**Practice**

1. Objective and Task of the experiment:
2. Master the current loop of the DC motor
3. Understanding Dual-loop control of the DC motor
4. Experimental instruments, equipment and materials
5. Windows PC with Matlab2024
6. Control principle test board
7. Question
8. Implement a motor current loop in Simulink and use a scope to display tracking performance.

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| Simulink Code: |
| Step Response: |

1. Implement a current-speed loop use Simulink and test its step response.

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| Simulink Code: |
| Step Response |

1. In the Output area of the Simulink code. It adds “36.061” to the output value. This operation violates the superposition and homogeneity of linear system. Why the author did this? Remove this value and compare the step responses of the speed loop and the speed-current loop.

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| Speed loop response: |
| Speed-current loop response |