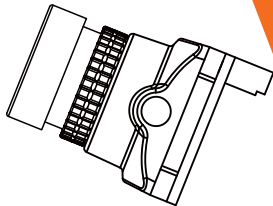


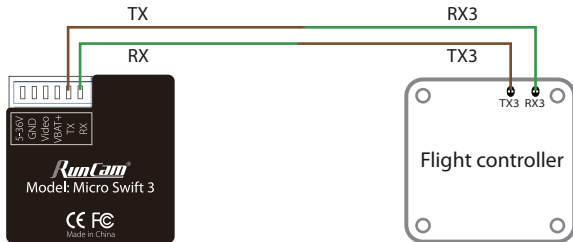


RUNCAM MicroSwift 3 USER MANUAL



1. Flight controller wiring

Note: Take UART3 for example

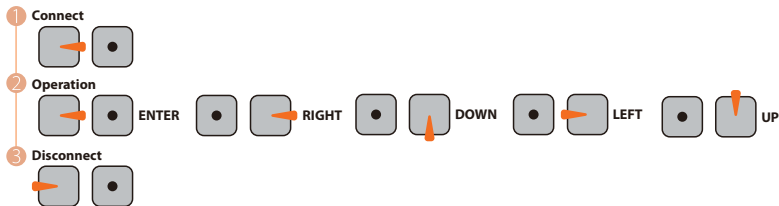


2. Betaflight 3.3 or above setting

Identifier	Configuration/MS	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USBVCP	☒ 115200 ▾	☐	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART1	☐ 115200 ▾	☐	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART2	☐ 115200 ▾	☒	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART3	☐ 115200 ▾	☐	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	RunCam Device ▾ AUTO ▾
UART4	☐ 115200 ▾	☐	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART5	☐ 115200 ▾	☐	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾

3.Remote control

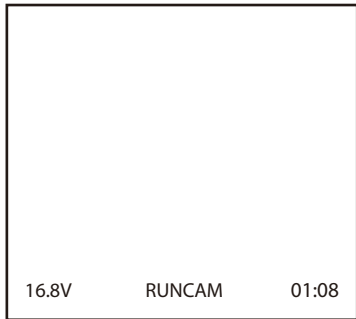
Note: Take Mode-2 for example



- * When connected, Mode LED will be on and the buzzer on Flight Controller will beep for 3 times;
When disconnected, Mode LED will be off and the buzzer on Flight Controller will beep for 2 times only;
If connected successfully, take Micro Swift 2 for example, you can long press the up button to enter the OSD menu, right button to switch preset scenes, left button to calibrate voltage and down button to reset OSD.

OSD Menu

• QUICK SETTINGS



Quick settings:

- Long press UP button for three seconds to access to the OSD setting's screen
- Long press LEFT button for three seconds to calibrate the voltage. When the voltage text flashes, press UP/DOWN button to adjust it
- Long press DOWN button for ten seconds to reset OSD settings to default
- Long press RIGHT button for three seconds to switch between the camera presets

OSD Menu

1 2 3 4 5 6 7 8 9 0 A B C
D E F G H I J K L M N O P Q
R S T U V W X Y Z = / & : .

CLR	RUNCAM_	
ALARM	: 11.1V	
SCENE	: PERSONAL	
SYSTEM	: ON	POS ↵
PILOT	: ON	POS ↵
TIMER	: ON	POS ↵
VOLTAGE	: ON	POS ↵
HORIZON	: OFF	POS ↵
EXIT		

- CLR: clear the ID character;
- ALARM: low voltage warning value, smartly judge the warning value of the battery when it's low; if set it manually, then it saves the manual preset value;
- SCENE: switch the camera presets among Personal / Lightrax / Outdoor/ Indoor/ Cloudy / Twilight
- Press the middle button to switch ON / OFF, then move to POS to enter the position adjustment..

Camera Menu

- MAIN MENU

PERSONAL MENU

EXPOSURE	←┐
BACKLIGHT	OFF
WHITE BAL	ATW1
DAY & NIGHT	COLOR
IMAGE ADJ	←┐
DPC	←┐
LANGUAGE	ENGLISH
RESET	←┐
EXIT	

- LANGUAGE (English/中文)
- WHITE BAL (ATW1 / ATW2 / AWC→ SET / MANUAL: MANUAL)
- DPC (Cover the lens then press enter key)

- EXPOSURE

EXPOSURE

SHUTTER		AUTO
BRIGHTNESS		050
AGC		OFF
DWDR		ON ←┐
RETURN		RET ←┐

- SHUTTER (AUTO / 50-100000 / FLK)
- BRIGHTNESS (50 / 0-255)
- AGC (OFF / LOW / MIDDLE / HIGH)
- DWDR (ON: 63 0-63 / OFF)

Camera Menu

- IMAGE ADJ

IMAGE ADJ

LENS SHAD		OFF
2DNR		OFF
MIRROR		OFF
FONT COLOR		←
CONTRAST		110
SHARPNESS		026
DISPLAY		USER ←
NEG IMAGE		OFF
RETURN		

- LENS SHAD (OFF/ ON:22 0-255)
- CONTRAST (110 / 0-255)
- SHARPNESS (26 / 0-31)
- DISPLAY (CRT/LCD/USER)

USER ADJ.

GAMMA		0.50
PED LEVEL		017
COLOR GAIN		176
RETURN		RET ←

- GAMMA (0.5 / 0.05-1.0)
- PED LEVEL (17 / 0-63)
- COLOR GAIN (176 / 0-255)

Camera Menu

- BACKLIGHT (BLC / HLC / OFF)

BLC

AREA SEL		AREA1
AREA STATE		ON
GAIN		042
HEIGHT		004
WIDTH		003
LEFT/RIGHT		006
TOP/BOTTOM		005
RETURN		RET ←

- AREA SEL (AREA1/AREA2)
- GAIN (042 / 0-255)
- HEIGHT (4 / 0-10)
- WIDTH (3 / 0-9)
- LEFT/RIGHT (6 / 0-6)
- TOP/BOTTOM (10 / 0-10)

HLC

LEVEL		200
MODE		ALL DAY
RETURN		RET ←

- LEVEL (200 / 0-255)
- MODE (ALL DAY / NIGHT ONLY)

Camera Menu

- DAY & NIGHT (AUTO / COLOR / B&W / EXT)

D & N AUTO

D → N LEVEL		080
D → N DELAY	3	SEC
N → D LEVEL		032
N → D DELAY	1	SEC
RETURN		RET ←

- DAY → NIGHT LEVEL (80 / 0-176)
- DAY → NIGHT DELAY (3 / 1-30)
- NIGHT → DAY LEVEL (032 / 0-255)
- NIGHT → DAY DELAY (1 / 1-30)

D & N B & W

BURST	OFF
IR SMART	OFF
IR LEVEL	HIGH
RETURN	RET ←

- BURST (OFF/ON)
- IR SMART (OFF/ON)
- IR LEVEL (HIGH/LOW)

Parameters

Model	RunCam Micro Swift 3
Image Sensor	1/3" SONY Super HAD II CCD
Horizontal Resolution	600TVL
Lens	2.1mm (M12) FOV165° / 2.3mm(M12) FOV 150°
Signal System	PAL/NTSC
Integrated OSD	Yes
One Touch Scene Setting	Personal / Lightrax / Outdoor / Indoor / Cloudy / Twilight
S/N Ratio	>60dB (AGC OFF)
Electronic Shutter Speed	PAL: 1/50~100,000; NTSC: 1/60~100,000
Auto Gain Control (AGC)	Yes
Min. Illumination	0.01Lux@1.2F
WDR	D-WDR
DNR	2DNR
Day/Night	Color/Auto/B&W
Remote Control	Flight Controllers: BetaFlight 3.3 / ButterFlight 3.4 / Cleanflight 2.2
Power	DC 5-36V
Working Current	60mA@12V / 120mA@5V
Net Weight	9g(2.3mm) / 11g(2.1mm)
Dimensions	19mm*19mm*25mm