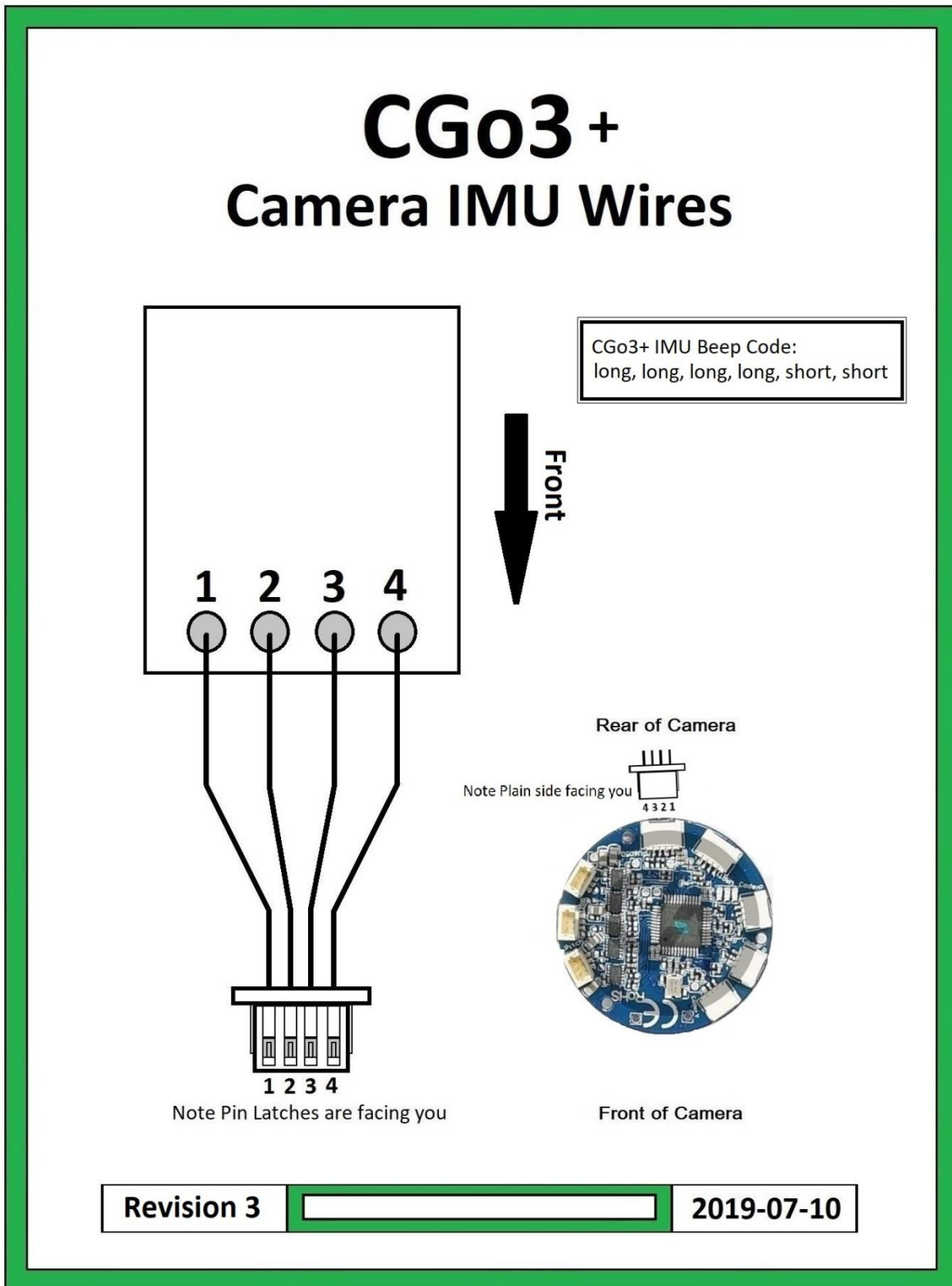


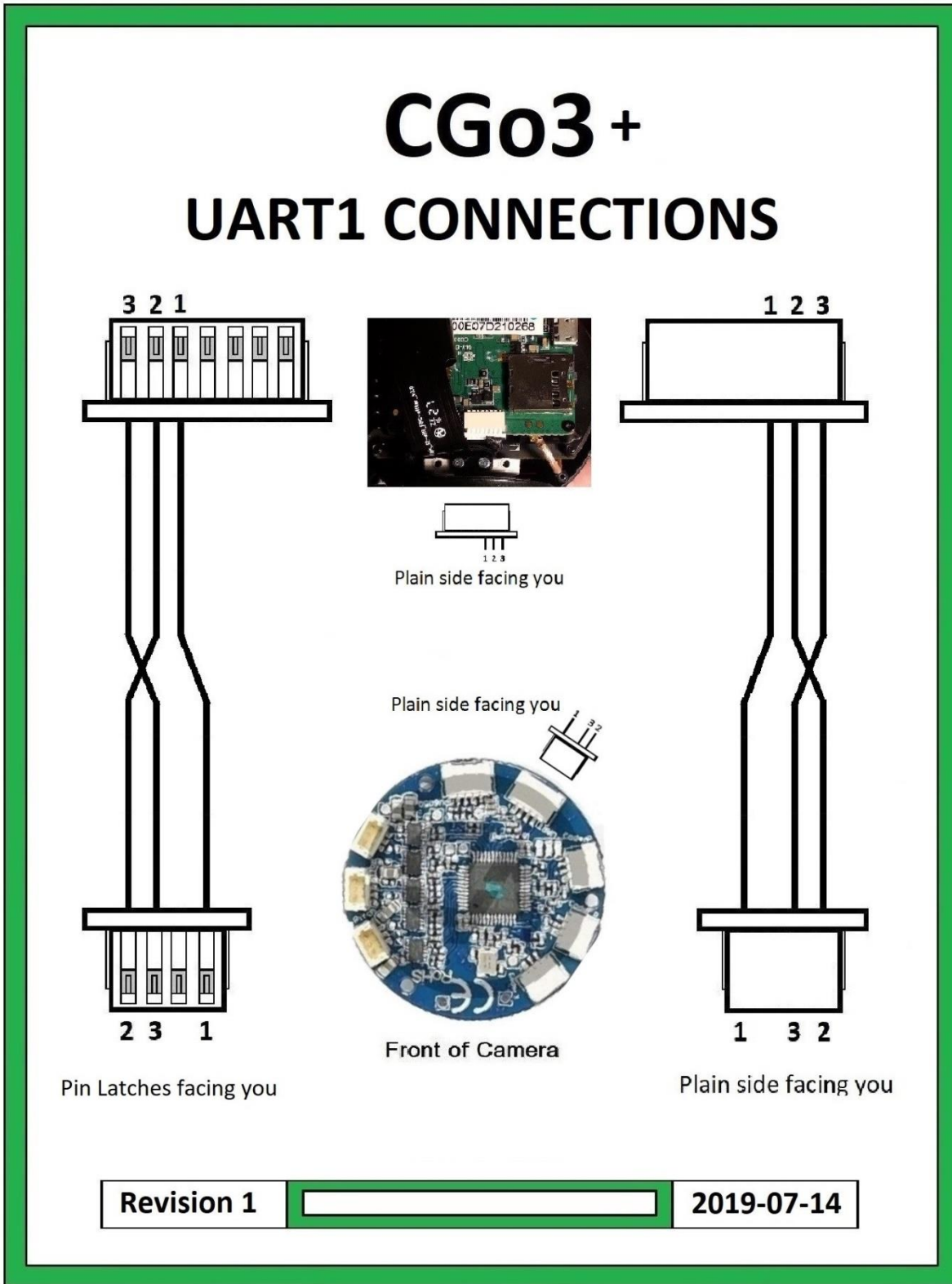
Attachment 13
CGo3+ IMU Pinout

Use of this information is at your own risk.



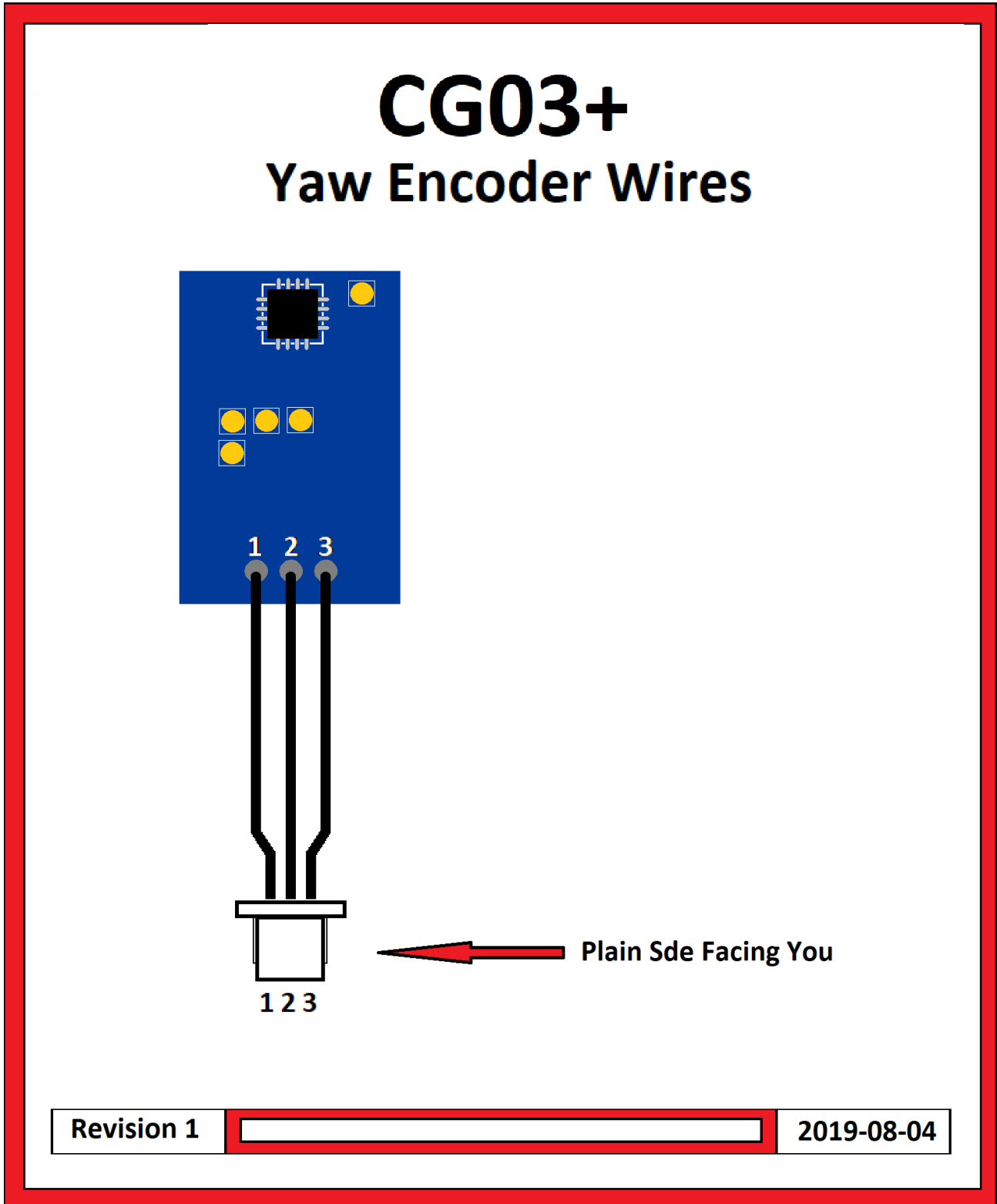
Attachment 14 CGo3+ Uart1 Pinout

Use of this information is at your own risk.



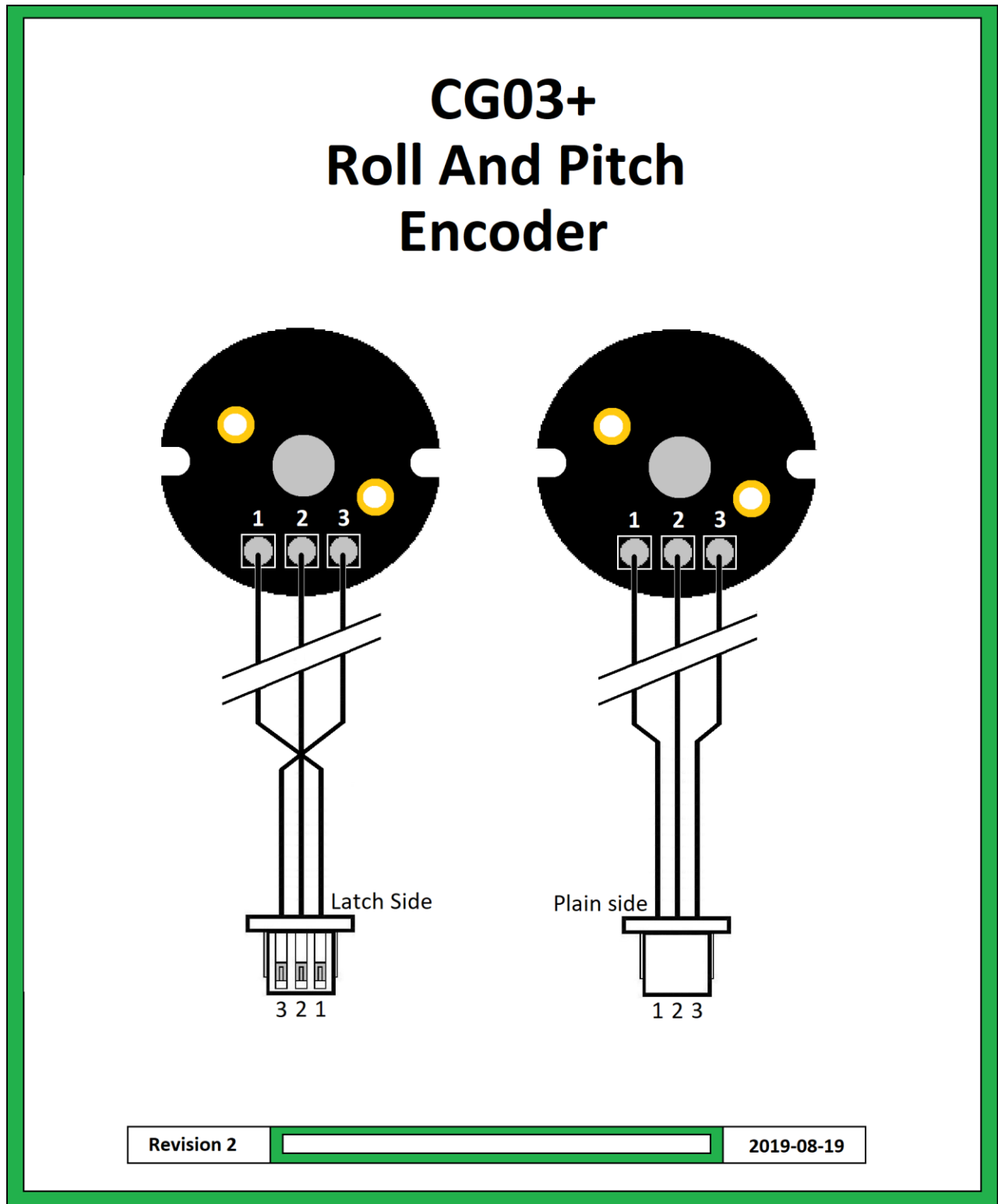
Attachment 15
CGo3+ Yaw Encoder Pinout

Use of this information is at your own risk.



Attachment 16
CGo3+ Roll and Pitch Encoder Pinout

Use of this information is at your own risk.



Attachment 17

CGo3+ Mount Alignment Notes

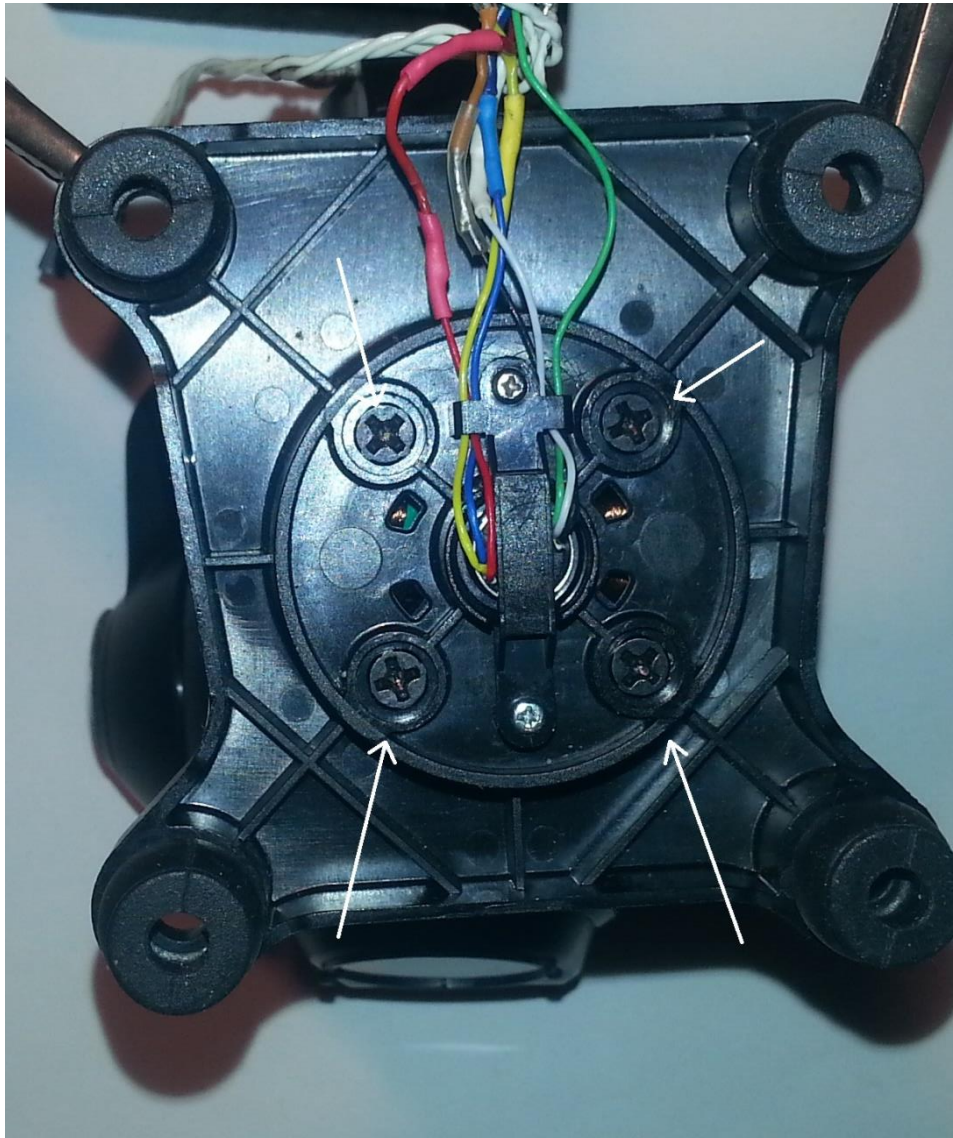
Use of this information is at your own risk.

Purpose:

To show some of the common error traps associated with replacing the camera mount on a CG03+ Camera.

The four screws:

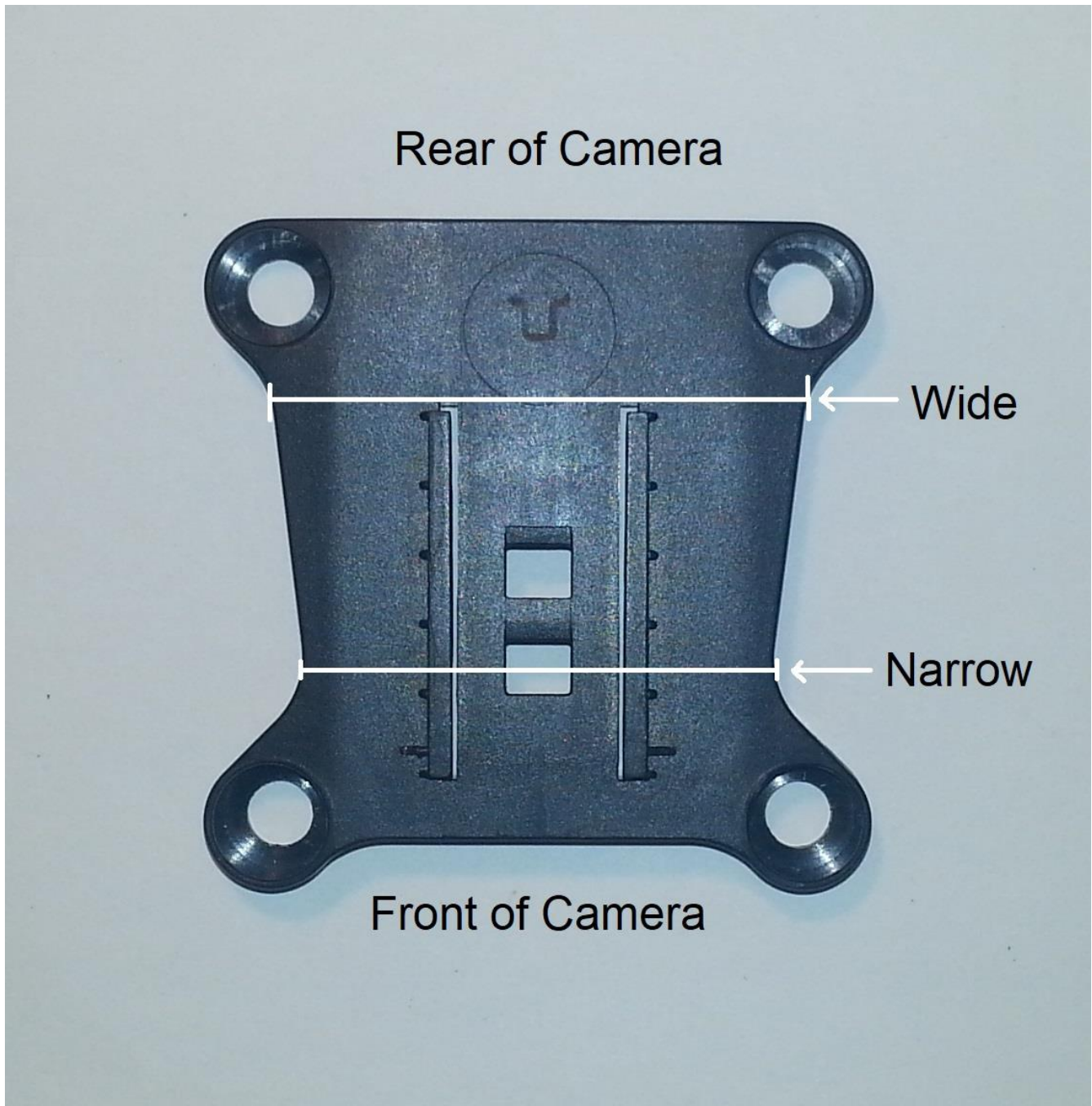
The four screws that attach the mount to the top motor are not marked, and are easily misaligned if care was not taken to mark the original positions during disassembly. Note the motor is not like a common motor that rotates continuously. It is more of a Servo-Motor. It moves to, and holds, whatever position the operator or the system tells it to. There are four screws, evenly spaced. If the mount is attached one screw position to the left, the camera will point 90° right when it should be pointed forward. If the mount is attached one screw position to the right, the camera will point 90° left when it should be pointed forward. Mounted two screw positions off; the camera will point straight to the rear (180°) when it should be pointed forward.



Attachment 17

CGo3+ Mount Alignment Notes

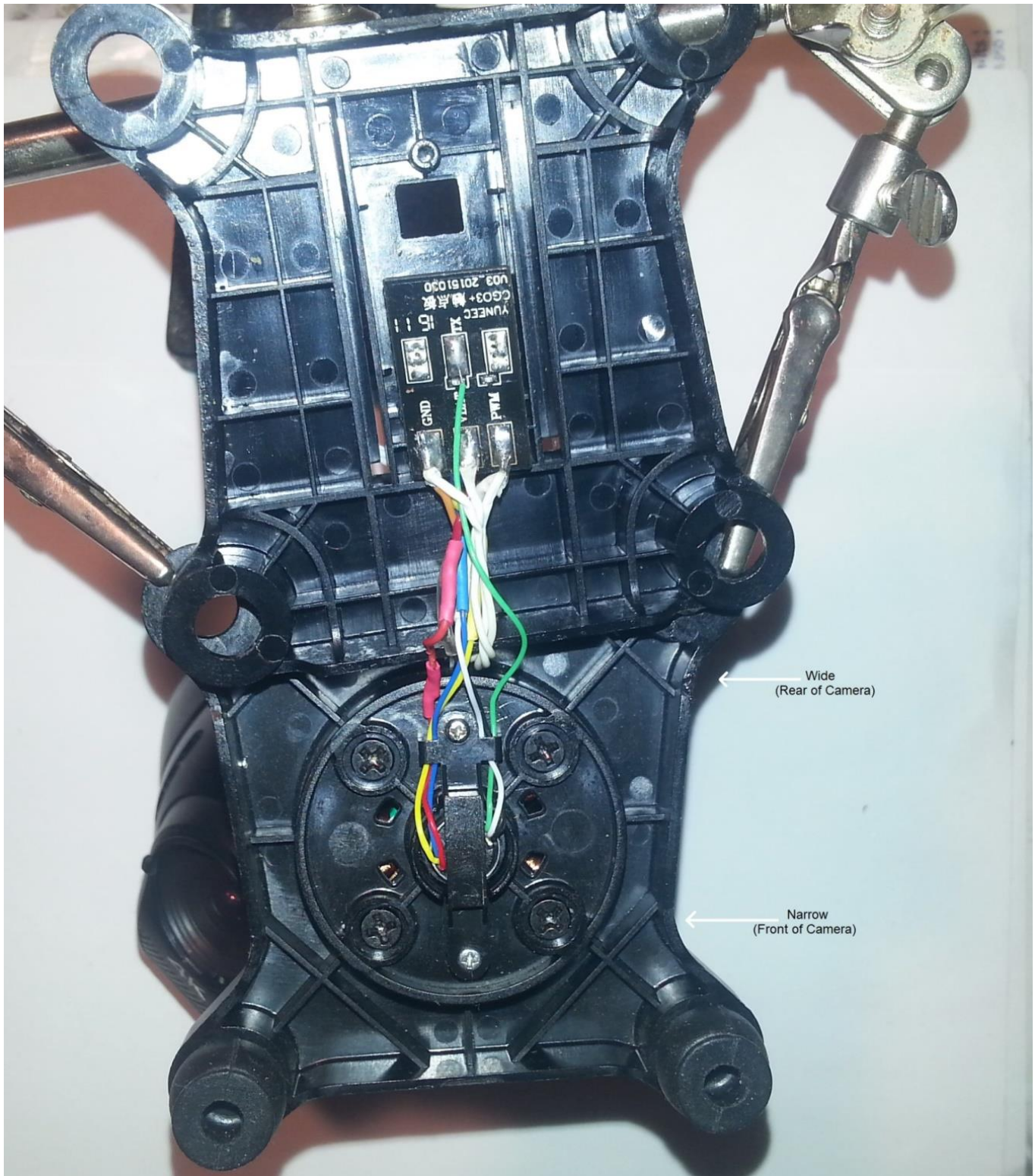
Note that for both upper and lower parts of the mount, the wide end is towards the back of the camera.



Attachment 17

CGo3+ Mount Alignment Notes

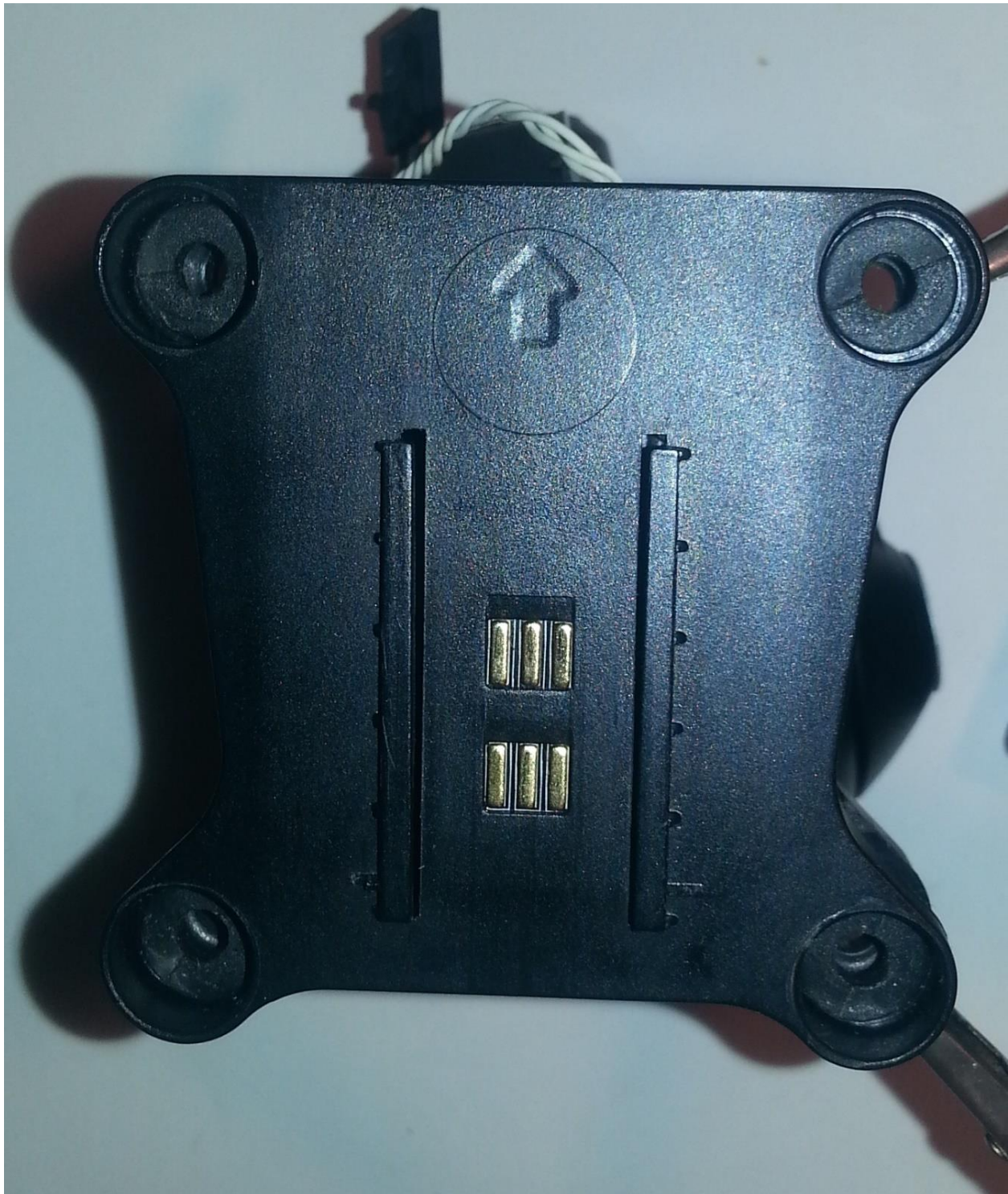
Ensure the slip ring wires are routed towards the BACK of the camera. Routing the wires to the front will create problems with installing and aligning top mount:



Attachment 17

CGo3+ Mount Alignment Notes

Ensure top and bottom mounts are correctly aligned while installing dampers. Some cameras have enough wire to allow the top mount to go on backwards. This has the same effect as having the “mount to motor” screws installed two screw positions off. (See page one):

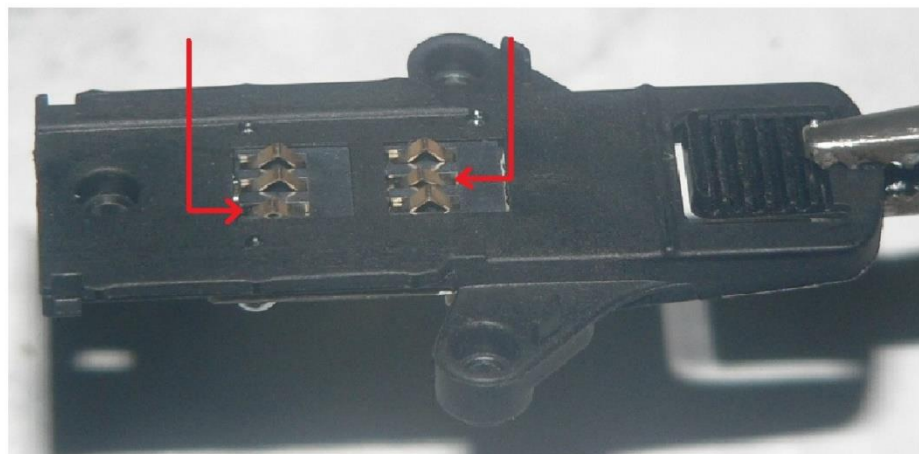
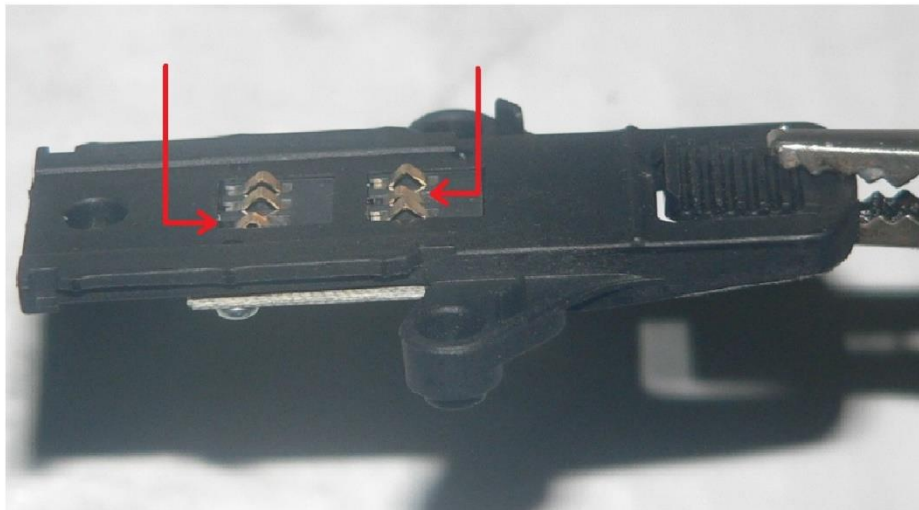


Attachment 18

CGo3+ Stuck Mount Contacts

CGo3+ Stuck Contacts

Discussion: The contacts indicated by red arrows are stuck down, as may happen from a variety of causes. The stuck contacts do not engage the camera contact plate, resulting in loss of the function associated with that contact. The remaining contacts in these images are in the normal condition and may be used for comparison.

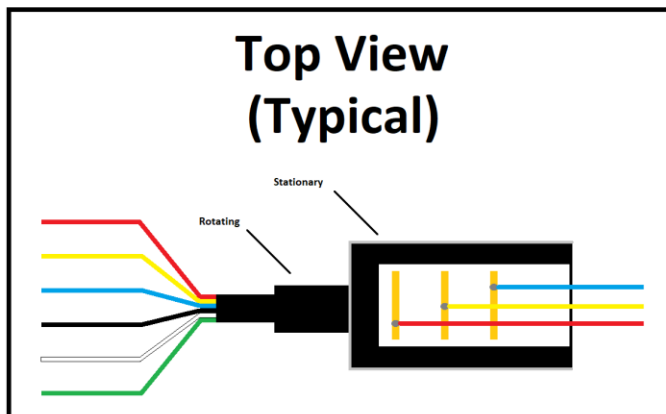
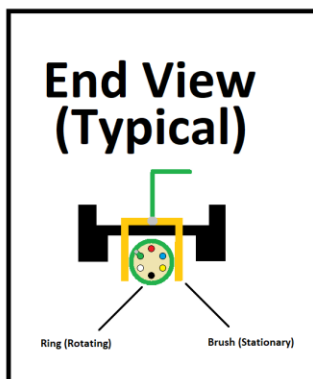
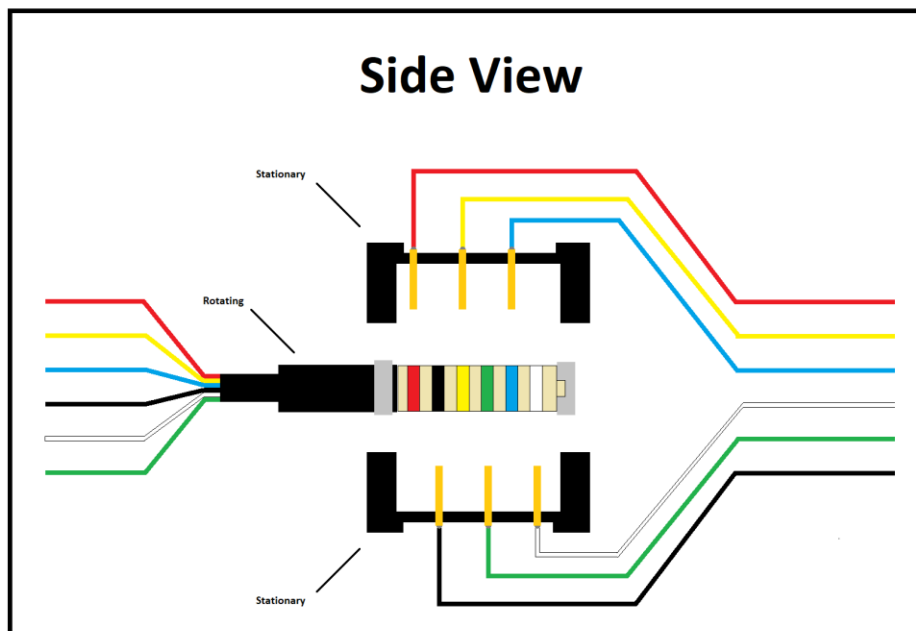


Attachment 19

CGo3+ Slip Ring Cross Section

Use of this information is at your own risk.

CG03+ Slip Ring Diagram



Revision 3

2019-08-24





Attachment 20

CGo3+ Slip Ring Wire Color

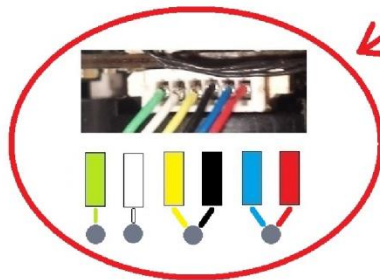
Use of this information is at your own risk.

CGo3+ Slip Ring Wire Color



-  GND (Battery Ground)
-  VBAT (Battery Positive)
-  PWM (Manual Tilt, Manual Pan) *
-  TX (Manual Tilt, Manual Pan) *

**Both Green AND White are required for either Manual Tilt or Manual Pan.*



Revision 4

2019-07-11

Attachment 21 CGo3+ Slip Ring Replacement

Use of this information is at your own risk.

- 1). Use your fingernails or something thin to pry the label off the rear motor cover. It is held on by contact cement, and if you keep both sides clean, it will go right back on.



- 2). Remove THESE TWO screws from the rear motor cover. (leave the other two alone for now)



Attachment 21

CGo3+ Slip Ring Replacement

3). Remove these screws from BOTH sides of the rear arm cover:



4). Snap off the gimbal board lower cover, and carefully work it out over the gimbal wire connectors:



Attachment 21

CGo3+ Slip Ring Replacement

5). Carefully pry the corners out, and remove the gimbal board guard:



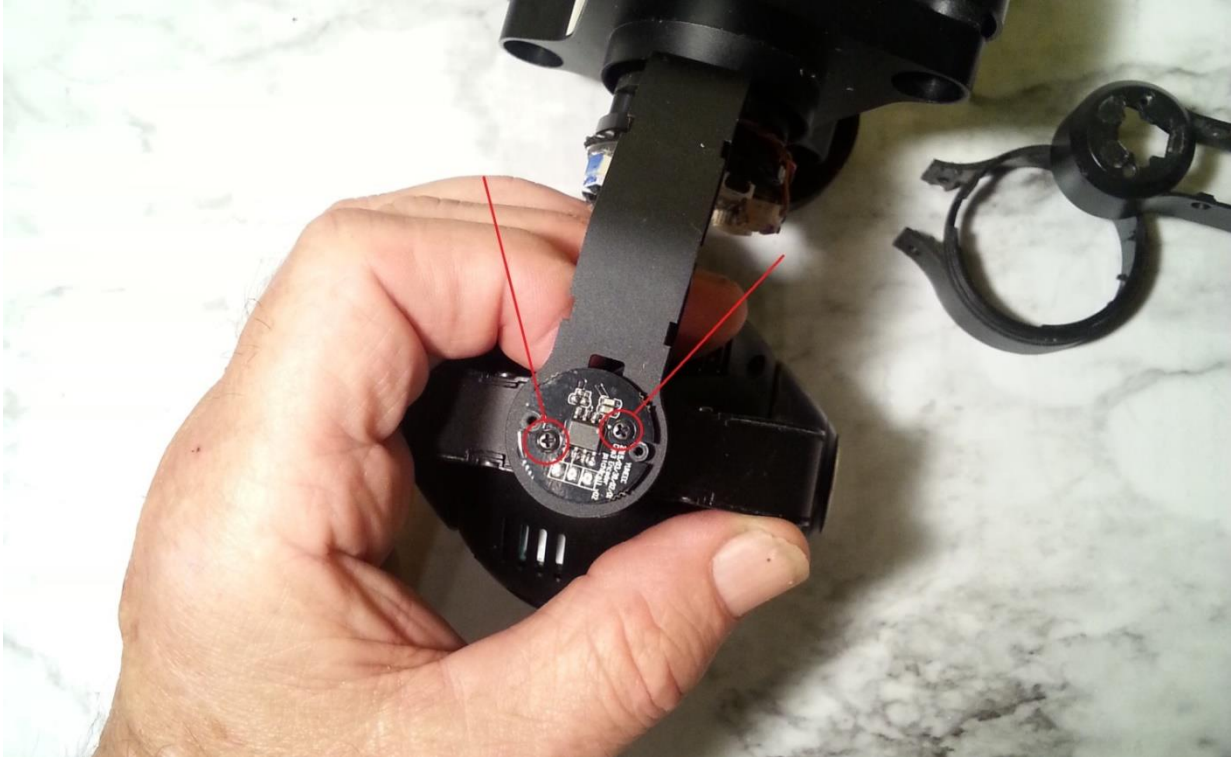
6). Remove the rear arm cover:



Attachment 21

CGo3+ Slip Ring Replacement

7). Remove the two screws holding the roll encoder:



8). Carefully tilt the roll encoder out of the way:



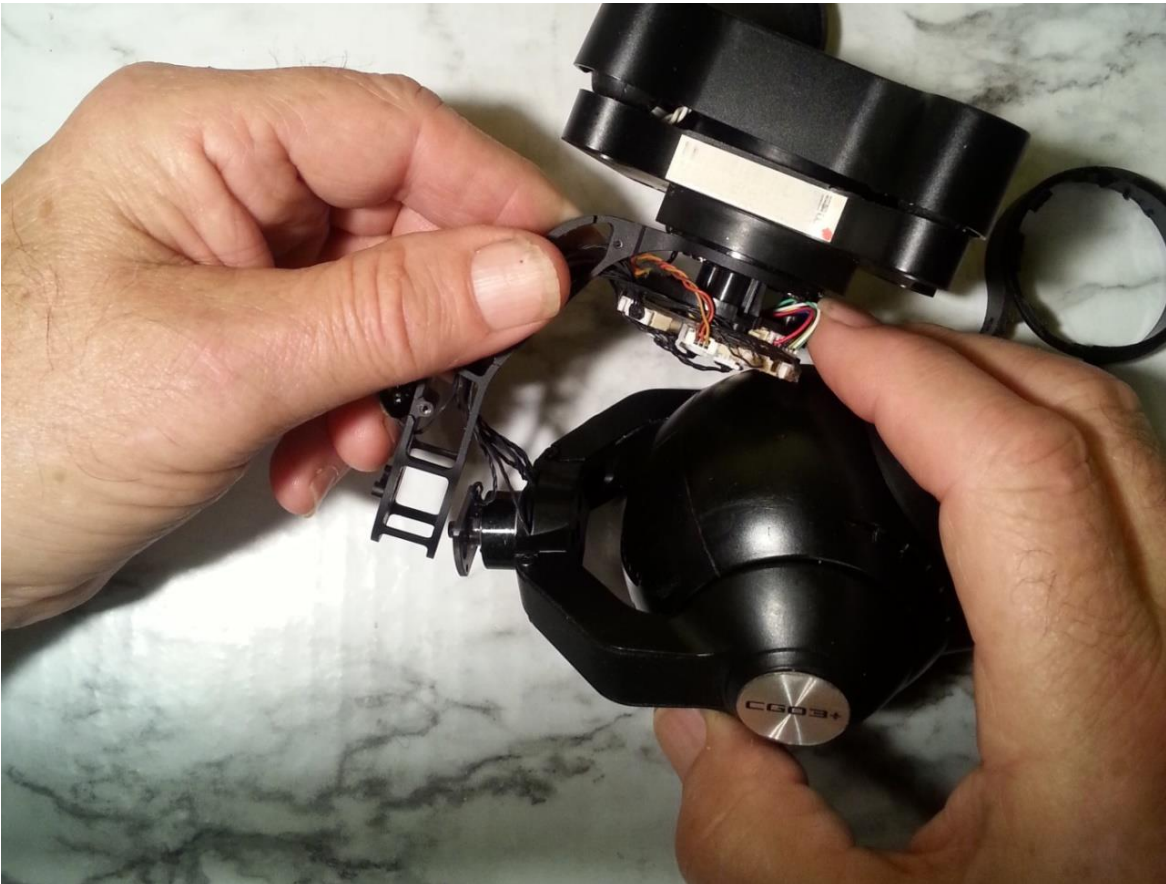
Attachment 21

CGo3+ Slip Ring Replacement

9). Remove the four roll motor screws:



10). Slide the roll motor / camera yoke out of the rear arm:



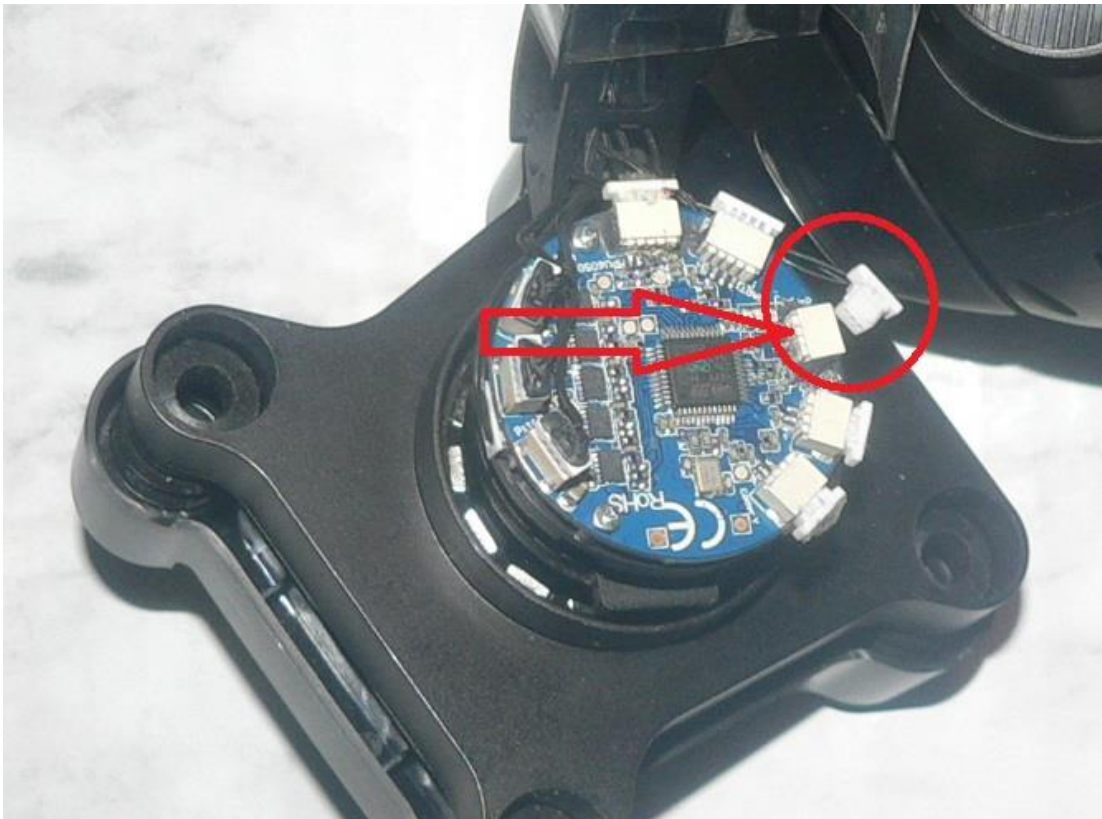
Attachment 21

CGo3+ Slip Ring Replacement

- 11). Using cellophane tape or other method, strap one arm of the camera yoke securely to the camera vertical arm:



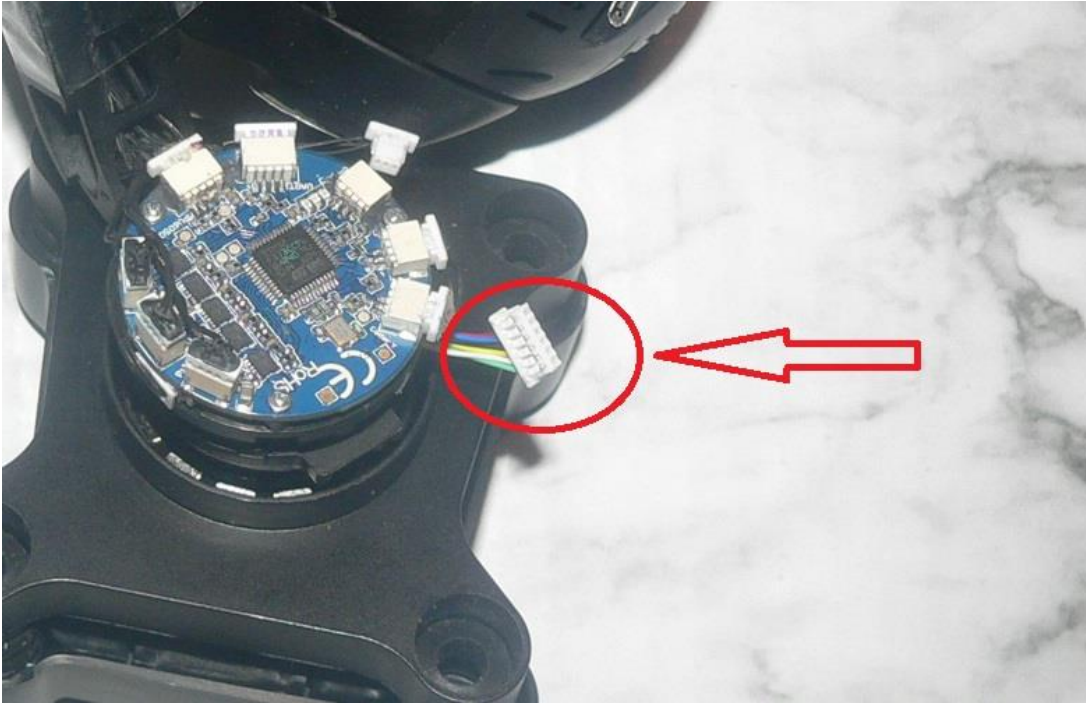
- 12). Unplug the Yaw Sensor connector:



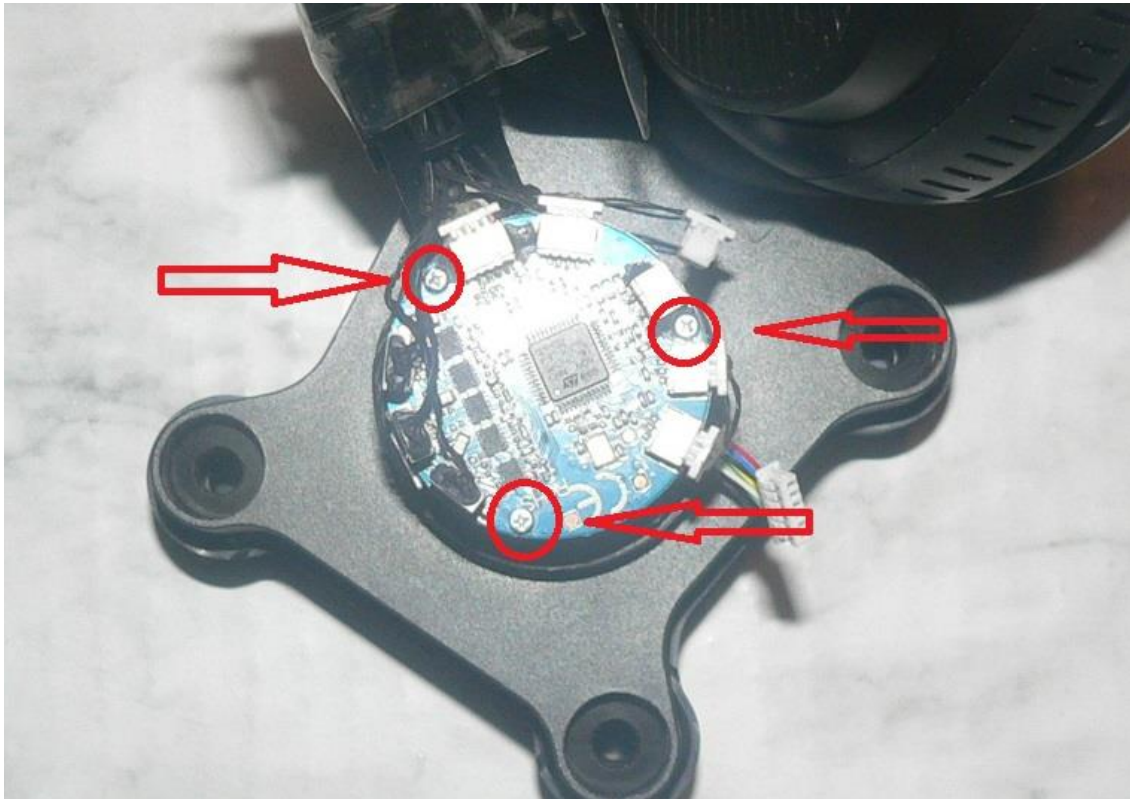
Attachment 21

CGo3+ Slip Ring Replacement

- 13). Unplug the Slip Ring connector:



- 14). Remove the three gimbal board mounting screws:



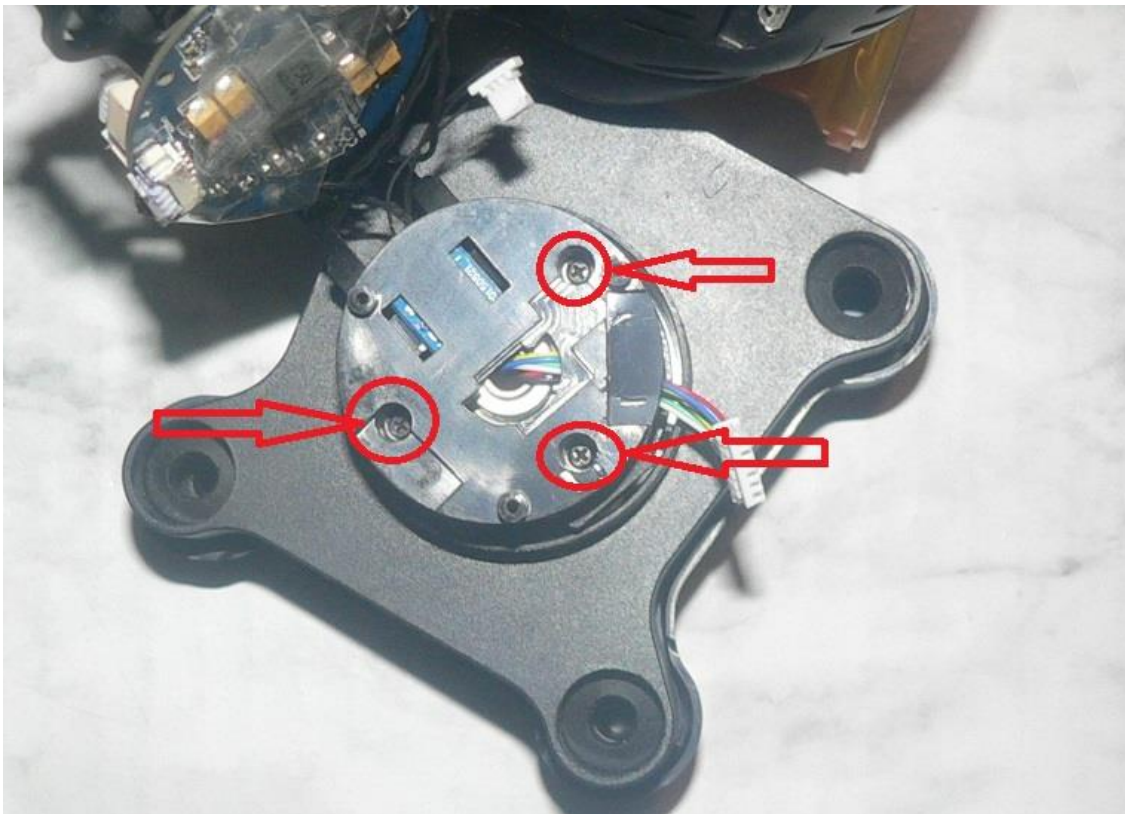
Attachment 21

CGo3+ Slip Ring Replacement

- 15). Tilt the gimbal board back against the vertical arm:
- 16). Using cellophane tape or other method, strap the gimbal board to the camera vertical arm:



- 17). Remove the three mounting screws from the Gimbal Board /Yaw Sensor Board support mounting screws:



Attachment 21

CGo3+ Slip Ring Replacement

- 18). Lift the support board (with Yaw Sensor still attached) from the camera frame:



NOTE: The latch pins are reasonably durable, but there are limits to how much bending is tolerable.

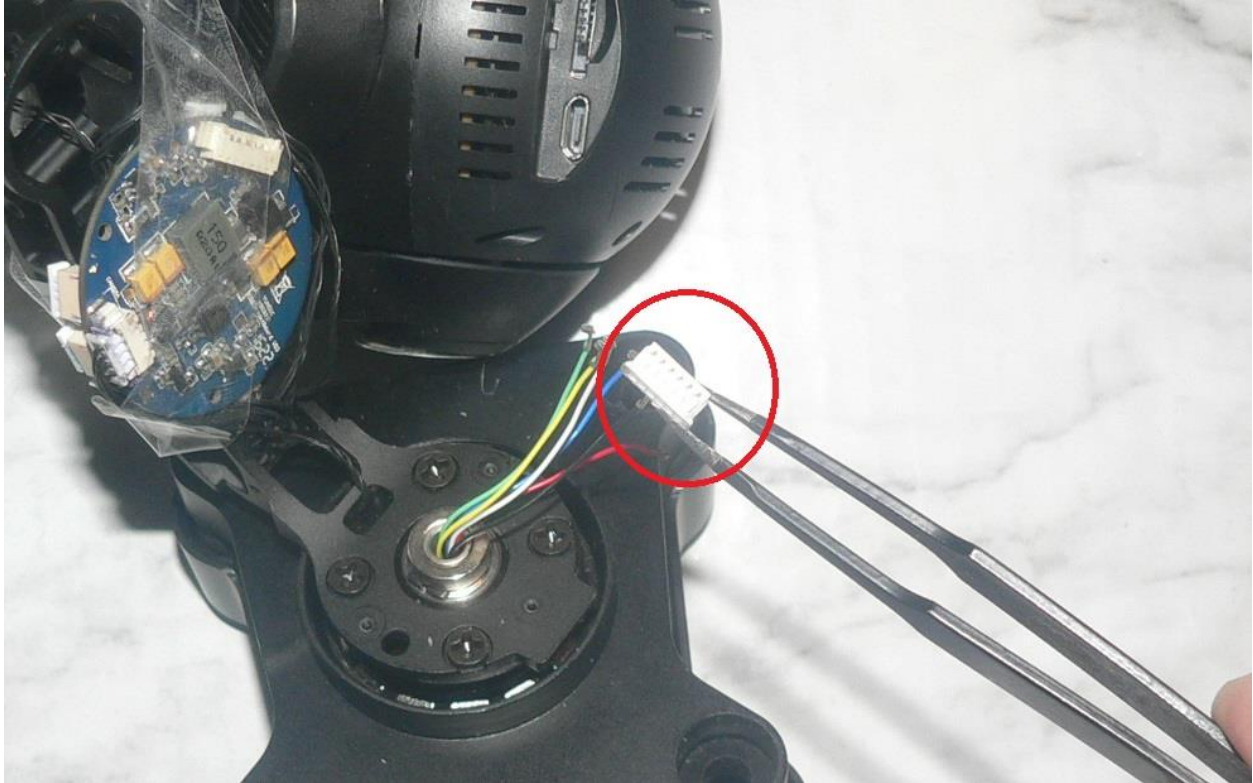
- 19). Using a sharp pointed tool, carefully release each pin latch on the slip ring plug.



Attachment 21

CGo3+ Slip Ring Replacement

20). Remove each wire from the plug:



21). Remove Damper guard:



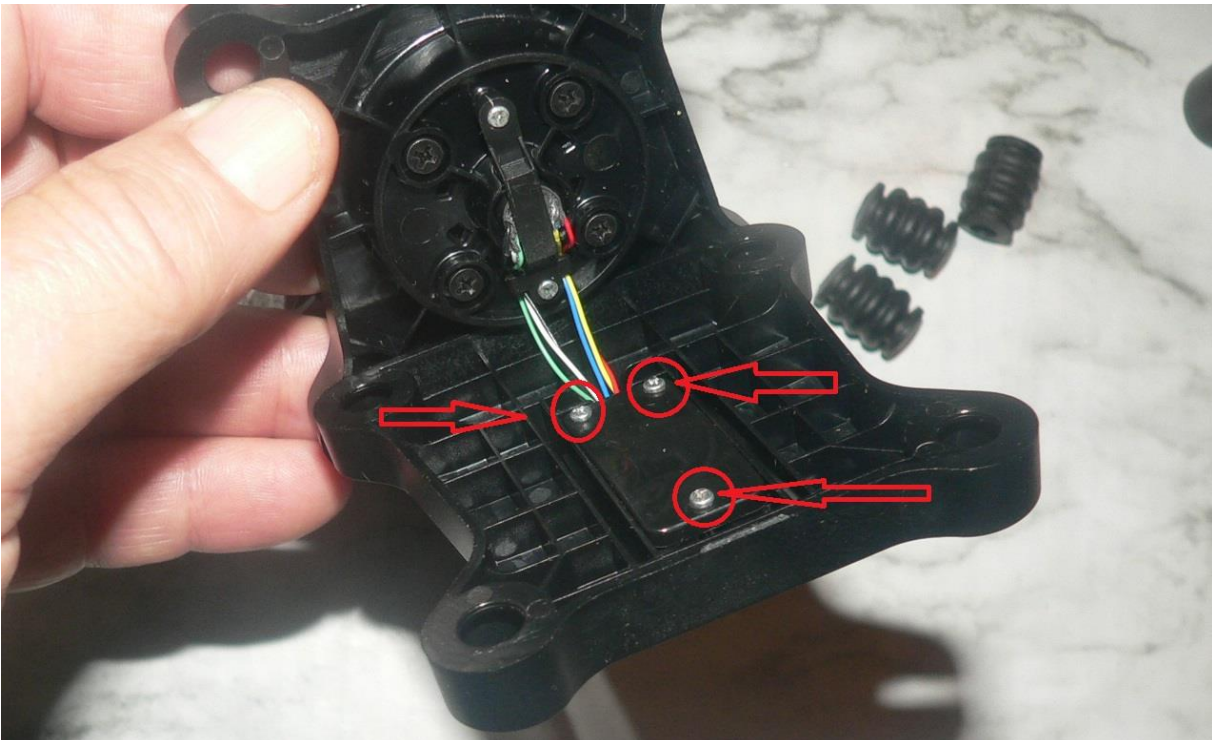
Attachment 21

CGo3+ Slip Ring Replacement

- 22). Remove Damper Retainers and Dampers from camera mount:



- 23). Remove the three screws from the contact plate retainer:



Attachment 21

CGo3+ Slip Ring Replacement

- 24). Lift the contact plate retainer and contact plate out of the mount:



- 25). Remove the two screws from the slip ring retainer strap and remove strap:

