

Drone Parts List

1

FC(

Matek F405-HDTE <https://www.mateksys.com/?portfolio=f405-hdte>

Reason: doesn't have memory limitations, f405 family recommended on reddit post (https://www.reddit.com/r/diydrones/comments/saj531/any_good_flight_controller_to_set_up_ardupilot/), cost is ~\$60-\$70

2

FRAME

F450 size

https://www.amazon.com/gp/product/B07H3WDSX3/ref=ox_sc_act_title_1?smid=A3S8HDX1Z449C4&psc=1

Reason: larger size for carrying capacity/camera, larger props, and space for batteries

3

MOT

Emax (comes with props)

https://www.amazon.com/gp/product/B07D9367RZ/ref=ox_sc_act_image_2?smid=A2Q1ZX14X1D97I&psc=1

Reason: comes with props and has decent thrust

Multi copter motor MT2213-935KV(1045Combo)



DIAMETER.....27.9MM
LENGHT(MM)....39.7MM
WEIGHT.....53G
KV.....935
3S(LIPO).....1045(PROP)
ESC recommended.....18A
MAX THRUST.....860G

The voltage (V)	Paddle size	current (A)	thrust (g)	power (W)	efficiency (G/W)	speed (RPM)	Working temperature (° C)
11	EMAX8045	1	110	11	10.0	3650	
		2	200	22	9.1	4740	
		3	270	33	8.2	5540	
		4	330	44	7.5	6200	
		5	390	55	7.1	6700	
		6	440	66	6.7	7150	
		7.1	490	78.1	6.3	7400	36
	EMAX1045	1	130	11	11.8	2940	
		2	220	22	10.0	3860	
		3	290	33	8.8	4400	
		4	370	44	8.4	4940	
		5	430	55	7.8	5340	
		6	480	66	7.3	5720	
		7	540	77	7.0	5980	
		8	590	88	6.7	6170	
		9	640	99	6.5	6410	
		9.6	670	106	6.3	6530	43

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ESC

Drone Parts List

Aikon SEFM 30A High Voltage ESC with BLHeli_S Program

<https://www.buddyrc.com/products/aikon-sefm-30a-high-voltage-esc-with-blheli-s-program-on-sale?variant=30274337833046>

5

BAT

HRB

https://www.amazon.com/HRB-3300mAh-Battery-Connector-Airplane/dp/B06XNMLYGR/ref=sr_1_28?keywords=3s+lipo+battery&qid=1662409901&refinements=p_89%3AGens+ace%7CHR%7CTurnigy%7CVenom+Power%7CZeee&rnid=2528832011&s=toys-and-games&sr=1-28

Reason: little bit cheaper, 60C rating (should be enough for Emax motors), XT60 connectors

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PROPZ

Larger, low pitch props

Reason: larger props have more thrust, low pitch is more efficient (less power required)

7

PDB

Matek

https://speedyfpv.com/products/drone-power-distribution-board-xt60-3-4s-9-18v-5v-12v-output-pdb?variant=8596736049203¤cy=USD&utm_medium=product_sync&utm_source=google&utm_content=sag_organic&utm_campaign=sag_organic&utm_campaign=gs-2022-01-26&utm_source=google&utm_medium=smart_campaign

Reason: cheap, looks like it has everything we need, also appears to have same mounting as Matek f405 HDTE fc (my chosen FC)

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TX

FlySky

https://www.amazon.com/dp/B0744DPPL8/?coliid=I2AX3ZZTEXZQT8&colid=1WOY4MBNRW9Y0&psc=1&ref_=lv_cv_lig_dp_it

Reason: cheapest I could find, comes with RX

Drone Parts List

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RX

SEE TX

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GPS AND COMPASS

Matek

<https://www.mateksys.com/?portfolio=m10-5883>