

duty min max

hand-controller , track settings

DATA	value	units
anti-brake voltage	1.2	V
hand-controller sensitivity (min voltage)	2.5	V
track supply voltage (max voltage)	12	V

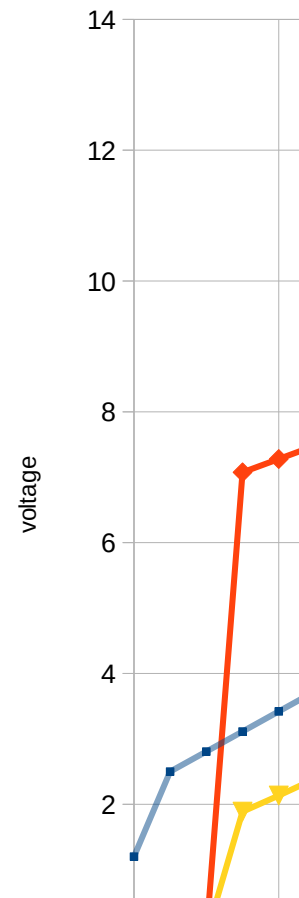
CALCULATION

m 0.3064516129
c 2.1935483871

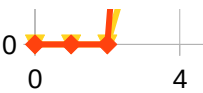
assuming output voltage is linear with respect to wiper position, not quite correct but good enough to demonstrate the effect of the settings

hand-controller wiper position	hand-controller output voltage	Remora duty %	effective voltage to motor
0	1.2	0	0
1	2.5	0	0
2	2.8064516129	0	0
3	3.11290322581	60.6451612903	1.8878251821
4	3.41935483871	62.3963133641	2.13355136019
5	3.72580645161	64.1474654378	2.39001040583
6	4.03225806452	65.8986175115	2.65720231901
7	4.33870967742	67.6497695853	2.93512709975
8	4.64516129032	69.400921659	3.22378474803
9	4.95161290323	71.1520737327	3.52317526386
10	5.25806451613	72.9032258065	3.83329864724
11	5.56451612903	74.6543778802	4.15415489817
12	5.87096774194	76.4055299539	4.48574401665
13	6.17741935484	78.1566820276	4.82806600268
14	6.48387096774	79.9078341014	5.18112085625
15	6.79032258065	81.6589861751	5.54490857737
16	7.09677419355	83.4101382488	5.91942916605
17	7.40322580645	85.1612903226	6.30468262227
18	7.70967741935	86.9124423963	6.70066894604
19	8.01612903226	88.66359447	7.10738813736
20	8.32258064516	90.4147465438	7.52484019622
21	8.62903225806	92.1658986175	7.95302512264
22	8.93548387097	93.9170506912	8.3919429166
23	9.24193548387	95.668202765	8.84159357812
24	9.54838709677	97.4193548387	9.30197710718
25	9.85483870968	99.1705069124	9.77309350379
26	10.1612903226	100	10.1612903226
27	10.4677419355	100	10.4677419355
28	10.7741935484	100	10.7741935484
29	11.0806451613	100	11.0806451613
30	11.3870967742	100	11.3870967742

if Remora duty is 0, drag brake set by duty_drag



duty min max			
31	11.6935483871	100	11.6935483871
32	12	100	12



0

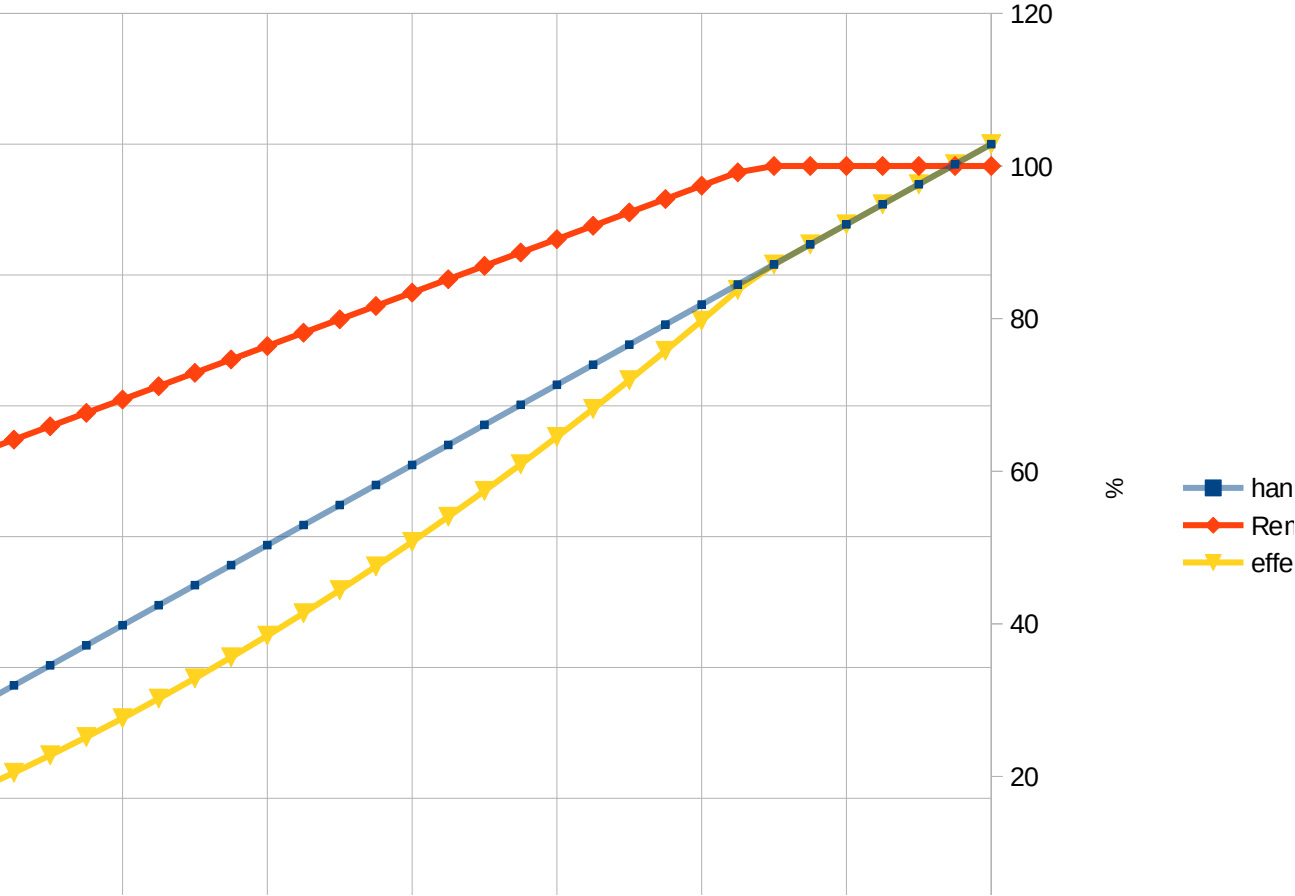
duty min max

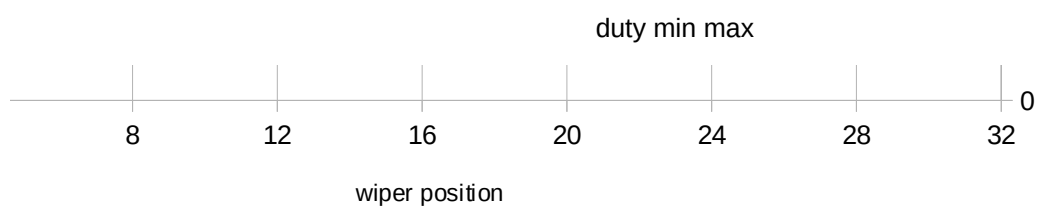
firmware settings

DATA	value	units
ANALOG_MIN as a voltage	3	V
ANALOG_MAX as a voltage	10	V
duty_min	60	%
duty_max	100	%

CALCULATION		
ANALOG_MIN firmware number	540.98360656	number
ANALOG_MAX firmware number	1803.2786885	number
m	5.7142857143	
c	42.857142857	

can be active





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d-controller output voltage
nora duty %
ctive voltage to motor

duty min max