

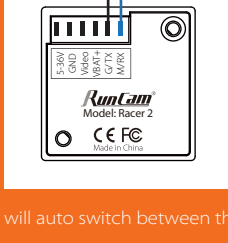
RunCam Racer 2

USER MANUAL

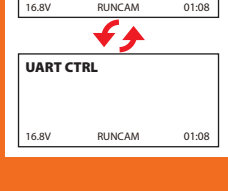
Joystick Control & UART Control Switchable

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

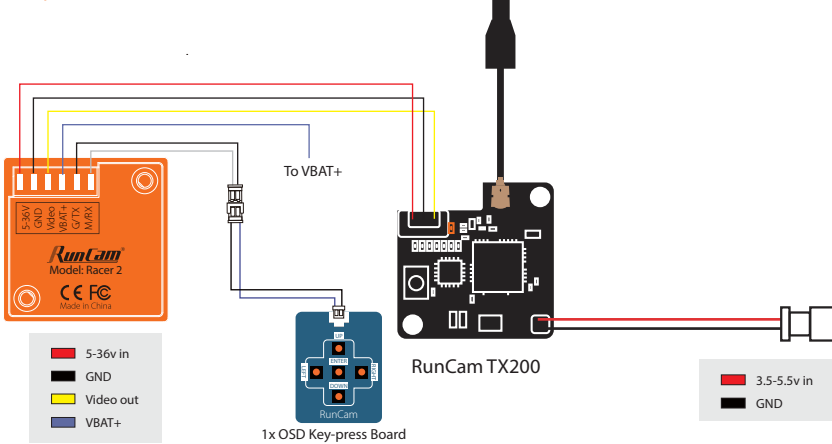


- 3 The mode can be saved after power off. After switching to the desired mode, please unplug the short-circuit cable.

UART Control works with Flight Controllers:

BetaFlight 3.3 or above / ButterFlight 3.4 or above / CleanFlight 2.2 or above

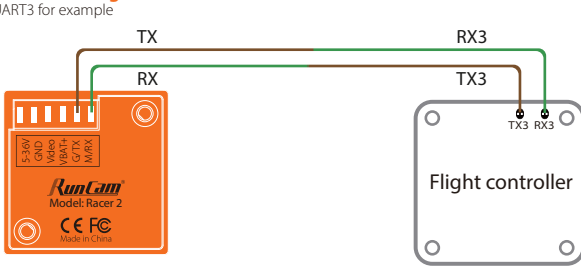
Joystick Control



UART Control

1. Flight controller wiring

Note: Take UART3 for example

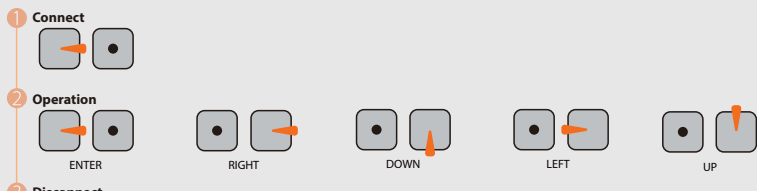


2. Betaflight 3.3 or above setting

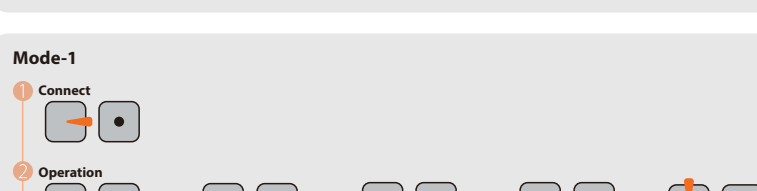
Identifier	Configuration/MS	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USBVCP	115200		Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART1	115200		Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART2	115200		Disabled / AUTO	Disabled / AUTO	Disabled / AUTO
UART3	115200		Disabled / AUTO	Disabled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

3. UART Control

Mode-2

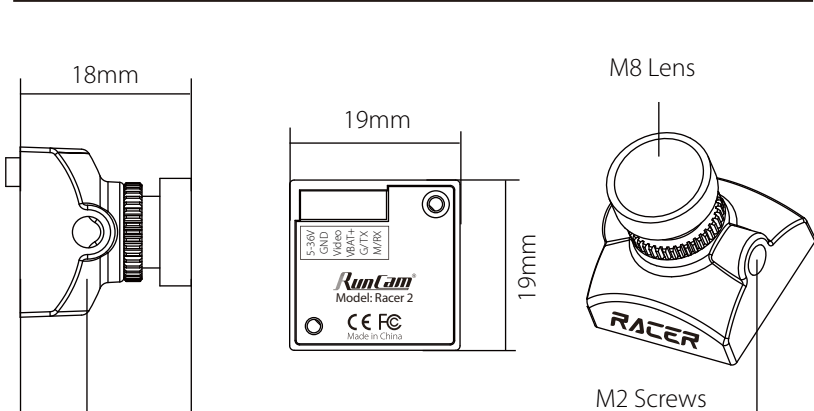


Mode-1



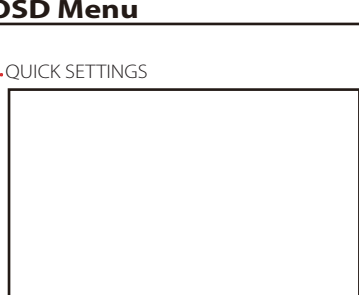
* When connected, The buzzer on Flight Controller will beep for 3 times; When disconnected, The buzzer on Flight Controller will beep for 2 times only; If connected successfully, you can long press the up button to enter the OSD menu, right button to switch preset scenes, left button to calibrate voltage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

Dimensions & Installation



OSD Menu

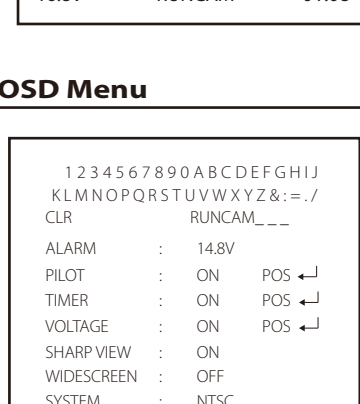
QUICK SETTINGS



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

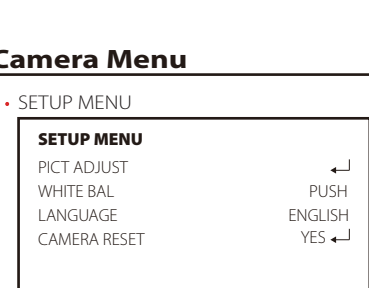
OSD Menu



- 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.

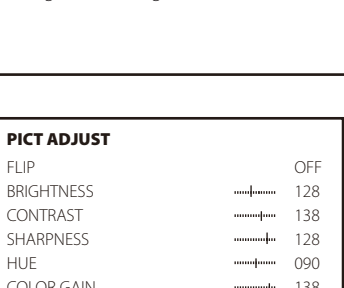
Camera Menu

SETUP MENU



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

PICT ADJUST



- 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