

Logged on 8:12:48
use linear (or load) encoder only

Control parameters:

Kaf 300.0
Kvf 0.0
Ki 0.008
Kp 0.80
Kd 20.0
Limit_i 100000
Limit_p 100000
Limit_d 100000
i_mode 1
bitShift 4
dutyFlag 1

cmdEnc1	ganEnc	Enc1	Enc2	Duty	State
15523 -901	15523 0	0	2		
15523 -901	15523 0	0	2		
15522 -901	15523 0	-2	2		
15522 -901	15523 0	-2	2		
15522 -901	15523 0	-3	2		
15522 -901	15523 0	-23	2		
15522 -901	15523 0	-26	2		
15521 -902	15523 0	-28	2		
15521 -902	15523 0	-30	2		
15520 -902	15523 0	-33	2		
15520 -901	15523 0	-55	2		
15519 -901	15523 0	-59	2		
15518 -901	15523 0	-63	2		
15516 -901	15523 0	-67	2		
15515 -901	15523 0	-71	2		
15513 -901	15523 0	-76	2		
15512 -901	15523 0	-100	2		
15510 -901	15523 0	-107	2		
15508 -901	15523 0	-112	2		
15505 -901	15523 0	-119	2		
15502 -901	15523 0	-127	2		
15499 -901	15523 0	-153	2		
15496 -901	15523 0	-160	2		
15493 -901	15523 0	-168	2		
15489 -901	15523 0	-177	2		
15485 -901	15523 0	-187	2		
15481 -901	15523 0	-196	2		
15476 -901	15523 0	-225	2		
15471 -901	15523 0	-235	2		
15466 -901	15523 0	-247	2		
15460 -901	15523 0	-258	2		
15454 -901	15523 0	-270	2		
15447 -901	15523 0	-283	2		
15441 -901	15523 0	-315	2		
15433 -901	15523 0	-328	2		
15426 -901	15523 0	-343	2		
15418 -901	15523 0	-357	2		
15409 -901	15523 0	-372	2		
15400 -901	15523 0	-388	2		
15391 -901	15523 0	-423	2		
15381 -901	15523 0	-440	2		

15371	-901	15522	0	-437	2
15360	-901	15522	0	-474	2
15349	-901	15522	0	-493	2
15338	-901	15522	0	-513	2
15325	-901	15522	0	-532	2
15313	-901	15523	0	-592	2
15300	-901	15523	0	-593	2
15286	-901	15523	0	-614	2
15272	-901	15523	0	-636	2
15257	-901	15523	0	-659	2
15241	-901	15523	0	-682	2
15226	-901	15523	0	-705	2
15209	-901	15523	0	-749	2
15192	-901	15523	0	-775	2
15174	-901	15523	0	-800	2
15156	-901	15523	0	-826	2
15137	-901	15523	0	-853	2
15118	-901	15523	0	-880	2
15098	-901	15523	0	-909	2
15077	-901	15522	0	-917	2
15056	-900	15522	0	-966	2
15034	-900	15522	0	-1015	2
15012	-900	15522	0	-1046	2
14989	-900	15522	0	-1078	2
14965	-900	15523	0	-1130	2
14940	-900	15523	0	-1142	2
14915	-900	15523	0	-1176	2
14889	-900	15523	0	-1211	2
14863	-901	15523	0	-1246	2
14836	-901	15523	0	-1280	2
14808	-901	15523	0	-1316	2
14780	-901	15523	0	-1371	2
14750	-901	15523	0	-1408	2
14720	-902	15523	0	-1447	2
14690	-902	15523	0	-1485	2
14658	-902	15523	0	-1524	2
14626	-901	15523	0	-1565	2
14594	-901	15523	0	-1605	2
14560	-901	15523	0	-1647	2
14526	-901	15523	0	-1688	2
14491	-900	15522	0	-1710	2
14455	-900	15522	0	-1772	2
14419	-900	15522	0	-1816	2
14382	-900	15522	0	-1861	2
14344	-900	15522	0	-1906	2
14305	-900	15522	0	-1952	2
14266	-900	15523	0	-2019	2
14226	-900	15523	0	-2046	2
14185	-901	15523	0	-2094	2
14143	-901	15523	0	-2161	2
14101	-901	15523	0	-2210	2
14058	-901	15523	0	-2260	2
14014	-902	15523	0	-2300	2
13969	-902	15523	0	-2300	2
13924	-902	15523	0	-2300	2
13878	-902	15523	0	-2300	2
13831	-902	15523	0	-2300	2
13783	-902	15523	0	-2300	2

13735	-901	15523	0	-2300	2
13686	-901	15523	0	-2300	2
13636	-901	15523	0	-2300	2
13585	-900	15522	0	-2300	2
13534	-900	15522	0	-2300	2
13481	-900	15522	0	-2300	2
13428	-900	15522	0	-2300	2
13375	-900	15522	0	-2300	2
13320	-900	15523	0	-2300	2
13265	-900	15523	0	-2300	2
13209	-900	15523	0	-2300	2
13152	-901	15523	0	-2300	2
13094	-901	15523	0	-2300	2
13036	-902	15523	0	-2300	2
12977	-902	15523	0	-2300	2
12917	-902	15523	0	-2300	2
12857	-902	15523	0	-2300	2
12796	-902	15523	0	-2300	2
12734	-902	15523	0	-2300	2
12671	-902	15523	0	-2300	2
12607	-902	15523	0	-2300	2
12543	-901	15523	0	-2300	2
12478	-901	15523	0	-2300	2
12413	-901	15523	0	-2300	2
12346	-901	15522	0	-2300	2
12279	-900	15522	0	-2300	2
12211	-900	15522	0	-2300	2
12143	-900	15522	0	-2300	2
12074	-900	15522	0	-2300	2
12004	-900	15523	0	-2300	2
11933	-900	15523	0	-2300	2
11862	-901	15523	0	-2300	2
11790	-901	15523	0	-2300	2
11717	-902	15523	0	-2300	2
11644	-902	15523	0	-2300	2
11570	-902	15523	0	-2300	2
11496	-902	15523	0	-2300	2
11420	-902	15523	0	-2300	2
11345	-902	15523	0	-2300	2
11268	-902	15523	0	-2300	2
11191	-902	15523	0	-2300	2
11113	-901	15523	0	-2300	2
11035	-901	15523	0	-2300	2
10956	-901	15522	0	-2300	2
10876	-900	15522	0	-2300	2
10796	-900	15522	0	-2300	2
10715	-900	15522	0	-2300	2
10634	-900	15522	0	-2300	2
10552	-900	15522	0	-2300	2
10469	-900	15522	0	-2300	2
10386	-900	15522	0	0	9

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Current motor state = 9

State table:

- 2 -- ramp up
- 3 -- at speed
- 4 -- ramp down

```

5 -- hold
6 -- hold
7 -- direct duty
8 -- no motion error. No encoder change in spite of high duty. Cable
disconnected?
9 -- following error too big or encoder fault (big jump)
    Dual drive case: the difference of the two encoders too big?
10 -- PWM fault. Carriage guard tripped? Over current or voltage?

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```

Control parameters:

```

Kaf 300.0
Kvf 0.0
Ki 0.008
Kp 0.80
Kd 20.0
Limit_i 100000
Limit_p 100000
Limit_d 100000
i_mode 1
bitShift 4
dutyFlag 1

```

cmdEnc1	ganEnc	Enc1	Enc2	Duty	State
15523 -902	15523 0	0	2		
15523 -902	15523 0	0	2		
15522 -902	15523 0	-2	2		
15522 -902	15523 0	-2	2		
15522 -901	15523 0	-3	2		
15522 -901	15523 0	-23	2		
15522 -901	15523 0	-26	2		
15521 -901	15523 0	-28	2		
15521 -900	15523 0	-30	2		
15520 -900	15522 0	-13	2		
15520 -900	15522 0	-55	2		
15519 -900	15522 0	-58	2		
15518 -900	15522 0	-62	2		
15516 -900	15523 0	-87	2		
15515 -900	15523 0	-71	2		
15513 -901	15523 0	-76	2		
15512 -901	15523 0	-100	2		
15510 -901	15523 0	-107	2		
15508 -902	15523 0	-112	2		
15505 -902	15523 0	-119	2		
15502 -902	15523 0	-127	2		
15499 -902	15523 0	-153	2		
15496 -902	15523 0	-160	2		
15493 -901	15523 0	-168	2		
15489 -901	15523 0	-177	2		
15485 -901	15523 0	-187	2		
15481 -901	15523 0	-196	2		
15476 -901	15522 0	-204	2		
15471 -900	15522 0	-235	2		
15466 -900	15522 0	-246	2		
15460 -900	15522 0	-257	2		
15454 -900	15522 0	-270	2		

15447	-900	15522	0	-282	2
15441	-900	15522	0	-314	2
15433	-900	15522	0	-327	2
15426	-901	15523	0	-363	2
15418	-901	15523	0	-357	2
15409	-901	15523	0	-372	2
15400	-901	15523	0	-388	2
15391	-901	15523	0	-423	2
15381	-901	15523	0	-440	2
15371	-901	15523	0	-458	2
15360	-901	15523	0	-475	2
15349	-901	15523	0	-494	2
15338	-901	15523	0	-513	2
15325	-901	15523	0	-533	2
15313	-901	15523	0	-572	2
15300	-901	15523	0	-593	2
15286	-901	15523	0	-614	2
15272	-900	15522	0	-615	2
15257	-900	15522	0	-658	2
15241	-901	15522	0	-681	2
15226	-901	15522	0	-705	2
15209	-901	15522	0	-748	2
15192	-901	15522	0	-774	2
15174	-901	15523	0	-820	2
15156	-901	15523	0	-826	2
15137	-901	15523	0	-853	2
15118	-901	15523	0	-880	2
15098	-901	15523	0	-909	2
15077	-901	15523	0	-938	2
15056	-901	15523	0	-967	2
15034	-901	15523	0	-1016	2
15012	-901	15523	0	-1046	2
14989	-901	15523	0	-1079	2
14965	-901	15523	0	-1110	2
14940	-901	15523	0	-1142	2
14915	-901	15523	0	-1176	2
14889	-901	15523	0	-1211	2
14863	-901	15523	0	-1246	2
14836	-901	15523	0	-1280	2
14808	-901	15523	0	-1316	2
14780	-901	15523	0	-1371	2
14750	-901	15523	0	-1408	2
14720	-901	15522	0	-1426	2
14690	-901	15522	0	-1485	2
14658	-901	15523	0	-1544	2
14626	-901	15523	0	-1565	2
14594	-901	15523	0	-1605	2
14560	-901	15523	0	-1647	2
14526	-901	15523	0	-1688	2
14491	-901	15523	0	-1731	2
14455	-901	15523	0	-1773	2
14419	-901	15523	0	-1817	2
14382	-901	15523	0	-1862	2
14344	-901	15523	0	-1907	2
14305	-901	15523	0	-1953	2
14266	-901	15523	0	-1999	2
14226	-901	15523	0	-2046	2
14185	-901	15523	0	-2094	2

14143	-901	15523	0	-2161	2
14101	-901	15523	0	-2210	2
14058	-901	15523	0	-2260	2
14014	-901	15523	0	-2300	2
13969	-901	15523	0	-2300	2
13924	-901	15522	0	-2300	2
13878	-901	15523	0	-2300	2
13831	-900	15522	0	-2300	2
13783	-900	15523	0	-2300	2
13735	-900	15523	0	-2300	2
13686	-901	15523	0	-2300	2
13636	-901	15523	0	-2300	2
13585	-901	15523	0	-2300	2
13534	-901	15523	0	-2300	2
13481	-901	15523	0	-2300	2
13428	-901	15523	0	-2300	2
13375	-901	15523	0	-2300	2
13320	-901	15523	0	-2300	2
13265	-901	15523	0	-2300	2
13209	-901	15523	0	-2300	2
13152	-901	15523	0	-2300	2
13094	-901	15523	0	-2300	2
13036	-901	15523	0	-2300	2
12977	-901	15523	0	-2300	2
12917	-901	15523	0	-2300	2
12857	-901	15523	0	-2300	2
12796	-901	15523	0	-2300	2
12734	-900	15523	0	-2300	2
12671	-900	15523	0	0	8

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Current motor state = 8

State table:

- 2 -- ramp up
- 3 -- at speed
- 4 -- ramp down
- 5 -- hold
- 6 -- hold
- 7 -- direct duty
- 8 -- no motion error. No encoder change in spite of high duty. Cable disconnected?
- 9 -- following error too big or encoder fault (big jump)
Dual drive case: the difference of the two encoders too big?
- 10 -- PWM fault. Carriage guard tripped? Over current or voltage?