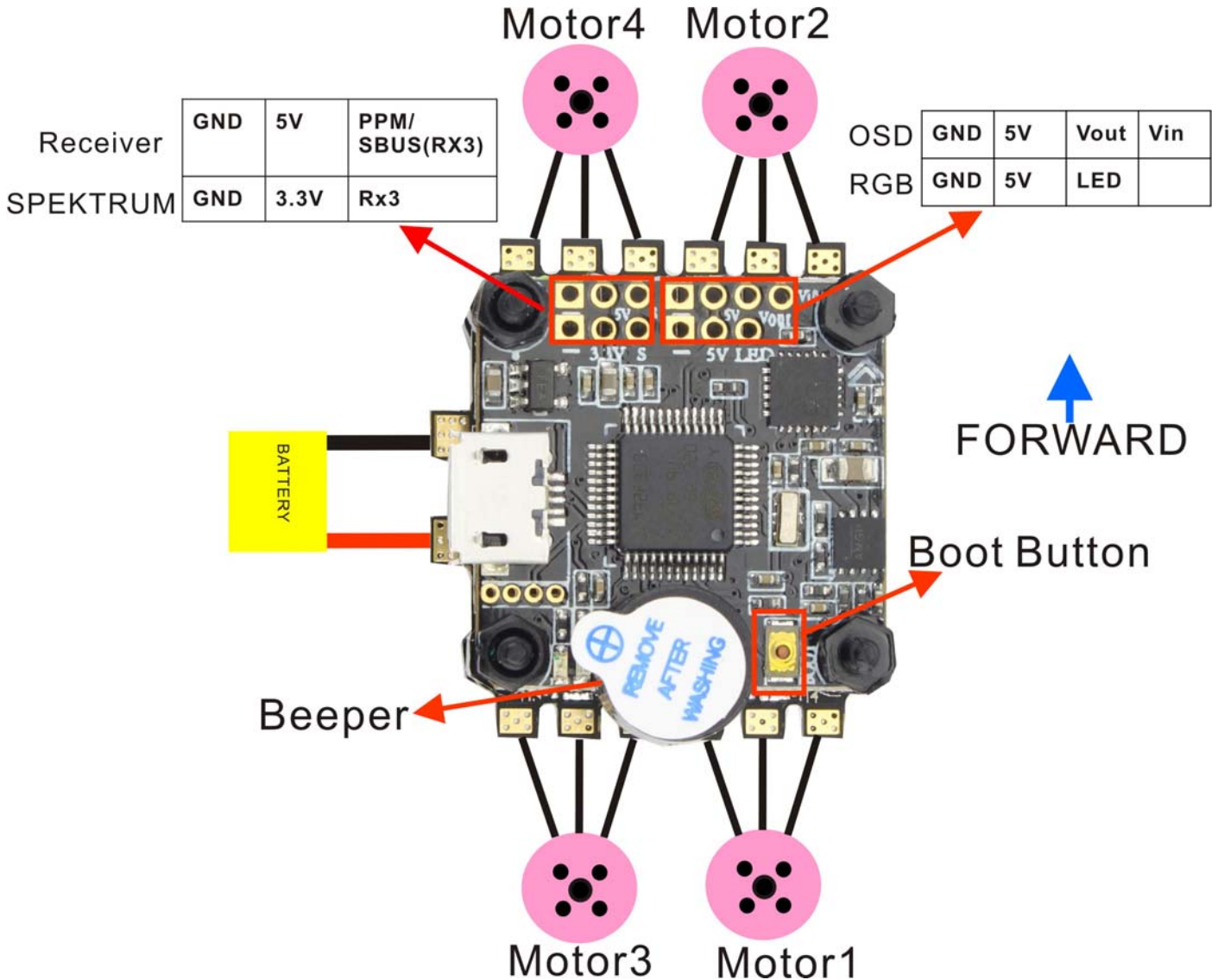


# F3 Magnum Manual - V1.0

( OMNIBUSF3 Firmware )



## Features

Flight controller ( OMNIBUSF3 Firmware )

- STM32F303 MCU
- MPU6000 accelerometer/gyro (connected via SPI)
- On-board OSD
- On-board Buzzer
- Integrated 5V/3A BEC
- Dedicated PPM/ Sbus receiver input
- 24x24mm board with 20mm mounting holes.

## ESC

- Continuous current 12A
- Supply voltage 2-4S Lipo
- EFM8BB21F16G MCU
- BLHeli-S firmware, support DSHOT, MULTISHOT, ONESHOT125
- Top quality MOSFET
- 3oz high TG PCB board
- 24x25mm board with 20mm mounting holes.

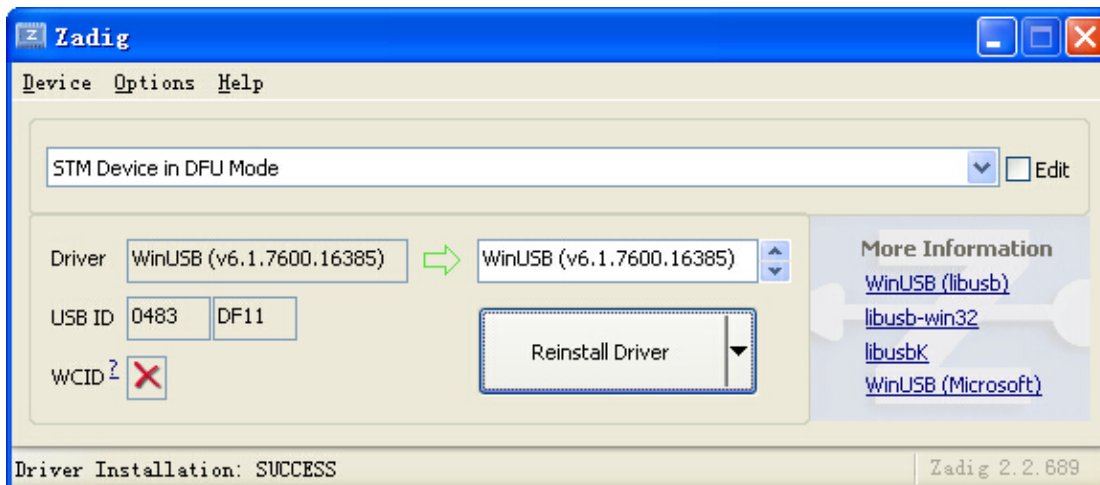
## Via Device Firmware Upload (DFU, USB) -windows

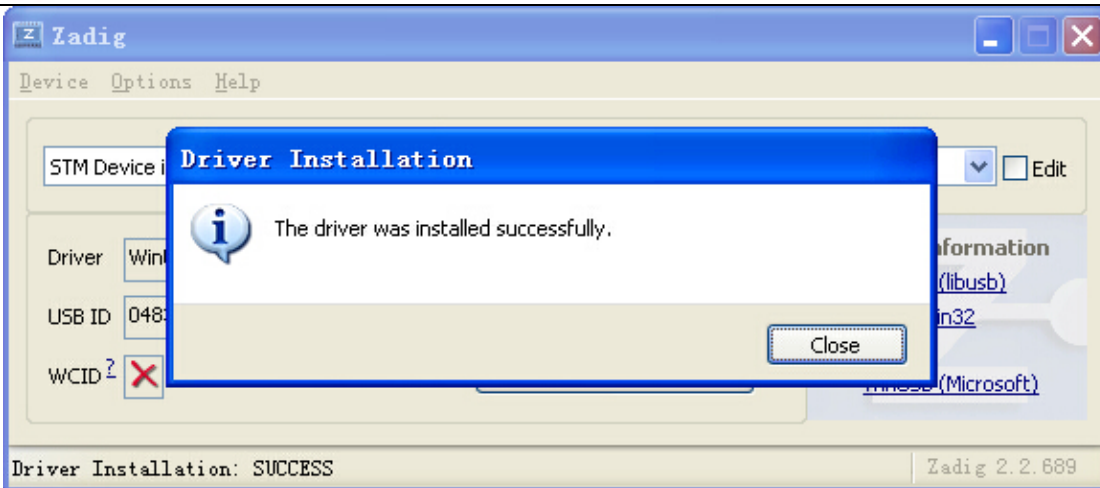
## Required Software:

- A OMNIBUSF3.hex file (for flashing).
- Zadig USB driver installation -> <http://zadig.akeo.ie/>
- Betaflight Configurator

## Flashing steps:

- Place the board into DFU mode by shorting out (soldering or screwdriver) the boot pins on top of the board .Your device will be detected as a STM Device in DFU mode (or STM BOOTLOADER).
- Load up Zadig USB driver and select the STM DFU or STM BOOTLOADER device (if it is not listed please confirm step 1, and / or select "Options / View All Devices" in the Zadig menu. Install the WinUSB driver.





## Virtual Communications Port

The F3 Magnum utilises the STM32 Virtual Com Port (VCP). This allows the UARTs on board to be utilised whilst the USB is connected. This requires the STM VCP driver to be installed in order for the VCP to be recognised.

The STM32 VCP driver can be downloaded here --> <http://www.st.com/web/en/catalog/tools/PF257938>

**NOTE:** Once you download and run the installation it has **not** installed the driver, merely unpacked the choice of drivers. Locate the installation directory and then run the EXE file pertaining to your system.

e.g. C:\Program Files (x86)\STMicroelectronics\Software\Virtual comport driver\Win8\ <- will have two files present. One for 64 bit systems and one for 32 bit systems.

- Betaflight Configurator

