

Tool info

Serial API:
Board:
Firmware:
Commit:

Measurement info

Motor: Dualsky XM3040EG 12
KV: 1000
Magnet poles: 14
Propeler: Aerinaut Glass 12x7 fold
Blade count: 2
Note: Battery 3S 2600 mAh

Measurement Results 1:

Output [%]	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff [G/W]
	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		
20	116.33	1.759	244.38	18.022	2156	48.2	12.561	0.0038	0.908	0.0352	11.401	10.204
30	231.20	1.715	427.80	17.990	2922	14.8	12.537	0.0038	1.790	0.0346	22.438	10.304
40	385.68	1.259	711.62	18.156	3743	13.4	12.500	0.0041	3.417	0.0432	42.716	9.029
50	566.89	1.287	1066.35	18.039	4525	20.4	12.434	0.0058	5.981	0.0447	74.361	7.624
60	834.22	3.110	1535.77	17.983	5379	37.1	12.327	0.0097	10.098	0.0596	124.477	6.702
70	1191.41	2.824	2162.04	18.088	6382	49.0	12.187	0.0087	16.080	0.1405	195.955	6.080
80	1523.22	5.283	2756.88	19.231	7219	66.5	12.008	0.0123	22.828	0.0983	274.110	5.557
90	1800.21	5.223	3270.68	22.341	7795	48.8	11.804	0.0124	30.006	0.1213	354.186	5.083
100	2047.59	9.965	3721.42	22.681	8268	47.8	11.569	0.0139	37.818	0.2516	437.532	4.680

Measurement Results 2:

Output [%]	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff [G/W]
	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		
20	116.88	3.258	245.36	16.436	2127	52.7	12.330	0.0034	0.886	0.0296	10.920	10.703
30	225.64	1.562	421.94	16.032	2879	12.8	12.311	0.0045	1.736	0.0259	21.366	10.560
40	372.45	1.472	690.41	16.021	3683	17.1	12.275	0.0038	3.296	0.0409	40.462	9.205
50	553.19	1.531	1036.67	16.044	4472	22.1	12.209	0.0057	5.859	0.0646	71.529	7.734
60	809.55	3.743	1505.57	16.048	5325	43.8	12.114	0.0087	9.975	0.0648	120.833	6.700
70	1148.94	4.910	2092.81	16.404	6284	54.3	11.974	0.0077	15.666	0.0825	187.573	6.125
80	1479.82	5.949	2678.17	17.792	7100	70.7	11.811	0.0103	22.246	0.0944	262.738	5.632
90	1750.55	4.299	3182.92	18.709	7683	54.8	11.624	0.0123	29.366	0.1300	341.337	5.129
100	1993.84	9.719	3641.42	24.967	8169	50.2	11.402	0.0138	37.006	0.2579	421.931	4.726

Measurement Results 3:

Output [%]	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff [G/W]
	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		
20	113.14	4.042	243.49	14.103	2094	59.7	12.150	0.0042	0.854	0.0201	10.376	10.904
30	215.70	1.835	413.79	13.145	2844	10.3	12.131	0.0046	1.695	0.0201	20.562	10.490
40	359.00	1.649	675.05	13.159	3641	21.0	12.088	0.0051	3.220	0.0298	38.924	9.223
50	536.75	1.902	1012.20	13.275	4411	21.2	12.026	0.0062	5.712	0.0568	68.689	7.814
60	790.52	1.903	1475.67	13.186	5271	32.8	11.918	0.0121	9.762	0.0505	116.342	6.795
70	1110.08	4.988	2041.59	13.657	6210	52.3	11.768	0.0126	15.246	0.0851	179.422	6.187
80	1446.67	8.127	2610.82	14.863	6986	54.2	11.586	0.0109	21.705	0.1300	251.476	5.753
90	1709.82	8.616	3093.89	17.312	7575	38.3	11.396	0.0123	28.607	0.1396	326.013	5.245
100	1932.25	8.805	3542.56	20.111	8061	49.6	11.199	0.0104	36.072	0.2254	403.951	4.783

Measurement Results 4:

Output [%]	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff [G/W]
	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		
20	100.39	4.352	192.57	13.736	2063	62.7	11.919	0.0051	0.872	0.0293	10.390	9.662
30	201.13	1.566	358.30	13.034	2801	13.6	11.901	0.0051	1.676	0.0290	19.950	10.082
40	335.45	1.496	604.50	13.031	3569	18.9	11.866	0.0055	3.086	0.0293	36.618	9.161
50	515.54	1.446	932.38	13.016	4333	20.1	11.811	0.0066	5.507	0.0412	65.041	7.926
60	776.73	3.085	1355.63	13.173	5195	30.7	11.716	0.0097	9.450	0.0617	110.718	7.015
70	1090.87	2.555	1915.36	13.271	6136	49.9	11.581	0.0069	14.882	0.0744	172.358	6.329
80	1438.86	7.572	2478.53	14.248	6913	53.2	11.425	0.0108	21.276	0.1180	243.075	5.919
90	1686.19	7.023	2989.78	17.618	7527	37.9	11.243	0.0118	28.175	0.1452	316.778	5.323
100	1928.97	4.754	3437.57	16.768	8041	48.1	11.054	0.0130	35.493	0.1685	392.336	4.917

Measurement Results 5:

Output [%]	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff [G/W]
	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		
20	102.13	4.573	232.35	17.957	2042	65.6	11.762	0.0031	0.831	0.0299	9.775	10.448
30	199.62	2.057	393.82	17.503	2767	10.4	11.748	0.0042	1.607	0.0202	18.876	10.575
40	333.06	1.823	632.63	17.512	3529	13.2	11.715	0.0052	3.026	0.0361	35.450	9.395
50	513.31	1.819	962.42	17.555	4303	17.8	11.656	0.0080	5.458	0.0421	63.622	8.068
60	758.14	2.018	1420.41	17.520	5173	28.3	11.566	0.0081	9.420	0.0451	108.958	6.958
70	1045.09	2.824	1954.28	17.720	6078	55.5	11.442	0.0075	14.581	0.0583	166.830	6.264
80	1383.08	3.068	2487.58	18.068	6846	55.5	11.296	0.0092	20.766	0.0748	234.572	5.896
90	1626.81	5.410	2973.42	19.367	7458	49.1	11.131	0.0130	27.510	0.0969	306.218	5.313
100	1876.90	5.003	3439.25	21.101	7962	43.9	10.953	0.0116	34.941	0.2149	382.712	4.904

Plots for Measurement Results:

