FPV Drone Hardware Specs

# 1.0 SYSTEMS

## 1.1 Flight Controller

- STM32F401CD (or CC) ARM Cortex M4 Mircrocontoller

- 84MHz clock

- 48 pin

- 384 KB flash (256 for CC)

- 96 KB RAM (64 for CC)

## 1.2 Inertial Measurement Unit

- MPU 6050 (no magnometer[compass]) will buy separately

## 1.3 ESC (Electronic Speed Controller)

- BSHOT BLHeli\_S 2-4S Lipo (4g x4)

## 1.4 Rx Receiver

- FS-iA10B 2.4G (19.3g) 10 Ch Rx/Tx (19.3g)

# 2.0 ELECTRONICS

## 2.1 Motors

- aim for thrust to weight ratio of 3:1

- Axisflying FPV Drone Brushless Motor 2207 – 1960 KV 6s (32.1g x 4)

# 3.0 HARDWARE

## 3.1 Propellers

- iFlight Nazgul F5 Tri-Blades (CW/CCW) (4g x 4)

## 3.2 Frame

- FPV Drone 225mm FPV Racing Drone Frame (5inch 102g)

## 3.3 RC Controller

- DTXMX FlySky FS-i6X 10 Ch Rx/Tx controller

## 3.4 Battery

3s LiPo Battery 11.1 V 5000 mAh

# 4.0 OPTICS

## 4.1 Camera

- RunCam Nano 2, 1.8mm lens

- 170 deg fov

- 3.2g

- 1/3” CMOS image sensor

## 4.2 Analog Video Transmitter

- AKK X2-Ultimate 5.8GHz

## 4.3 Analog Video Receiver & Video capture

- Eachine RC832 VRX

## 4.4 Analog to Digital Video Capture

- Easycap USB 2.0 Video Capture Carr

# 5.0 Miscellaneous

- soldering pen

- wire

- solder

- multimeter

# 6.0 Pricing

Subtotal: $346. + $20 camera

Total + shipping: $489.61

Weight(no battery): 306g approx.

Battery: 225g\*