Tool info

Serial API: Board: Firmware: Commit:

Measurement info

Motor: T-Motor MN2206-13

KV: 2000 Magnet poles: 14

Propeler: Gemfan Bullnose 6045

Blade count: 0

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	rm [w]	[G/W]
20	39.86	0.785	56.04	1.168	4327	11.9	12.558	0.0043	0.291	0.0069	3.656	10.902
25	60.07	0.781	82.87	1.152	5283	15.9	12.549	0.0049	0.478	0.0106	5.998	10.015
30	87.00	0.793	113.61	1.148	6232	28.0	12.536	0.0031	0.728	0.0134	9.121	9.539
35	114.40	0.789	148.30	1.149	7153	26.4	12.526	0.0043	1.043	0.0167	13.067	8.755
40	142.00	0.785	183.01	1.158	8040	35.2	12.510	0.0029	1.439	0.0186	18.002	7.888
45	173.30	0.783	222.08	1.157	8902	51.6	12.494	0.0045	1.866	0.0238	23.310	7.434
50	209.60	0.787	268.00	1.171	9727	57.8	12.472	0.0043	2.188	0.0129	27.285	7.682
55	242.93	0.816	315.57	1.220	10561	76.1	12.444	0.0054	2.469	0.0205	30.728	7.906
60	277.49	0.811	366.54	1.221	11327	131.1	12.412	0.0045	2.844	0.0336	35.305	7.860
65	319.00	0.794	420.03	1.203	12163	104.9	12.380	0.0054	3.349	0.0342	41.463	7.694
70	358.96	0.900	476.03	1.459	12933	93.6	12.335	0.0043	4.093	0.0485	50.481	7.111
75	401.43	1.001	538.07	1.282	13707	91.9	12.291	0.0056	5.074	0.0420	62.372	6.436
80	442.56	0.877	603.70	1.307	14503	148.3	12.238	0.0059	6.449	0.0478	78.918	5.608
90	519.09	1.228	704.67	1.706	15990	98.0	12.143	0.0069	9.490	0.0598	115.238	4.505
100	586.92	1.336	838.58	2.338	17198	73.0	12.017	0.0071	13.051	0.0227	156.839	3.742

Measurement Results 2:

Output	Thrust [G]		Torque	[G cm]	RPM [RPM [1/min]		Voltage [V]		Current [A]		ThrustEff
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev	Pin [W]	[G/W]
20	36.36	3.521	55.51	3.925	4257	10.6	12.446	0.0036	0.280	0.0059	3.488	10.425
25	56.74	3.522	81.93	3.920	5225	20.8	12.437	0.0034	0.460	0.0104	5.726	9.909
30	81.91	3.521	111.35	3.921	6168	23.0	12.430	0.0027	0.701	0.0104	8.719	9.394
35	107.33	3.544	144.87	3.934	7081	32.7	12.419	0.0042	1.014	0.0206	12.589	8.526
40	135.92	3.521	178.98	3.925	7947	56.5	12.403	0.0045	1.390	0.0214	17.235	7.887
45	166.29	3.525	215.45	3.929	8775	45.2	12.384	0.0039	1.831	0.0200	22.677	7.333
50	201.07	3.523	260.30	3.924	9622	69.6	12.362	0.0051	2.163	0.0200	26.735	7.521
55	236.69	3.527	309.17	3.931	10389	63.8	12.335	0.0046	2.420	0.0197	29.850	7.929
60	271.39	3.530	361.92	3.943	11291	120.9	12.304	0.0060	2.798	0.0377	34.430	7.883
65	309.83	3.534	411.74	3.940	12103	130.6	12.268	0.0065	3.303	0.0240	40.527	7.645
70	350.69	3.595	470.40	4.017	12837	144.9	12.229	0.0042	4.043	0.0641	49.441	7.093
75	391.84	3.612	529.88	4.150	13579	121.9	12.183	0.0047	4.998	0.0524	60.896	6.434
80	432.30	3.533	594.91	4.058	14369	66.3	12.135	0.0041	6.365	0.0641	77.247	5.596
90	501.34	3.627	698.38	3.992	15789	119.5	12.037	0.0075	9.412	0.0601	113.287	4.425
100	566.43	3.666	833.42	3.963	17014	70.4	11.923	0.0071	12.906	0.0316	153.884	3.681

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	I III [VV]	[G/W]
20	36.14	3.889	56.00	3.947	4224	14.1	12.346	0.0044	0.281	0.0083	3.474	10.403
25	55.57	3.892	82.42	3.945	5187	17.7	12.339	0.0026	0.454	0.0084	5.602	9.919
30	79.73	3.894	112.50	3.947	6111	30.8	12.332	0.0047	0.691	0.0122	8.526	9.352
35	105.28	3.890	146.43	3.954	7022	36.5	12.322	0.0041	1.001	0.0193	12.335	8.536
40	134.77	3.890	180.60	3.949	7867	35.2	12.302	0.0052	1.382	0.0205	17.006	7.925
45	163.39	3.890	216.71	3.948	8715	43.9	12.287	0.0046	1.819	0.0223	22.354	7.309
50	196.34	3.894	263.63	3.955	9589	54.1	12.264	0.0057	2.175	0.0131	26.671	7.362
55	231.40	3.895	311.43	3.956	10345	84.6	12.237	0.0041	2.436	0.0219	29.806	7.764
60	268.25	3.892	365.92	3.964	11197	83.2	12.205	0.0053	2.824	0.0453	34.464	7.783
65	303.53	3.972	420.46	3.999	11895	115.1	12.171	0.0068	3.305	0.0285	40.223	7.546
70	343.65	3.939	473.35	3.975	12673	131.8	12.130	0.0048	4.061	0.0542	49.262	6.976
75	384.69	3.900	532.28	4.053	13395	83.0	12.084	0.0057	4.998	0.0701	60.395	6.370
80	425.98	3.912	597.60	3.975	14220	136.9	12.034	0.0066	6.317	0.0493	76.018	5.604
90	490.78	3.898	697.46	4.216	15579	110.4	11.934	0.0075	9.363	0.0571	111.736	4.392
100	558.26	3.915	827.68	4.145	16920	82.2	11.828	0.0074	12.812	0.0234	151.540	3.684

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	rm [w]	[G/W]
20	37.02	2.613	51.73	0.295	4185	10.1	12.253	0.0055	0.282	0.0087	3.450	10.732
25	56.90	2.613	76.41	0.298	5142	12.8	12.246	0.0050	0.459	0.0103	5.625	10.116
30	80.72	2.614	105.69	0.335	6044	23.5	12.238	0.0042	0.691	0.0107	8.454	9.549
35	106.67	2.617	139.97	0.318	6939	28.5	12.223	0.0047	0.996	0.0139	12.175	8.762
40	135.22	2.623	173.86	0.641	7823	49.3	12.210	0.0065	1.380	0.0245	16.850	8.025
45	164.92	2.615	210.90	0.692	8690	52.2	12.189	0.0053	1.795	0.0212	21.876	7.539
50	196.51	2.613	257.67	0.305	9451	70.1	12.169	0.0029	2.179	0.0170	26.521	7.410
55	231.79	2.618	304.05	0.394	10281	66.3	12.144	0.0051	2.465	0.0209	29.933	7.744
60	266.75	2.622	351.47	0.545	11161	57.9	12.110	0.0041	2.871	0.0370	34.765	7.673
65	301.23	2.616	406.48	0.338	11865	139.1	12.077	0.0051	3.342	0.0324	40.360	7.464
70	341.08	2.637	464.01	0.412	12584	66.6	12.035	0.0059	4.080	0.0486	49.099	6.947
75	380.98	2.806	523.25	0.869	13364	79.6	11.992	0.0044	4.968	0.0584	59.584	6.394
80	422.68	2.623	586.32	0.377	14137	146.7	11.947	0.0069	6.312	0.0668	75.407	5.605
90	490.39	2.690	688.78	1.092	15498	99.6	11.852	0.0073	9.332	0.0578	110.605	4.434
100	552.91	2.675	817.38	0.712	16793	93.1	11.744	0.0062	12.767	0.0276	149.939	3.688

Measurement Results 5:

Output	Thrust [G]		hrust [G] Torque [G cm]		RPM [RPM [1/min]		Voltage [V]		Current [A]		ThrustEff
[%]	mean	std dev	mean	std dev	mean	std dev	mean	std dev	mean	std dev	Pin [W]	[G/W]
20	32.68	5.258	54.73	4.928	4143	11.8	12.176	0.0042	0.276	0.0079	3.364	9.713
25	53.64	5.262	81.47	4.928	5087	10.0	12.170	0.0030	0.457	0.0107	5.558	9.650
30	77.27	5.258	108.92	4.926	6028	30.6	12.160	0.0048	0.698	0.0121	8.487	9.105
35	103.44	5.260	141.92	4.930	6936	25.8	12.148	0.0042	1.011	0.0153	12.288	8.418
40	130.60	5.260	178.21	4.927	7786	46.1	12.133	0.0024	1.381	0.0203	16.759	7.793
45	159.63	5.258	214.84	4.929	8576	54.5	12.117	0.0039	1.818	0.0193	22.022	7.248
50	190.91	5.258	262.91	4.928	9399	69.3	12.093	0.0050	2.172	0.0215	26.270	7.267
55	226.66	5.260	307.07	4.933	10176	67.8	12.064	0.0051	2.443	0.0183	29.465	7.692
60	261.47	5.267	353.79	4.948	11044	126.3	12.035	0.0027	2.863	0.0341	34.453	7.589
65	297.14	5.271	407.78	4.948	11725	73.9	11.998	0.0059	3.333	0.0371	39.985	7.431
70	334.48	5.267	459.99	4.938	12582	74.5	11.958	0.0051	4.056	0.0484	48.505	6.896
75	376.81	5.272	521.96	4.963	13285	56.7	11.909	0.0064	5.014	0.0492	59.704	6.311
80	414.22	5.267	582.66	4.967	14092	109.7	11.853	0.0060	6.233	0.0652	73.883	5.606
90	483.07	5.294	678.89	5.012	15465	58.1	11.759	0.0086	9.234	0.0583	108.590	4.449
100	542.13	5.278	808.96	5.069	16766	63.5	11.642	0.0067	12.605	0.0345	146.741	3.694

Plots for Measurement Results:

