

## AR Aerocraft Transmitter User Manual

### I. Fly Sky Transmitter&Receiver Board



1. First fix the receiver board on a suitable position of AR aircraft, connect the plug with the interface of AR aircraft main board. (be attention about the direction). Make sure they are connecting steadily, if not, the signal can't transmit.

2. Turn on the power of transmitter, notice that left and right joysticks must be in a center position. The switch of SW.A and SW.B should shift to the reverse side of transmitter, turn the VR(A) knob by clockwise to end, and turn the VR(B) knob by anti-clockwise to end. Following is function of rockers of both sides:

Left Rocker Up/Down : Throttle(Up/Down)      Left Rocker Left/Right: Rudder (Left /Right Flying )  
Right Rocker Up/Down: Elevator(Forward/Backward)      Right Rocker Left/Right: Flap(Left /Right Crabing )

**\*\*\*\*\* LED means LED lights in bottom of quad motors of AR Aircraft \*\*\*\*\***

3. Charge AR aircraft and watch LED, set up: red light long bright, and 4 rotors act slightly in turns, Green light long bright, Orange light flashing, Green light flashing, Green light long bright; Now observe the indicator light (white) of Arduino main board, flashing means normal and get ready to receive instructions (set up time is about 30 seconds, the Green light bright longer before the Orange light flashing, please wait patiently.)

4. Turn the rudder from left to the end then release it, Green LED stops after flashing several times, it means the aircraft is in initialized state (Suggest to do this operation each time before flying); Turn rudder from right to the end then release. LED turns red, means it is in emergency state, then turn rudder from right to the end again, LED turns Green, it backs to normal.

5. Shift the SW.A switch from reverse direction of transmitter to front, the AR will take off. Shift SW.B switch from reverse direction of transmitter to front, it will shift to Flight Mode 2, conversely it will shift to Flight Mode 1. The difference between two flight modes is Mode 1 will auto correct the hovering position by image of AR bottom camera, but Mode 2 won't. Mostly it will hover steadily in Mode 1, but sometime it is chattering by interference, you can shift Flight Mode 2 to eliminate chattering.

	<b>Reverse Direction of Transmitter</b>	<b>Front Direction of Transmitter</b>
SW.A	Landing	Take Off
SW.B	Flight Mode 1	Flight Mode 2

6. Shift the SW.A switch to reverse direction of transmitter anytime during flying, the aircraft will auto land slowly. If it needs to be landing urgently, turn rudder from right to the end then release it after shift the SW.A switch to reverse direction of transmitter, all propellers will stop immediately, the aircraft will fall. (Not recommended, it might damage the aircraft)

## II.WFLY Transmitter & Receiver Board



1.First fix the receiver board on a suitable position of AR aircraft,connect the plug with the interface of AR aircraft main board.(be attention about the direction).Make sure they are connecting steadily,if not ,the signal can't transmit.

2.Turn on the power of transmitter,notice that left and right joysticks must be in a center position.The switch of SW.A and SW.B shold shift to the reverse side of transmitter,turn the VR(A) knob by clockwise to end,and turn the VR(B) knob by anti-clockwise to end.Following is function of rockers of both sides:

Left Rocker Up/Down : Throttle(Up/Down)      Left Rocker Left/Right:Rudder (Left /Right Flying )  
Right Rocker Up/Down:Elevator(Forward/Backward)      Right Rocker Left/Right:Flap(Left /Right Crabing )

**\*\*\*\*\* LED means LED lights in bottom of quad motors of AR Aircraft \*\*\*\*\***

3. Charge AR aircraft and watch LED, set up:red light long bright, and 4 rotors act slightly in turns,Green light long bright,Orange light flashing,Green light flashing,Green light long bright;Now observe the indicator light (white) of Arduino main board,flashing means normal and get ready to

receive instructions(set up time is about 30 seconds,the Green light bright longer before the Orange light flashing, please wait patiently.)

4. Turn the rudder from left to the end then release it ,Green LED stops after flashing several time,it means the aircraft is in initialized state(Suggest to do this operation each time before flying);Turn rudder from right to the end then release.LED turns red,means it is in emergency state,then turn rudder from right to the end again , LED turns Green, it backs to normal.

5. Shift the CH5 switch to Position 2,the AR will take off . Shift CH6 switch from reverse direction of transmitter to front, it will shift to Flight Mode 1, conversely it will shift to Flight Mode 2.The difference between two flight modes is Mode 1 will auto correct the hovering position by image of AR bottom camera,but Mode 2 won't. Mostly it will hover steadily in Mode 1,but sometime it is chattering by interference, you can shift Fight Mode 2 to eliminate chattering.

<b>CH5</b>	Position 0:Landing	Position 2:Take OFF
<b>CH6</b>	Default Position : Mode 2	Inverted Position:Mode 1

**Notice 1:**CH6 switch is Auto Reset Switch,means it will be auto back to default position of Mode 2. If need to set the default position to be Flight Mode 1, please reverse the CH6 channel according to transmitter user manual.

**Notice 2:** The throttle rocker of WFLY transmitter doesn't automatically back to center, it has to turn to center position by manual operation if aircraft need to be stable in a height during flying.

6. Shift the CH5 switch to Position 0 anytime during flying, the aircraft will auto land slowly. If it need to be landing urgently, first shift the CH5 switch to Position 0,second turn rudder from right to the end then release it ,and all propellers will stop immediately,the aircraft will fall.(Not recommended,it might damage the aircraft)

### III.Walkera Transmitter & Receiver Board (Devo 6 Mode 2 )

1. First fix the receiver board on a suitable position of AR aircraft,connect the plug with the interface of AR aircraft main board.(be attention about the direction).Make sure they are connecting steadily,if not ,the signal can't transmit.

2. Turn on the power of transmitter,notice that left and right joysticks must be in a center position.The switch of SW.A and SW.B should shift to the reverse side of transmitter,turn the VR(A) knob by clockwise to end,and turn the VR(B) knob by anti-clockwise to end.Following is function of rockers of both sides:

Left Rocker Up/Down : Throttle(Up/Down)      Left Rocker Left/Right:Rudder (Left /Right Flying )  
Right Rocker Up/Down:Elevator(Forward/Backward)      Right Rocker Left/Right: Flap(Left /Right Crabing )

**Notice 1:** Please set reverse of channels of Rudder,Elevator and Flap in transmitter menu.

On Code: Devo can auto search or manual setup ID, the advantage of auto-search is convenient,but slow.the advantage of manual setup is matching immediately, but it just can be one to one.The manual setup ID of devo is similar as coding of FLY SKY and Wfly.

\*\*\*\*\* **LED means LED lights in bottom of quad motors of AR Aircraft** \*\*\*\*\*

3. Charge AR aircraft and watch LED, set up:red light long bright, and 4 rotors act slightly in turns,Green light long bright,Orange light flashing,Green light flashing,Green light long bright;Now observe the indicator light (white) of Arduino main board,flashing means normal and get ready to receive instructions(set up time is about 30 seconds,the Green light bright longer before the Orange light flashing, please wait patiently.)

4. Turn the rudder from left to the end then release it ,Green LED stops after flashing several time,it means the aircraft is in initialized state(Suggest to do this operation each time before flying);Turn rudder from right to the end then release.LED turns red,means it is in emergency state,then turn rudder from right to the end again , LED turns Green, it backs to normal.

5. Shift the MIX switch to center position in Fight Mode 1,the AR will take off . Shift MIX switch to Position 2, it will shift to Flight Mode 2.The difference between two flight modes is Mode 1 will auto correct the hovering position by image of AR bottom camera,but Mode 2 won't. Mostly it will hover steadily in Mode 1,but sometime it is chattering by interference, you can shift Fight Mode 2 to eliminate chattering.

<b>MIX</b>	<b>Position 0:Landing</b>	<b>Center Position: Fight Mode 1</b>	<b>Position 2: Flight Mode 2</b>
------------	---------------------------	--------------------------------------	----------------------------------

**Notice 2:** Throttle rocker of Walkera won't be back to center, it has to be turned to center by hand if it need to be stable at a height during flying.

6. Shift the MIX switch to Position 0 anytime during flying, the aircraft will auto land slowly. If it need to be landing urgently, first shift the MIX switch to Position 0,second turn rudder from right to the end then release it ,and all propellers will stop immediately,the aircraft will fall.(Not recommended,it might damage the aircraft)

## Appendix: Set Up AR Airplane Flight Parameters by Transmitter.

### I. Parameters Setup Combination

Flight Parameters	Standard(Rocker Downward)	Biggest(Rocker turn Left )	Normal(Rocker Upward)	Easy(Rocker turn Right)
Outdoor Flying	Yes	Yes	No	No
Outdoor Main Case	Yes	Yes	No	No
Biggest Inclination Angle	20	30	12	6
Highest Vertical Speed(millimeter/ sec)	1500	2000	700	700
Fastest Revolving Speed	200	350	100	86
Hight Limitation(m)	No limited			
Auto Video Recording	Yes			
Can Rotation or not	Yes			

### II. Set up Parameters

It must be set in landing state after the aircraft initialization is completed. Following is the specific methods:

First push the throttle rocker to the top ,then turn the other rocker to the direction which mentioned in the parameters appendix above and hold it.

Second,push the throttle rocker to the bottom,now watch LED,it will stop after flashing several times means the new parameters is set up completely.If you want to set up the NORMAL parameters, first push the throttle to the top,and push the other rocker to the top and hold it,then push the throttle rocker to the bottom.Watch the LED,after it stop flashing,push back two rocker,and done.

**Notice 1:**If the new setup parameters is the same as the existing parameters, the LED won't flash,eg the parameters is standard, and it set up to standard mode again,the LED won't flash.

**Notice 2:**The auto video recording parameter is void in AR 1 and AR 2 of no inserting U disk.

**Notice 3:** Pay attention to LED after inserting U disk,if it flash orange means success,if not,insert again.

### III.Operation of Rotating

First shift to Flight Mode 2,then shift to Mode 1 rapidly and back to Mode 2,push elevator rocker or flap rocker to the rotating direction you want in 0.5 second,the AR will rotate once in that direction. If you don't operate the elevator rocker or flap rocker in 0.5 second,it will shift Flight Mode 3,now you can operate any rocker to make it back to Flight Mode 2.