

Servo or Brushless gimbal?

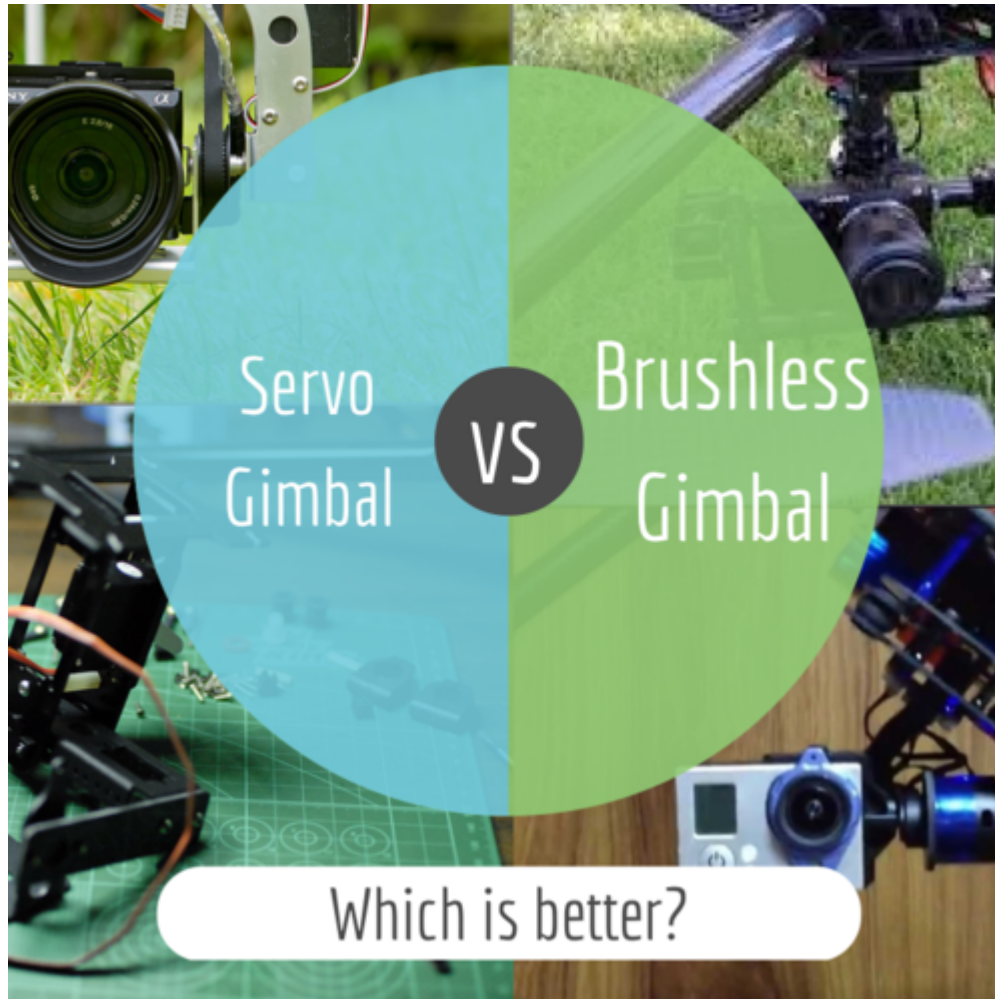
Help

smartroad 2014-03-06 14:44:45 UTC #1

With the two types of gimbal, which would be the best to go for? I assume brushless would be smoother but needs a controller where as a servo type could be controlled direct from my Ardupilot.

I am looking for one (eventually) for video and FPV with, most likely, a GoPro.

unmannedtech 2014-03-09 10:34:17 UTC #2



Thats a great question, and the choise between brushless, or servo based gimbals ultimately depends on what you need. Although brushless gimbals are very popular right now I still think there is a place for some of the servo based gimbals. So I will outline some of the advantages and disadvantages of both to help you decide.

Servo Based Gimbals

- Cheaper than brushless gimbal - servos can cost more than certain brushless gimbal motors, but you dont usually need a special controller/battery just for the gimbal
- Much lighter than equavalent brushless gimbal - servos are much lighter compared to a heavy brushless motor)
- Much easier to setup and use - most flight controllers support servo base gimbals directly. Brushless gimbals usually require a separate control board ([FY-G3 gimbal](#) has one integrated with each motor).

Brushless Gimbals

- Much better stabilization - the speed and smoothness of brushless gimbals is unquestionably better than servo based gimbals. Some complex servo based gimbals that use gears and timing belts achieve good stabilisation, but they are still slower than direct drive brushless gimbals.
- Some ready to use brushless gimbals work right out of the box, so you don't need to spend any time balancing and setting it up which can sometimes take a bit of time (see our [guide here](#))

Verdict

Overall I would suggest that you go for a brushless gimbal 9/10 times if you plan to shoot video as the stabilisation between the two is like night and day. However if you are primarily shooting photos then you can save some money and weight and rather go for a servo based gimbal. One of the important factors with multirotors is that every gram of weight you save will mean you can fly longer.

Hope that helps, if you have any other questions or comments let me know!

[smartroad](#) 2014-03-09 12:41:53 UTC #3

Thanks for the latest writeup 😊

I was thinking with FPV how easy is it to fly if the video is always level?

[unmannedtech](#) 2014-03-09 15:14:49 UTC #4

With FPV I prefer to have the FPV cam fixed onto the vehicle as it gives you some more feedback as to what is going on.

But if I am flying in loiter mode with APM to get some nice videos then I think it's nice to get the video feed direct from the stabilized camera to know exactly what you are recording. It's also more useful if you want to look at something as it's not too bumpy.

[CosmoRogers](#) 2014-03-11 20:42:45 UTC #5

Get an FPV video switch (when they are in stock 😊) and have the best of both worlds!

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