LAB REPORT 2

Pertemuan 1. Motor DC – Driver Motor

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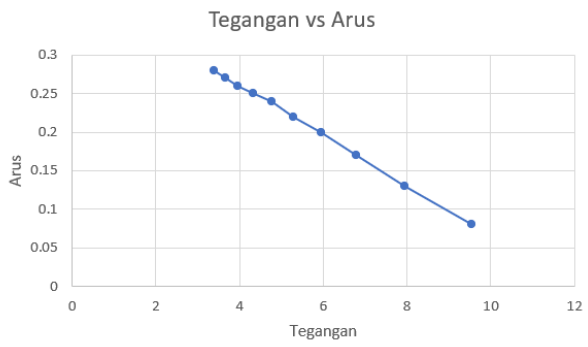
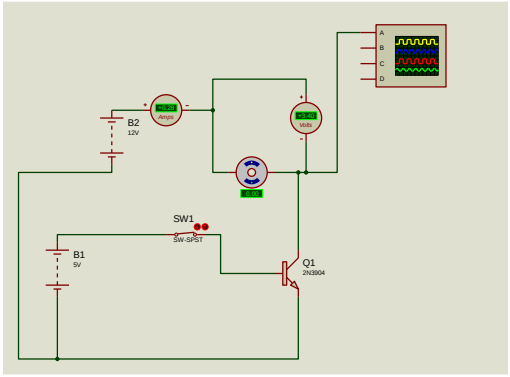
I. Transistor dan Motor DC

No	Tegangan (V)	Arus (A)	Arah	Load
1.	9.55	0.08	CW	10%
2.	7.94	0.13	CCW	20%
3.	6.80	0.17	CCW	30%
4.	5.96	0.20	CCW	40%
5.	5.29	0.22	CW	50%
6.	4.76	0.24	CW	60%
7.	4.33	0.25	CW	70%
8.	3.97	0.26	CW	80%
9.	3.66	0.27	CW	90%
10.	3.40	0.28	-	100%

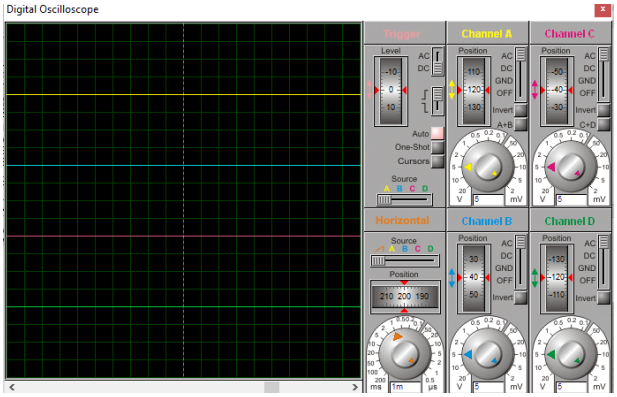
Grafik Tegangan (V) vs Arus (A)



Skematik



Bentuk sinyal saat motor dinyalakan

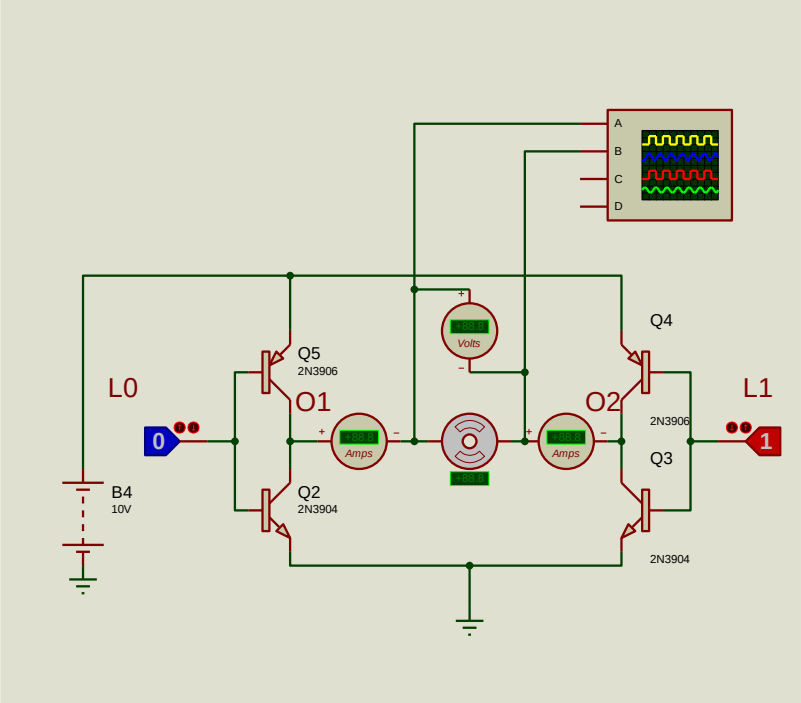


II. Arah Gerak Motor

No	L0	L1	Arah
1.	0	0	diam
2.	0	1	CW
3.	1	0	CCW
4.	1	1	diam

No	Tegangan (V)	Arus (A)	Arah
1.	0.11	-3.3	CW
2.	1.8	-4.08	CW
3.	-0.3	-1.83	CCW
4.	8.2	-6.7	CW
5.	-0.5	-1.33	CCW
6.	3.5	-4.7	CW
7.	5.2	-5.23	CW
8.	7.6	-6.3	CW
9.	0.4	0	CCW
10.	10.2	-8.1	CW

Skematik

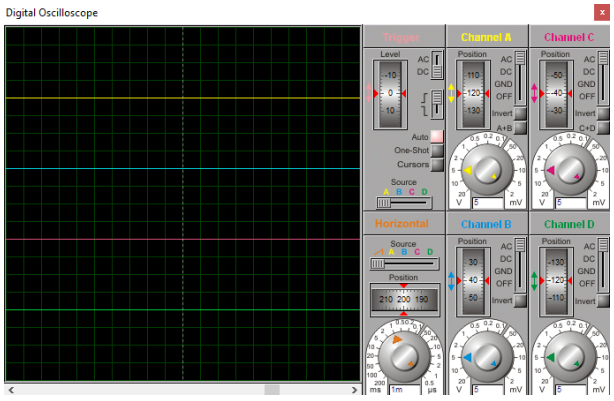


III. Merangkai IC Driver Motor

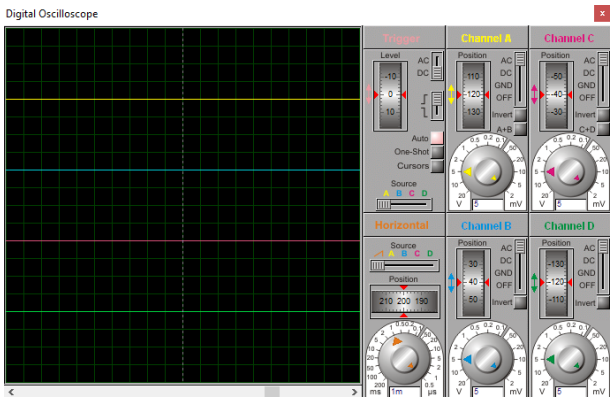
No	E1	I1	I2	O1	O2	Arah
1.	0	0	0	0	0	0
2.	0	0	1	0	0	0
3.	0	1	0	0	0	0
4.	0	1	1	0	0	0
5.	1	0	0	0	0	0
6.	1	0	1	0	1	CCW
7.	1	1	0	0	1	CW
8.	1	1	1	1	1	CW

No	Tegangan (V)	Arus (A)	Arah
1.	16.5	0.67	CW
2.	18.3	0.75	CW
3.	14.7	0.61	CW
4.	10.9	0.49	CW
5.	22.8	0.98	CW
6.	12.7	0.55	CW
7.	15.5	0.68	CW
8.	13.8	0.58	CW
9.	16.5	0.67	CW
10.	18.3	0.75	CW

Bentuk Sinyal saat Motor dinyalakan

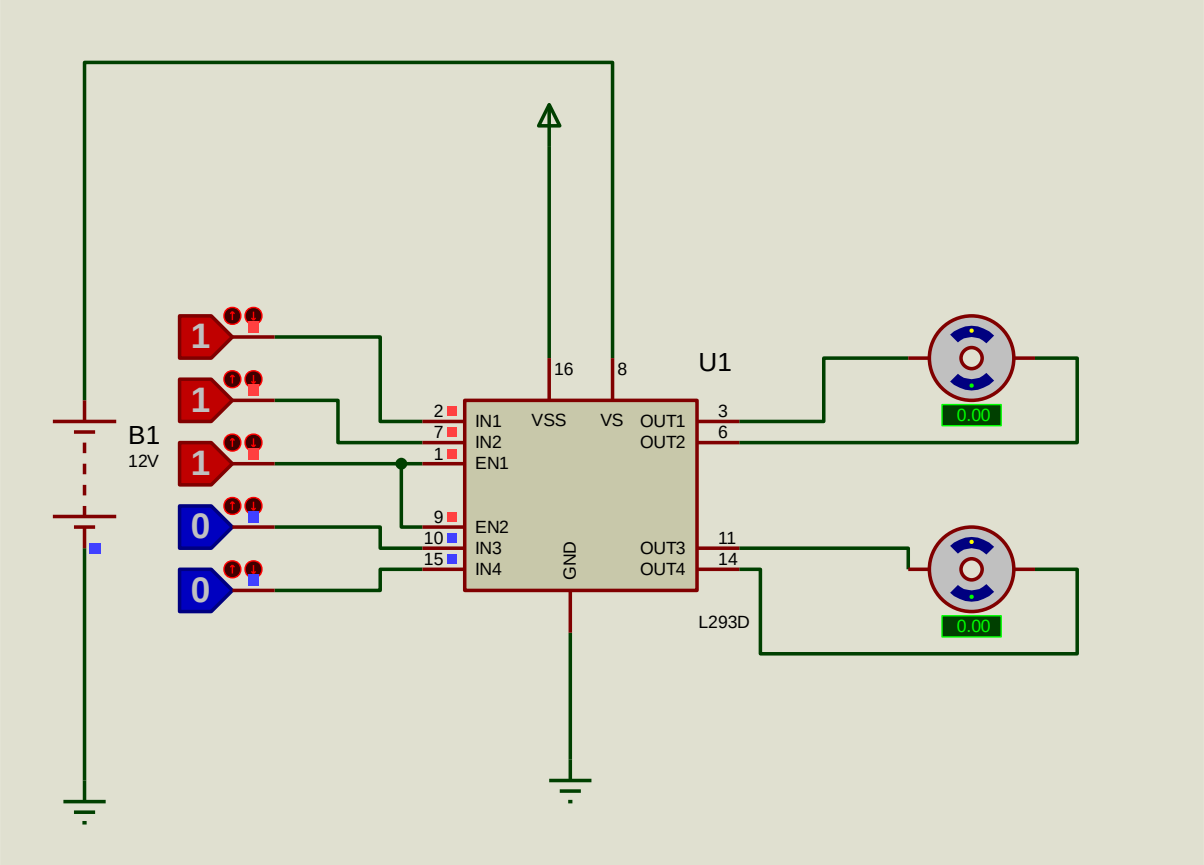


Bentuk sinyal sat diberi hambatan



IV. Tugas

No	E1	I1	I2	O1	O2	Arah
1.	0	0	0	0	0	-
2.	0	0	1	0	0	-
3.	0	1	0	0	0	-
4.	0	1	1	0	0	-
5.	1	0	0	0	0	-
6.	1	0	1	-460	0	CW
7.	1	1	0	+460	0	CCW
8.	1	1	1	0	0	-



V. Pertanyaan

1. Apa bedanya menggunakan transistor dan tanpa transistor?
2. Bagaimana cara kerja H Bridge mengatur arah gerak motor?
3. Bagaimana bentuk sinyal tegangan motor saat terhubung ke driver
4. Apa itu enable? Kenapa diperlukan?
5. Apa pengaruh penggunaan 1 motor dan 2 motor pada driver l293D?