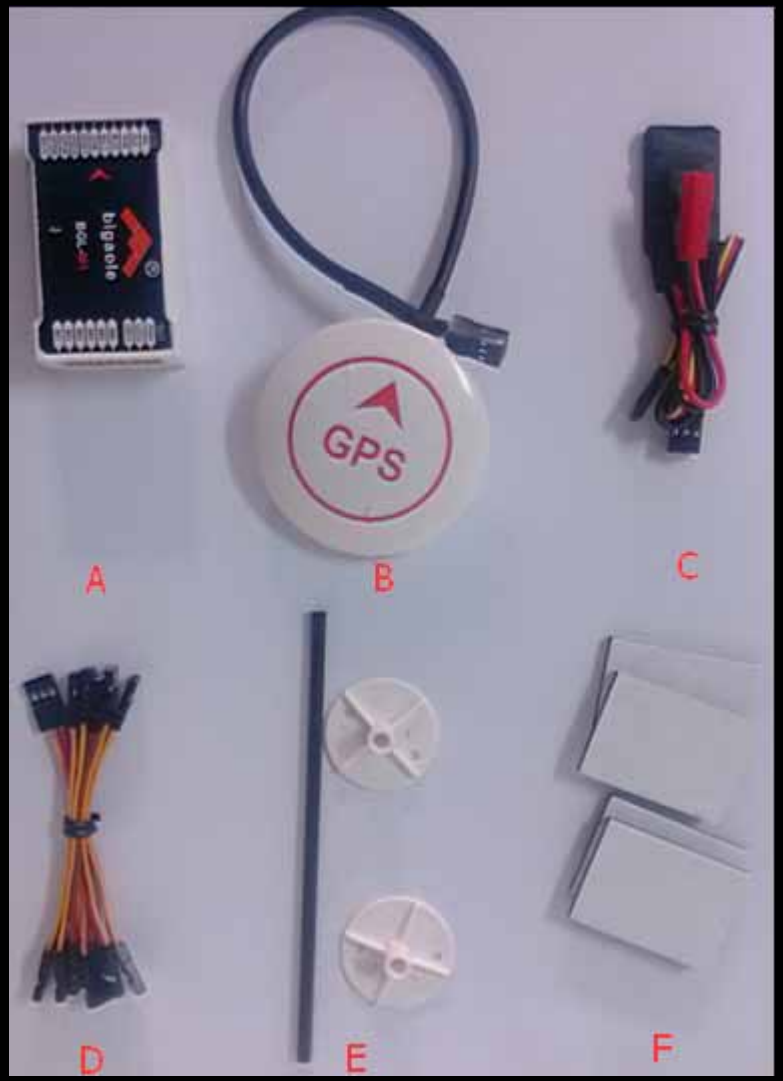
MULTI-ROTOR CONTROLLER SYSTEM

BGL-M1

Packing list

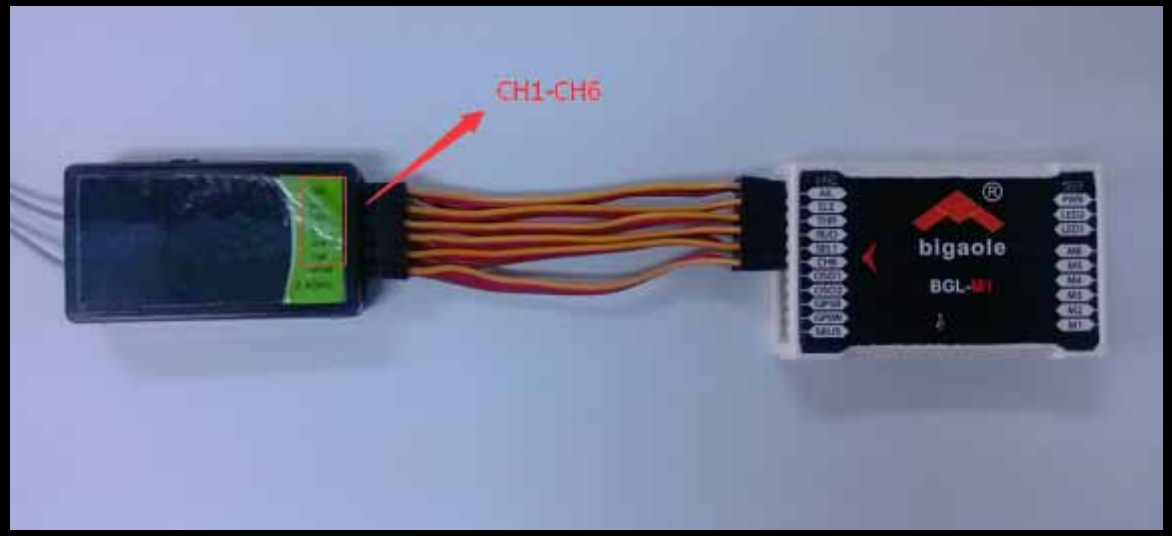
A. Main control x1
B. GPS compass module x1
C. Multifunctional power module x1
D. Wire 1 x6 (connect receiver)
E. GPS bracket x1
F. Double side sticky pads x4



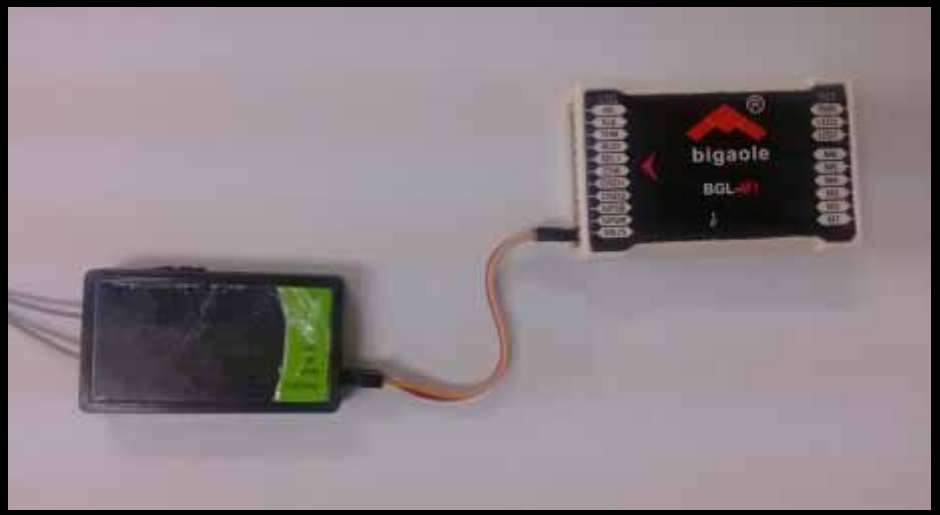
I Hardware assembly

- Connect Main control with receiver

- The picture is Futaba receiver connection.

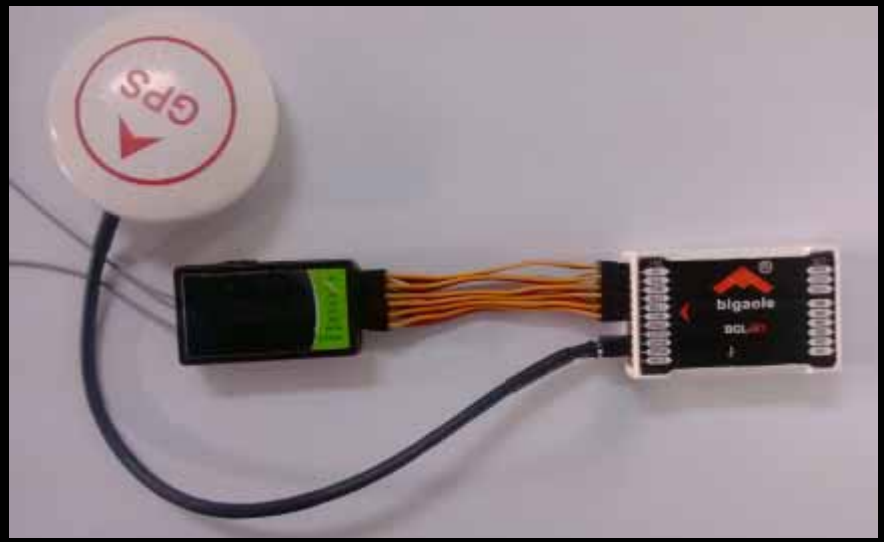


Support S-bus connection. (if you use S-bus connection, remember to select the receiver type on assistant software later.)

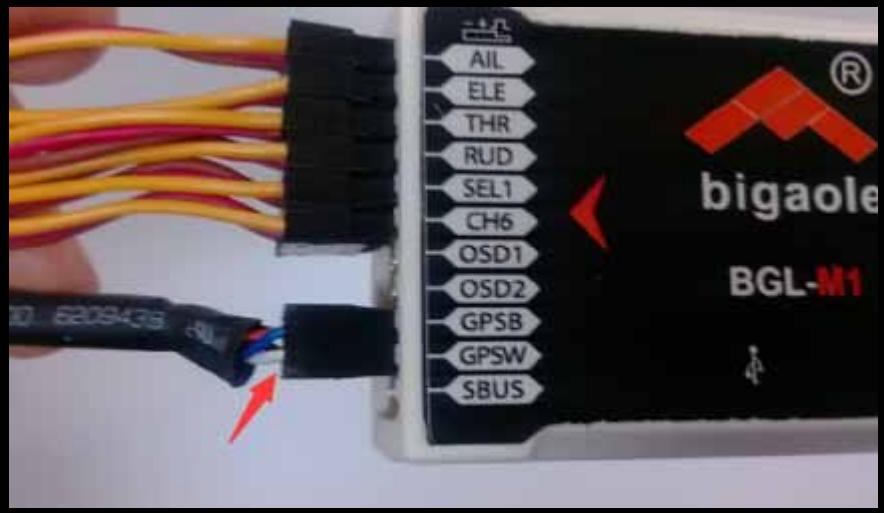


I Hardware assembly

- Connect GPS compass module



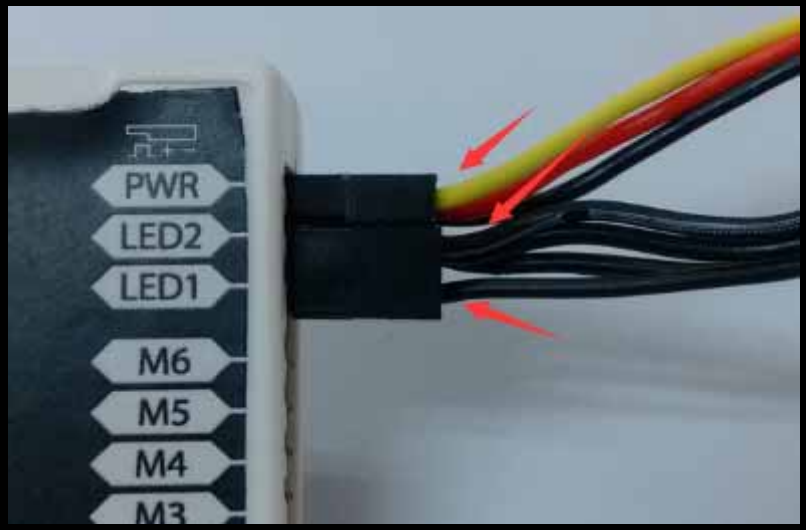
- The white line and blue line side is on top as picture.



l Hardware assembly

- Connect multifunctional power module

- Yellow line side on top connect PWR.
- Three signal line side connect LED2
- One signal line side connect LED1



Ⅰ Hardware assembly

- Mount main control

  on your aircraft with double side sticky pads

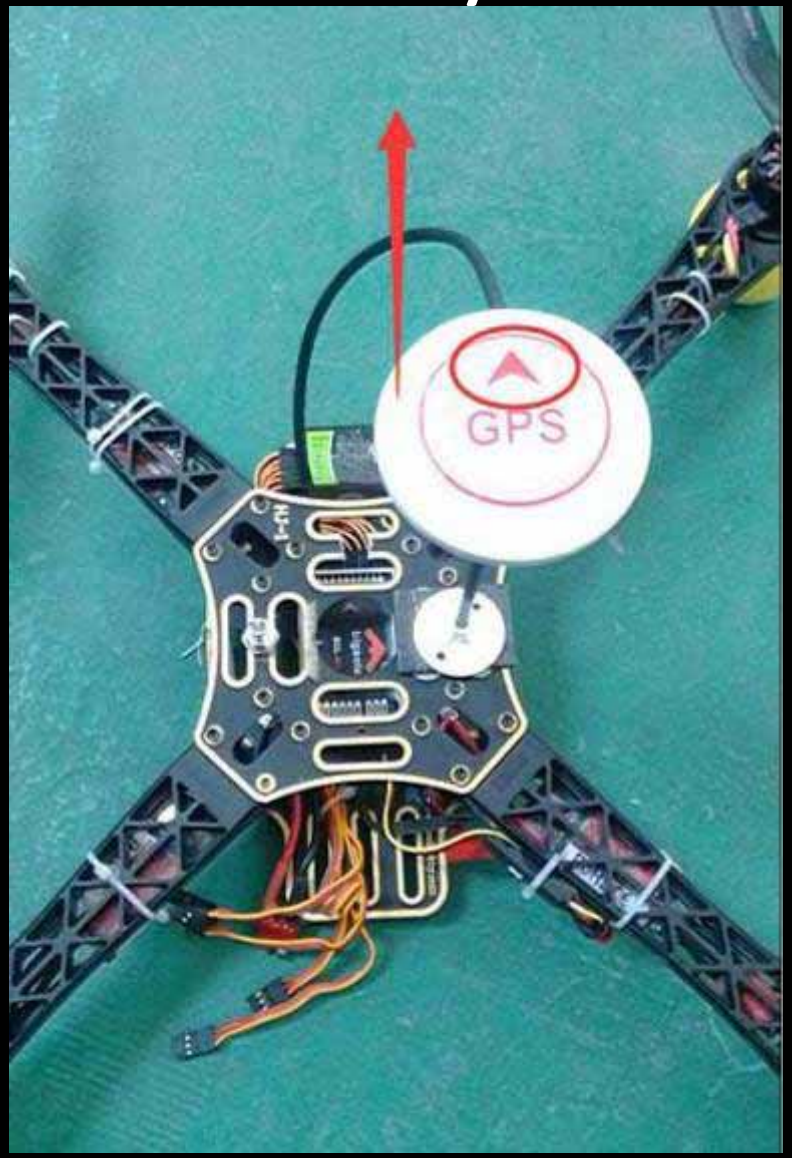
- Remarks:

  a. Try to keep the main control at your aircraft's center of gravity and parallel to the aircraft body.

  b. Arrow direction on main control is consistent with the multi rotor's front side.

Ⅰ Hardware assembly

- Mount GPS compass module on your aircraft with GPS bracket and double side sticky pads



- Remarks:

  a. Arrow direction on GPS module is consistent with the multi rotor's front side.

  b. Keep GPS module as far as possible from the high current and strong magnetic field environment, which produced by ESC when it working

Ⅰ Hardware assembly

- Fix your receiver on your aircraft with double side sticky pads or some other material.

- Fix Multifunctional power module on your aircraft.

Hardware assembly is finished now!

ll Remote Control Setting

- Close all mix-function
- Select a 3 position switch as CH5
- Select a 2 position switch as CH6

ll Remote Control Setting

- Check channel if is reversed (AILE, ELEV, RUDD, CH5, CH6)

- The picture is Futaba transmitter for your reference.

- AILE value left to Right, 900US to 2100US

- ELEV value top to down, 900US to 2100US

ll Remote Control Setting

- Check channel if is reversed (AILE, ELEV, RUDD, CH5, CH6)

- RUDD value left to Right, 900US to 2100US

- The picture is Futaba transmitter for your reference.

- CH5, UP position, 900US< CH5 <1200US : Manual mode

ll Remote Control Setting

- Check channel if is reversed (AILE, ELEV, RUDD, CH5, CH6)

- The picture is Futaba transmitter for your reference.

- CH5, Medium position, 1200US <CH5 <1800US: GPS hovering mode

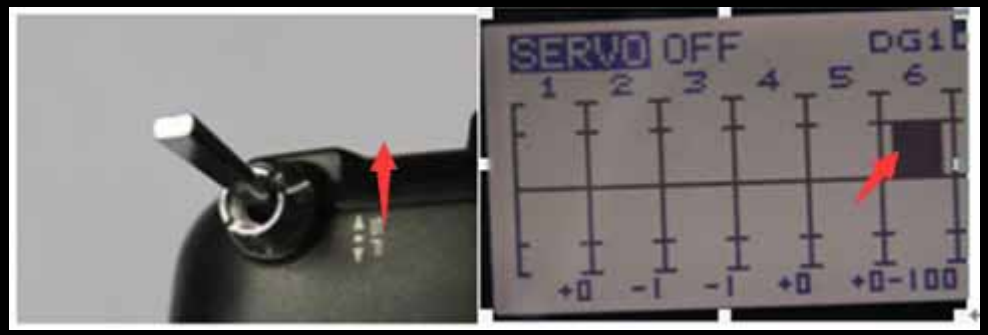
- CH5, Down position, 1800US<CH5 <2100: Return home mode

ll Remote Control Setting

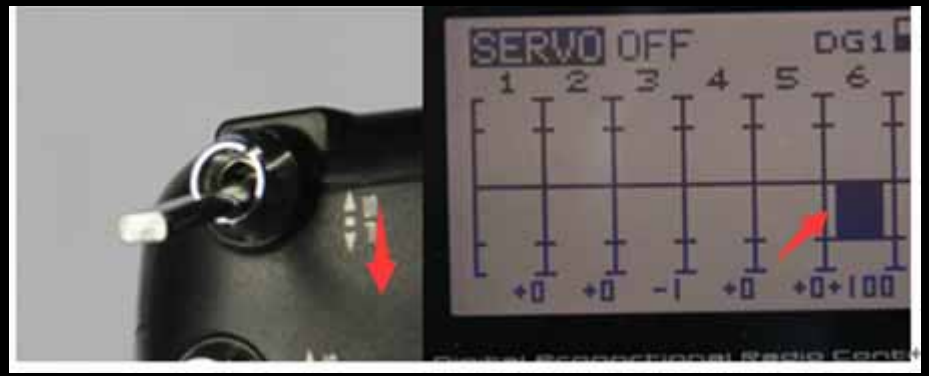
- Check channel if is reversed (AILE, ELEV, RUDD, CH5, CH6)

- The picture is Futaba transmitter for your reference.

- CH6, Up position, 900US< CH6 < 1520US Head mode



- CH6, Down position, 1520US< CH6< 2100: Headless mode



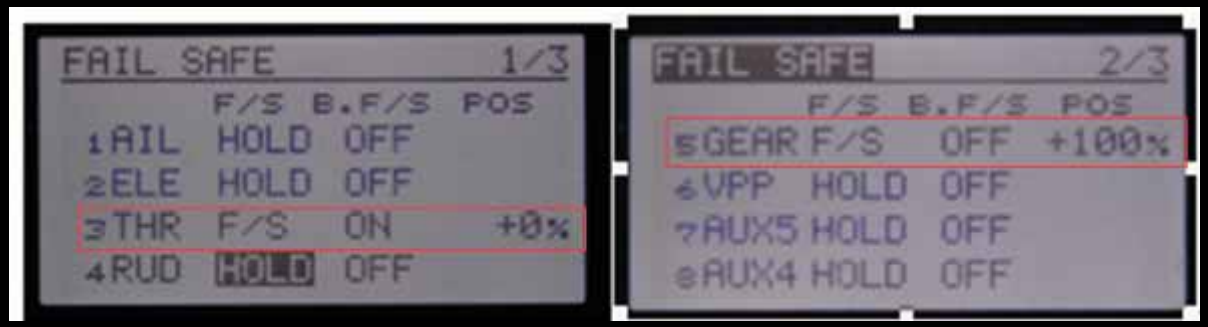
ll Remote Control Setting

- Fail safe setting

Find Fail Safe menu

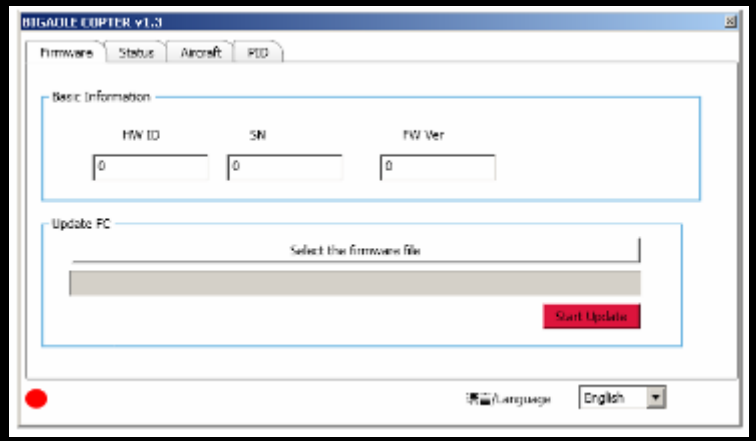
Setting AIL, ELE, THRO, RUDD, GEAR value

Here is an example of FUTABA T8FG



III Assistant Software Configuration

- Open COPTER V1.3 on your computer

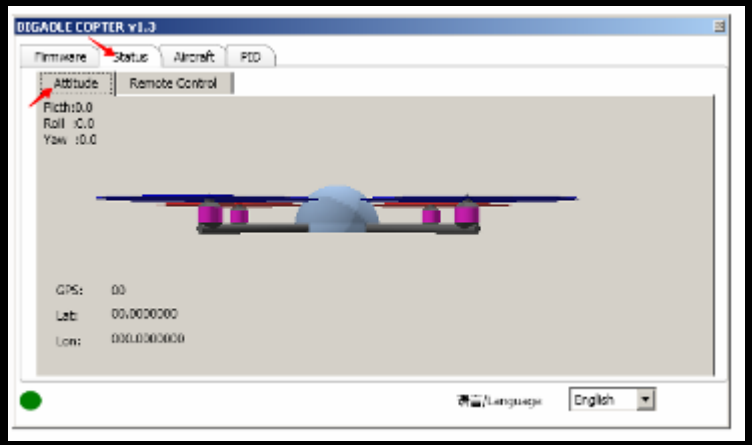


- Connect flight control with computer
- PS. The interface of flight control (Micro USB) support most of mobile phone's charging cable.

III Assistant Software Configuration

- Menu-→State

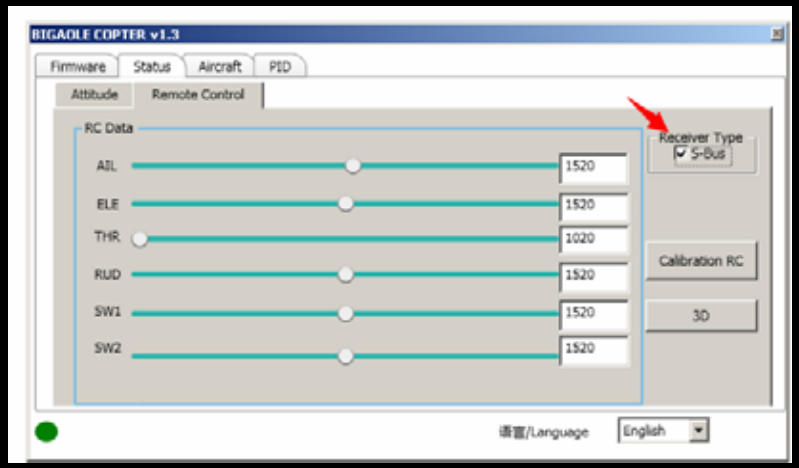
  -→Attitude



Rotate your aircraft to three direction according to Aileron(ROLL), Elevator(PITCH), and Rudder(RAW) , check multi-rotor gyroscope's three axis' adjustment .

III Assistant Software Configuration

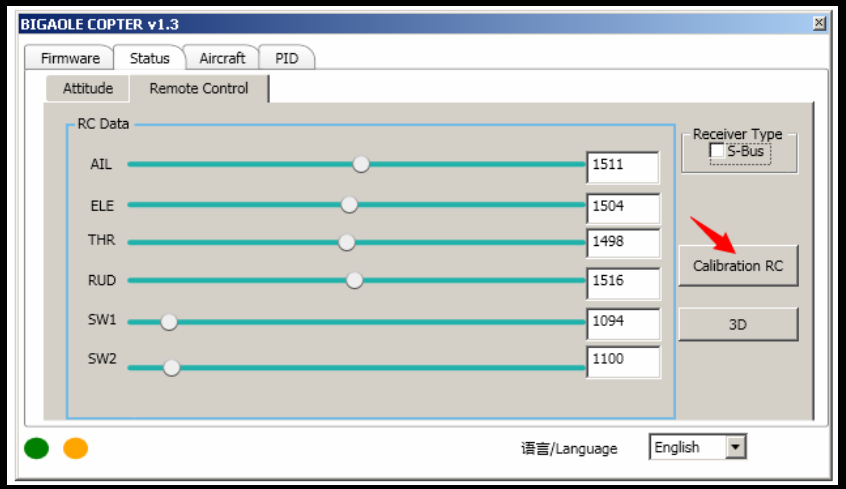
- If you connect main control with receiver by S-bus, please remember to select the receiver work method with S-bus type.



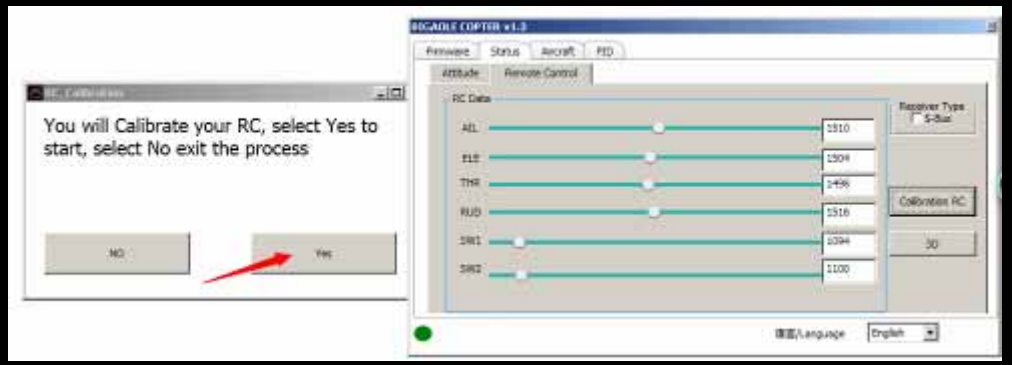
III Assistant Software Configuration

- Transmitter calibration

press the calibration button



Press the yes button

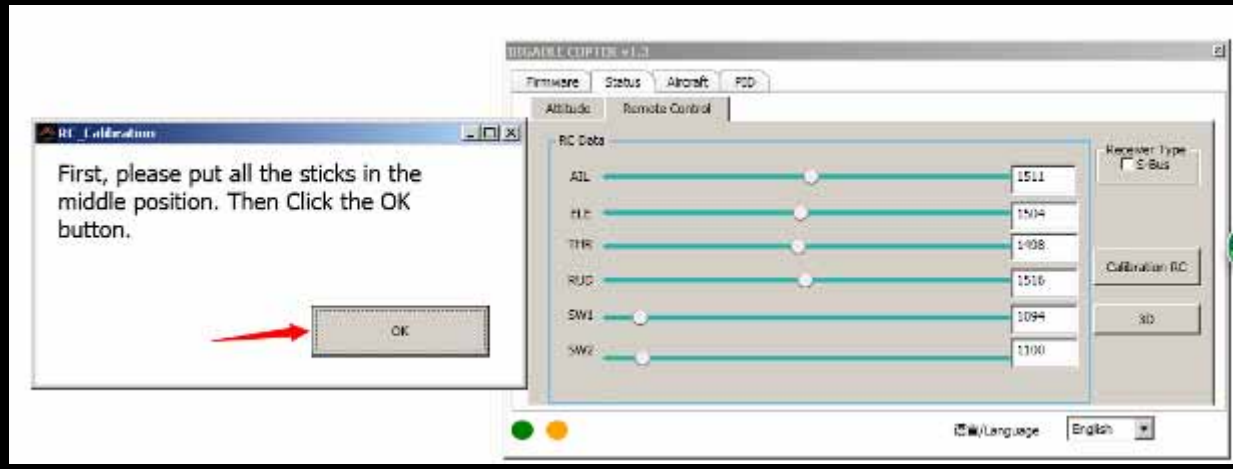


III Assistant Software Configuration

- **Transmitter calibration**

Put all the sticks in the middle position.

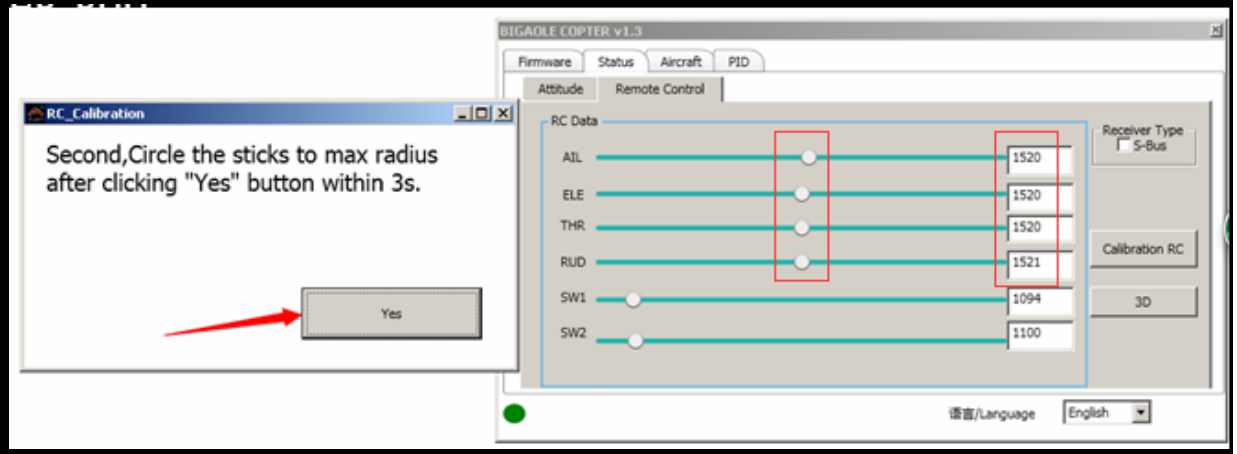
Press the ok button



After AIL, ELE, THR, RUD value number adjust to around 1520 automatically.

Press the yes button and circle the sticks to max

radius sticks within 3s.



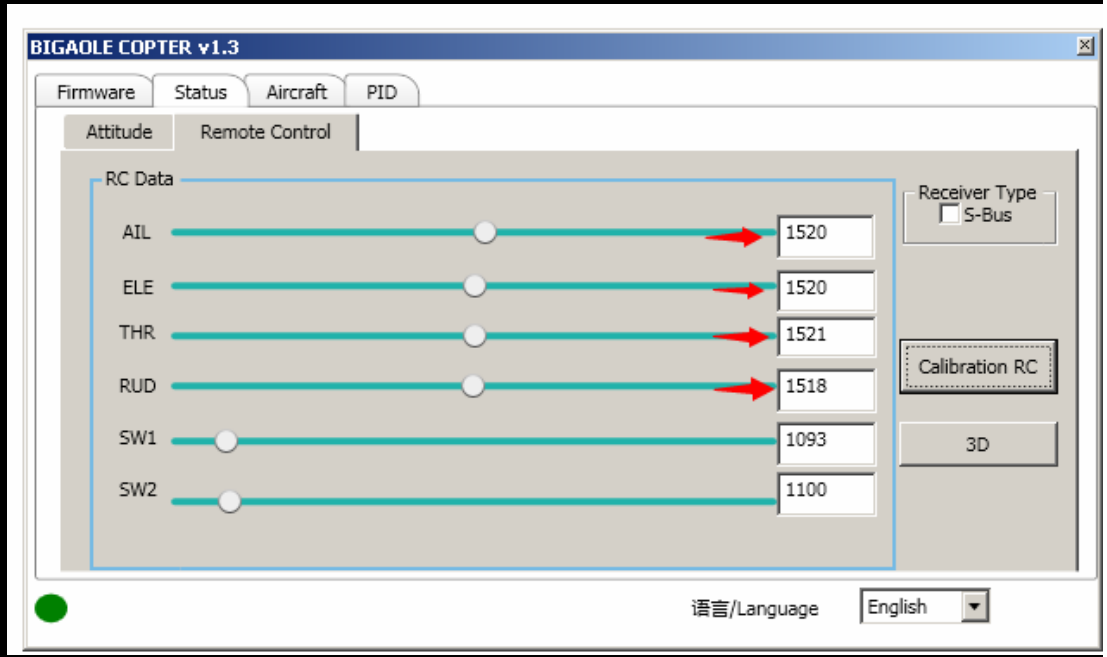
III Assistant Software Configuration

- Transmitter calibration

Calibration finished, and you will find the data on picture.

AIL, ELE, THRO, and RUD values are in the range of about 1520, up and down a few errors.

If not, please recalibrate.

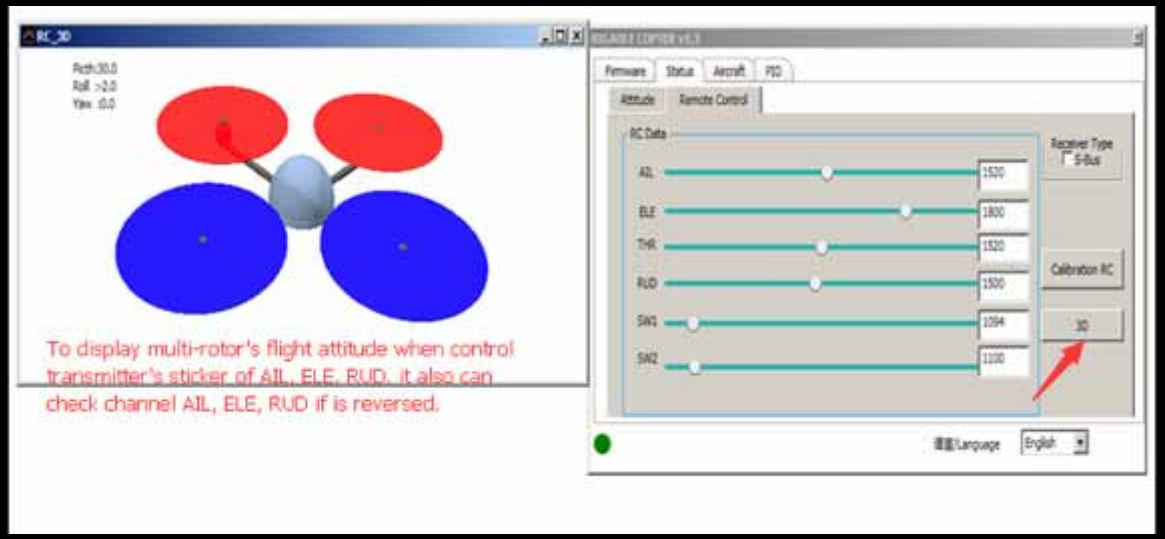


III Assistant Software Configuration

- Check transmitter channel if is reversed.

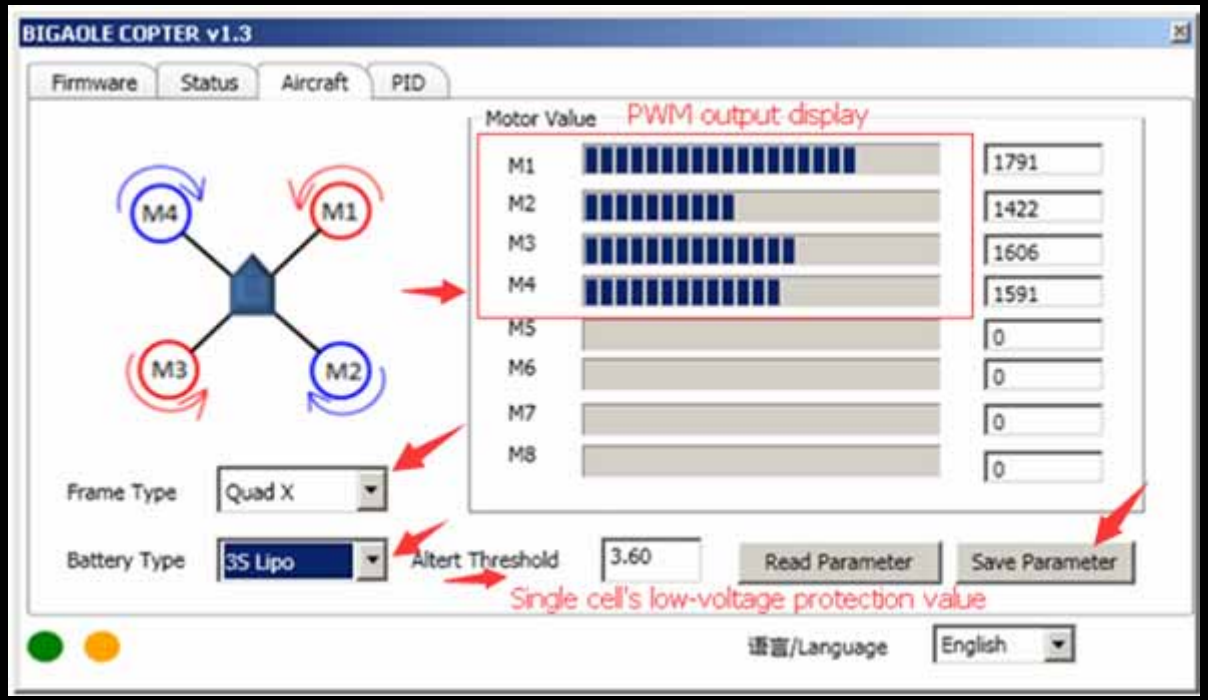
  Press 3D button.

  Control transmitter's sticker of AIL, ELE, RUD, to see if the channel is reversed.



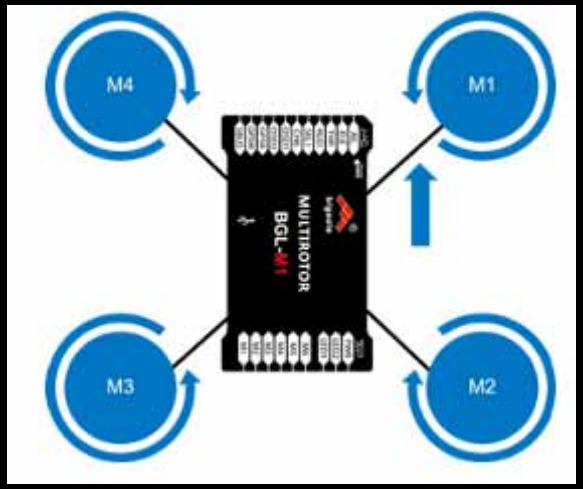
III Assistant Software Configuration

- Menu-→Aircraft
- Select aircraft type, battery cell number, and single cell's low-voltage protection value.
- Check M1-M4 PWM output
- Save Parameter



IV Ready to Fly

- Connect M1-M4 with flight control.



IV Ready to Fly

- Check M1-M4 propeller's installation if is correct.

IV Ready to Fly

- Connect battery, and multifunctional power module

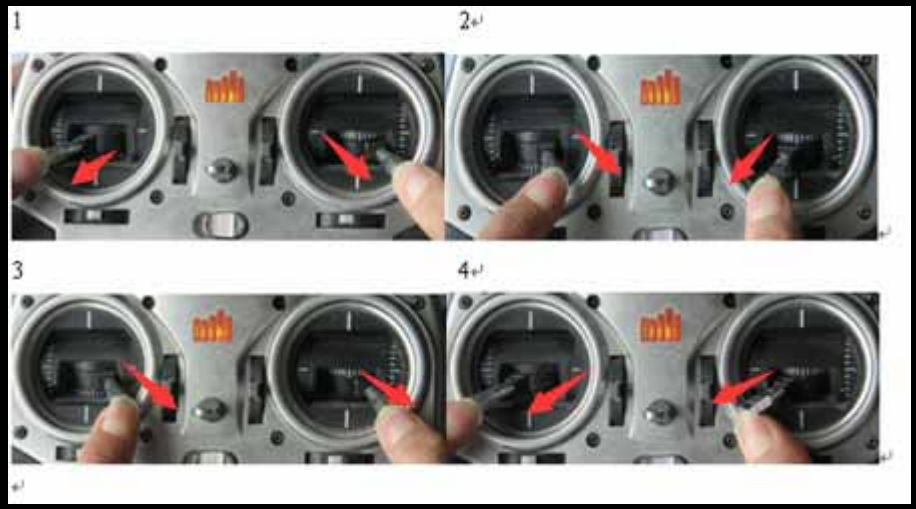
Always remember that power your transmitter **on first, off last!**

IV Ready to Fly

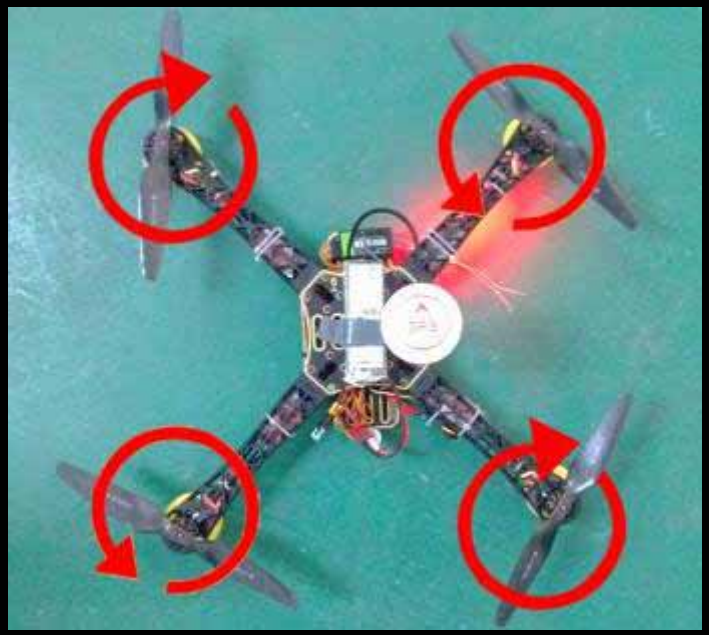
- **Unlock aircraft**

  Pull the throttle stick to the lowest

  Operate AIL, ELE, RUDD channel stick can unlock the aircraft like picture.



Check M1-M4 rotating direction if is correct.



IV Ready to Fly

- **Compass Calibration**

Place the aircraft on level ground

Clockwise / unclockwise rotation paralleling to the horizontal ground for 3 or 4 loops

Can also calibration compass in the Air, the method please check our manual.

IV Ready to Fly

- **Gyro Calibration**

a. Keep the aircraft on level ground and remain stationary.

b. Switch the 3 position switch(CH5) between manual flight mode and hovering mode for four times, the LED becomes solid white.

c. Wait for white LED disappear.

Gyro Calibration is completed.

(Calibration of magnetic field and gyro are saved at the same time.)

IV Ready to Fly

- **Check GPS satellite status.**

  red led double flash or triple flash , means GPS signal is good.

  You can try to fly now!

V Test-fly

- **Aircraft test-fly based on flight control's default parameter when it come out of factory.**

- **If you do not satisfied with the aircraft performance, please make Parameter adjustment by assistant software, more details please check part 6 of XII in our manual.**

Above installation steps is for your reference, if you have any problem during your installation, please kindly contact us by service@bglmodel.com .

Thank you!