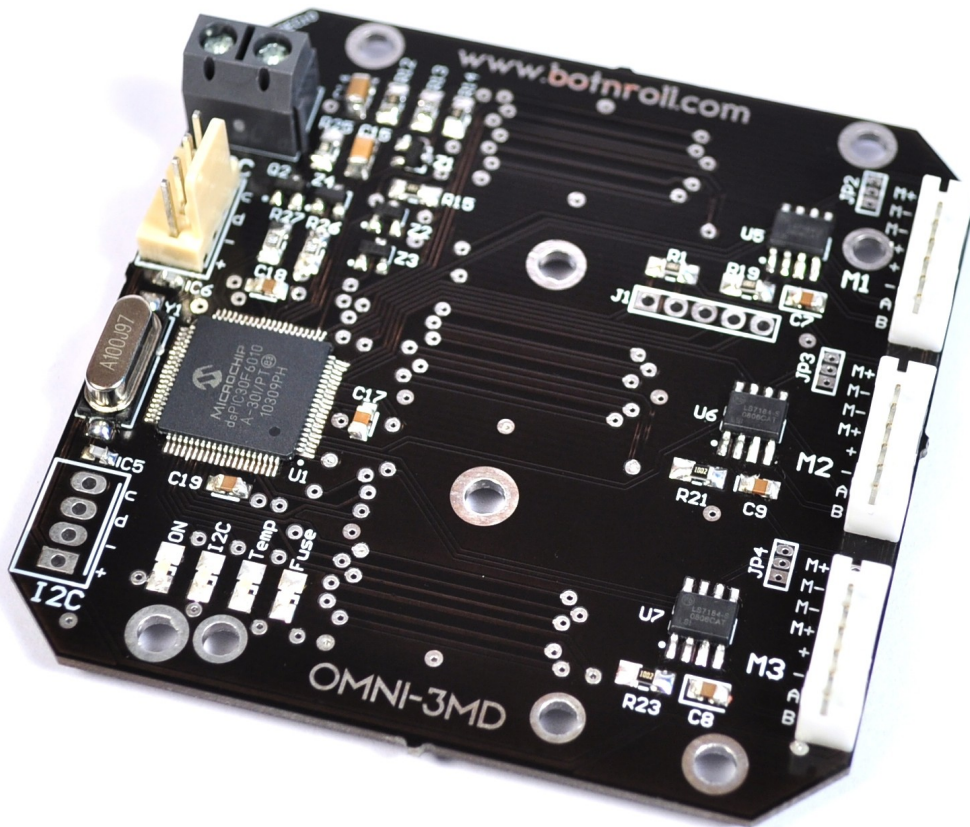


OMNI-3MD

Firmware Update Guide



Three Motors Controller Board

October 2013

How to update your OMNI-3MD to the latest firmware?

Updating your OMNI-3MD to the latest firmware requires you to write an .hex file to the PIC30F6010A micro-controller flash memory.

The necessary .hex file is available in the product support page:

http://botnroll.com/omni3md_en/

To write the .hex file to the OMNI-3MD it is required:

- The .hex file to be written;
- A PICkit2 or PICkit3 programmer;
- A computer;
- PICkit software installed in the computer.

Where to find the PICkit Software?

You can download the software for PICkit2 from our website using the link:

http://www.botnroll.com/omni3md/downloads/PICkit_2_v2.61.00_Setup_A.zip

You can download the software for PICkit3 from our website using the link:

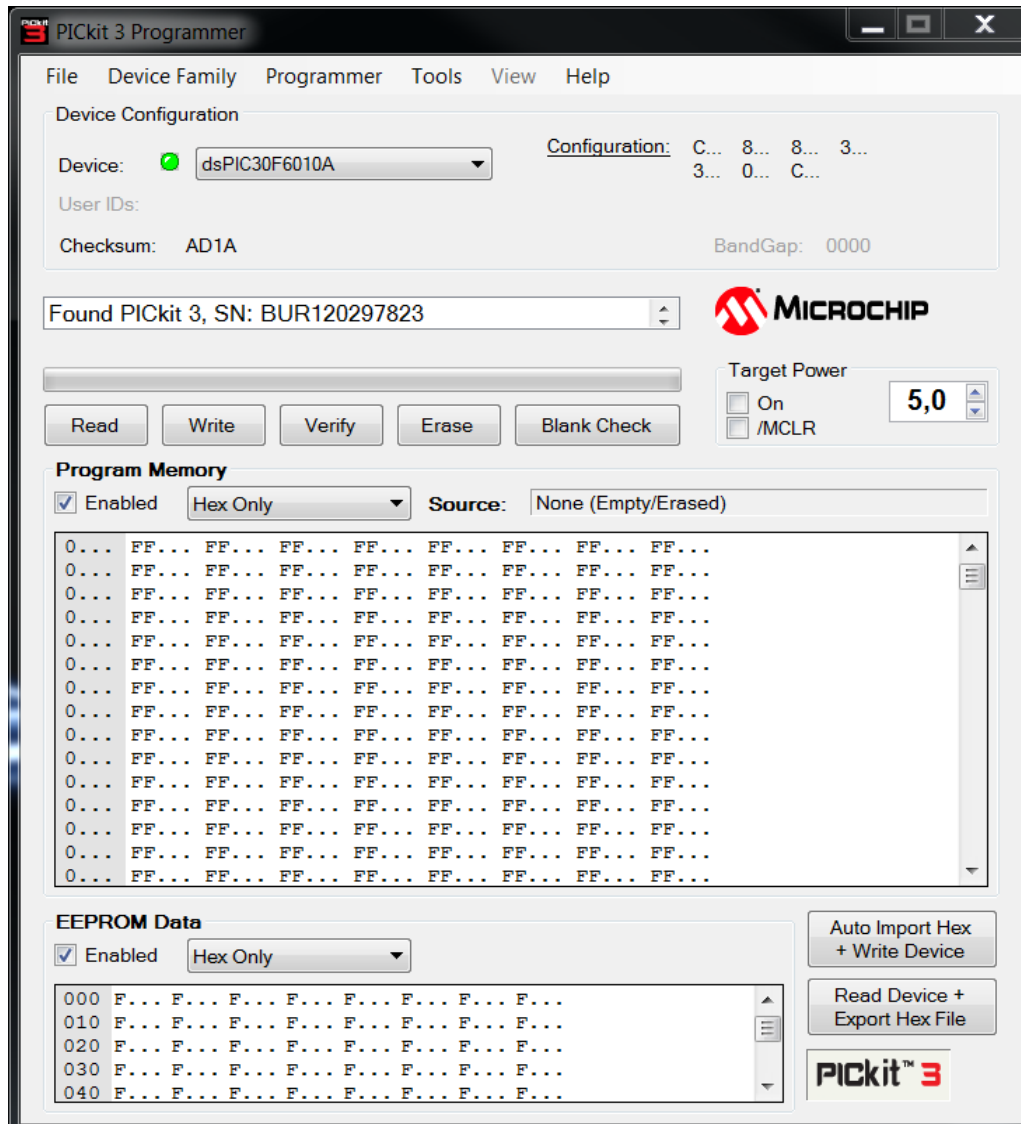
http://www.botnroll.com/omni3md/downloads/PICkit_3_Programmer_1_0_Setup_A.zip

To install PICkit software on your computer:

- Extract the downloaded .zip file;
- Access the extracted folder and run the setup file to install the software.

Writing the .hex file to the OMNI-3MD flash memory using an PICKit3:

- 1- Connect the PICKit3 to an USB port from your computer;
- 2- Run the PICKit3 software;
- 3- The PICKit3 programmer will be detected and the STATUS LED will lit green;
- 4- Select the **Device** you are programming: dsPIC30F6010A;



- 5- Verify that **Program Memory** and **EEPROM Data** check boxes are **Enabled**;

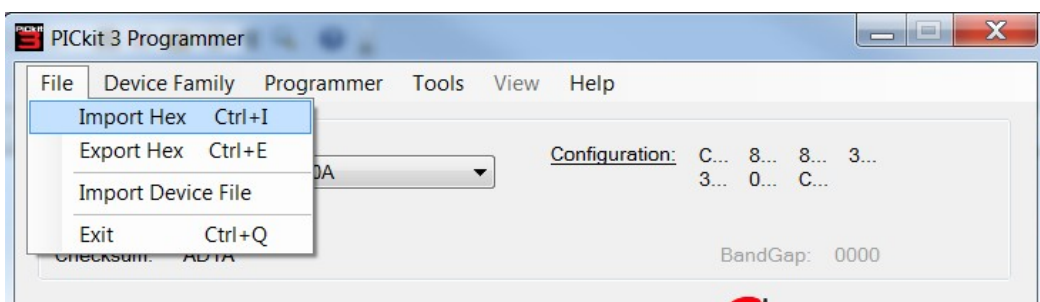
6- Insert PICKit3 programmer to the OMNI-3MD JP1 connector slot according to the following image, making sure that electrical contact between the PICKit3 and OMNI-3MD at all pins is acquired;



7- Power the OMNI-3MD control circuit (5V through the I2C connector);

8- Click “Erase” to blank flash memory and EEPROM memory;

9- Import the .hex file clicking on “File”->”Import Hex” and selecting the downloaded .hex file;



10- Click the “Write” button and the firmware will be written to the OMNI-3MD flash memory.

Note!

Make sure you run the calibration routine before you try movement with closed loop PID control .