

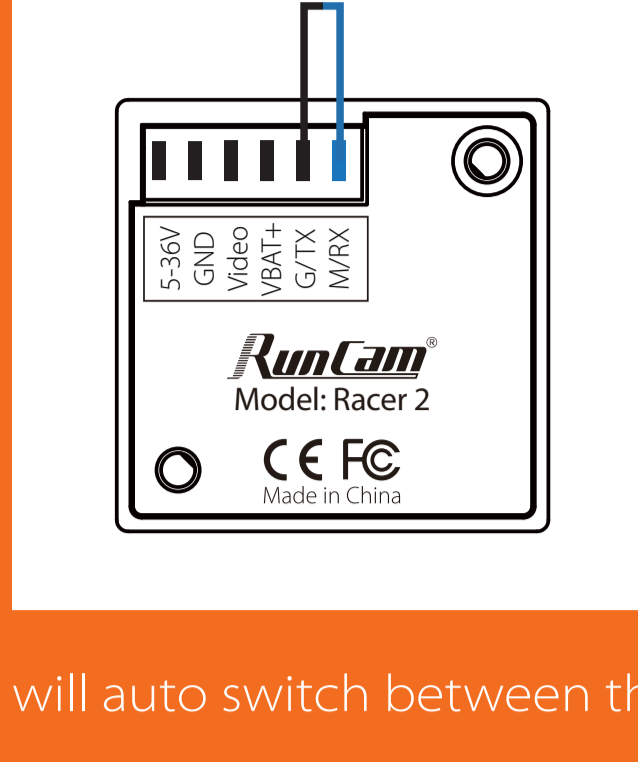
RunCam Racer 2

USER MANUAL

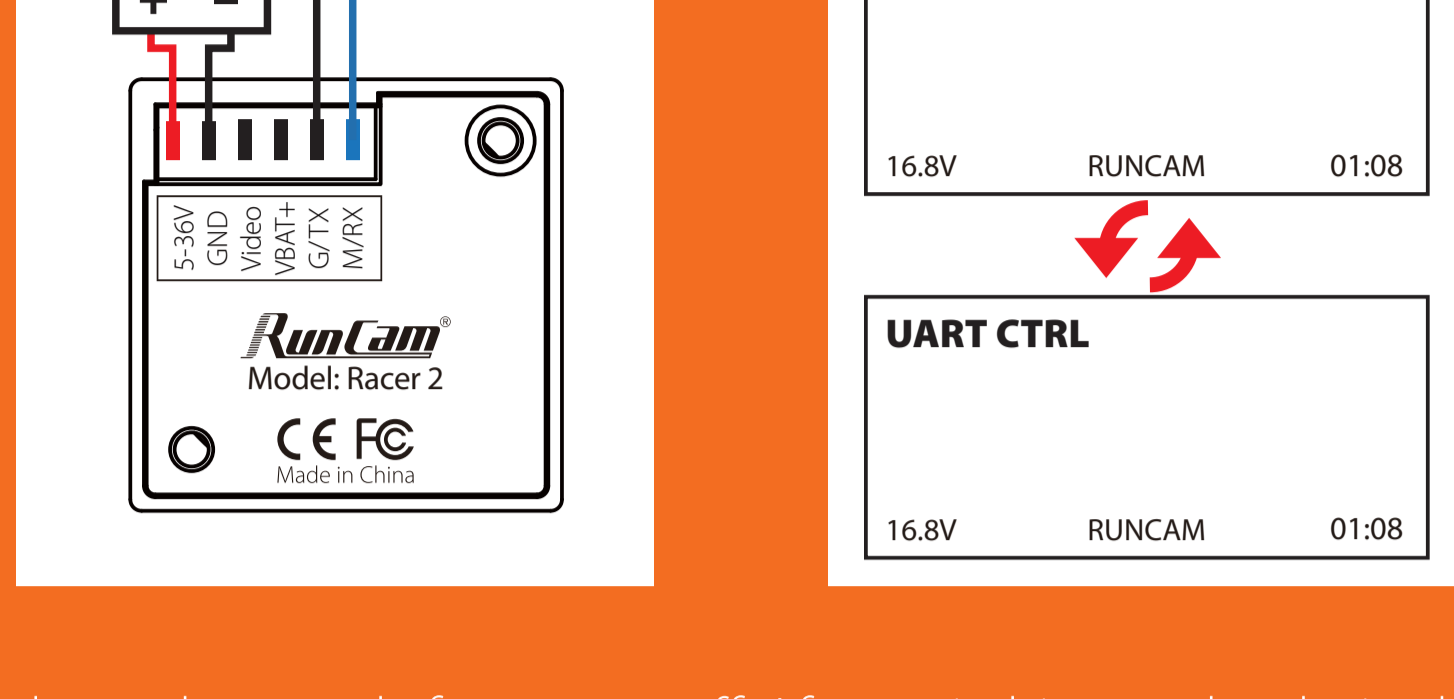
Joystick Control & UART Control Switchable

The top left corner of the screen will shortly display the current control mode. The default is Joystick control mode.

- 1 Short the two camera control pins



- 2 Then power on, camera will auto switch between the two modes

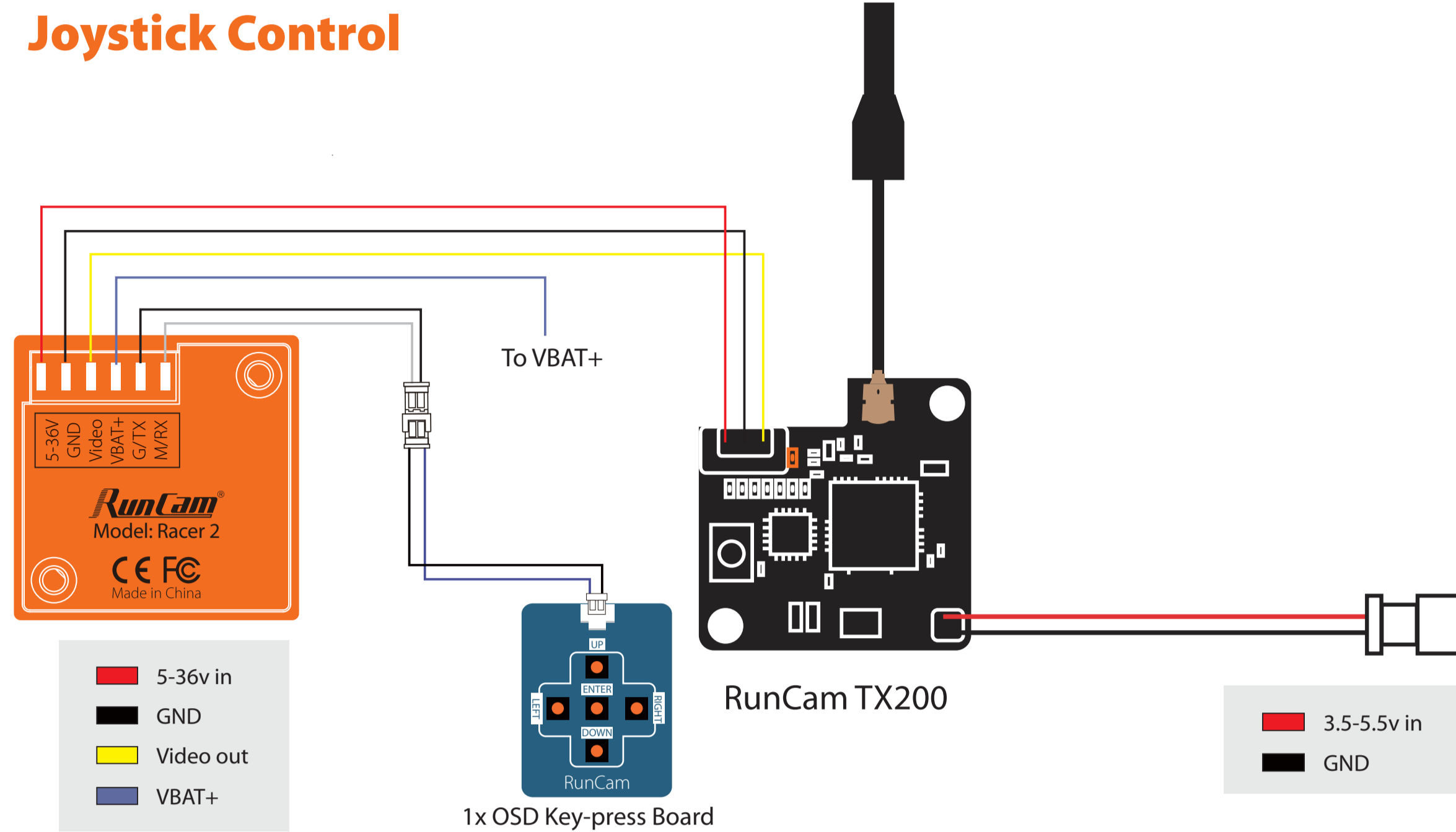


- 3 The mode can be saved after power off. After switching to the desired mode, please unplug the short-circuit cable.

UART Control works with Flight Controllers:

BetaFlight 3.3 or above / ButterFlight 3.4 or above / CleanFlight 2.2 or above / Kiss Flight RC36 or above

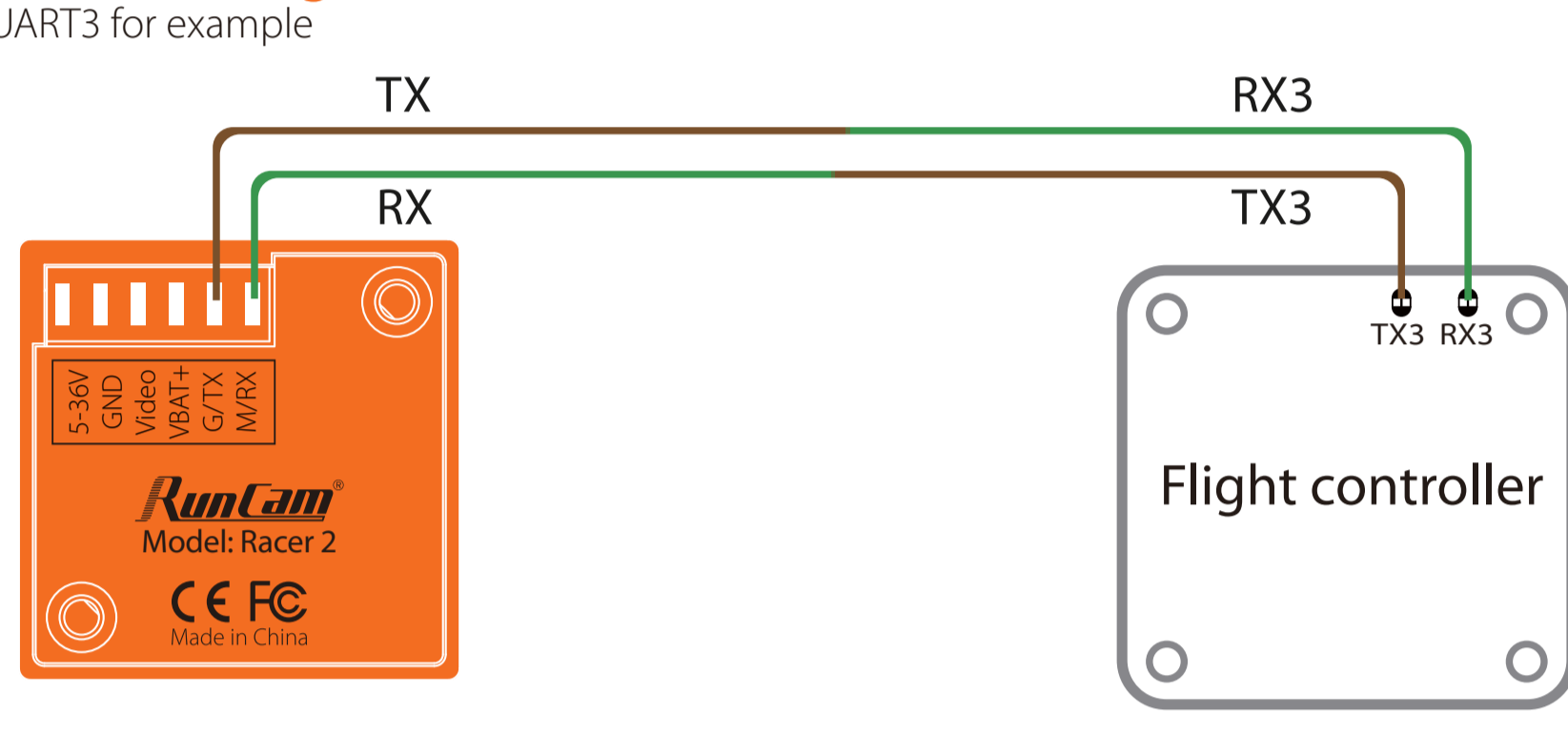
Joystick Control



UART Control

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	<input checked="" type="checkbox"/> 115200	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART1	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART2	<input type="checkbox"/> 115200	<input checked="" type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART3	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	RunCam Device ▾ AUTO ▾
UART4	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART5	<input type="checkbox"/> 115200	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾

3. UART Control

Mode-2

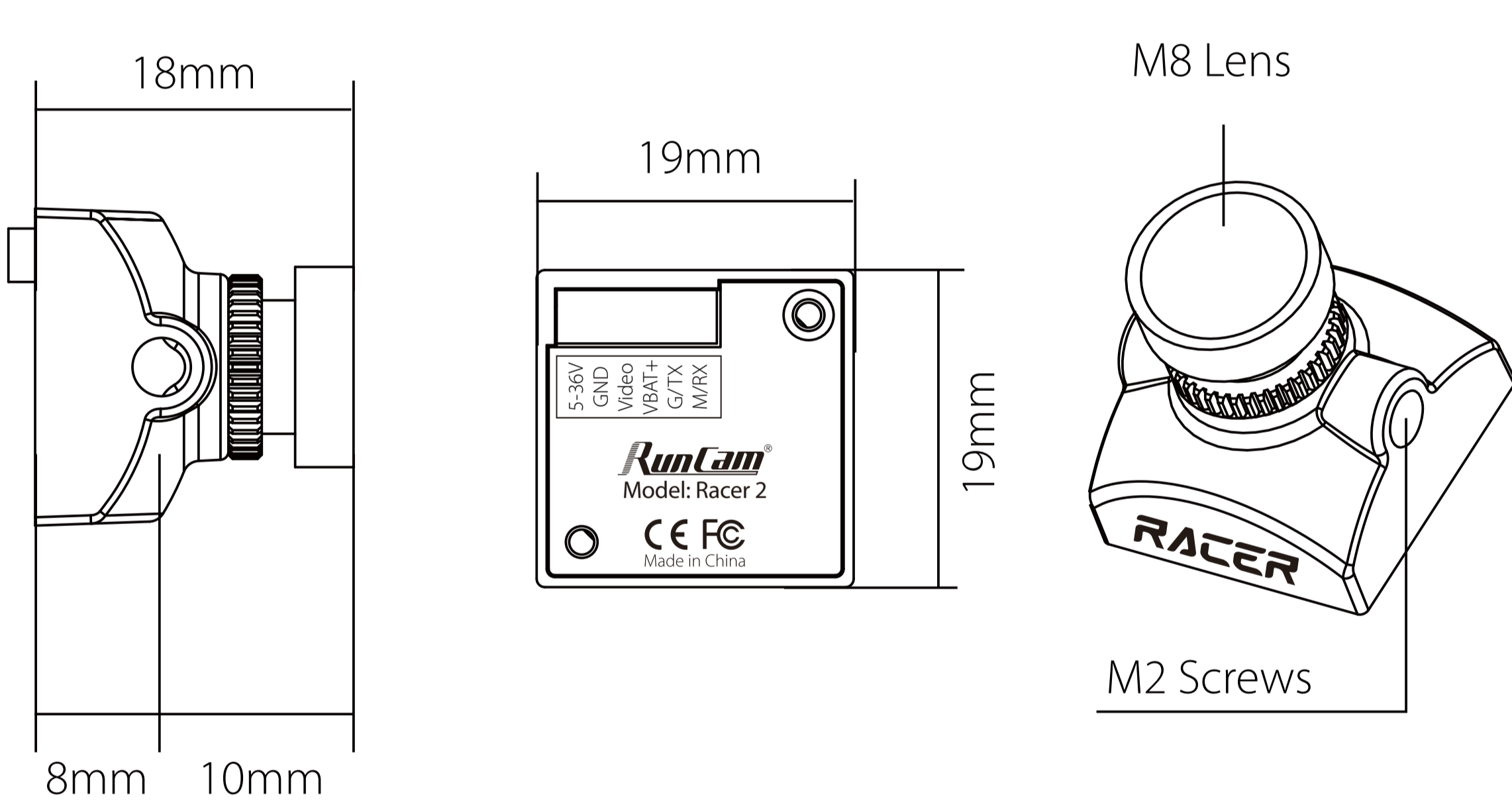
- 1 Connect
- 2 Operation: ENTER, RIGHT, DOWN, LEFT, UP
- 3 Disconnect

Mode-1

- 1 Connect
- 2 Operation: ENTER, RIGHT, DOWN, LEFT, UP
- 3 Disconnect

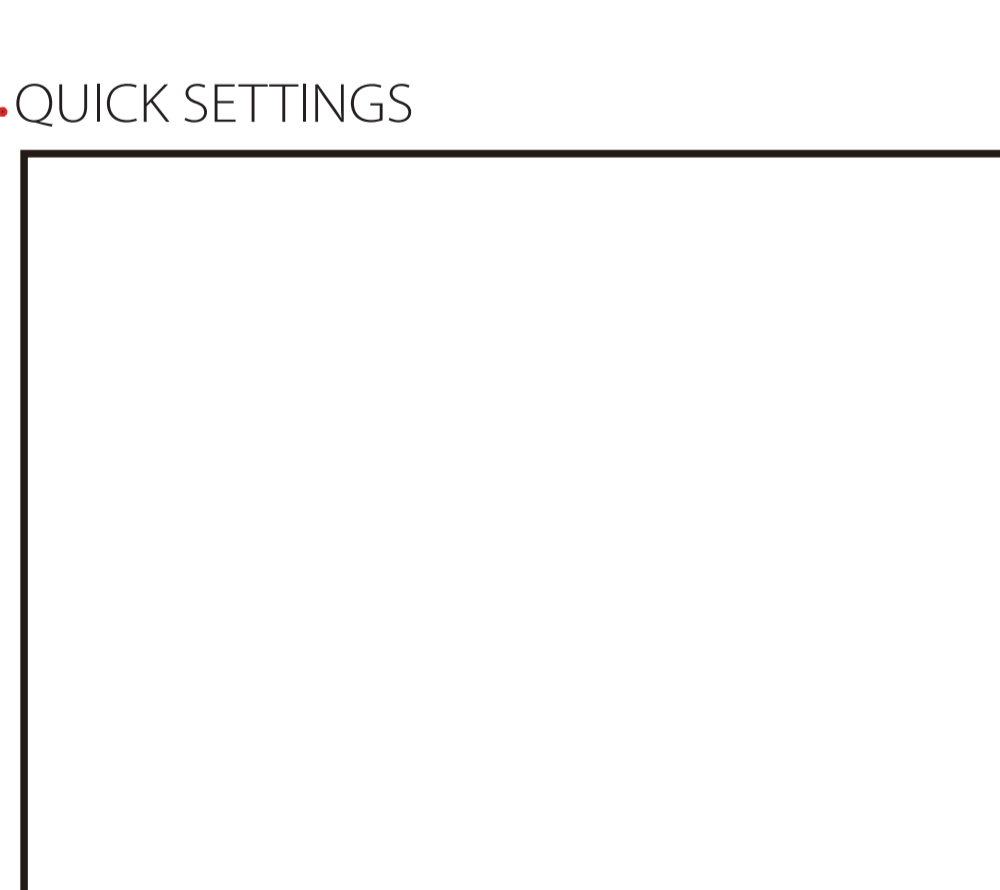
* When connected, The buzzer on Flight Controller will beep for 3 times; When disconnected, The buzzer on Flight Controller will beep for 2 times only; If connected successfully, you can long press the up button to enter the OSD menu, right button to switch preset scenes, left button to calibrate voltage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

Dimensions & Installation



OSD Menu

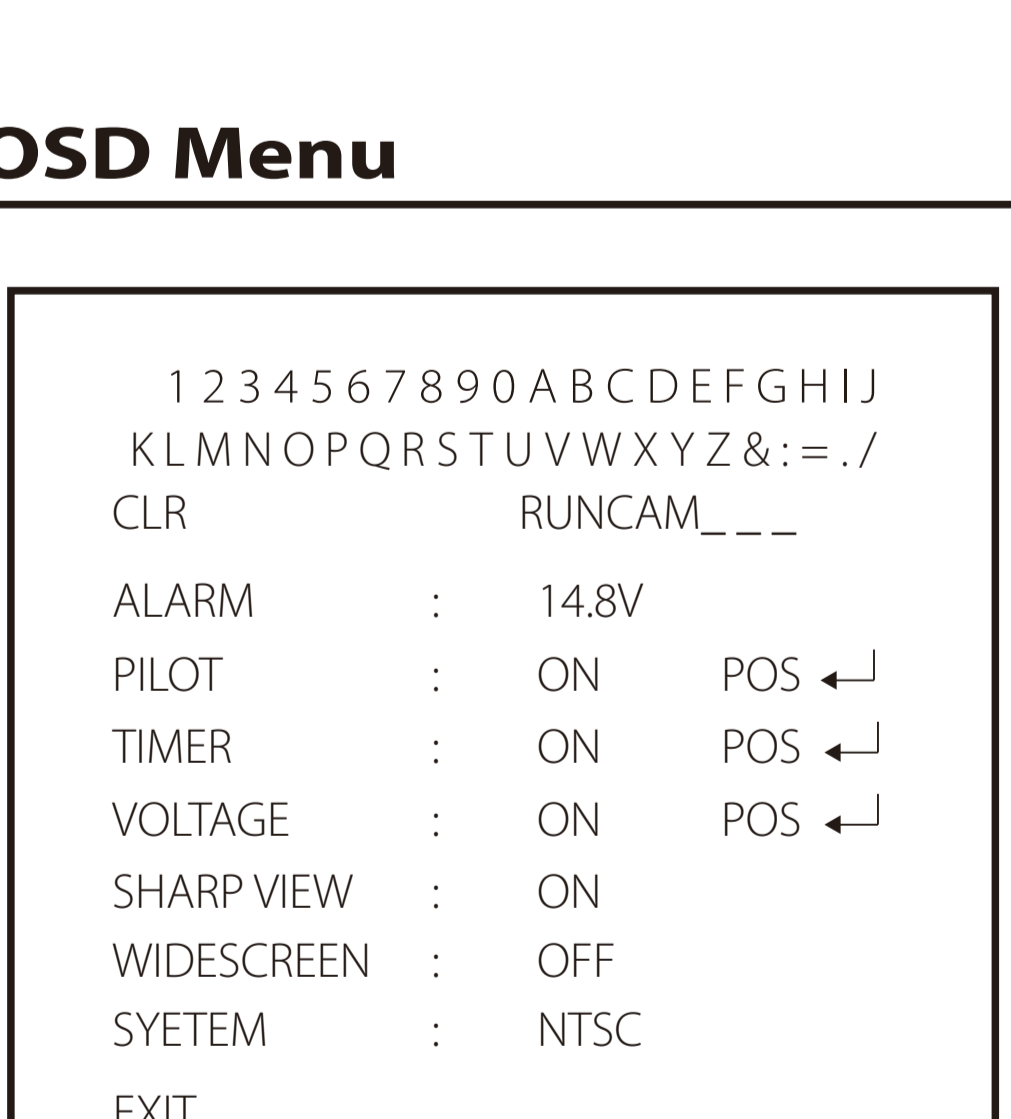
QUICK SETTINGS



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 six seconds to reset OSD settings to default
- Long press RIGHT button for three seconds to switch between the camera presets

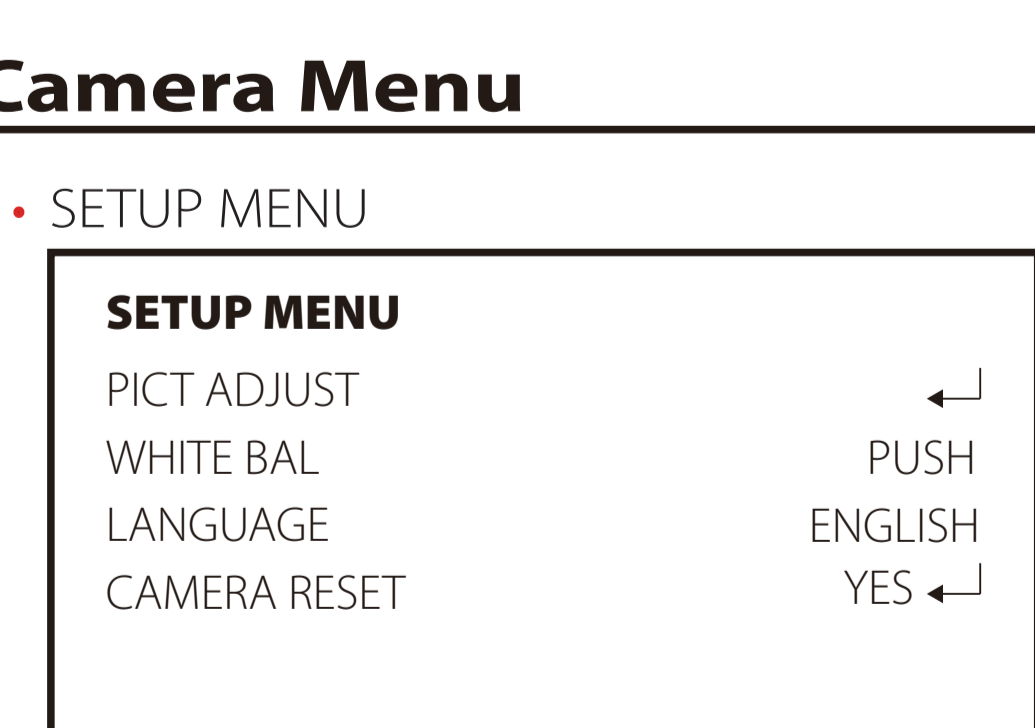
OSD Menu



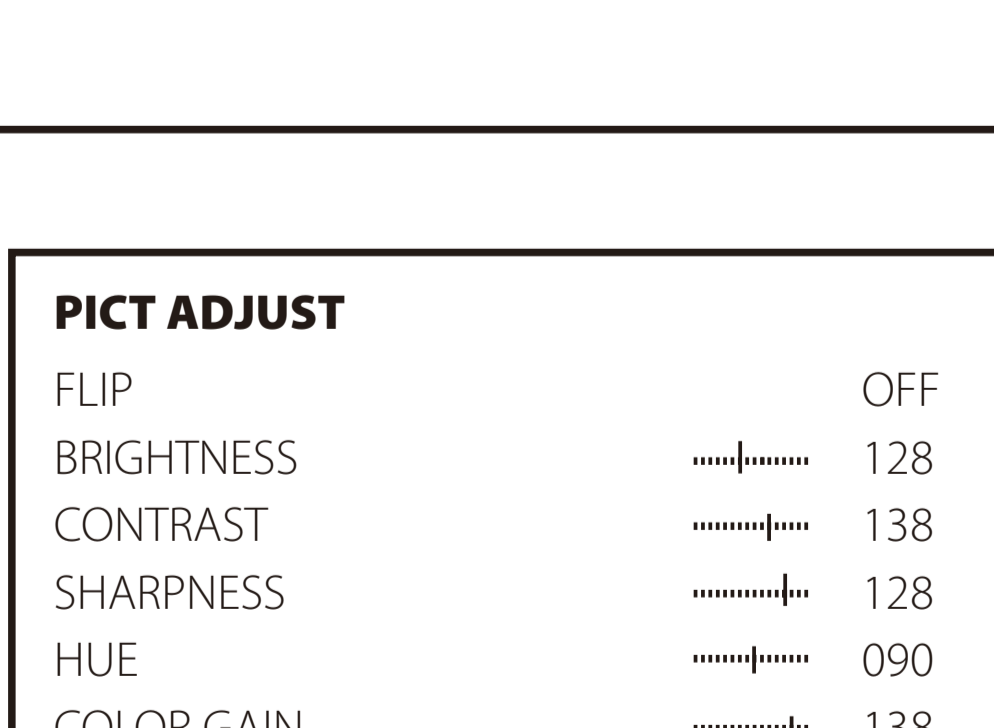
- CLR: clear the ID character;
- ALARM: low voltage warning value, smartly judge the warning value of the battery when it's low; if set it manually, then it saves the manual preset value;
- Press the middle button to switch ON / OFF, then move to POS to enter the position adjustment.
- Sharp View: Turn on, it will increase the image details, but also noise.
- WIDESCREEN: Dynamic stretching to aspect ratio of 16:9 to match with screen in 16:9, the image center won't change but the edge will be widened.

Camera Menu

SETUP MENU



PICT ADJUST



- LANGUAGE (ENGLISH / DEUTSCH / FRANCAIS / PYCCKNN / PORTUGUES / ESPANOL / 中文)
- WHITE BAL (ATW / PUSH / USER1 / USER2 / MANUAL / PUSH LOCK)

- FLIP (OFF / H-FLIP / V-FLIP / HV-FLIP)
- BRIGHTNESS (128 / 0-255)
- CONTRAST (138 / 0-255)
- SHARPNESS (128 / 0-255)
- HUE (90 / 0-180)
- COLOR GAIN (138 / 0-255)

Parameters

Model	RunCam Racer 2	
Image Sensor	Super WDR CMOS Sensor	
Horizontal Resolution	700TVL	
Lens	1.8mm FOV 160°	2.1mm FOV 145°
Screen Format	4:3 / Widescreen Switchable	
Signal System	NTSC / PAL Switchable	
Mirror/Flip	Available	
Integrated OSD	Yes	
One Touch Scene Setting	Personal / Lightrax / Outdoor / Indoor / Cloudy / Twilight	
S/N Ratio	>50dB	
Electronic Shutter Speed	Auto	
Min. Illumination	0.01Lux@1.2F	
WDR	Super WDR	
Day/Night	Auto	
Menu Control	Joystick Control / UART Control Switchable	
Power	DC 5-36V	
Current	110mA@5V / 40mA@12V	
Housing Material	ABS	
Net Weight	5.5g	
Dimensions	L19mm*W19mm*H18mm	