Asgard32 with F4 MCU

Upgarde Asgard, incl.4x35A BLHELI32 ESC, supports ESC Telemetry function.

Using new target, which has 6x UARTs

- STM32 F405 MCU, Runs Betaflight firmware(supported from v3.2)
- MPU6000 Over SPI Bus
- 30.5x30.5mm Mounting holes
- Supports Lipo direct plugin (3-4S)
- Supports 5V 1A BEC output(Buck), Max 2A
- STM32 controls OSD chip over SPI in DMA mode(Betaflight OSD)
- Incl. Baro BMP280
- 4x BLHELI32 ESC onboard
- 6x UARTs

Pinmap

Resources

SBUS	UART1	Hardware inverter
DSM2	UART1	Jumper over the inverter
Smart Audio VTX	UART2	
Smartport	ANY	Inverters needed
ESC Telemetry	UART4	Connected
IIC	UART3	
SPARE UART	UART5 UART6	

Firmware update

The Asgard32 is not officially supported by betaflight yet, for firmwrae update, you can contact us or check in the product page.
We will keep update the patched HEX until there is offically release.

How to use the onboard USB port updated firmware in GUI on windows
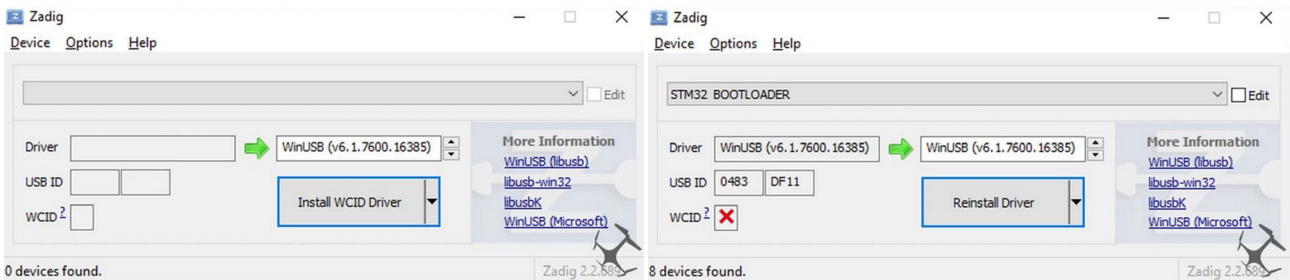
To Flash the Firmware you have to enter the so called DFU mode. On Windows 10 I had to use a tool called Zadig (download and start it) to be able to switch drivers for DFU mode to work. In order to switch drivers you have to take the following steps.

- Push BOOT button on the Flight controller.
- Plug-in the USB cable (the red LED should not be as bright as normally).
- Fire up Zadig and hit "Options" and then "List All Devices".
- From the list choose "STM32 BOOTLOADER".
- Under "Driver" choose "WinUSB" on the right and hit "Reinstall Driver".
- Close Zadig, disconnect the Flight controller, close all Google Chrome instances.

* Pictures and text made by : Aerosufer
http://www.aerosurfer.ch/2016/07/25/omnibus-f3-flight-controller/