

This little 99mm diagonal quad was built using Eachine 1104 4000kv motors, Multistar 6A esc's, H8 mini green FC (cut down), RX2535 props, 450mAh 3S Nanotech battery and a 99mm frame from Armattan Productions. It weighs 46.9gm and the battery is 40.0gm, AUW is 86.9gm.



Some of the firmware settings are - gyro lpf 42Hz, soft lpf none, throttle reduction 30%, motor min 0.07 for 3S, motor filter on, PWM 8kHz. One of the esc's has a 5V BEC and that powers the FC.

The current PID's are:

```
float pidkp[PIDNUMBER] = { 6.3e-2 , 6.3e-2 , 2.6e-1 };
float pidki[PIDNUMBER] = { 1.8e-1 , 1.8e-1 , 1.0e-1 };
float pidkd[PIDNUMBER] = { 2.9e-1 , 2.9e-1 , 1.4e-1 };
```



This next quad was built using a GW008 (skull drone) FC with CG023 firmware, buck regulator from Banggood, DYS 1306 4000kv motors, Gemfan 3545 props, XM10A escs, 450mAh 3S Nanotech battery and a 141mm frame from Armattan Productions (search 141mm to find it). It weighs 99.9gm and the battery is 40.7gm, AUW is 140.6gm. The other battery I use is an 850mAh 3S weighing 71.5gm, AUW 171.4gm.



Some of the firmware settings are - gyro lpf 41Hz, soft lpf 2nd 88Hz, motor filter on, PWM freq 8kHz, HW I2C speed fast, motor min 0.12. I removed the FET's and jumpered gate to source so I could solder the esc signal wires to the motor negative pads, as a result the esc's are getting the same signal as they would from the gate of the FET.

The current PID's for 3S:

```
float pidkp[PIDNUMBER] = { 4.2e-2 , 4.2e-2 , 2.0e-1 };
float pidki[PIDNUMBER] = { 1.7e-1 , 1.7e-1 , 0.9e-1 };
float pidkd[PIDNUMBER] = { 5.0e-1 , 5.0e-1 , 2.0e-1 };
```

The current PID's for 2S:

```
float pidkp[PIDNUMBER] = { 5.5e-2 , 5.5e-2 , 2.8e-1 };
float pidki[PIDNUMBER] = { 2.4e-1 , 2.4e-1 , 1.2e-1 };
float pidkd[PIDNUMBER] = { 6.5e-1 , 6.5e-1 , 3.0e-1 };
```



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Last update: **2018/01/07 13:15**

