

MMC 10 flight control board

Foreword

Dear customer, appreciate for using the MMC 10 flight control board. We try our best to provide high reliability, stability, controllability flight control system. Please read the manual carefully before using it.

Warning & Disclaimer

MMC 10 is an excellent autopilot system offering tremendous flight features for low altitude multi-rotor working in restricted space compared to normal helicopter. It is not a toy when installed in multi-rotors of any size. Despite our efforts in making the controller to operate in the safest manner when the main power battery is connected. We strongly recommend customers to remove all propellers, use power supply from R/C system or flight pack battery, and keep children away during system calibration and parameter setup. Our company assumes no liability for damage(s) or injuries incurred directly or indirectly from the use of this product. Please strictly follow the instruction.

Matters Need Attention

- 1 this product is suitable for people who are experienced and above 14 ages user. For beginner, please refrain from using alone. It is recommend be guided and monitored by experienced user.
- 2 please Use and operate the product under good physical and mental state.
- 3 for avoiding the danger and injury please keep distance from rotating motors and propellers during installation and testing
- 4 make sue the connection between MMC and components are in proper way.
- 5 assure the battery is fully charged and the communication of controller is in good condition.
- 6 make sure the center of gravity is in the center of multi rotors.
- 7 install the MMC at the center of the frame. The marked side of MMC should face upwards. Keep mmc is parallel to frame or the multi rotor would drift.
- 8 the MMC has requirement of direction
- 9 Make sure switch on the transmitter first, then power on multi-rotor before takeoff! Power off multi-rotor first, then switch off the transmitter after landing!

10 please realign after exchanging the control device.

11 in Tx Calibration of assistant software:

Throttle: slide down is craft down, slide up is craft up

Rudder: slide left is craft nose left, slide right is nose right

Elevator: slide down is craft back, slide up is craft front

Aileron: : slide left is craft left, slide right is right

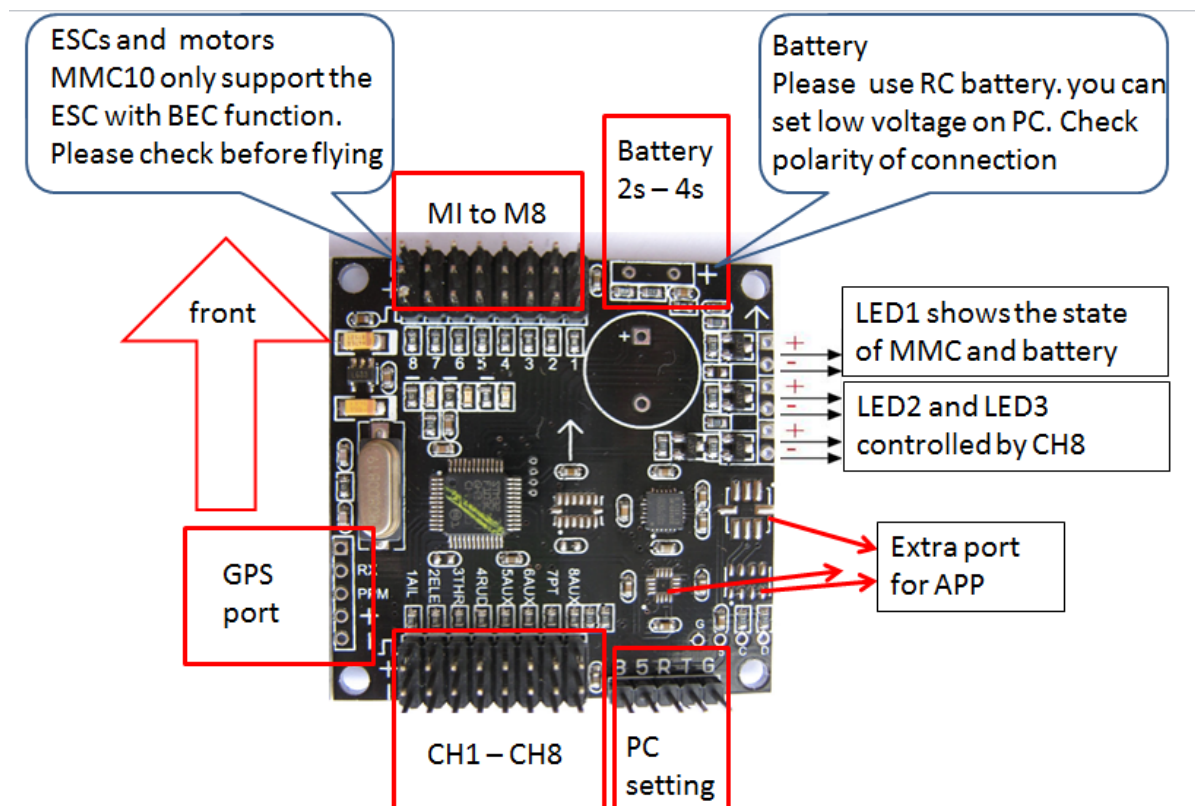
12 make sure the throttle is at lowest position before you supply power to multi rotors.

13 Please follow the instructions. Do not do any dangerous action which would harm other people.

14 Do not use the controller when the battery voltage is low. It may cause out of control.

15 use the MMC in dry, insulate, heat resisting, anti-static environment.

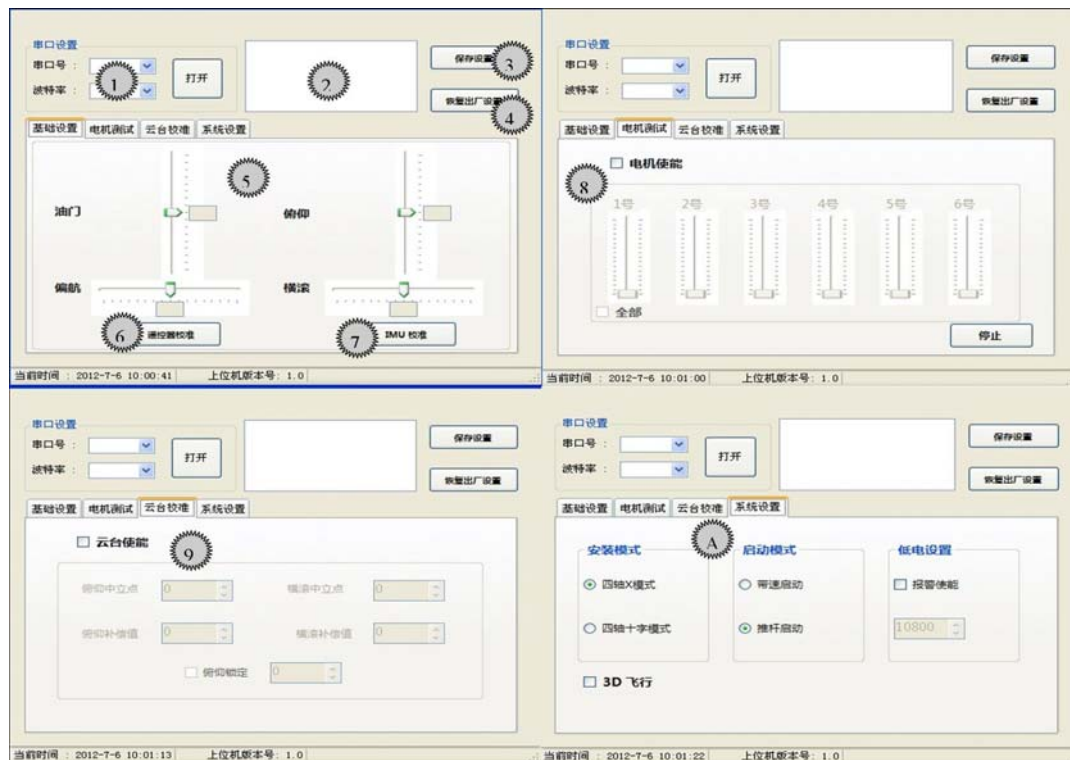
connection



Software and Driver Installation

STEP1: Please download assistant software and driver from our website. Then decompress.

Step2: power on MMC



1 port setting

Open control panel then open device manager. Check the current port number. Select the port in setting software. Choose the appropriate baud rate(the system default baud rate is recommended). Click open button

2MMC status display

Pitch angle, roll angle, yaw angle and height

3 Save the setting

Save your setting on MMC

4 Restore default settings

If your setting is not proper or you do not know how to adjust, click Restore default settings.

5 controller stick status

Warning: remove propeller before this step.

Push the Throttle control joystick up, the slide move up, Push the Throttle control joystick down, the slide move down. Push aileron control joystick to left , the slide move to left, Push aileron control joystick to right , the slide move to right. If the direction is not correct, please check the controller setting.

6 calibration of controller

Click this button when your controller shows wrong state with slide.

7 calibration of IMU

After updating the firmware or multi rotor takes off unstably, you need do calibration of IMU. During aligning of IMU, please set MMC on a level position and no not touch MMC.

8 motor

The motor state would show on this bar

9 PTZ debugging

set the neutral point of pitch and roll

10 system setting

Choose flight mode X or cross based on you r frame. The default setting is X mode

Active mode

Motor would run automatically after you unlock controller

Push controller stick, the motor would run.

Low voltage setting

Low voltage alert would be active when the voltage reaches the level you select

3D

3d mode is foo as default.

Controller operation

MMC neutral point setting

Step 1: power on controller, set all channels maximum and minimum value as default value (100%), all fine turning should be set to 0, the curve setting also should be default value.

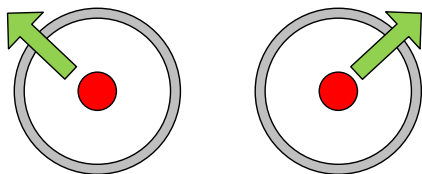
Step2: power o the multi rotor. The blue light is up. The red light flashes 3 times. the buzzer has a long sounding. Turn on channel 5 switch, the green light would be up. Then turn 2 joy sticks several round like below



Step 3: push the Throttle to highest position. Then switch off channel 5 on your controller the green light would be off

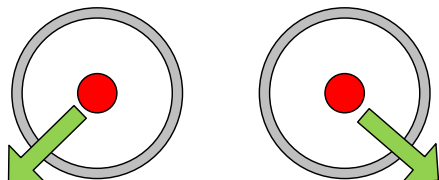
MMC level align

Put multi on a level position and then switch on the controller. Power on the multi rotors. Push joystick like below. the buzzer would sounds twice and green light would be up. Release the 2 sticks. Restart the contronller



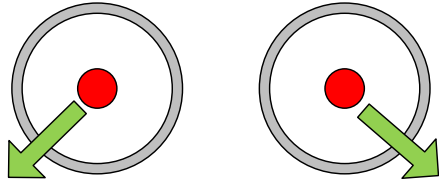
Unlock MMC

Unlock controller like below before taking off. The LED 1 flashes to show MMC works



Lock MMC

Lock controller like below after you landing. For safety, please lock your controller after landing. After locking controller, led 1 would be off



Warning:

Please do the neutral point setting before you take off. This is condition for level aligning , lock and unlock controller.

Appendix

The motor number of the X mode

