

LAB REPORT 2

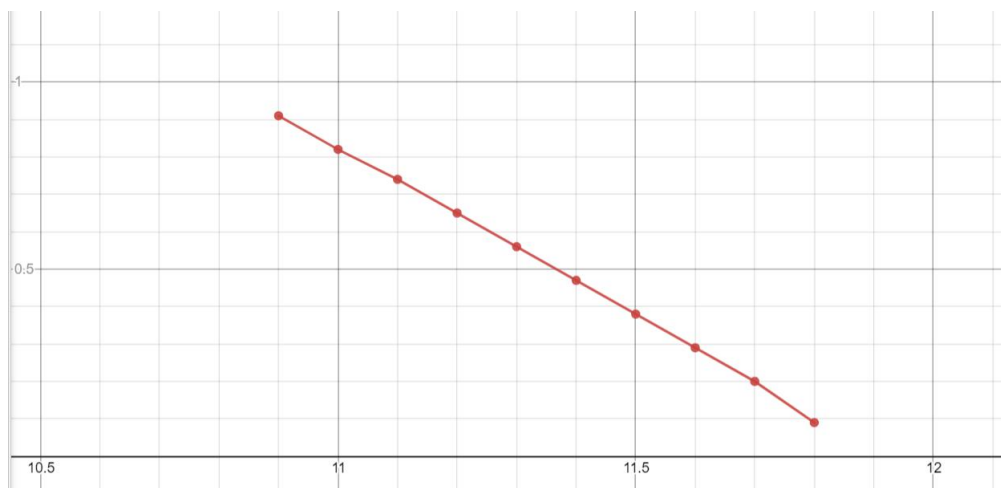
Pertemuan 1. Motor DC – Driver Motor

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Tanggal : 6 September 2021
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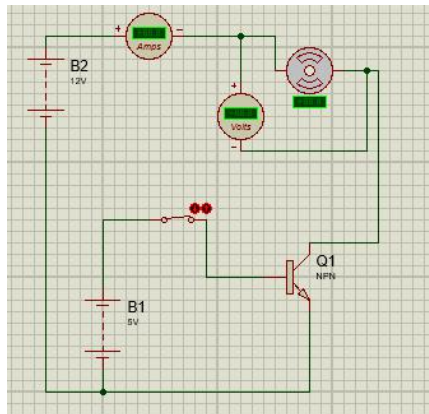
I. Transistor dan Motor DC

| No | Tegangan (V) | Arus (A) | Arah |
|-----|--------------|----------|------|
| 1. | 11.8 | 0.09 | CW |
| 2. | 11.7 | 0.20 | CW |
| 3. | 11.6 | 0.29 | CW |
| 4. | 11.5 | 0.38 | CCW |
| 5. | 11.4 | 0.47 | CCW |
| 6. | 11.3 | 0.56 | CW |
| 7. | 11.2 | 0.65 | CW |
| 8. | 11.1 | 0.74 | CW |
| 9. | 11.0 | 0.82 | CW |
| 10. | 10.9 | 0.91 | - |

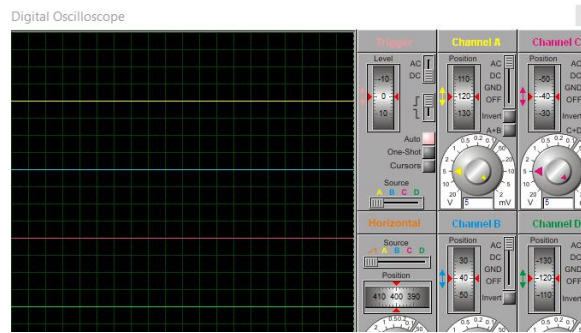
Grafik Tegangan (V) vs Arus (A)



Skematik



Bentuk sinyal saat motor dinyalakan

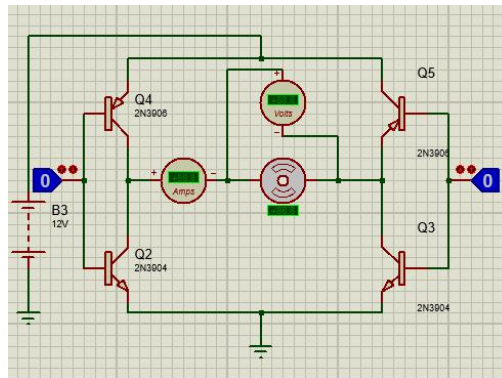


II. Arah Gerak Motor

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

| No | Tegangan (V) | Arus (A) | Arah |
|-----|--------------|----------|------|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |

Skematik

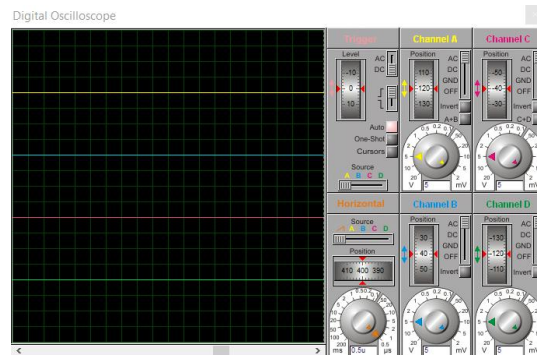


III. Merangkai IC Driver Motor

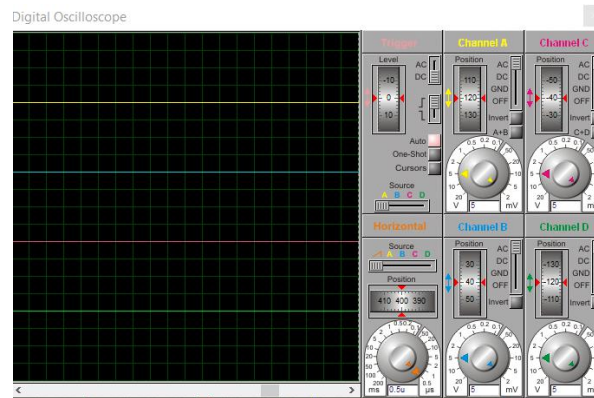
| No | E1 | I1 | I2 | O1 | O2 | Arah |
|----|----|----|----|----|----|------|
| 1. | 0 | 0 | 0 | | | |
| 2. | 0 | 0 | 1 | | | |
| 3. | 0 | 1 | 0 | | | |
| 4. | 0 | 1 | 1 | | | |
| 5. | 1 | 0 | 0 | | | |
| 6. | 1 | 0 | 1 | | | |
| 7. | 1 | 1 | 0 | | | |
| 8. | 1 | 1 | 1 | | | |

| No | Tegangan (V) | Arus (A) | Arah |
|-----|--------------|----------|------|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |
| 9. | | | |
| 10. | | | |

Bentuk Sinyal saat Motor dinyalakan



Bentuk sinyal sat diberi hambatan



IV. Tugas

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

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?