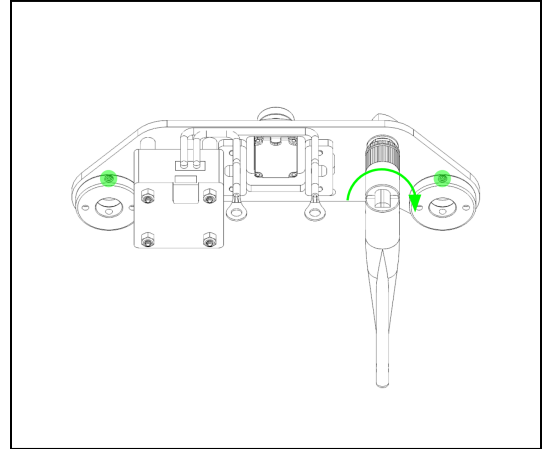


# Quick Start Guide: ROAM™ FPV Accessory

## STEP 1/4 - MECHANICAL ASSEMBLY

### PREPARE ASSEMBLY

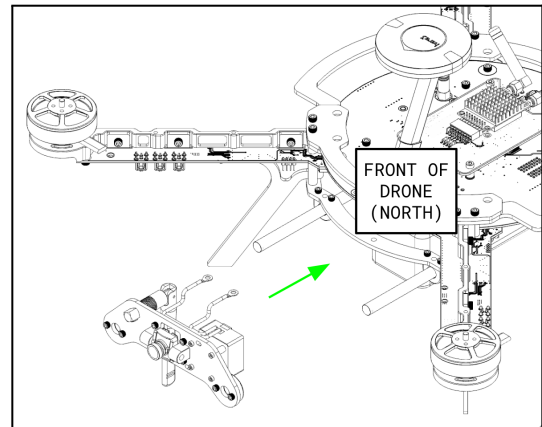
Unfold the antenna on the FPV Accessory to point downwards as shown. Check that the two setscrews (highlighted) are loose to prevent interfering with the rails.



### MOUNT TO DRONE

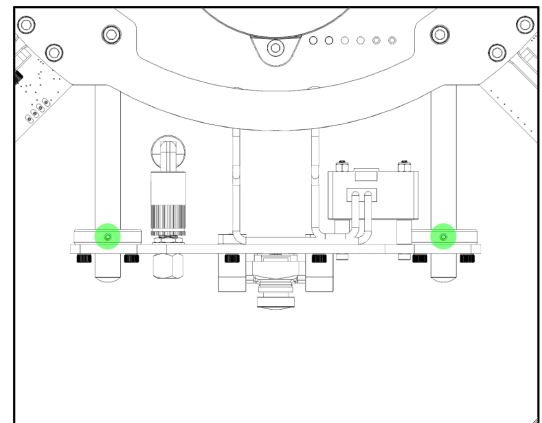
Slide the FPV Accessory onto the payload rails on the front of the ROAM™ drone. The camera should face forward.

Use caution to not push the antenna into the carbon fiber frame; there should be ample space between the two components.



### SECURE ASSEMBLY

Once in position, secure the FPV Accessory to the payload rails using the 0.050" L-key to tighten the two setscrews shown.



#### NOTE

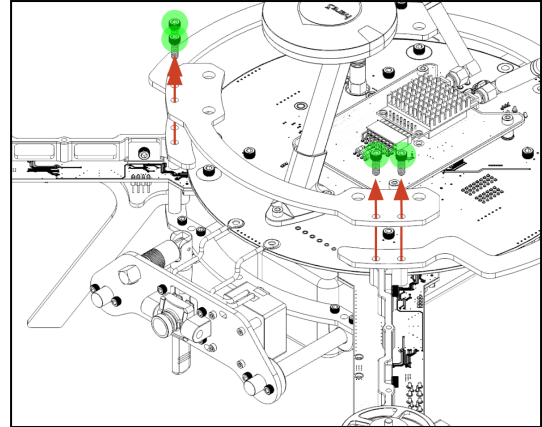
Thread locker has been applied to the setscrews and should be adequate for initial installation. Apply additional thread locker if the setscrews are reused multiple times.

# Quick Start Guide: ROAM™ FPV Accessory

## STEP 2/4 - MECHANICAL ASSEMBLY

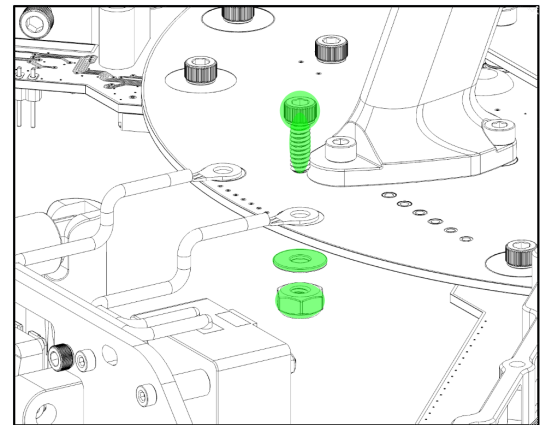
### MAKE SPACE

Remove the north (forward) Upper Frame NS Plate to provide access to the accessory power pads on the carrier board.



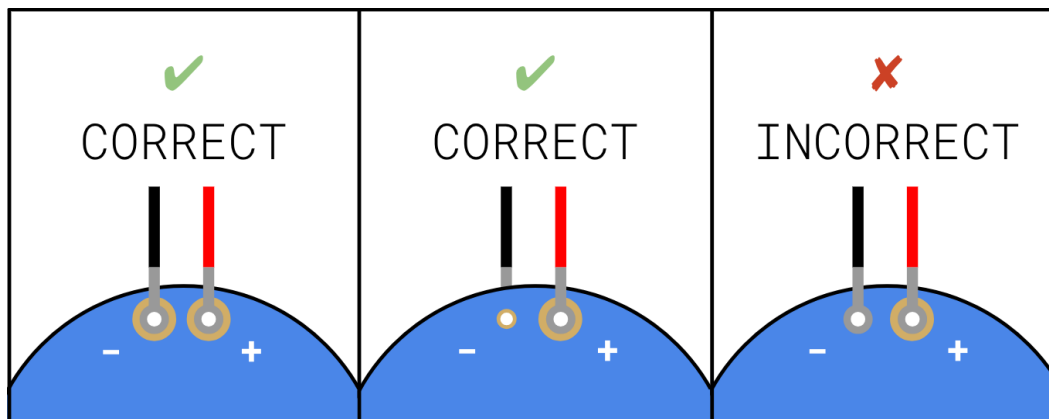
### INSTALL POWER LEADS

Position the power harness ring terminals onto the corresponding copper power pads (+POS to RED, -NEG to BLACK) on the carrier board. The ring terminals should contact the larger diameter pads, and the washer should be under the nut. Using the provided screws, washers, and nuts, secure both connections with the provided 7/64" L-key and 5/16" wrench.



### CAUTION

Depending on when your ROAM™ was purchased, the large copper power pads may be on opposite sides of the carrier board or both may be the same size. Ensure the ring terminals are directly touching the copper pads as shown in the diagrams below. Improper connections may damage the video system and/or the drone.



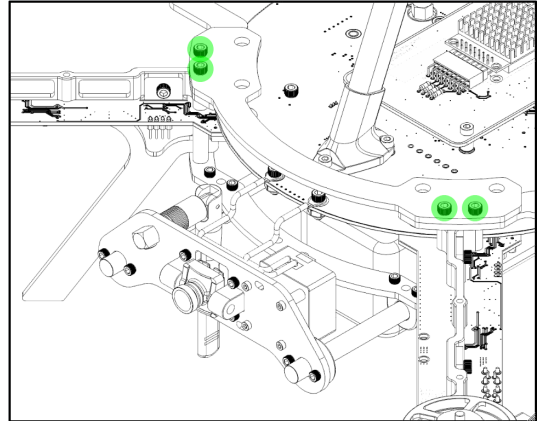
# Quick Start Guide: ROAM™ FPV Accessory

## STEP 3/4 - MECHANICAL ASSEMBLY

### REINSTALL PARTS

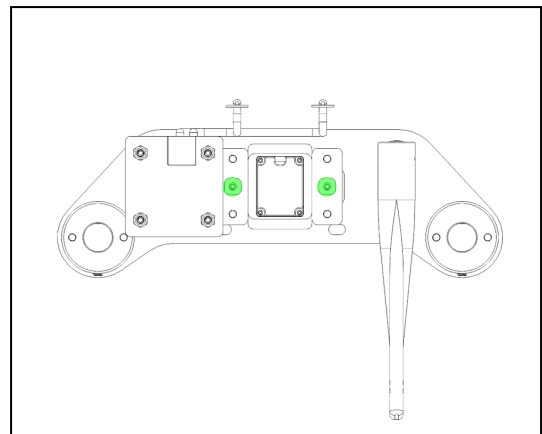
Once both power leads are in place, reinstall the forward Upper Frame NS Plate. Ensure thread locker is re-applied to all four screws into the frame.

Proceed to Step 4/4 - Video Setup once the FPV Accessory installation to the drone is complete.



### OPTIONAL: CAMERA ANGLE ADJUSTMENT

The camera is set to look directly forward by default. To adjust the angle of the camera, use the 0.050" L-key to loosen both setscrews on the rear of the camera assembly as shown. Rotate the camera to the desired position, then re-tighten both setscrews. ASW recommends adjusting the camera roughly  $\pm 45^\circ$  from the horizontal plane; if going beyond this range ensure the camera wires have enough slack and are not subject to chafing on any sharp edges.



#### NOTE

Thread locker has been applied to the setscrews and should be adequate for initial installation. Apply additional thread locker if the setscrews are reused multiple times.

# Quick Start Guide: ROAM™ FPV Accessory

## STEP 4/4 - VIDEO SETUP

The ASW ROAM FPV Accessory combines an NDAA-Compliant Divimath™ Monitor, VTX (video transmitter), and camera with custom designed ASW parts to integrate to the ROAM™ drone. The following is a summary of the Divimath™ instructions that will be most relevant to a new user during installation and setup. For the full instruction manual, product updates, troubleshooting guides, and all other inquiries, please visit the Divimath™ documentation page at [www.divimath.com/pages/downloads](http://www.divimath.com/pages/downloads).

### POWER ON SYSTEM

Install the two included antennas to the mating connectors on the top of the Divimath™ Monitor and screw them in until snug. ASW recommends orienting the antennas pointing away from each other to form a 90° angle.

|                |                                                                                                                                 |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>CAUTION</b> | To prevent damage to the electronics, ensure the antenna(s) are fully installed on both the Monitor and VTX before powering on. |
|----------------|---------------------------------------------------------------------------------------------------------------------------------|

Power on the Monitor by plugging in the AC power adapter to a standard wall outlet and the barrel plug into the corresponding port on the monitor. Alternatively, use the provided unterminated XT30 DC power input lead to adapt to a portable power source (such as a lithium battery) between 6-26 V. Turn the switch to the ON position.

|                |                                                                                                                                                                                                                                                                                                           |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>WARNING</b> | ASW recommends removing all propellers before changing settings or working on electronics to prevent accidental injury. If propellers must remain installed, exercise caution and utilize industry standard safety protocols. Always verify propellers are installed properly and securely before flight. |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Power on the drone by plugging in the main battery. The video feed should start roughly 5-10 seconds after initialization. If no video is shown, short press the ↵ button until the source is RF AUTO. Then long press ← or → for 1 second to begin auto-scanning all channels until an active video source is found.

### OPTIONAL: CHANGE CHANNELS

The Divimath™ system allows for multiple video feeds to be broadcast and received. This functionality is dependent on changing bands and channels such that the Monitor on the ground can receive the VTX feed from the drone. For a pair to work properly, both sides must be set to the same band and channel. By default, the VTX and Monitor are both typically set to channel R1. Change channels if multiple video systems are to be operating in the same area concurrently, or if the video feed is experiencing interference. Supported bands/channels are A1-A8, B1-B8, E1-E8, F1-F8, L1-L8, R1-R8.

To change bands/channels on the Monitor: Press and hold the **F** button, then short press ← or → to change band. To change channels, short press ← or →.

To change bands/channels on the VTX: Plug in the provided Divimath™ Keyboard into the mating port on the VTX. Short press the pushbutton to cycle through bands/channels. When the desired channel is shown, leave the Keyboard idle for 8 seconds to confirm.