KAKUTE FC Modification Instruction for Octo x8 Multirotor Frame

To enable Kakute F7 flight controller to have 8x PWM Motor Output for Octo x8 Multirotor Frame, please follow the instruction below:

Step 1.
Remove the capacitor in the red circle marked in the pictures below according to your Kakute F7 model.

Please note that you have the options to connect M7 to R4 or LED pads. Connecting to R4 pad will allow Bidirectional DSHOT and RPM Filter support, but you will lose UART4 RX.
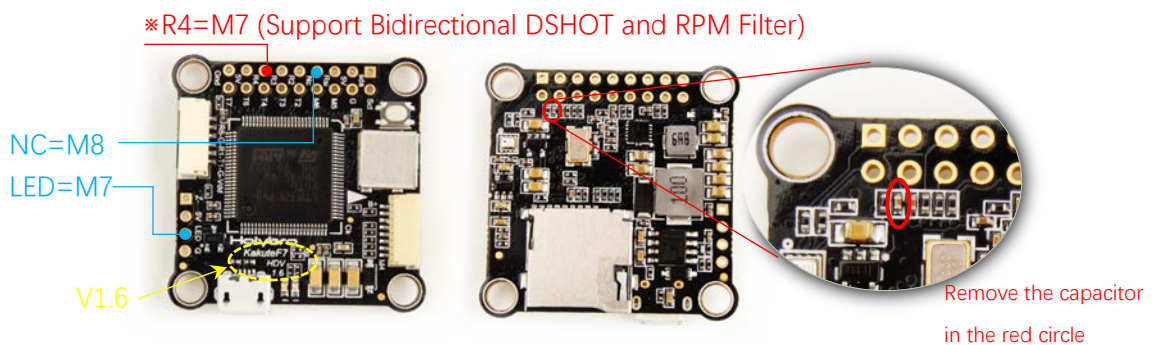
KAKUTE F7 V1.5

※R4=M7 (Support Bidirectional DSHOT and RPM Filter)

NC=M8
LED=M7

Remove the capacitor
the red circle

KAKUTE F7 HDV V1.4

※R4=M7 (Support Bidirectional DSHOT and RPM Filter)

NC=M8
LED=M7
V1.4

Remove the capacitor
in the red circle

KAKUTE F7 HDV V1.6

※R4=M7 (Support Bidirectional DSHOT and RPM Filter)

NC=M8
LED=M7
V1.6

Remove the capacitor
in the red circle
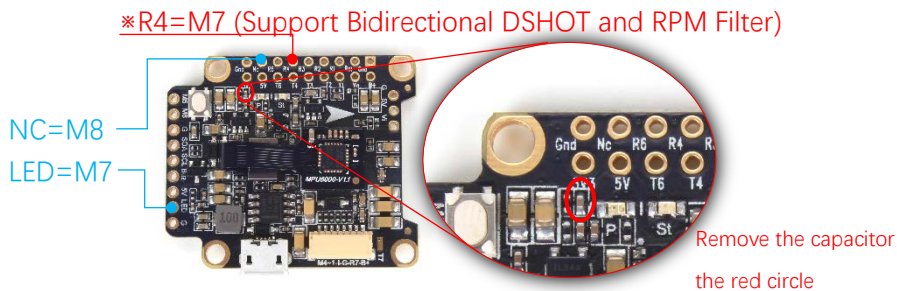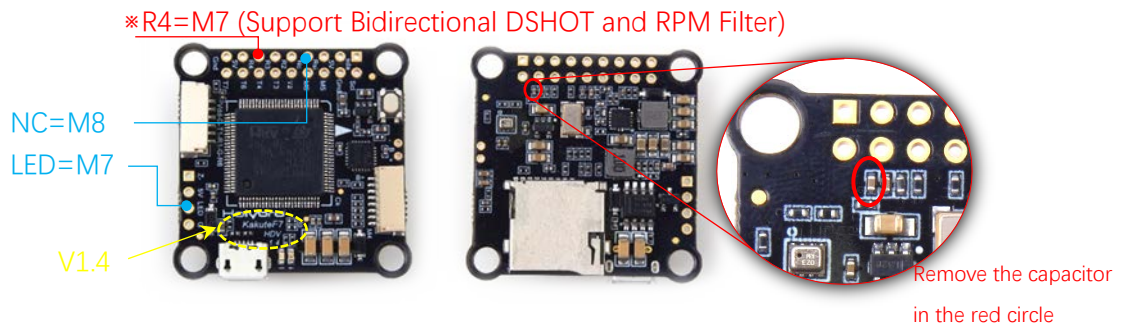
Step 2a – Follow this step only if M7 is soldered onto LED & M8 is soldered onto NC

Go to Betaflight CLI and type in the following:

> *resource LED_STRIP 1 NONE*
> *resource MOTOR 7 D12*
> *resource MOTOR 8 B03*
> *timer B03 AF1*
> *dma pin B03 0*
> *save*

Step 2b – Follow this step only if M7 is soldered onto R4 & M8 solder onto NC

Bidirectional DSHOT and RPM Filter supported. Note that this will disable UART4 RX.
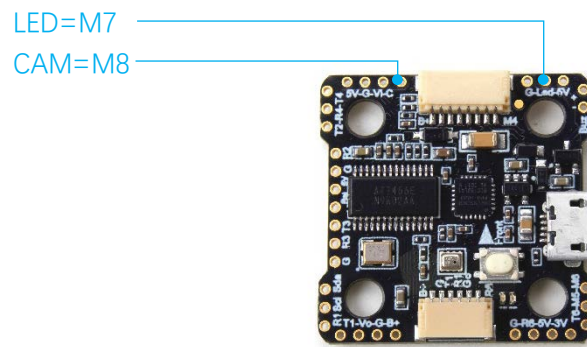Go to Betaflight CLI and type in the following:

> *resource CAMERA_CONTROL 1 NONE*
> *resource SERIAL_RX 4 NONE*
> *resource MOTOR 7 A01*
> *resource MOTOR 8 B03*
> *timer A01 AF2*
> *timer B03 AF1*
> *dma pin A01 0*
> *dma pin B03 0*
> *save*

Step 3.
Go to Betaflight Configuration tab and
select "Octo X8" under "Mixer".

KAKUTE F7 Mini V3

LED=M7

CAM=M8
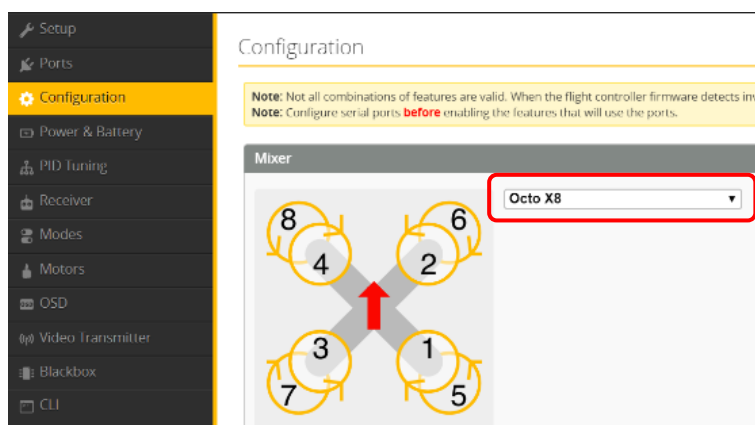
Step 1

Go to Betaflight CLI and type in the following:

resource LED_STRIP 1 NONE
resource CAMERA_CONTROL 1 NONE
resource MOTOR 7 A08
resource MOTOR 8 B03
save

Step 2.

Go to Betaflight Configuration tab and
select "Octo X8" under "Mixer".