

# Seagull #IR - Manual



## General information

With Seagull #IR you can easily trigger your camera – either with your R/C transmitter from the ground, or let your Flight Controller do the job. It is a perfect introductory Plug&Play solution, into aerial photography and mapping.

Seagull #IR features 2 modes:

**Picture** ( Shutter release action )

**Video Record** ( Video start/stop – **NOTE:** Only works with Sony cameras )

*Please read this manual thoroughly before connecting and configuring Seagull #IR !*

## Configuring your Transmitter

Setting up Seagull #IR could not be easier!

Simply select the channel that the device is plugged into and trim the LOW/HIGH values for that channel, until desired modes are met – refer to the table below:

Channel	State / Mode	Value	Range
1	Neutral	1500 $\mu$ S	1400 $\leftrightarrow$ 1599 $\mu$ S
1	Picture	1800 $\mu$ S	1600 $\leftrightarrow$ 2000 $\mu$ S
1	Video Record*	1200 $\mu$ S	1000 $\leftrightarrow$ 1399 $\mu$ S
1	No signal **	n/a	0 $\leftrightarrow$ 1000 $\mu$ S / 2000 $\leftrightarrow$ $\infty$ $\mu$ S

\* Only for Sony cameras !

\*\* Signal out of scope or no input signal !  
No signal state will occur when signal is out of the standard R/C PWM signal range or if no signal is received.

*Example with Seagull #IR configured to CH7 on a Taranis X9D transmitter:*

```

SERVOS 1500us 7 / 13
CH1 RAil 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH2 Ele 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH3 Thr 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH4 Rud 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH5 LAil 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH6 0.0 -100.0 - 100.0  $\rightarrow$  --- 1500 $\Delta$ 
CH7 Seagull IR 0.0 - 60.5 - 60.5  $\rightarrow$  --- 1500 $\Delta$ 
    
```

## Connecting to your Receiver / Flight Controller

Connect the servo cable by following the polarity markings on Seagull IR and connect the other end of servo cable to your Receiver / Flight Controller, with the correct polarity.

Please refer to the manual of your specific R/C radio system or Flight Controller to find out more about how to connect accessories and what ports to utilize.

**NOTE:** for Pixhawk users –#IR is powered by Pixhawk's power rail ( the middle pin + ). Ensure that the rail is powered by BEC or other power source ranging from 3.5-5.5 Volts in order for #IR to function properly.



## Setting up Mission Planner / Ground Control

If you wish to trigger Seagull #IR from a Flight Controller, setting it up in Mission Planner is straight forward. Start Mission Planner and follow the steps below.

1. Click on **INITIAL SETUP** >> **OPTIONAL HARDWARE** >> **CAMERA GIMBAL**
2. **"SHUTTER"** - in the drop down list, choose the channel that Seagull #IR is connected to.
3. **"PUSHED"** - Set the "Value" for the Picture mode

State / Mode	Value	Range
Neutral	1500 $\mu$ S	1400 $\leftrightarrow$ 1600 $\mu$ S
Picture	1800 $\mu$ S	1600 $\leftrightarrow$ 2000 $\mu$ S

4. **"NOT PUSHED"** – Set the value "1500" ( Neutral state – see table above )
5. **"DURATION"** – Set the value "10" for Picture mode ( values may vary depending on the camera )

Example from Mission Planner:

The screenshot shows the Mission Planner interface with the following configuration for the Camera Gimbal:

- Shutter:** CH 7 (Selected channel that Seagull #IR is connected to. ex. CH 7)
- Pushed:** 1800 (Set value for Picture mode)
- Not Pushed:** 1500 (Set value "1500" - Neutral state)
- Duration (1/10th sec):** 10 (Set value: "10" for Picture mode)

## Troubleshooting

To determine what state Seagull #IR is currently in - simply read the output of the "LED" and match it with the "Action" in the table below.



The following table shows the LED readout for the different states / modes.

STATE LED	Action
Blinking	No Signal - check connections and mode values
Fading	Ready - waiting for next command
Solid on	Active in one of the 2 modes – return to "Neutral" before next command
Fade >> Solid on	Picture mode activated - return to "Neutral" before next command
Fade >> Solid on	Video mode activated - return to "Neutral" before next command

## Technical specifications

- Dimensions: 23.5mm x 9.8mm x 4.4mm
- Weight: 1g ( ~ 4g with servo cable )
- Voltage: 3.5 – 5.5 volts ( 5 volts recommended – do **NOT** exceed 5.5 volts !! )
- Current: 22.5mA max ( maximum current draw )
- Input signal: Standard R/C PWM between 1000 – 2000µS