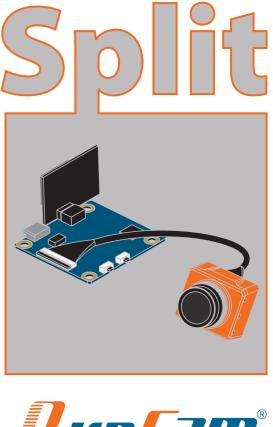
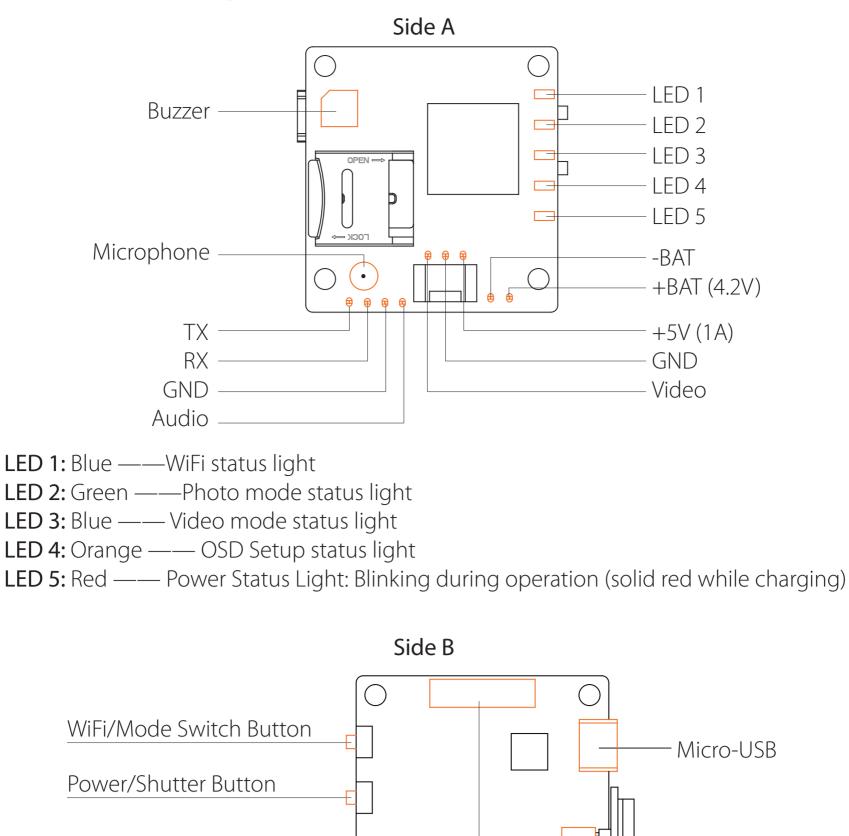
# RunCam User Manual





#### Instruction diagram



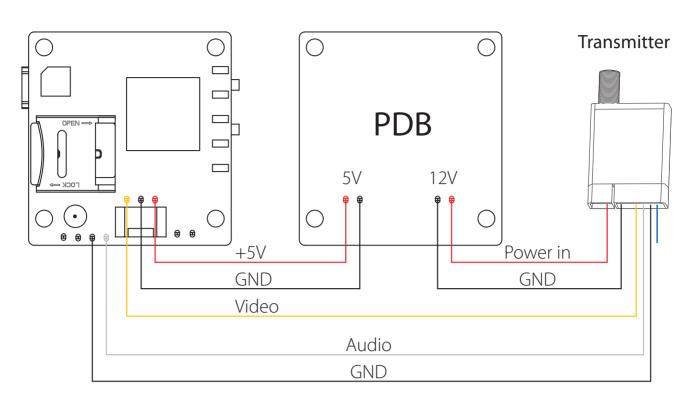
Warning: When connecting to a computer via USB, please cut off the power of the drone firstly.

Sensor connector

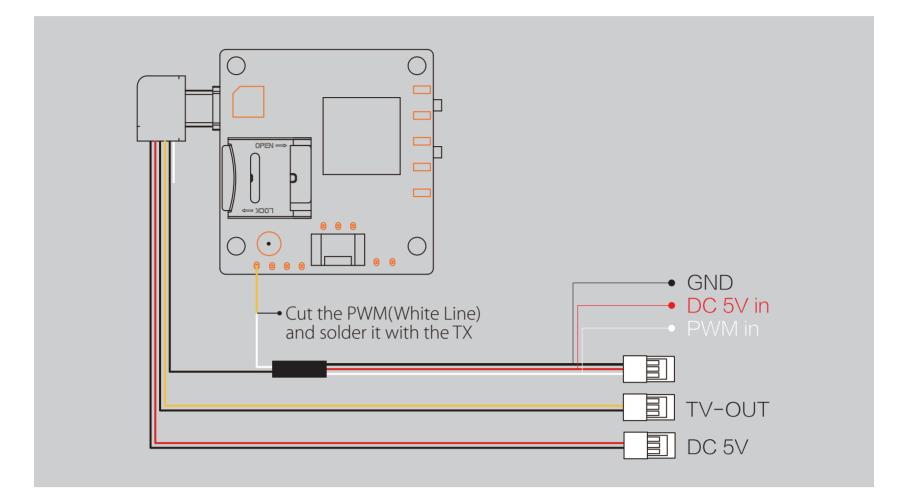
USB or 3 pin power interface only supports DC 5V power supply. Battery solder joints only support 4.2V lithium-ion battery.

WiFi module connector

#### **5.8G Transmitter connection diagram**



## PWM connection diagram



## Flight Controller Set

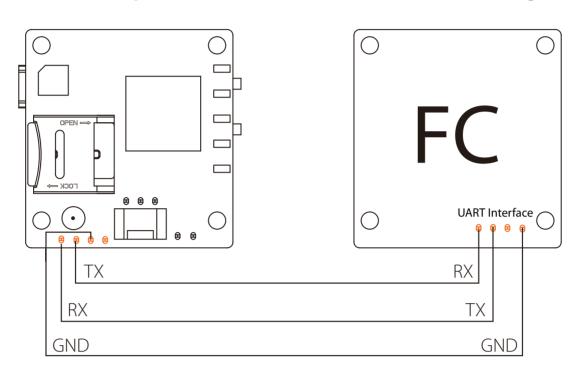
#### Preparation

...

...

- Firmware: CleanFlight(≥2.1.0) or BetaFlight Firmware (coming soon)
- Any available UART interface on the Flight Controller

## 1. Connect the RunCam Split with the UART interface of the Flight Controller



## 2. Make the Flight Controller recognize the Split

For example, we connect the Split to the UART 3 interface on the Flight Controller: connect the Flight Controller to the computer, then open the configurator software of the Flight Controller. (Open up the configurator that matches the firmware you are running, Betaflight Configurator for Betaflight, Cleanflight Configurator for Cleanflight). In the Peripherals column of the line UART3 (on the Ports tab), select RunCam Split and click Save And Reboot.

CONFIGURATOR 2.0.4						
)17-06-11 @ 16:48:20 Mu )17-06-11 @ 16:48:20 Flig )17-06-11 @ 16:48:20 Ru )17-06-11 @ 16:48:20 Bo )17-06-11 @ 16:48:20 Un	ght controller info, identifi nning firmware released ( ard: <b>SRF3</b> , version: <b>0</b>	er: CLFL, version: 2.1.0				
🖌 Setup	Deate					
🖌 Ports	Ports					DOCUMENTATION FOR 2.1.0
Configuration				ware detects this the serial port configu	ration will be reset. flash and erase your configuration if you	
	Note: De NOT			what you are doing, rou may have to rel	ash and erase your comiguration if you	00.
Power & Battery	Note: Do NOT	disable MSP on the first serial po	it units you know i			
Power & Battery	Note: Do NOT	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> </ul>				Telemetry Output	Sensor Input	Peripherals
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> <li>PID Tuning</li> </ul>	Identifier	Configuration/MSP	Serial Rx			
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> <li>PID Tuning</li> <li>Receiver</li> </ul>	Identifier UART1 UART2	Configuration/MSP	Serial Rx	Disabled   AUTO	Disabled \$ AUTO \$	Disabled   AUTO
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> <li>PID Tuning</li> <li>Receiver</li> <li>Modes</li> </ul>	Identifier UART1	Configuration/MSP	Serial Rx	Disabled \$ AUTO \$	Disabled \$ AUTO \$	Disabled \$ AUTO \$
Power & Battery Failsafe Failsafe Receiver Modes Adjustments	Identifier UART1 UART2	Configuration/MSP	Serial Rx	Disabled   AUTO	Disabled \$ AUTO \$	Disabled   AUTO
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> <li>PID Tuning</li> <li>Receiver</li> <li>Modes</li> <li>Adjustments</li> <li>Servos</li> </ul>	Identifier UART1 UART2	Configuration/MSP	Serial Rx	Disabled   AUTO	Disabled \$ AUTO \$	Disabled   AUTO
<ul> <li>Power &amp; Battery</li> <li>Failsafe</li> <li>PID Tuning</li> <li>Receiver</li> <li>Modes</li> <li>Adjustments</li> <li>Servos</li> <li>GPS</li> </ul>	Identifier UART1 UART2	Configuration/MSP	Serial Rx	Disabled   AUTO	Disabled \$ AUTO \$	Disabled   AUTO
	Identifier UART1 UART2	Configuration/MSP	Serial Rx	Disabled   AUTO	Disabled \$ AUTO \$	Disabled   AUTO

#### 3. Instructions of the functions of the camera and assigning transmitter channels to them

In the Flight Controller Configurator, navigate to the Modes tab. There are new CAMERA WI-FI, CAMERA POWER and CAMERA CHANGE modes.

- CAMERA WI-FI: turn on/off the WIFI of the camera. When in the OSD of the camera, this is used to confirm your selection.
- CAMERA POWER: start/stop the video. When in the OSD of the camera, this is used to move to the next menu item.
- CAMERA CHANGE MODE: switch among the three modes, video, photo and OSD setting mode. When in the OSD of the camera, this will exit the menu.

## Assign any available channel to the function you need, for example:

- Assign the AUX1 to the CAMERA WI-FI, range 1900-2100
- Assign the AUX2 to the CAMERA POWER, range 1900-2100
- Assign the AUX3 to the CAMERA CHANGE MODE, range 1900-2100

CLEANF, CONFIGURATOR 2.0.4	LIGHT						<b>A</b> (	₽ 0			Accel	Mag					Datafl	lash	Discon	nect
)17-06-11 @ 16:58:34 EEPR )17-06-11 @ 16:58:34 EEPR )17-06-11 @ 16:58:35 rcspli )17-06-11 @ 16:58:41 EEPR )17-06-11 @ 16:58:41 EEPR	IOM saved it index:14 IOM saved																			Hide Log
🖡 Setup	Add Range																			
? Ports																				
Configuration	BLACKBOX ERASE (>30s)																			
Power & Battery	Add Range																			
> Failsafe	RCSplit WI-FI Btn	AUX 1 \$	-																	0
a PID Tuning	Respire WHI but	Min: 1900	1	3	<u> </u>		i î	- X	i (	11	<u>.</u>	i i	Ĕ	C = 0	11	i X	-	6.1		
a Receiver	Add Range	Max: 2100	900	10	00		1200			1400	18	500	1600		10	300		2000	2100	
Modes	RCsplit Power Btn	AUX 2 \$																-	-	0
† Adjustments		Min: 1900	ī	8		26-3	i i	(i )	() (	1	3	<b>0</b> - F	Ē.	0 = 10	3	1 1	-	6.1	1	
r Servos	Add Range	Max: 2100	900	10	00		1200			1400	14	500	1600		11	300		2000	2100	
GPS	RCSplit Change	AUX 3 \$	1																	0
Motors	Mode	Min: 1900	1	3	N.	101 - 3		(K	9 B	1	1	0 6	L	$0 =  \delta $		1	-	5.1	1	
3 OSD	Add Range	Max: 2100	900	10	00		1200			1400	18	500	1600		11	300		2000	2100	
- Race Transponder																				-
LED Strip																				Save

# 4. Assign the channel to the switch of the controller

Please choose your Model on the controller, then access to the Inputs interface and assign the channel to the switch of the controller. Take opentx 2.2.0 for example, assign the channels AUX5, AUX6 and AUX7 to sa, sb and sd respectively.

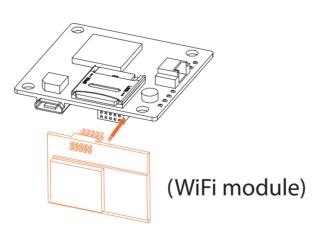


# 5. Test

## Power the Flight Controller and the RunCam Split

- Set the SA to the bottom, the camera starts/stops the video
- Set the SB to the bottom, the camera turns on/off the WIFI
- Set the SD to the bottom, the camera switches among the three modes: video, photo and OSD setting mode

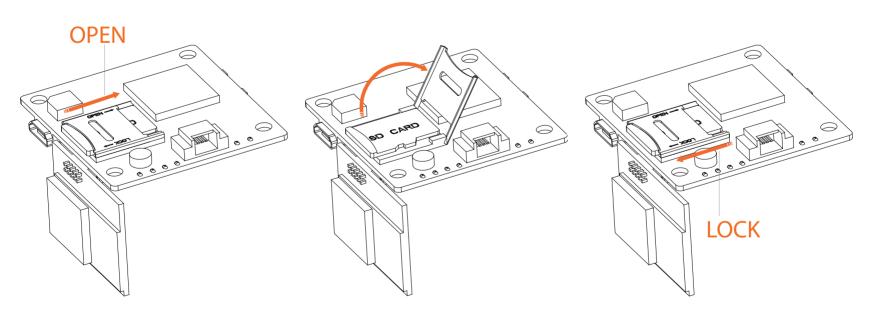
# WiFi module connection diagram



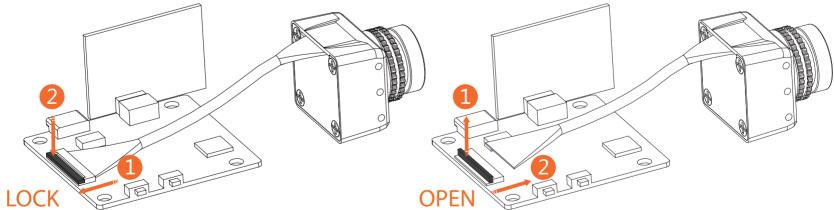
Warning: WiFi module is removable. Please insert the WiFi module in the correct direction! Otherwise the module could be damaged.

#### **MicroSD Card**

Capacity up to 64GB; Please use high speed cards(Class10/UHS-I/UHS-II).



## Lens module connection diagram





Basic Camera Operation

Warning: before pulling the lens ribbon cable out, please must push the black lock part up firstly, or it will damage the connector.

#### **Powering On/Off** Long press the Power/Shutter button Camera Status Light: Blue (LED 1) In standby state, short press WIFI/MODE SWITCH button. WiFi On/Off When the WIFI is on, LED1 flashes; when it's off, LED1 goes out. In standby state, short press WIFI/MODE SWITCH button. **Mode Switching** When the WIFI is on, LED1 flashes; when it's off, LED1 goes out. Camera Status Light: Blue (LED 3) Video Mode • Press the Power/Shutter button to start/stop recording. Camera Status Light: Green (LED 2) **Photo Mode** • Press the Power/Shutter button to capture photos. Camera Status Light: Orange (LED 4) • Press the Power/Shutter button to move to a setting. **OSD Setup Mode** • Press the WiFi/Mode Switch button to select. • Long press the WiFi/Mode Switch button to exit the menu. Simultaneously press the Power/Shutter button and **Forced Shutdown** WiFi/Mode Switch button. In standby mode, press the WiFi/Mode Switch button three times in rapid succession (within 2 seconds). When resetting is complete, the status Reset light (orange) blicks twice, and the camera automatically shuts dows.

Note: Recording automatically after turing on by default, with the V1.0 firmware, under the video status, short press WIFI/MODE SWITCH button to pause/start the recording. With the V1.1 and later firmware, under the video status, short press WIFI/MODE SWITCH button to stop the recording and turn on the WIFI; Under the standby mode, the function of the WIFI/MODE SWITCH button doesn't change.

#### App(Android | iOS)

Search 'RunCam App' on Google Play/Apple Store, or download on our website: runcam.com/download/runcamSplit **Default SSID:** RCSplit\_ \*\*\*\*\*\* (\* for letters or numbers) Default WiFi password: 1234567890

## Check Complete User Manual

Please visit: <u>runcam.com/download/runcamSplit</u>

#### parameter

	1
FOV Angle of Field	FPV FOV 130°/Recording FOV 165°
Video Resolution	1080@60fps/1080@30fps/720@60fps
Video Files	MOV
Image Resolution	2 Megapixels
TV Output	NTSC (720*480)/PAL (720*576) Switchable
Real-Time Audio Output	Yes
Interface	Micro USB / UART
Max Micro SD Card Supported	64G(need Class 6 or above, recommend Class 10/UHS-I/UHS-II)
WiFi Module	Support (Removable)
Dimensions	PCB 36*38mm/Lens Module 22*20mm
Power Input	DC 5V
Working Current	650 mA
Weight	21g/23g (Plus WiFi Module)