Texas Instruments

**EVM Programming Procedure**

# DRV8818EVM Programming Guide

Supporting the following EVMs:

DRV8818EVM

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# SOFTWARE

* 1. **TI UniFlash:** <https://www.ti.com/tool/UNIFLASH#downloads>
  2. **Firmware**: DRV8818EVM.txt (included infiles)
  3. **Users Guide**: <https://www.ti.com/lit/pdf/slvu681>

# REQUIRED EQUIPMENT

* 1. PC Computer running Windows 10 or greater
  2. [MSP-FET](https://www.ti.com/tool/MSP-FET) programmer or [MSP-FET430UIF](https://www.digikey.com/en/products/detail/texas-instruments/MSP-FET430UIF/807007)
  3. USB A or USB C to USB C data Cable, 6 feet or less. The EVM USB connector is USB-C.

# EQUIPMENT AND SOFTWARE SETUP

* 1. Power sequencing: the USB cable should be plugged in first. Powering the external bench supply before connecting USB cable may cause the USB interface device to not power up.
  2. Install TI UniFlash version 8.7.0 or newer.

# PROCEDURE

## Install Jumper Shunts on Headers

* + 1. **Make sure the jumpers are placed on the locations shown below.** These will be the default jumper locations that will be on the board before kitting and shipping.



|  |  |
| --- | --- |
| **Jumper Header** | **Shunt Location** |
| JP1 | INT position (middle to bottom) |
| JP6 | INT position (middle to bottom) |
| JMP1 | JTG PWR (left to middle) |
| JP7 | MCU\_PWR (across both) |
| J6 | Populate all positions |

## Programming DRV8818EVM firmware

* + 1. Connect the MSP-FET to the J5 JTAG programming header as shown in the image below. The different color cable (typically red or black) of the ribbon cable should be on the left side, aligned with pin 1 of the programming header.



* + 1. Open **TI UniFlash** and enter “**MSP430F2617**” in the device box. Select the **On-Chip** entry.



* + 1. Select **the first Connection Name** on the list and click **Start**.



* + 1. Click **Browse** and select **DRV8818EVM.txt**



* + 1. Click **Load Image**. This should flash the firmware onto the device. It can take up to 30 seconds.



* + 1. After a successful firmware load, you should see the following image in the Console window, and LED **D10** should be flashing.

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* + - 1. If you get an error message such as “Error connecting to the target: Unknown Device”, then try removing and reconnecting the programming cable to the header and confirm proper orientation.
    1. Remove the programming cable from the EVM.

1. **Firmware Modification**

The firmware was originally developed using IAR Embedded Workbench for MSP430. You can download the IAR-KICKSTART on TI’s website to get a trial version of this software and modify the firmware: <https://www.ti.com/tool/IAR-KICKSTART>