

# Z1 Sampler

## Programming the Device

At the present, programming the Z1, on the `driver-sampler` branch, will require the use of the MSP-FET430UIF. There exists an issue when programming with make upload transmitting the wrong password.

### Using the MSP-FET430UIF

mspdebug is used to communicate with the Z1's MSP430F2617 using JTAG. The orientation of the JTAG connector can be seen in Figure 1. If a pin header is not available, it is necessary to hold the pins against the board's connector carefully for the duration of the programming operation.

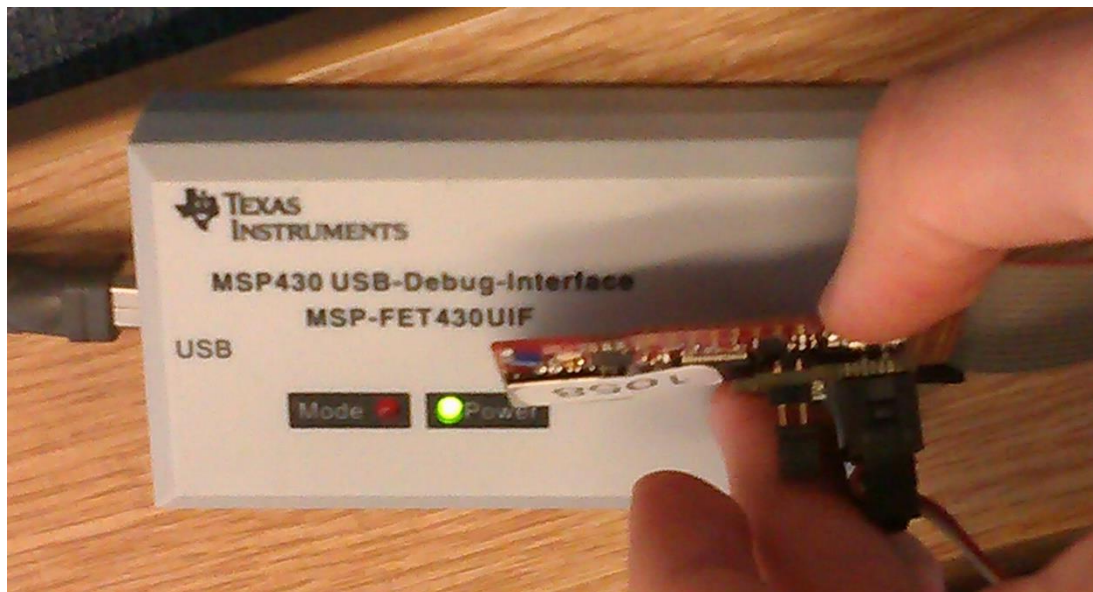


Figure 1 - JTAG connector orientation for the Z1

mspdebug is available with apt-get. Once installed, the typical command for use is mspdebug (driver) -d (device) -j. An example for the Z1 is

```
mspdebug tilib -d /dev/ttyACM0 -j
```

If this is the first time the debugger has been used, it may be required to run with the flag

```
--allow-fw-update
```

Once mspdebug is run, it will attempt to find the device, which should be attached/held on the JTAG connector. If not connected properly, an unknown device error will be thrown. If successful, the device model will be shown and a list of available commands will become apparent.

### Programming the Z1 with the debugger

In order to program the Z1, an ELF file should be made, this will come in the guise of a .z1 file. Before the device can be programmed, the ROM must be erased. This can be done with **erase all** within the mspdebug command line. Once complete, the device can be programmed with **prog (filename)**. Once complete, the device can be removed from the debugger and powered with USB.