# My quad yaws unexpected at full throttle

**My Quad yaws and or banks near full throttle! Is that normal? What to do against that?**

First of all, lets explain why silverware often has "problems" near full throttle. Silverware [uses] all power available from the motors on full throttle (wirh stock settings), there is no spare throttle left for corrections with stock settings - but if all your motors and props are perfect, you are still able to control the quad and have no issues.

BUT if not, you get the mentioned problems?

How to solve that? Here is a text, freely copied from a RCGroups Post by Silverxxx

It can be caused by off center CG , or unmatched motors, or quad not straight. All motors have to be absolutely vertical and parallel to each other!

The h8 comes with many different motors made by different companies, and sometimes [n]ew motors are a bit different, and can cause this.

In config.h, there is the option #define MIX_LOWER_THROTTLE, which will lower throttle to maintain control. The downside you have less max throttle.

You can add these defines in config.h around line 141:
#define MIX_LOWER_THROTTLE
#define MIX_THROTTLE_REDUCTION_PERCENT 30

Before doing the following steps, please make sure your props look good (replace if possible for troubleshooting) and that there is no dust/dirt/hair around the motor shaft!

Another way would be to change the pid limits to make yaw have higher priority. In file pid.c:

output limit
const float outlimit[PIDNUMBER] = { 0.8 , 0.8 , 0.4 };

limit of integral term (abs)
const float integrallimit[PIDNUMBER] = { 0.8 , 0.8 , 0.4 };

The limit for roll and pitch is 0.8, and for yaw 0.4 in this case ( defaults)
You could increase 0.4 in both places or reduce the other 2 axes limit, for example. sadly, this won't fix the unbalance, it will just transfer it to another axis, or make it less noticeable.

Just play with these values a bit and see what happens. Sometimes even reducing yaw limit (or one of the others) can help - a quad's behavior is not always logical…