Holybro

Kopis CineWhoop 2.5"

KISS AIO-HD Version

User Manual & Setup Guide
v1.0

Features

- Flight Controller & ESC:
    - Holybro-FETtec Mini AIO 15A
    - KISS FC Firmware
- Caddx Polar Vista Kit Digital HD FPV system (Optional)
- Motor: F1404 KV3800
- Propeller: Gemfan D63-3B
- Frame: 3mm 3k carbon fiber
- Receiver: TBS Crossfire Nano (Optional)
- Battery plug: XT30
- Wheelbase: 105.5mm
- Weight: 155.2g（Without Battery）
- Take-off Weight: 249g (4s 850mah Lipo)
- Recommend battery (Not Included): 550~850mah 4s

Holybro-FETtec Mini AIO Specifications

FC:

- KISS FC firmware
- F3 Processor (STM32F303CCT6 @ 72MHz (MPU6000))
- Supply voltage 6-18V (2S-4S Lipo voltage)
- Dedicated onboard 5V BEC (max 1A)

ESC:

- Active current limiting @ 15A
- Input voltage: 2S-4S
- High quality 30V MOSFETs
- STM32G071 @ 64MHz
- 128 kHz Motor PWM
- Automatic input signal detection
- Dshot 300-2400
- PWM
- OneShot42/125

OSD:

- Graphic OSD (STM32)
- Full KISS Tuning
    - Filter (PIDs, Rates, Settings)
    - LED control (RGB LED, Racewire)
    - VTX
    - Live data graphs (Voltage, motor rpm, current, motor temp, gyro values, link quality)
    - KISS GPS support + live map
    - Custom graphic pilot logo
    - Stick overlay
    - Custom layout

The FETtec Mini AIO 15A works with KISS/FETtec FC firmware version 1.3RC45Y or later

Includes:

- 1x Kopis cinewhoop2.5" FPV racing drone
- 1x Insta360 GO 2 camera mount
- 1x Naked GoPro/SMO4k camera mount
- 2x Propeller guard
- 1x Carrying case

Warranty and Return Policy

If you believe that your KOPIS is defective, please contact us. If we determine that the board is defective, it will be repaired or replaced at no charge to you. We may ask you to send your KOPIS to our service center for examination or repair. Shipping costs are your responsibility. Returned items should include the original packaging and all accessories.
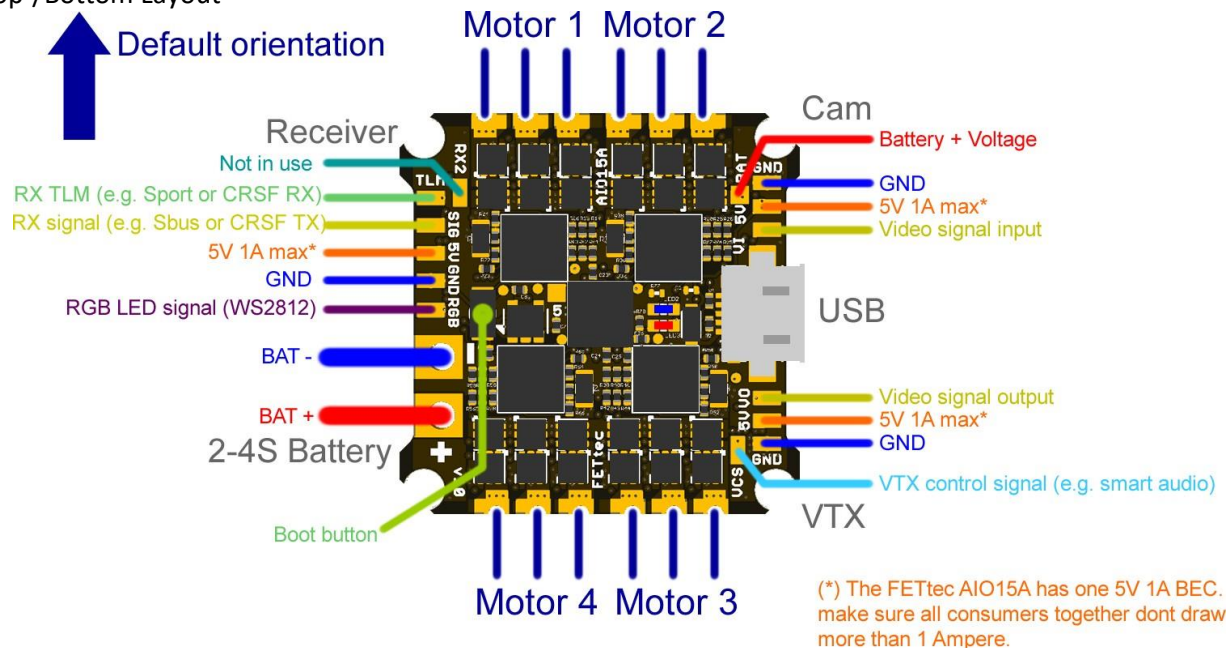
If product is damaged or defective, we will repair or replace it. Refunds are only given when product is lost by the shipping company. The refund amount is limited to the price of the product. Shipping costs are never refundable.
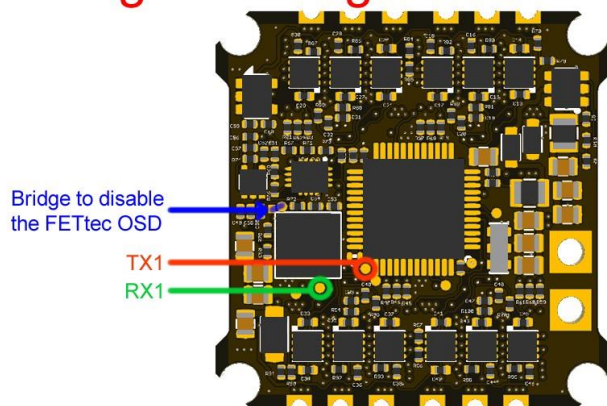
Contact us at:

- Email: productservice@holybro.com
- Facebook Page: Holybrohobby
- Facebook Group: Holybro Hobby Official Group

Mini AIO Wiring diagram

Top-/Bottom Layout

Default orientation

Receiver

Motor 1 Motor 2

Cam

Not in use

RX TLM (e.g. Sport or CRSF RX)

RX signal (e.g. Sbus or CRSF TX)

5V 1A max*

GND

RGB LED signal (WS2812)

BAT -

BAT +

2-4S Battery

Boot button

Battery + Voltage

GND

5V 1A max*

Video signal input

USB

Video signal output

5V 1A max*

GND

VTX control signal (e.g. smart audio)

VTX

Motor 4 Motor 3

(*) The FETtec AIO15A has one 5V 1A BEC. make sure all consumers together dont draw more than 1 Ampere.

Warning: Very small solderpads!
Wrong soldering will lead to damage.

Bridge to disable the FETtec OSD

TX1

RX1

The FETtec Mini AIO 15A has 3 UARTs in the following assignment

UART 1: Onboard FETtec OSD or others in case you use the bridge (for DJI Unit e.g.)

UART 2: RX

UART 3: VTX control (smart audio) + ESC telemetry

FETtec Configurator

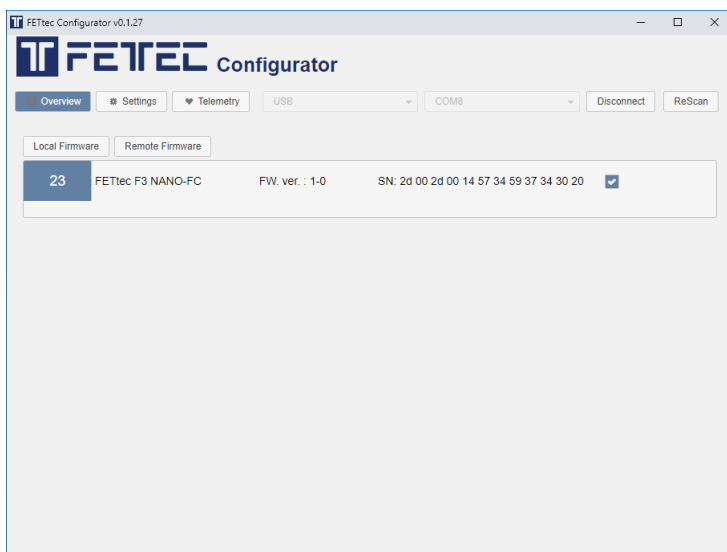**Please update the FETtec Mini AIO 15A before your first flight!**

The FC, ESC and OSD of the FETtec Mini AIO 15V Board are flashable over the FETtec Configurator.

The FETtec Configurator is available for download at https://github.com/FETtec.

FC firmware update:

choose USB and connect.

FETtec F3 Nano-FC will be found.

Use Remote Firmware and select the newest available firmware.
Press "Flash selected"
This will take some time, please wait. FC is

flashed now!

Settings can be made in the KISS GUI.

Download:

https://github.com/flyduino/kiss-gui/releases

Reconnect USB after this step!

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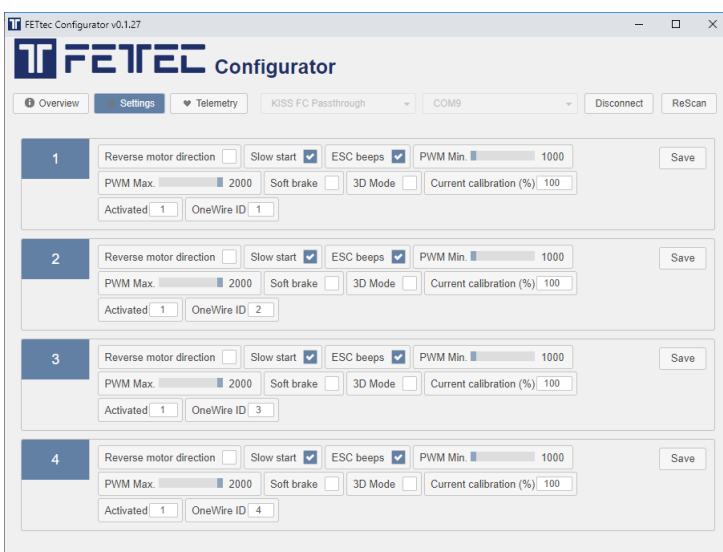
ESC firmware update:

Kopis
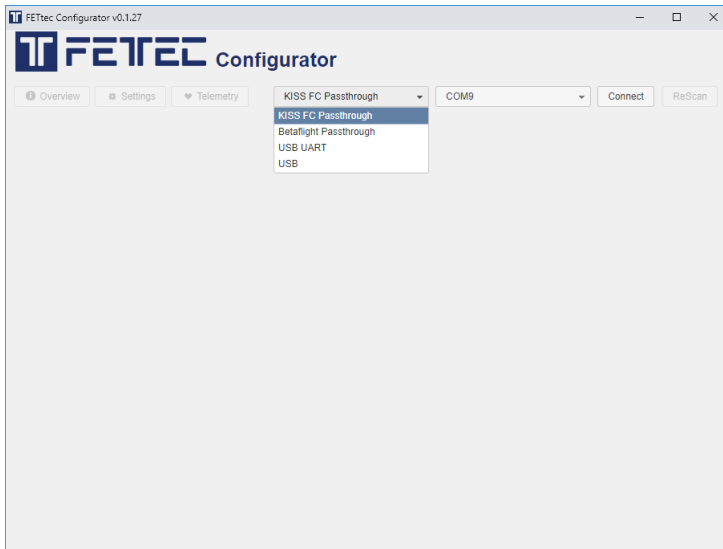
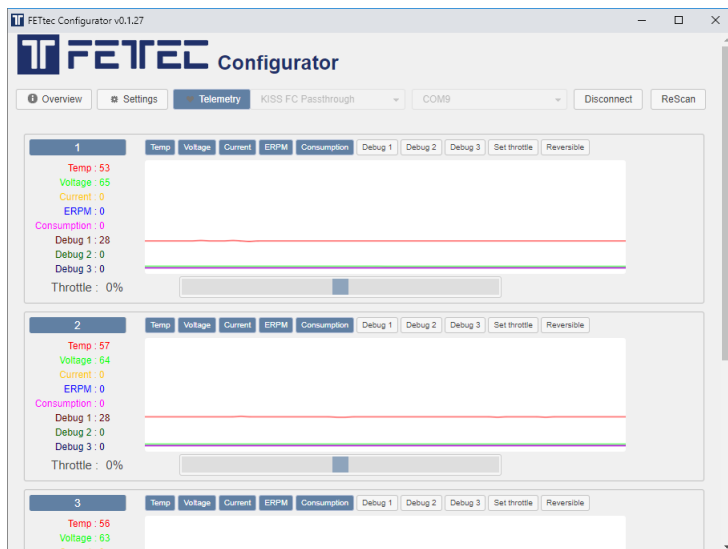Choose KISS FC Passthrough and press connect.
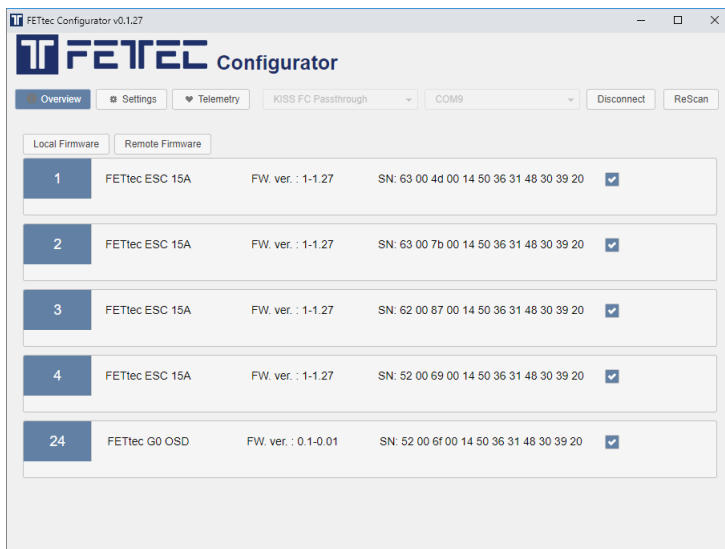
all devices are shown now

The Overview page allows to flash individual ESCs.

The Setting page allows to adjust all available ESC parameter.

- Reverse rotation direction

- Slow start

- 3D mode

- PWM min & max signal

- ESC Beep enabled

- Current calibration

  – Individual ESC ID (for use on onewire protocol)

P a g e | 6

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In the Telemetry page you can spin the motors, view and debug the motor telemetry.

OSD firmware update:

To update the OSD, connect to FETtec Configurator and flash the latest firmware via FC Passthrough.
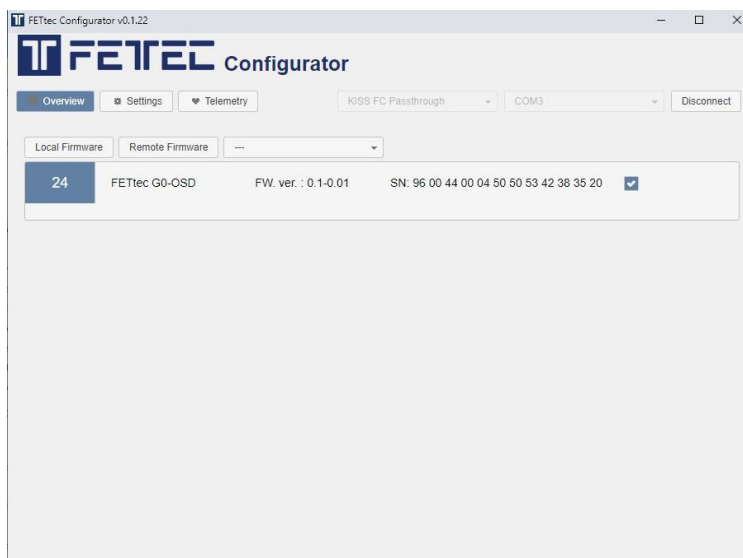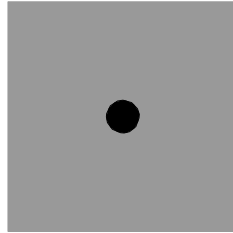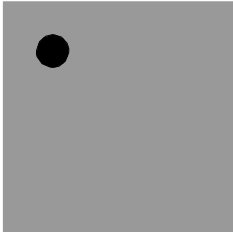
OSD Settings

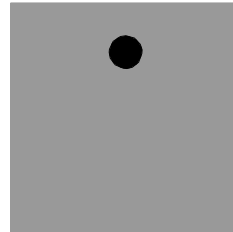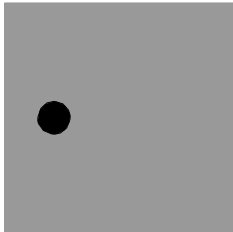All settings are to set directly in the OSD.

To get in the menu move the sticks in the shown direction at the start:

Throttle 50%, then move Yaw left, Pitch up

Mode 1:

Mode 2:

OSD menu:

Issues with the OSD

1. OSD SYNC → AUTO SYNC
2. in case of blurry lines play with LEFT/WITH values try to avoid WITH values above 400
3. make a PAL/NTSC layout reset

Move elements in the OSD menu

Choose LAYOUT → SET POSITIONS in SETTINGS.

Now the elements are movable along the grid.

Skip between the elements and select them to set new positions.

To exit the ´move menu´ hold stick Yaw left for a few seconds