

Read Me First

InstaSPIN-FOC LaunchPad and BoosterPack

Version 1.0.1

Motor Solutions

Overview

This Read Me First document acts as a guide book for your evaluation of an InstaSPIN-FOC enabled Piccolo LaunchPad paired with a three phase inverter BoosterPack

Supports:

- Piccolo InstaSPIN enabled controllers
 - o LAUNCHXL-F28027F LaunchPad for InstaSPIN-FOC
 - Includes on-card XDS100v2 JTAG (isolated)
- 3-phase Inverters
 - o Low Voltage / Medium Current: boostxldr8301_**revB**
 - PN: BOOSTXL-DRV8301

TI Spins Motors



Version: 1.0.1

Revision History:

1.0.1	October 28, 2013	First release
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TI Spins Motors

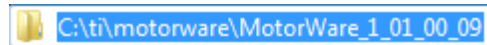


Path to Success:

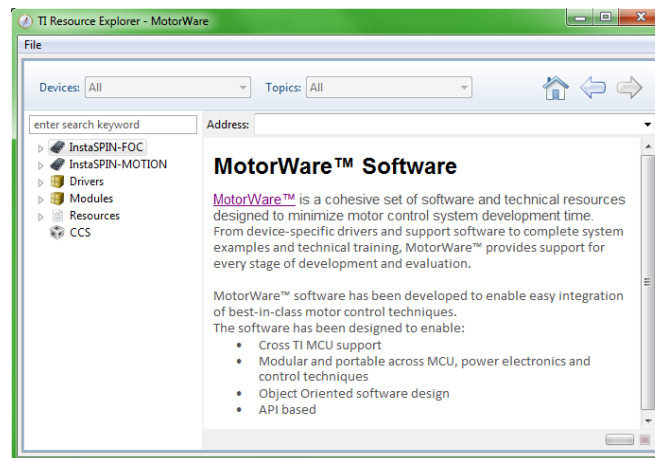
1. Always make sure you are using the latest version of MotorWare
 - a. www.ti.com/tool/motorware
 - b. LaunchPad and BoosterPack support starts with version 1_01_00_10
 - c. Confirm that the latest version available, ex:

Current Version	Version Date
v1.01.00.09	20-AUG-2013

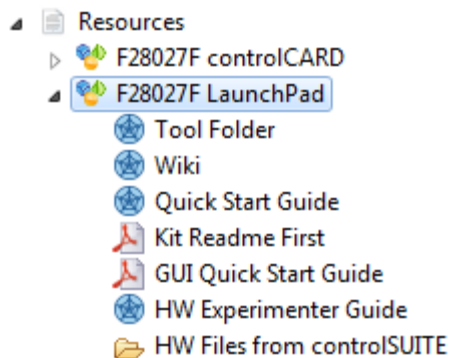
Matches your installation version, ex:



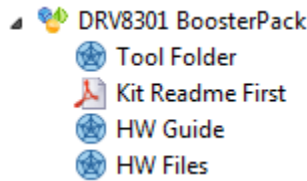
- d. MotorWare contains all of the modules, drivers, example Code Composer Studio based InstaSPIN projects, and associated documentation
- e. It can be easily browsed by running MotorWare.exe from the installation directory



2. Set-up Hardware according to documentation



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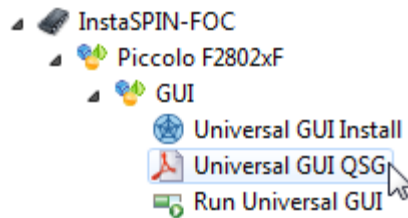



- a. For typical combination use the following settings should be used

LAUNCHXL-F28027F

- i. Remove Jumpers 1, 2, 3 to isolate USB and power from BOOSTXL-DRV8301
- ii. S1 set to ON-ON-ON to allow JTAG
- iii. S4 set to OFF
 1. The QSG shows S4 set to ON
 - a. ON sets the Piccolo I/Os to UART mode, which is not used by default in the example applications (only JTAG connectivity is used)
 - b. OFF sets the Piccolo I/Os to GPIO mode, allowing them to drive the Fault LEDs on the BoosterPack
 2. Fault functionality works regardless of LED functionality

3. Follow the GUI QSG



- a. Note that you will need to compile your specific .out for the GUI to work properly with your motor
 - i. Install latest CCSv5.x from:
http://processors.wiki.ti.com/index.php/Download_CCS
 - ii. Follow the Lab & Projects User's Guide under Resources
 [InstaSPIN Projects and Labs User's Guide](#)

4. Read further documentation as required

- a. Technical Reference Manual for F2802xF InstaSPIN-FOC ([SPRUHP4](#))
- b. InstaSPIN-FOC & InstaSPIN-MOTION User's Guide ([SPRUHJ1](#))