Tool info

Serial API:
Board:
Firmware:
Commit:

Measurement info

Motor:	T-Motor MT2212-16
KV:	750
Magnet poles:	14
Propeler:	carbon 10x3.3
Blade count:	2
Note:	

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	42.59	0.974	87.16	3.292	2202	7.9	16.716	0.0057	0.170	0.0063	2.839	15.001
25	71.52	1.003	133.15	3.308	2745	9.3	16.709	0.0044	0.286	0.0063	4.786	14.944
30	100.66	0.981	186.01	3.294	3261	10.8	16.700	0.0043	0.440	0.0086	7.353	13.689
35	141.06	0.993	246.61	3.307	3778	15.0	16.688	0.0054	0.651	0.0078	10.867	12.980
40	179.69	0.976	311.64	3.294	4259	21.7	16.668	0.0066	0.898	0.0098	14.970	12.004
45	224.30	1.013	385.40	3.300	4729	22.7	16.645	0.0041	1.208	0.0104	20.100	11.159
50	273.70	1.010	458.84	3.381	5185	39.1	16.612	0.0052	1.561	0.0179	25.938	10.552
55	325.85	1.039	542.17	3.305	5618	37.2	16.582	0.0071	1.989	0.0153	32.974	9.882
60	377.01	1.278	626.28	3.421	6054	55.0	16.539	0.0062	2.479	0.0183	41.002	9.195
65	431.27	1.084	717.99	3.471	6465	40.1	16.497	0.0077	3.024	0.0205	49.879	8.646
70	476.46	1.207	809.36	3.414	6872	55.8	16.448	0.0057	3.620	0.0209	59.540	8.002
75	525.45	1.026	905.74	3.499	7273	64.9	16.386	0.0056	4.327	0.0233	70.899	7.411
80	570.30	1.154	998.08	3.630	7677	83.6	16.319	0.0067	5.084	0.0318	82.963	6.874
90	657.34	1.871	1213.19	3.529	8422	84.9	16.207	0.0088	6.866	0.0306	111.269	5.908
100	718.76	1.051	1416.99	4.319	9125	78.1	16.071	0.0097	8.839	0.0307	142.045	5.060

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	43.38	1.317	83.89	3.567	2156	7.6	16.534	0.0052	0.161	0.0063	2.656	16.335
25	71.06	1.324	130.30	3.598	2703	12.7	16.526	0.0060	0.270	0.0080	4.467	15.908
30	95.51	1.318	182.96	3.572	3222	10.5	16.516	0.0053	0.425	0.0079	7.022	13.601
35	137.44	1.330	241.83	3.581	3729	14.7	16.503	0.0044	0.622	0.0114	10.270	13.383
40	176.43	1.321	305.17	3.571	4215	22.4	16.484	0.0039	0.868	0.0103	14.308	12.331
45	218.10	1.326	375.97	3.569	4681	31.5	16.463	0.0059	1.174	0.0098	19.325	11.286
50	264.59	1.462	447.63	3.671	5120	33.6	16.437	0.0053	1.527	0.0146	25.092	10.545
55	312.26	1.738	528.74	3.596	5556	28.6	16.406	0.0040	1.936	0.0159	31.762	9.831
60	367.08	1.402	614.54	3.589	5979	38.6	16.367	0.0054	2.425	0.0139	39.685	9.250
65	423.27	1.372	701.78	3.658	6401	49.1	16.323	0.0057	2.962	0.0227	48.345	8.755
70	473.63	1.355	791.52	3.746	6807	48.4	16.272	0.0065	3.552	0.0176	57.806	8.193
75	533.37	1.695	890.06	3.661	7194	71.9	16.219	0.0070	4.240	0.0180	68.763	7.757
80	585.10	1.418	987.19	3.994	7577	73.1	16.155	0.0069	4.996	0.0232	80.715	7.249
90	659.68	1.398	1188.15	4.117	8352	69.7	16.042	0.0100	6.710	0.0310	107.645	6.128
100	718.07	1.460	1391.26	4.262	9022	91.9	15.909	0.0098	8.672	0.0369	137.969	5.205

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	42.11	1.466	80.53	4.560	2140	8.1	16.363	0.0044	0.160	0.0061	2.615	16.103
25	69.51	1.459	125.60	4.552	2677	8.0	16.354	0.0053	0.270	0.0073	4.419	15.729
30	98.57	1.689	178.73	4.565	3193	12.4	16.345	0.0051	0.419	0.0061	6.852	14.385
35	131.51	1.459	236.93	4.553	3695	18.5	16.329	0.0058	0.620	0.0087	10.125	12.988
40	172.01	1.450	298.91	4.587	4173	18.4	16.310	0.0062	0.856	0.0096	13.964	12.318
45	213.15	1.451	368.24	4.588	4626	26.6	16.287	0.0041	1.155	0.0114	18.806	11.334
50	259.96	1.461	439.55	4.622	5085	31.2	16.261	0.0054	1.510	0.0130	24.547	10.590
55	310.26	1.506	519.03	4.582	5522	38.2	16.228	0.0070	1.919	0.0146	31.139	9.964
60	363.27	1.487	604.79	4.577	5944	45.1	16.189	0.0053	2.402	0.0159	38.882	9.343
65	413.24	1.674	687.07	4.851	6351	50.9	16.147	0.0066	2.905	0.0189	46.908	8.810
70	468.96	1.550	777.72	4.687	6773	55.4	16.098	0.0050	3.500	0.0250	56.350	8.322
75	524.26	1.817	875.88	4.619	7167	58.3	16.048	0.0069	4.185	0.0202	67.170	7.805
80	579.71	1.703	972.70	4.685	7543	72.7	15.989	0.0056	4.922	0.0247	78.697	7.366
90	663.31	1.522	1178.04	4.772	8311	73.3	15.881	0.0093	6.656	0.0325	105.707	6.275
100	718.57	1.553	1374.98	5.593	8995	80.6	15.754	0.0104	8.575	0.0317	135.097	5.319

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	41.05	1.721	79.64	3.911	2116	6.8	16.237	0.0036	0.159	0.0061	2.578	15.922
25	68.27	1.726	123.38	3.912	2650	9.3	16.229	0.0047	0.263	0.0081	4.270	15.989
30	94.51	1.724	174.11	3.945	3161	11.9	16.220	0.0065	0.416	0.0082	6.755	13.992
35	130.08	1.726	230.57	3.919	3658	16.7	16.207	0.0043	0.609	0.0097	9.872	13.177
40	171.15	1.778	293.17	3.925	4135	21.1	16.191	0.0042	0.846	0.0081	13.691	12.501
45	210.42	1.746	361.01	3.936	4583	29.4	16.169	0.0047	1.133	0.0128	18.319	11.486
50	254.96	1.730	430.53	3.924	5033	27.9	16.143	0.0062	1.478	0.0137	23.864	10.684
55	305.00	1.793	510.02	3.936	5469	30.7	16.110	0.0051	1.892	0.0159	30.478	10.007
60	355.27	1.768	591.27	3.919	5892	37.9	16.070	0.0042	2.349	0.0199	37.756	9.410
65	409.70	1.817	675.90	3.976	6296	54.8	16.025	0.0075	2.871	0.0225	46.015	8.904
70	461.19	1.860	764.90	3.961	6707	44.8	15.972	0.0057	3.448	0.0236	55.071	8.374
75	518.72	2.838	862.87	4.424	7088	63.3	15.908	0.0095	4.139	0.0282	65.841	7.878
80	572.05	1.802	953.84	4.011	7460	65.9	15.834	0.0069	4.827	0.0220	76.431	7.485
90	663.49	1.935	1150.31	4.191	8233	73.0	15.706	0.0120	6.513	0.0375	102.294	6.486
100	717.59	1.741	1347.10	4.290	8876	77.3	15.561	0.0100	8.403	0.0297	130.765	5.488

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	39.53	2.387	81.86	5.009	2101	7.8	16.018	0.0041	0.156	0.0074	2.497	15.827
25	66.35	2.383	124.15	5.020	2625	10.5	16.006	0.0061	0.264	0.0085	4.220	15.723
30	90.45	2.384	175.21	5.020	3134	9.9	15.999	0.0045	0.404	0.0063	6.456	14.009
35	124.93	2.378	229.58	5.023	3625	15.4	15.984	0.0048	0.595	0.0082	9.512	13.134
40	165.30	2.391	290.51	5.022	4091	18.8	15.967	0.0060	0.831	0.0095	13.266	12.461
45	204.11	2.382	357.21	5.026	4534	30.9	15.940	0.0057	1.119	0.0125	17.833	11.446
50	251.89	2.387	428.49	5.035	4982	31.7	15.912	0.0051	1.458	0.0121	23.201	10.857
55	297.68	2.484	502.89	5.130	5409	28.1	15.875	0.0047	1.854	0.0160	29.438	10.112
60	346.60	2.426	583.00	5.074	5834	39.8	15.836	0.0062	2.299	0.0179	36.405	9.521
65	399.08	2.405	664.72	5.034	6217	43.9	15.787	0.0064	2.808	0.0236	44.338	9.001
70	449.64	2.445	751.78	5.090	6633	61.8	15.739	0.0055	3.379	0.0276	53.180	8.455
75	503.35	2.469	846.97	5.450	7034	57.0	15.679	0.0085	4.046	0.0246	63.437	7.935
80	561.12	2.432	942.16	5.068	7407	60.2	15.615	0.0073	4.761	0.0196	74.341	7.548
90	659.25	2.398	1138.68	5.196	8143	74.5	15.510	0.0066	6.435	0.0257	99.812	6.605
100	713.64	2.409	1329.93	5.670	8806	77.7	15.389	0.0095	8.275	0.0336	127.339	5.604

Plots for Measurement Results: