
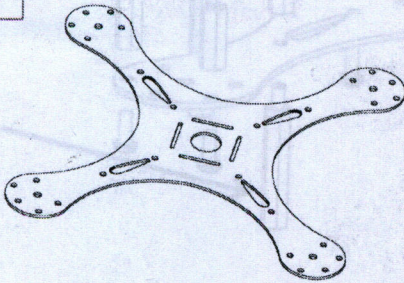

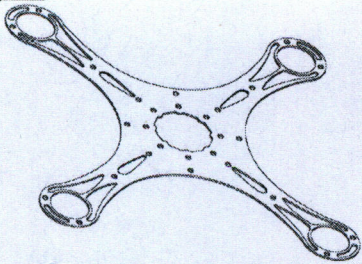
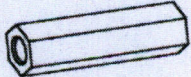
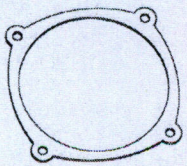
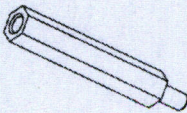


CR-210 KK

User Manual

In Box			
		M3x8	
			x28
CR2101		M3x10+6	
			x4
	x1		
CR2102		M3x15	
			x16
	x1		
CR2103		M3x30+6	
			x8
	x1		

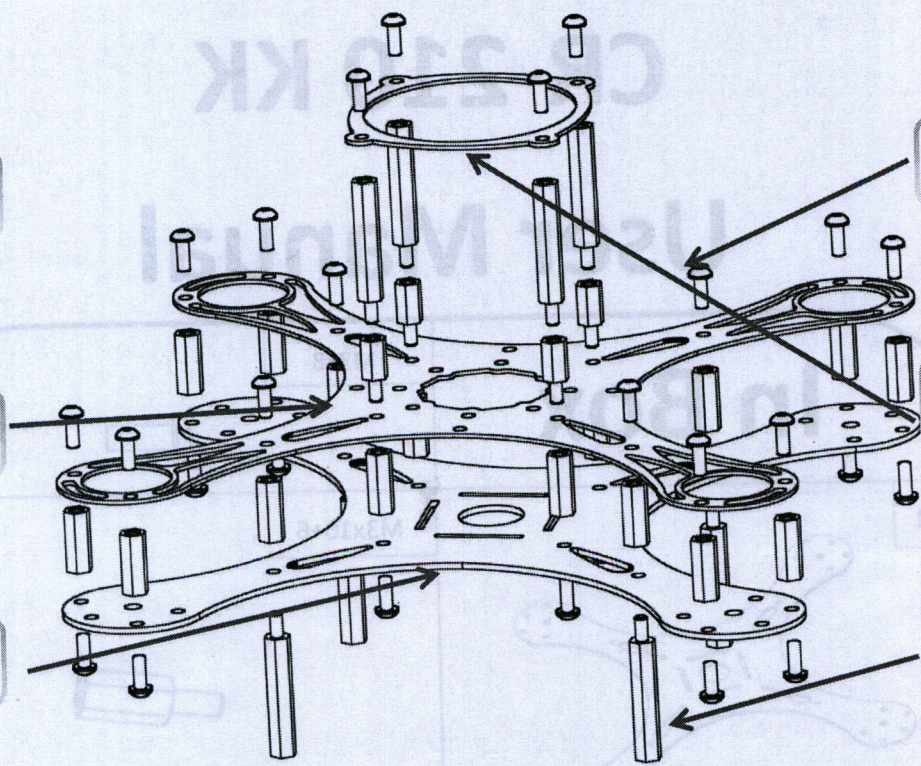
Step 3
Install motors and ESCs



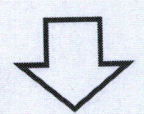
Step 2
Install middle board



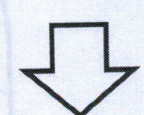
Step 1
Install bottom board



Step 4
Install autopilot board



Step 5
Install top board



Step 6
Install 4 feet

Setting Manual for KR Firmware for Atmega168 based KKmulticontrollers.

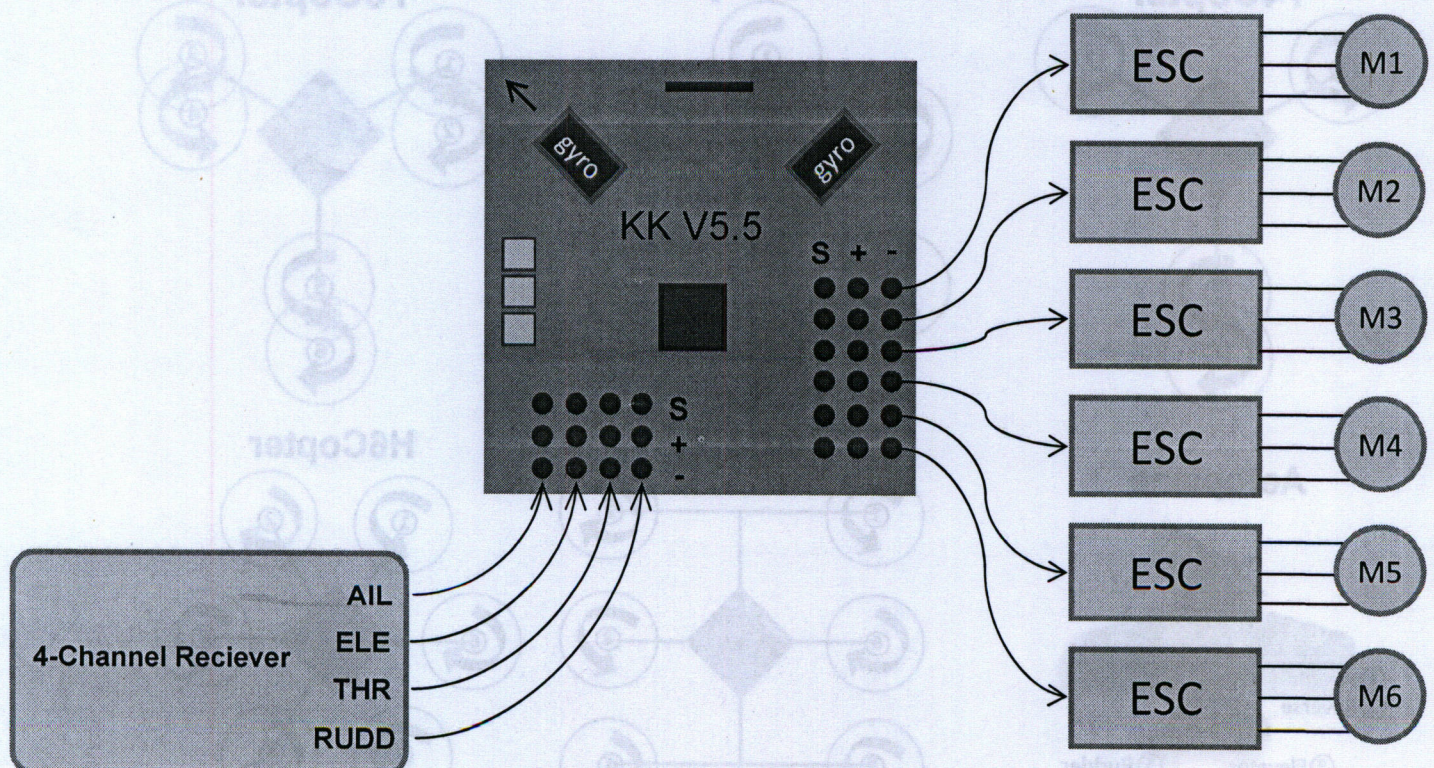
Introduction to the KKmulticontroller

The KKmulticontroller is a flight control board for remote control multicopters with 2,3,4 and 6 rotors. Its purpose is to stabilise the aircraft during flight. To do this it takes the signal from the three gyros on the board (roll, pitch and yaw) and feeds the information into the Integrated Circuit (Atmega IC). This then processes the information according to the KK software and sends out a control signal to the Electronic Speed Controllers (ESCs) which are plugged onto the board and also connected to the motors. Depending upon the signal from the IC the ESCs will either speed up or slow down the motors (and tilt the rear rotor with a servo in a Tricopter) in order to establish level flight.

The board also takes a control signal from the Remote Control Receiver (RX) and feeds this into the IC via the aileron, elevator, throttle and rudder pins on the board. After processing this information, the IC will then send out a signal to the motors (Via the M1 to M6 pins on the board) to speed up or slow down to achieve controlled flight (up, down, backwards, forwards, left, right, yaw) on the command from the RC Pilot sent via his Transmitter (TX). In the case of a Tricopter, one of the pin connectors (M4) will control a servo to achieve yaw authority.

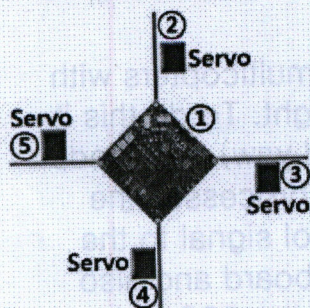
The v.5.5 has an Atmega168 chip on board and an ISP header which gives users the option to tweak and upload their own controller code.

KK Pin Out

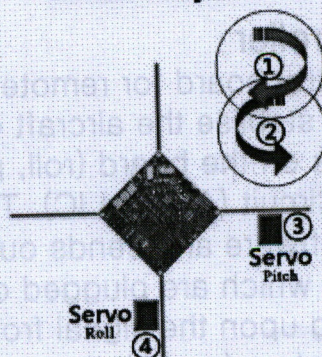


MultiCopter Types

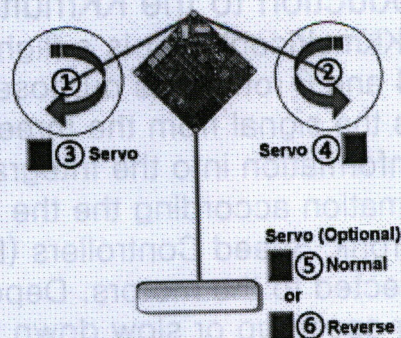
SingleCopter



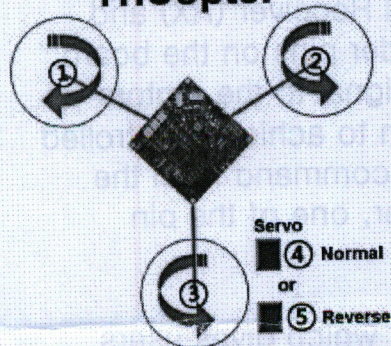
DualCopter



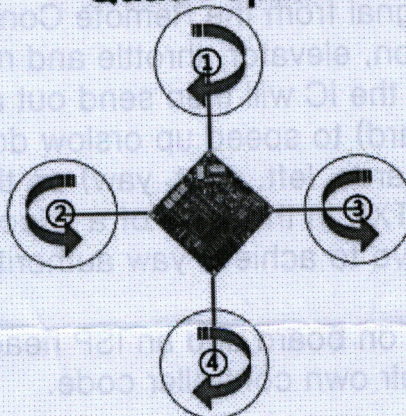
TwinCopter



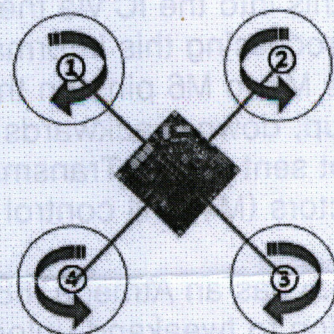
TriCopter



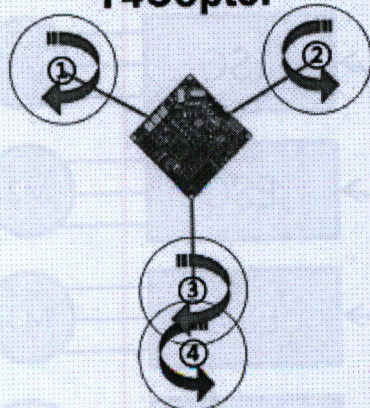
QuadCopter



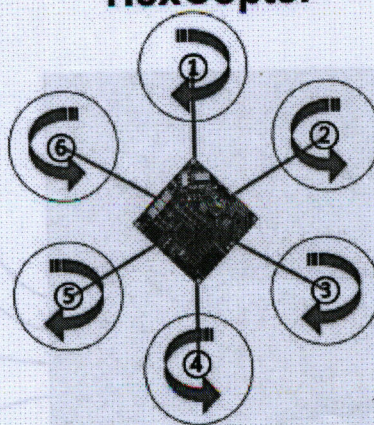
XCopter



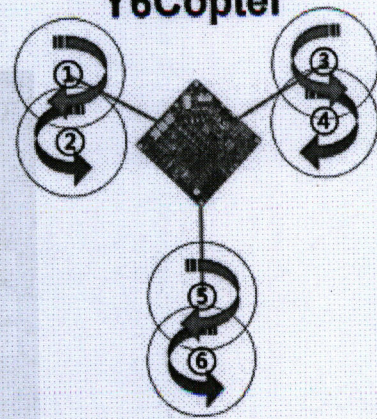
Y4Copter



HexCopter



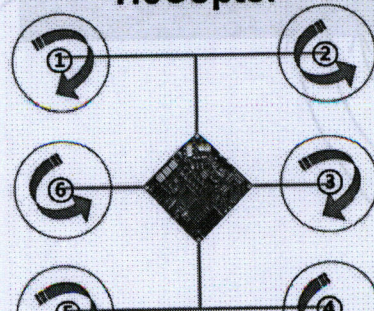
Y6Copter



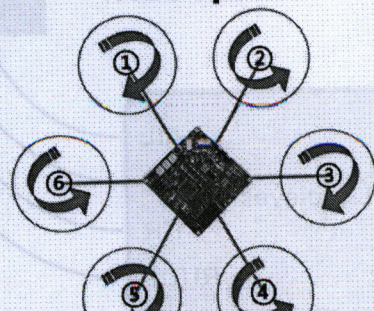
Aeroplane



H6Copter






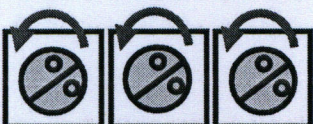
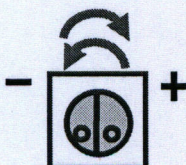
H6Copter



Setting transmitter channels

Channel	AIL	ELE	THR	RUDD
JR/SPEKTRUM	REVERSE	REVERSE	NORMAL	REVERSE
FUTABA	NORMAL	NORMAL	REVERSE	NORMAL
HITEC	NORMAL	REVERSE	NORMAL	NORMAL

Make sure you do not have any mixing switches on your Transmitter enabled.

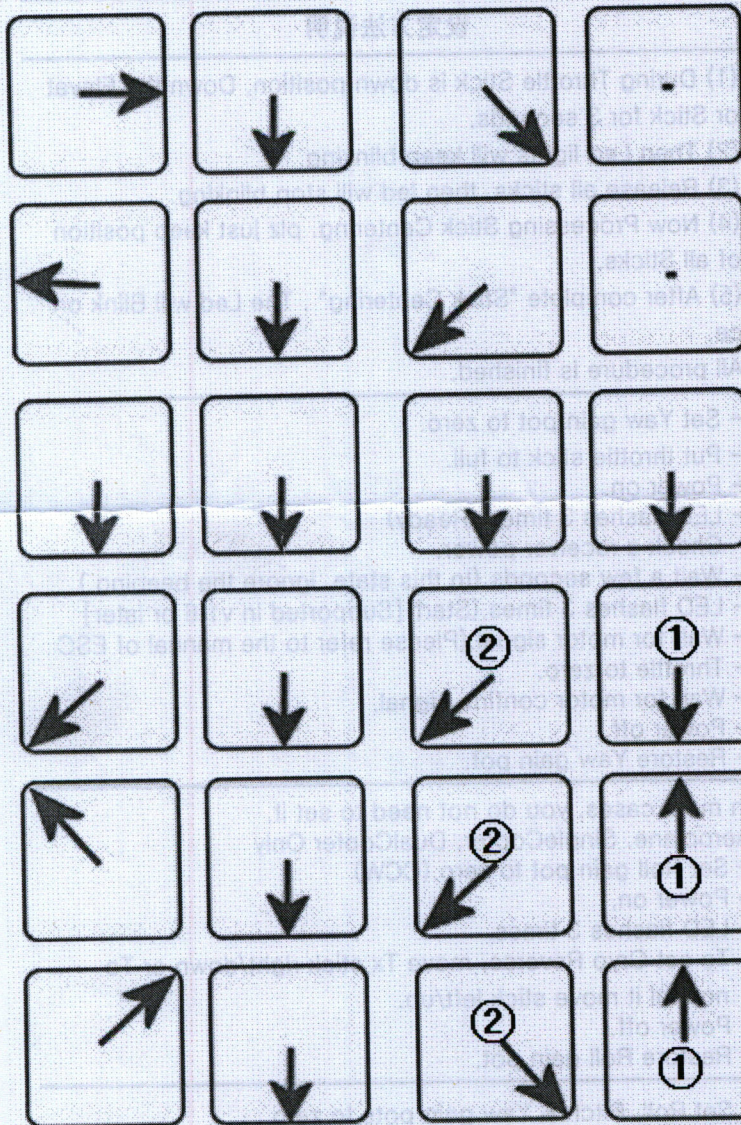
No	设定步骤名称	电位器调节	设定方法说明
1	Stick Centering	YAW PITCH ROLL 	(1) During Throttle Stick is down position, Down the Elevator Stick for 3 seconds. (2) Then Led lights will keep blinking. (3) Release all sticks, then led will stop blinking. (4) Now Processing Stick Centering. plz just keep position of all Sticks. (5) After complete "Stick Centering" , The Led will Blink once. All procedure is finished.
2	ESC throttle calibration and Battery type	YAW PITCH ROLL 	<ul style="list-style-type: none"> - Set Yaw gain pot to zero. - Put throttle stick to full. - Power on. - LED flashes 3 times.(Ready) - Check a receiver power. - Wait a few seconds.(In this state, ignore the beeping.) - LED flashes 3 times.(Start)[Supported in v1.6 or later] - Wait for motor signal.(Please refer to the manual of ESC) - Throttle to zero. - Wait for motor confirm signal. - Power off. - Restore Yaw gain pot.
3	Gyro(Servo) direction reversing	YAW PITCH ROLL 	In most cases, you do not need to set it. Aeroplane, SingleCopter, DualCopter Only <ul style="list-style-type: none"> - Set Roll gain pot to zero.(CCW) - Power on. - LED flashes 3 times. - To set Gyro Reverse, move Tx stick right/down or To normal it move stick left/up. - Power off. - Restore Roll gain pot.
4	Clear all settings [servo & stick centering]	YAW PITCH ROLL 	<ul style="list-style-type: none"> - Set Roll, Pitch & Yaw gain pots to zero. - Power on. - Wait a few seconds. - Power off. - Restore gain pots.
5	调节陀螺感度		<ul style="list-style-type: none"> - Increase: Clockwise - Decrease: Counterclockwise - Initial Gyro gain pot value is 50%. - Increase until it starts to oscillate rapidly, then back off until it is stable again. - If decrease gain pots, The reaction of sticks reacts

Setting flying mode by Transmitter

- If your multicopter cannot be armed to fly, then just try to put the throttle trim down by stages.
- Normal Mode: The reaction of sticks is 50%.
- Acro Mode: This reacts rapidly with transmitter control. The reaction of sticks is 70%.
- UFO Mode: The Yaw rotate rapidly. The reaction of rudder is 90%, other sticks is 50%.
- Set transmitter trims on take off.

Mode 1

Mode 2



Arming

Normal Mode & Calibrate Gyro

Disarming

3 Sec: Stick Centering

Normal Mode & Calibrate Gyro
(In an armed)

Acro Mode
(In an armed)

UFO Mode
(In an armed)