

# INSTRUCTION MANUAL

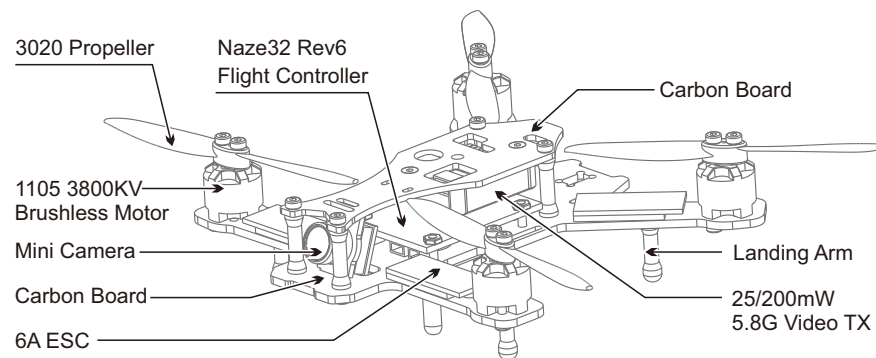
Sparrow FPV Racer SK-910013

SKYRC

## INTRODUCTION

The SkyRC Sparrow FPV racer is designed for both indoor and outdoor FPV experience. Its wheelbase is 120mm with pre-installed FC, ESC, Motors, Camera and advanced 5.8G Video Transmitter. There are 4 LED indicators on the front and rear arms (front red, rear green).

Please carefully read the manual before operating, wish you enjoy your flights!



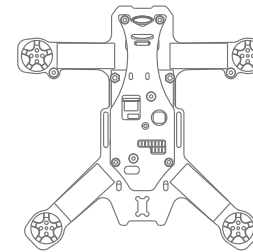
## SAFETY PRECAUTIONS

The Sparrow FPV Racer is not a toy. It is not suitable for using by any children under 14 years of age. During the flying, the propellers of Sparrow FPV Racer could cause injury to people, animals and property. Do not touch Sparrow FPV Racer when propellers are spinning and wait until the propellers have completely stopped before handling it.

Do not fly your FPV Racer over any public area, such as beaches, stadiums, populated parks, or other people's backyards and private areas. Do not fly near airport. In some country, you need get appropriate authorisation from local government before your flying.

You are responsible for your own safety. You are responsible to take adequate precaution by using the proper equipment and safety gear, and determining whether you have adequate skill and experience. SkyRC disclaims all responsibility for any resulting damage, injury, or expense. It is your responsibility to make sure that your activities comply with applicable laws.

## IN THE PACKAGE



Main Body



3020 Propeller x 8



PWM Receiver Cable



SBUS Receiver Cable

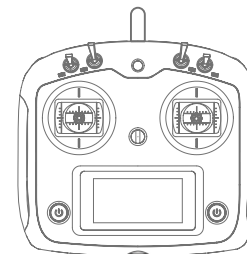


L Wrench

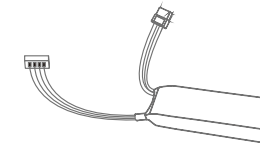


Socket Screw x 8

## THINGS YOU'LL NEED



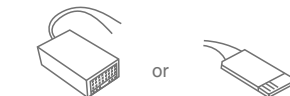
Remote Control



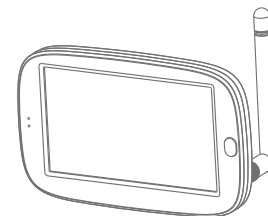
3S LiPo Battery



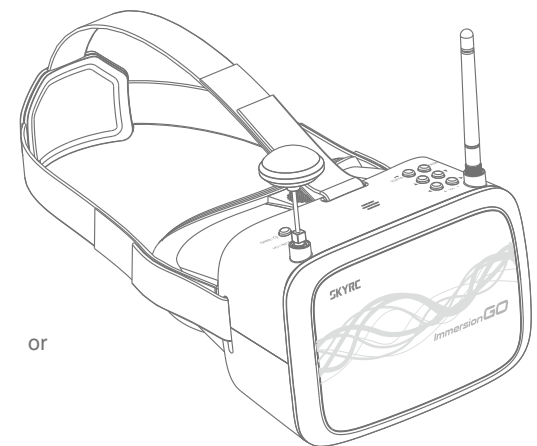
LiPo Battery Charger



PWM Receiver or S-BUS Receiver



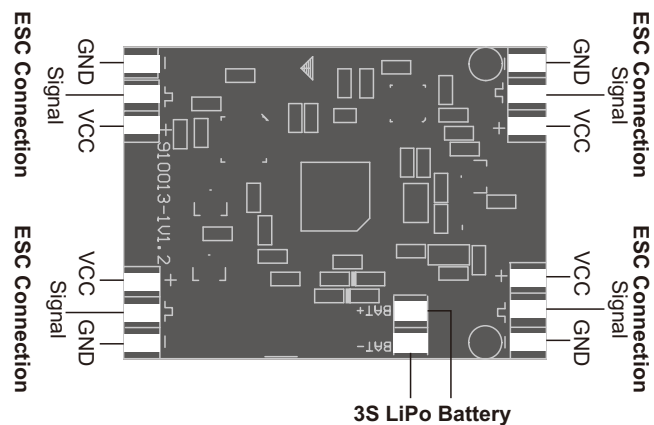
FPV Monitor



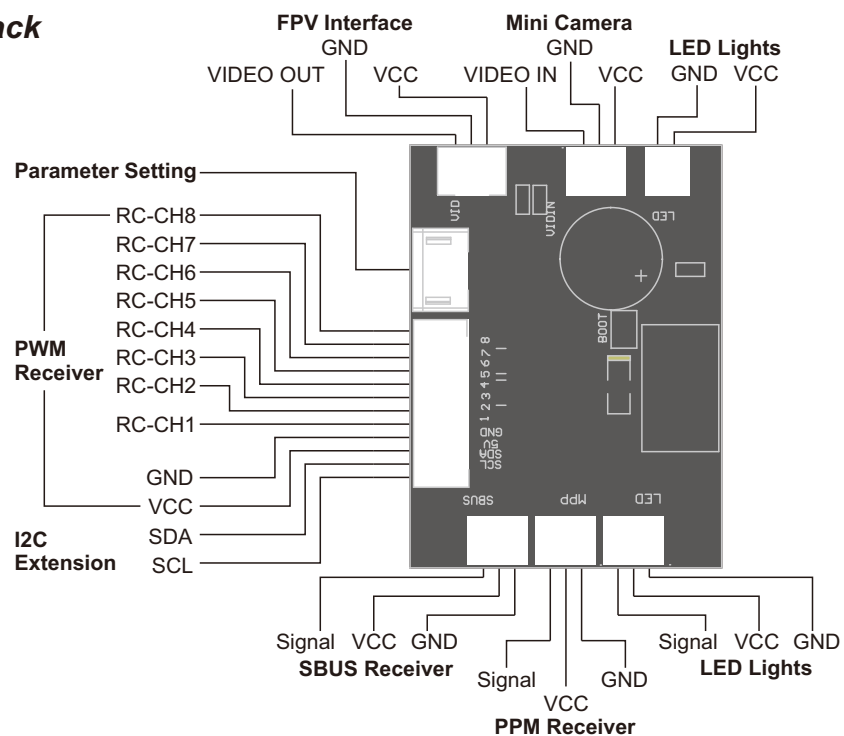
HD FPV Goggle

## FLIGHT CONTROLLER AND POWER DISTRIBUTION BOARD

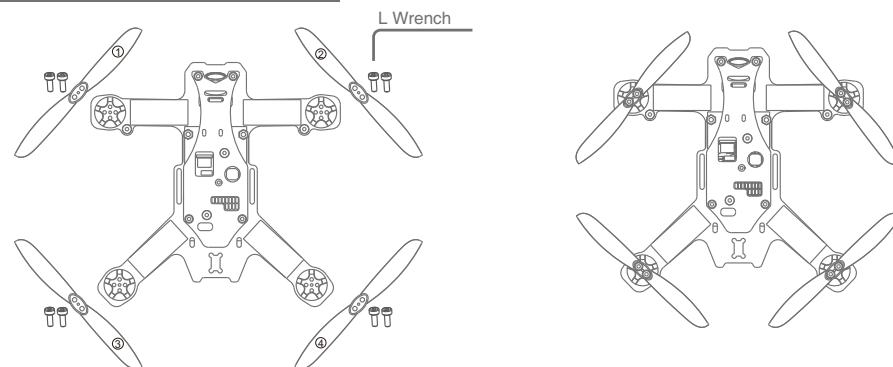
### Front



### Back



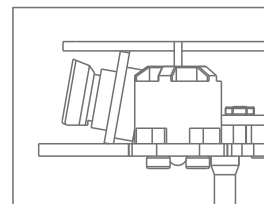
## ATTACHING PROPELLERS



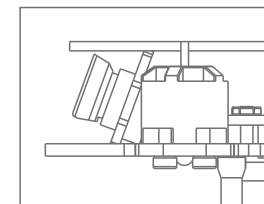
To attach the propellers correctly, you need match the spin direction on the propellers with the number. Peel off the number sticker before flying.

## ADJUST CAMERA ANGLE

You can adjust camera angle between  $10^\circ$  and  $20^\circ$ .



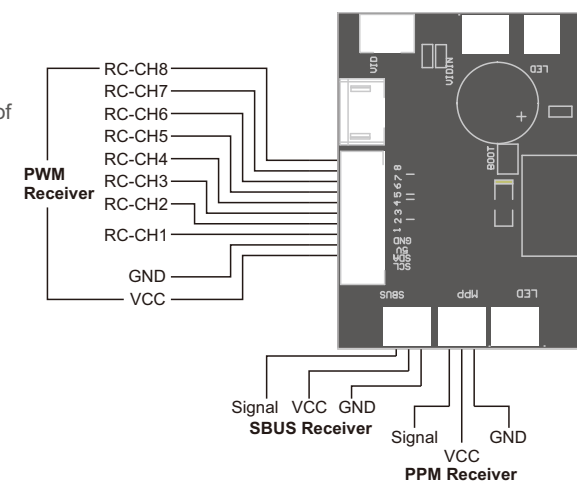
$10^\circ$  = flat vision, ideal to start and learn



$20^\circ$  = Perfect 2nd stage FPV experience

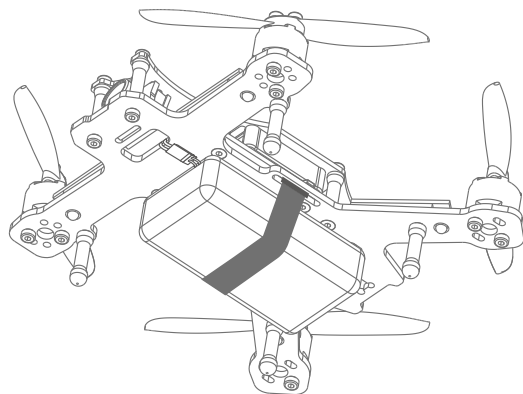
## CONNECTING RECEIVER

Install 2.4G receiver:  
Sparrow is compatible with three kinds of 2.4GHz receivers PPM/ SBUS/ PWM.



## INSTALLING BATTERY

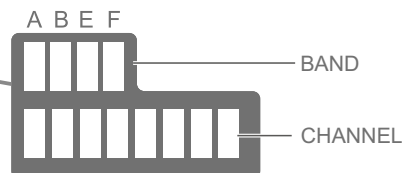
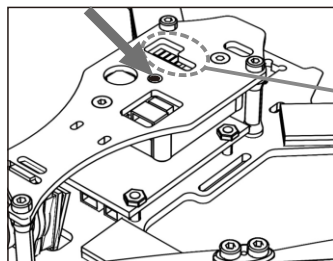
3s LiPo 450mAh battery is recommended, you can also choose battery with similar size and capacity.



## SELECT THE BAND/CHANNEL

One button and LEDs for frequency selection method is easy and intuitive.  
Frequency Selection: Single push to change frequency, push and hold for 2 seconds to change band.

As transmission power level regulations can vary between different geographical locations, the power output can be adjusted. Press and hold the button for 5 seconds to switch power level from 25mW to 200mW, and vice versa. The band LED will blinking if the power output level is 200mW.



### BAND A

5.740GHz	5.760GHz	5.780GHz	5.800GHz
5.820GHz	5.840GHz	5.860GHz	5.880GHz

### BAND E

5.733GHz	5.752GHz	5.771GHz	5.790GHz
5.809GHz	5.828GHz	5.847GHz	5.866GHz

### BAND B

5.725GHz	5.745GHz	5.765GHz	5.785GHz
5.805GHz	5.825GHz	5.845GHz	5.865GHz

### BAND F

5.705GHz	5.685GHz	5.665GHz	5.645GHz
5.885GHz	5.905GHz	5.925GHz	5.945GHz

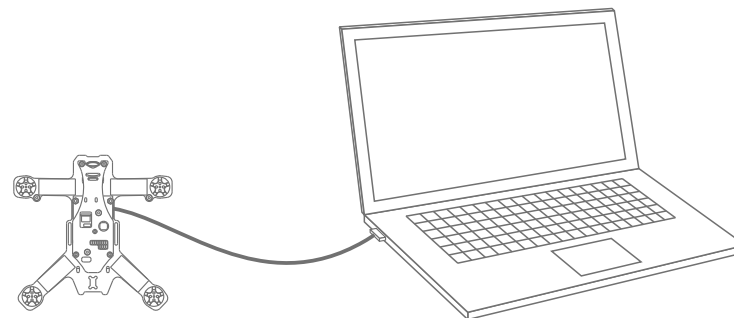
## SETUP SPARROW

The open source flight controller firmware that we chose to power the Sparrow is Cleanflight, mainly due to it's solid support and the OneShot ESC control protocol.

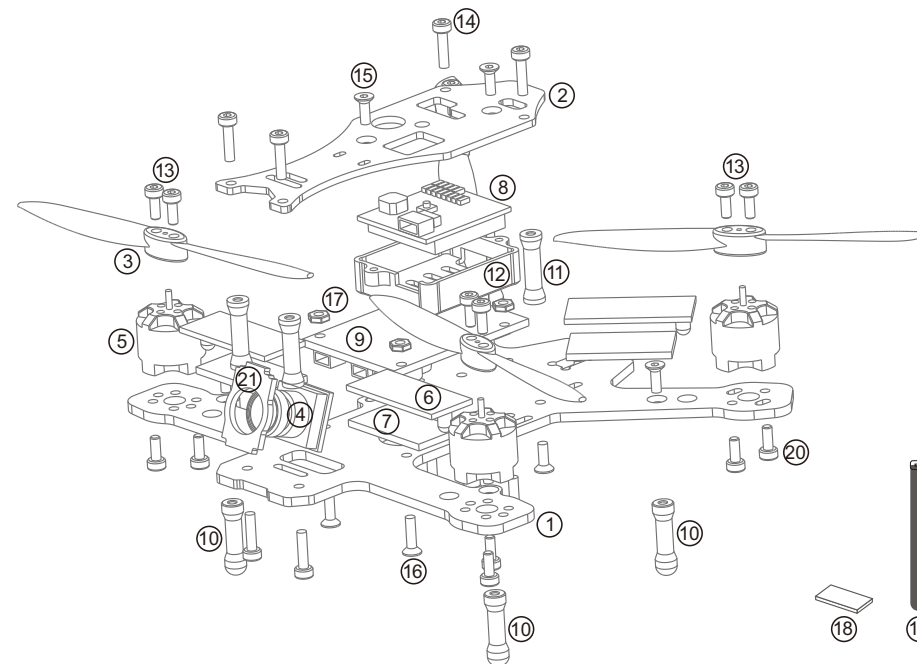
Because Cleanflight is constantly evolving, you will get the most updated setup instructions from their website.

Naturally, if you get stuck or something is unclear, please visit <http://cleanflight.com/>

To hook up the cleanflight configurator, hook up a personal computer via a standard micro-USB cable, to the connector on the right side of the Sparrow FPV Racer.



## FRAME STRUCTURE OVERVIEW



## PART LIST

No.	Name	Qty
1	Bottom Carbon Board	1
2	Top Carbon Board	1
3	3020 Propeller	4
4	Mini Camera	1
5	1105 3800KV Brushless Motor	4
6	6A ESC	4
7	EVA Double Sided Adhesive Tape	4
8	25/200mW 5.8G Video TX	1
9	FC and Power Distribution Board	1
10	Landing Arm	4
11	Aluminum Coultumn	4

No.	Name	Qty
12	Aluminum Shield	1
13	Socket Screws M2 x 6mm	8
14	Socket Screws M2 x 8mm	6
15	Socket Screws M2 x 8mm	8
16	Socket Screws M2 x 10mm	4
17	Nylon Screw Nut M2mm	4
18	EVA Single Sided Adhesive Tape	1
19	Velcro	1
20	Socket Screws M2 x 4mm	8
21	Camera Tilt Board	1

## REGULATORY NOTICE

The use of this product may be prohibited in your country/region/state, please verify that the RF output power and frequencies used by this transmitter comply with local rules and regulations, this product may require a license to operate.

## SPECIFICATIONS

- Wheelbase: 120mm
- Flight Controller: Naze32 Rev6
- ESC: 6A BLHeli
- Motor: 1105 3800KV
- Camera: 600 Lines
- 5.8GHz Video Transmitter: 25mW/200mW selectable 32 Channels
- Propeller: 3020
- Battery: 3s LiPo 450mAh (recommended)\*
- 2.4GHz Receiver: Compatible with PPM/ SBUS/ PWM 2.4GHz receiver\*

\* Battery and 2.4GHz receiver is not included in the package.

## CAUTION

Fly only in safe areas, away from other people. Do not fly Sparrow FPV Racer within the vicinity of homes or crowds of people. Sparrow FPV Racer are prone to accidents, failures, and crashes due to a variety of reasons including, lack of maintenance, pilot error, and radio interference. Pilots are responsible for their actions and damage or injury occurring during the operation or as a result of Sparrow FPV Racer.

## WARRANTY AND SERVICE

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects, which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed defective due to those causes.

This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.

### Note:

1. The warranty service is valid in China only.
2. If you need warranty service overseas, please contact your dealer in the first instance, who is responsible for processing guarantee claims overseas. Due to high shipping cost, complicated custom clearance procedures to send back to China. Please understand SkyRC can't provide warranty service to overseas end user directly.
3. If you have any questions which are not mentioned in the manual, please feel free to send email to [info@skyrc.cn](mailto:info@skyrc.cn)



Manufactured by  
**SKYRC TECHNOLOGY CO., LTD.**  
[www.skyrc.com](http://www.skyrc.com) 7504-0843-02