Tool info

Serial API:
Board:
Firmware:
Commit:

Measurement info

Motor: Dualsky XM3040EG-12
KV: 1000
Magnet poles: 14
Propeler: no prop
Blade count: 2
Note: Battery 3S 2600mAh

Measurement Results 1:

| Output | Thrust [G] | | Torque [G cm] | | RPM [1/min] | | Voltage [V] | | Current [A] | | Pin [W] | ThrustEff |
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		[G/W]
20	-0.32	2.017	2.02	2.778	6071	23.6	12.572	0.0040	0.528	0.0310	6.640	-0.048
30	-0.29	2.017	4.72	2.754	8117	37.4	12.563	0.0038	0.789	0.0300	9.909	-0.030
40	-0.28	2.017	5.48	2.752	9330	21.1	12.556	0.0031	0.953	0.0221	11.962	-0.023
50	-0.26	2.017	5.52	2.750	10125	27.4	12.555	0.0039	1.053	0.0296	13.222	-0.020
60	-0.30	2.017	5.86	2.750	10730	23.4	12.548	0.0050	1.111	0.0311	13.937	-0.022
70	-0.31	2.017	6.19	2.750	11208	26.4	12.542	0.0048	1.176	0.0393	14.749	-0.021
80	-0.24	2.017	6.34	2.754	11493	25.8	12.542	0.0043	1.219	0.0386	15.291	-0.016
90	-0.22	2.017	6.61	2.750	11763	34.4	12.536	0.0031	1.239	0.0313	15.532	-0.014
100	-0.16	2.017	6.63	2.755	12522	41.0	12.531	0.0049	1.297	0.1546	16.250	-0.010

Measurement Results 2:

| Output | Thrust [G] | | Torque [G cm] | | RPM [1/min] | | Voltage [V] | | Current [A] | | Pin [W] | ThrustEff |
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		[G/W]
20	-0.33	1.776	5.71	3.124	6190	32.4	12.552	0.0041	0.493	0.0297	6.186	-0.053
30	-0.33	1.776	7.72	3.092	8239	44.0	12.544	0.0038	0.761	0.0288	9.546	-0.034
40	-0.36	1.776	7.55	3.088	9444	18.3	12.537	0.0031	0.921	0.0306	11.541	-0.031
50	-0.30	1.776	7.46	3.087	10212	21.3	12.535	0.0048	1.008	0.0305	12.640	-0.024
60	-0.23	1.776	7.09	3.087	10818	33.3	12.529	0.0034	1.099	0.0308	13.772	-0.017
70	-0.22	1.776	5.86	3.091	11268	25.0	12.525	0.0059	1.145	0.0310	14.337	-0.015
80	-0.23	1.776	5.98	3.087	11537	21.2	12.523	0.0047	1.181	0.0293	14.796	-0.016
90	-0.18	1.776	6.43	3.093	11801	26.6	12.518	0.0039	1.189	0.0310	14.882	-0.012
100	-0.18	1.776	7.32	3.090	12561	43.8	12.516	0.0053	1.236	0.1191	15.471	-0.012

Measurement Results 3:

| Output | Thrust [G] | | Torque [G cm] | | RPM [1/min] | | Voltage [V] | | Current [A] | | Pin [W] | ThrustEff |
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		[G/W]
20	-0.13	0.092	6.57	3.229	6245	33.9	12.536	0.0036	0.503	0.0325	6.300	-0.020
30	-0.16	0.094	9.66	3.201	8296	43.8	12.526	0.0042	0.756	0.0280	9.465	-0.017
40	-0.07	0.095	9.18	3.202	9484	18.8	12.521	0.0062	0.908	0.0271	11.369	-0.006
50	0.01	0.099	8.81	3.207	10252	30.6	12.518	0.0042	1.002	0.0292	12.546	0.000
60	0.07	0.093	8.37	3.201	10828	25.5	12.510	0.0043	1.076	0.0205	13.464	0.005
70	0.08	0.093	8.42	3.200	11275	19.6	12.509	0.0044	1.144	0.0301	14.313	0.005
80	0.04	0.094	8.83	3.200	11553	26.9	12.501	0.0031	1.150	0.0292	14.381	0.003
90	0.07	0.094	8.94	3.200	11806	21.6	12.501	0.0043	1.181	0.0296	14.763	0.005
100	0.12	0.093	8.64	3.203	12561	41.7	12.498	0.0056	1.224	0.1010	15.300	0.008

Measurement Results 4:

Output	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		[G/W]
20	-0.09	0.126	9.04	1.601	6280	29.2	12.517	0.0038	0.512	0.0281	6.409	-0.015
30	-0.16	0.124	10.04	1.591	8333	36.6	12.511	0.0037	0.763	0.0189	9.548	-0.017
40	-0.12	0.125	9.72	1.584	9503	18.4	12.502	0.0030	0.904	0.0257	11.307	-0.011
50	-0.07	0.124	9.55	1.582	10260	26.8	12.500	0.0040	0.978	0.0245	12.226	-0.006
60	-0.03	0.124	9.32	1.582	10846	27.1	12.494	0.0039	1.053	0.0290	13.156	-0.002
70	-0.00	0.125	9.16	1.581	11292	23.0	12.492	0.0035	1.123	0.0426	14.025	-0.000
80	0.05	0.125	9.61	1.581	11570	27.3	12.489	0.0051	1.143	0.0289	14.271	0.003
90	0.08	0.131	9.68	1.587	11814	23.1	12.484	0.0042	1.182	0.0290	14.750	0.006
100	0.13	0.126	9.59	1.585	12563	40.2	12.483	0.0041	1.185	0.1048	14.793	0.009

Measurement Results 5:

Output	Thrust [G]		Torque [G cm]		RPM [1/min]		Voltage [V]		Current [A]		Pin [W]	ThrustEff
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev		[G/W]
20	-0.15	0.120	8.38	1.288	6312	31.6	12.500	0.0048	0.489	0.0272	6.106	-0.024
30	-0.14	0.121	9.49	1.240	8371	37.7	12.493	0.0031	0.744	0.0296	9.300	-0.015
40	-0.09	0.120	9.13	1.235	9542	22.7	12.486	0.0021	0.883	0.0286	11.025	-0.008
50	-0.10	0.121	9.31	1.234	10302	24.1	12.483	0.0035	0.968	0.0294	12.082	-0.009
60	-0.08	0.119	9.11	1.235	10876	30.6	12.480	0.0037	1.059	0.0289	13.218	-0.006
70	-0.06	0.120	9.13	1.238	11306	27.7	12.472	0.0033	1.095	0.0296	13.660	-0.005
80	-0.04	0.120	9.46	1.233	11583	35.2	12.472	0.0037	1.136	0.0293	14.172	-0.003
90	-0.04	0.122	9.61	1.239	11839	28.9	12.469	0.0033	1.163	0.0197	14.502	-0.003
100	-0.04	0.125	9.56	1.252	12562	44.2	12.465	0.0039	1.205	0.1231	15.016	-0.003

Plots for Measurement Results: