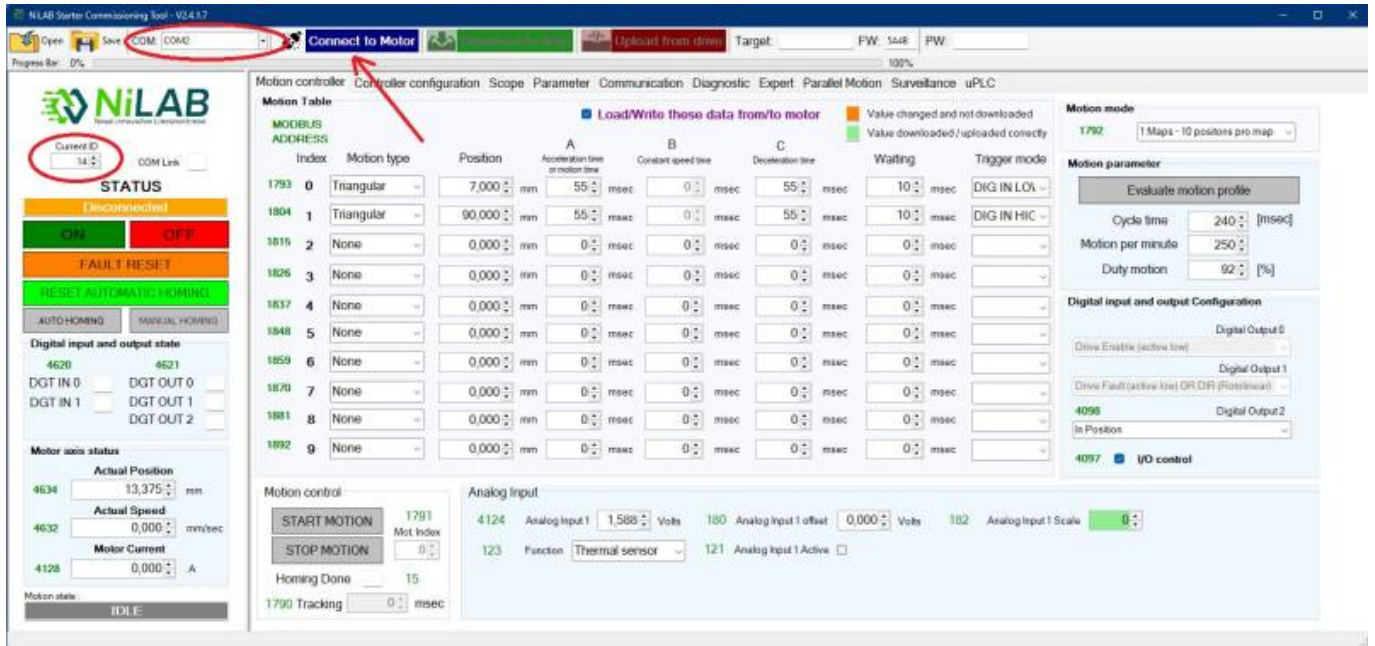
10. Store the configuration permanently to Flash pressing the Write configuration to flash button on the Parameter window.



**11. Disconnect the motor from NiLAB Starter and disconnect the power from the motor to update the Device ID to the new value.**



**12. Reconnect the motor to the power and wait 5 seconds before connect again using NiLAB Starter with the right ID (in this example we change the ID from 1 = Default to ID = 14).**



Check if the motor is running with the previous configuration of the replaced motor.

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Last update: 2025/06/18 07:26

