MIDDLE EAST TECHNICAL UNIVERSITY

DEPARTMENT

OF

ELECTRICAL AND ELECTRONICS ENGINEERING

EE 462 – PROJECT 0 - REPORT

Student's name and surname : Utku ŞAHİN

Student's ID : 1938067

1) DC MOTOR

Voltage = 87 volt
Current = 0.1 amper
Ka = 10
Kb = 1

2) 1 volt dc voltage source is used for this motor. A resistor and inductor are used for RL circuit. In order to control the emf of the motor, motor speed is multiplied with a constant. This constant parameter is determined before simulating the program.

3) Graphs

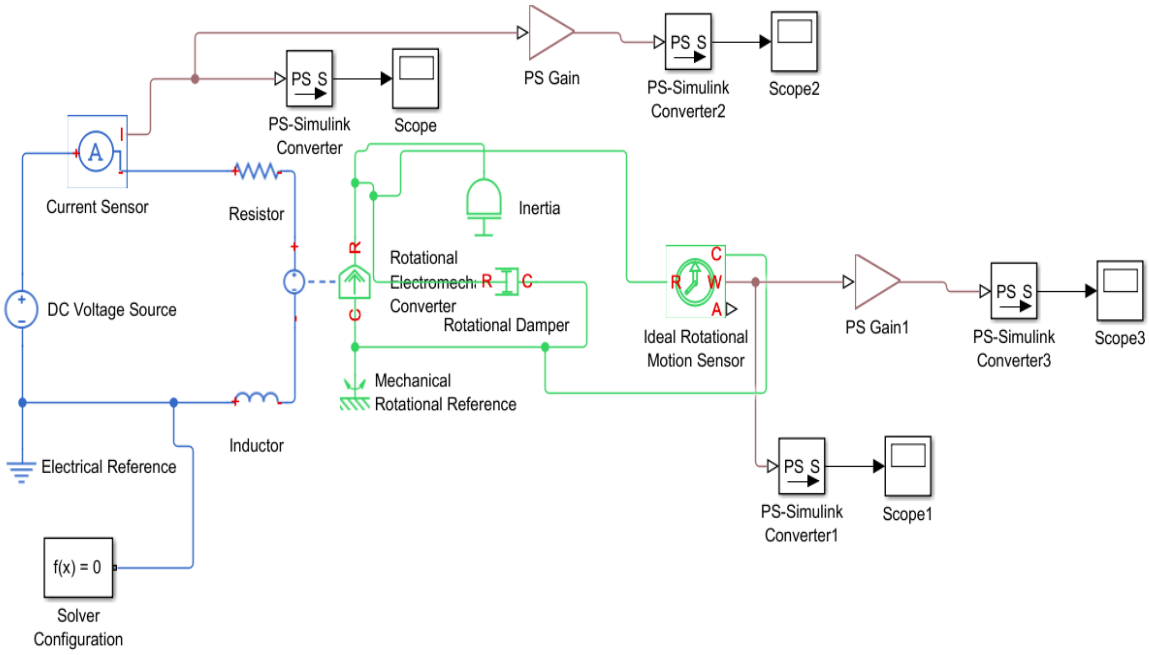

Figure 1 – The Schema of the DC Motor and the circuit

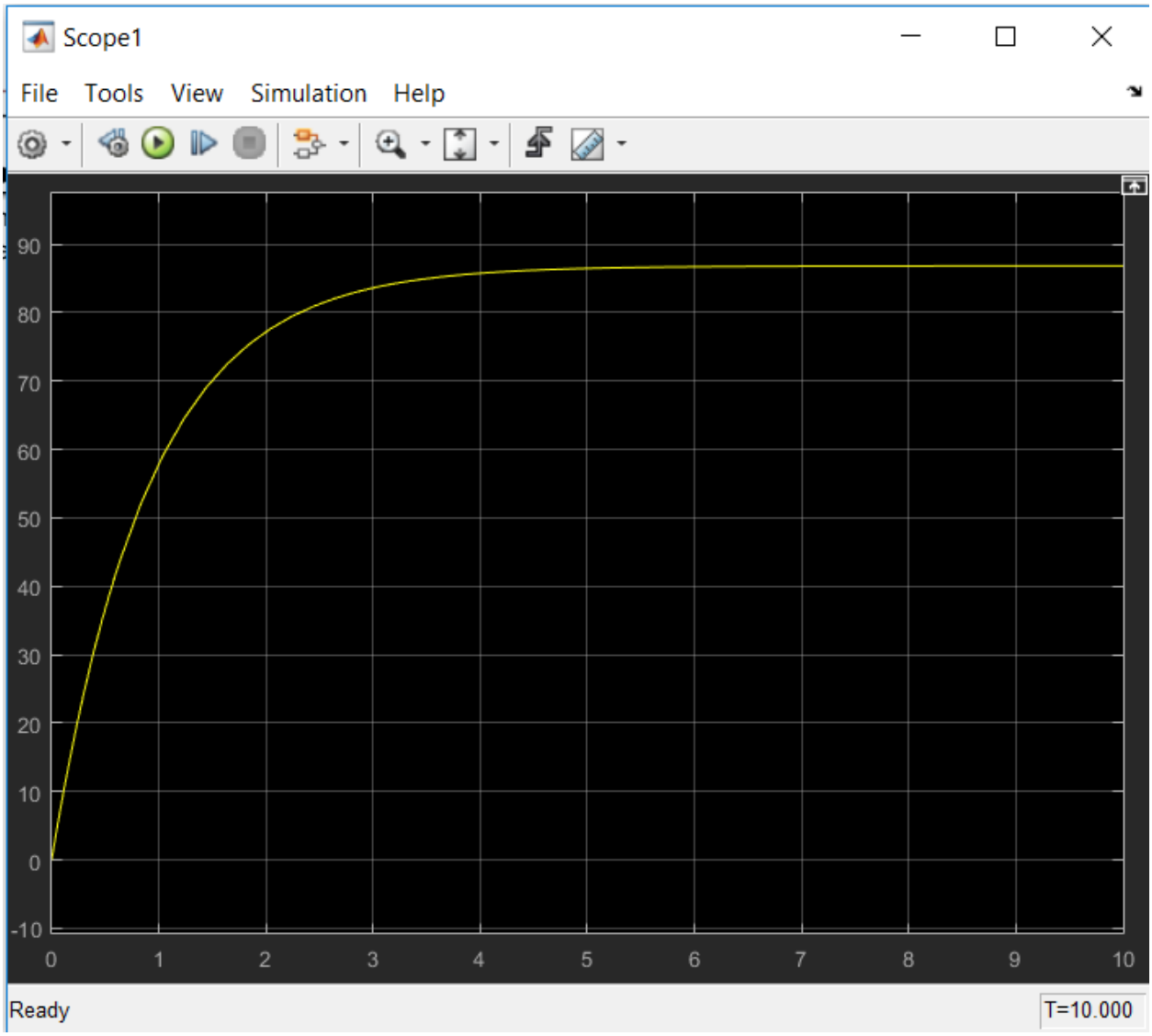

Figure 2 – DC motor emf

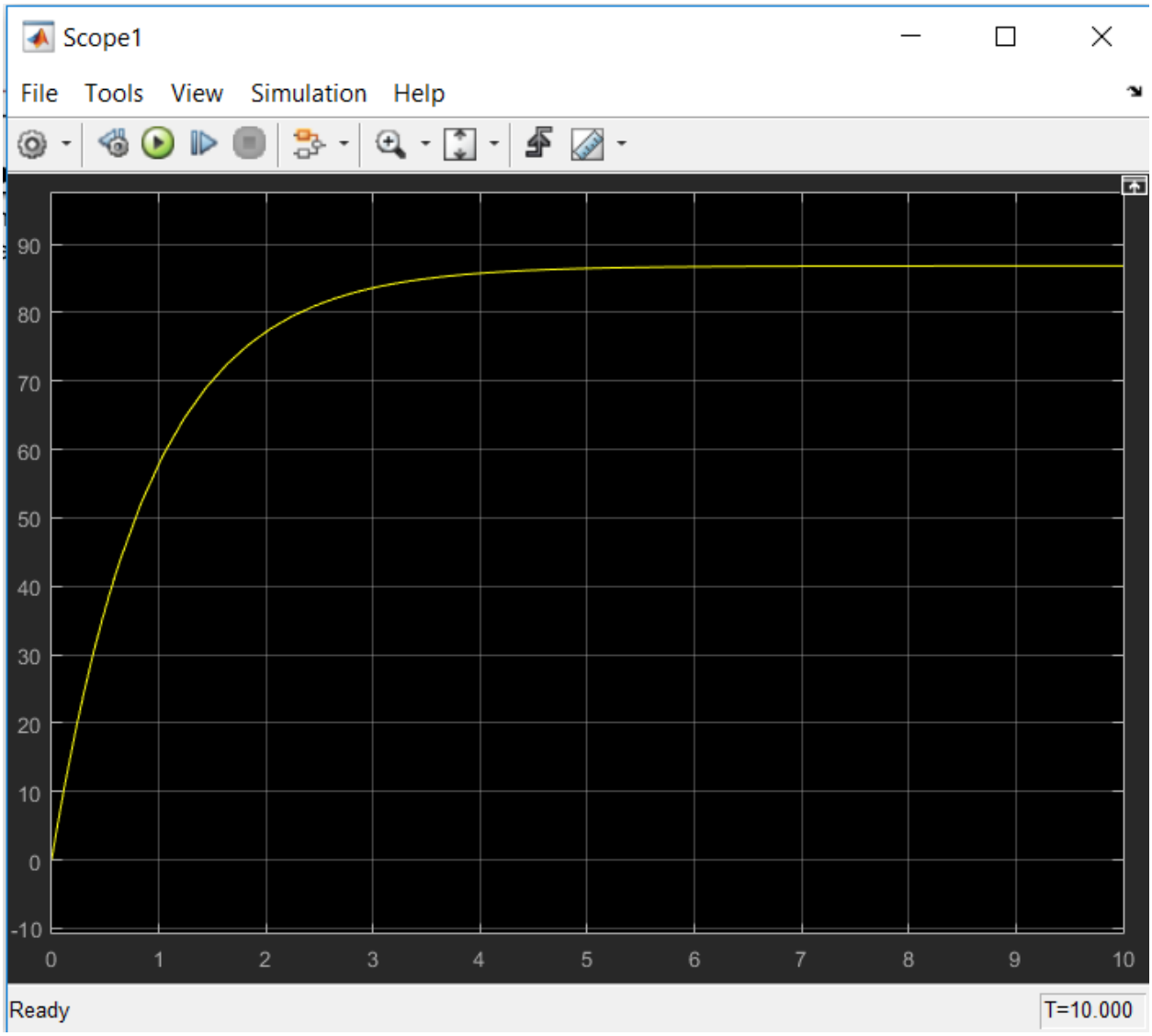

Figure 3 – DC motor current

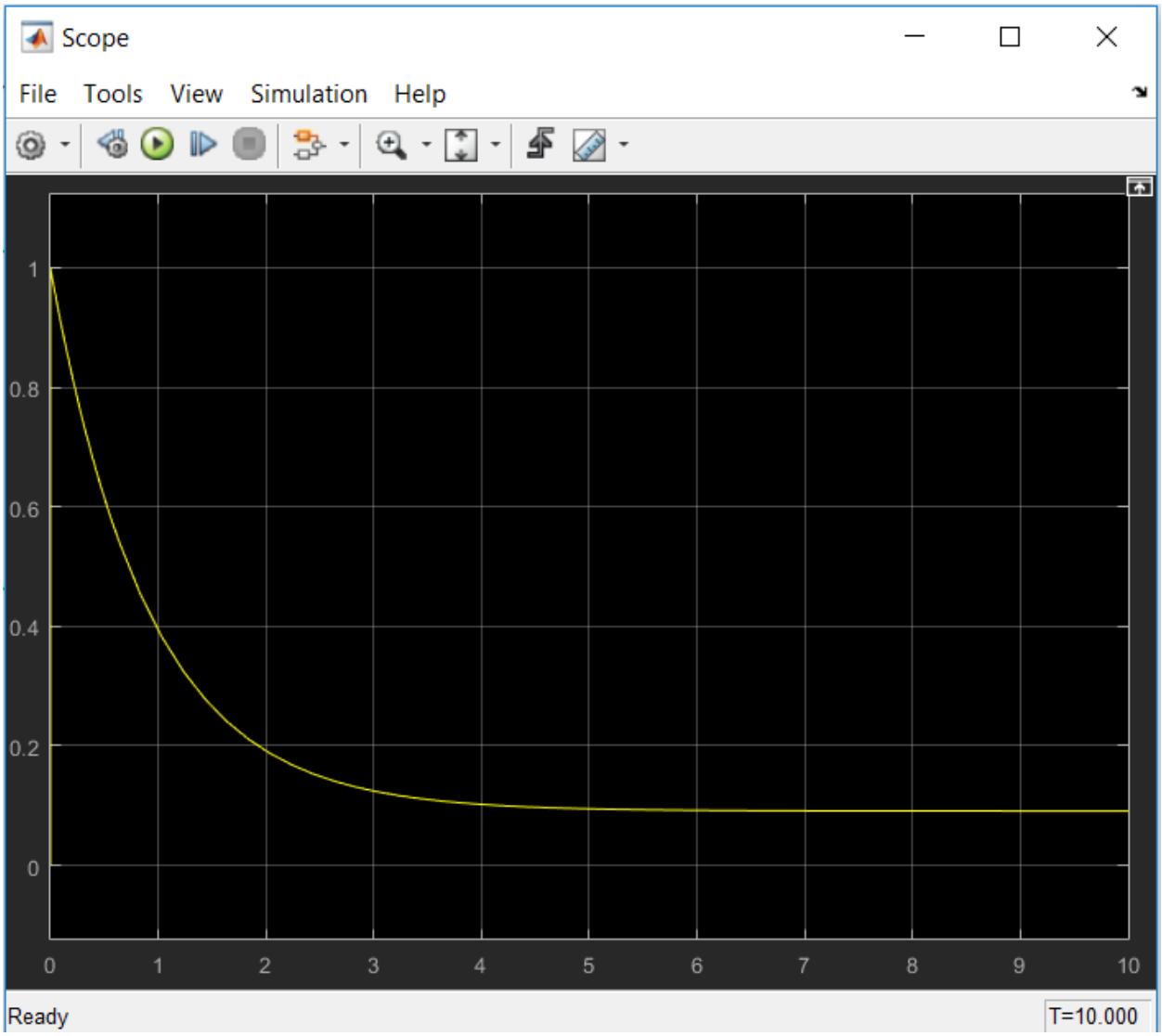

Figure 4 – DC motor current

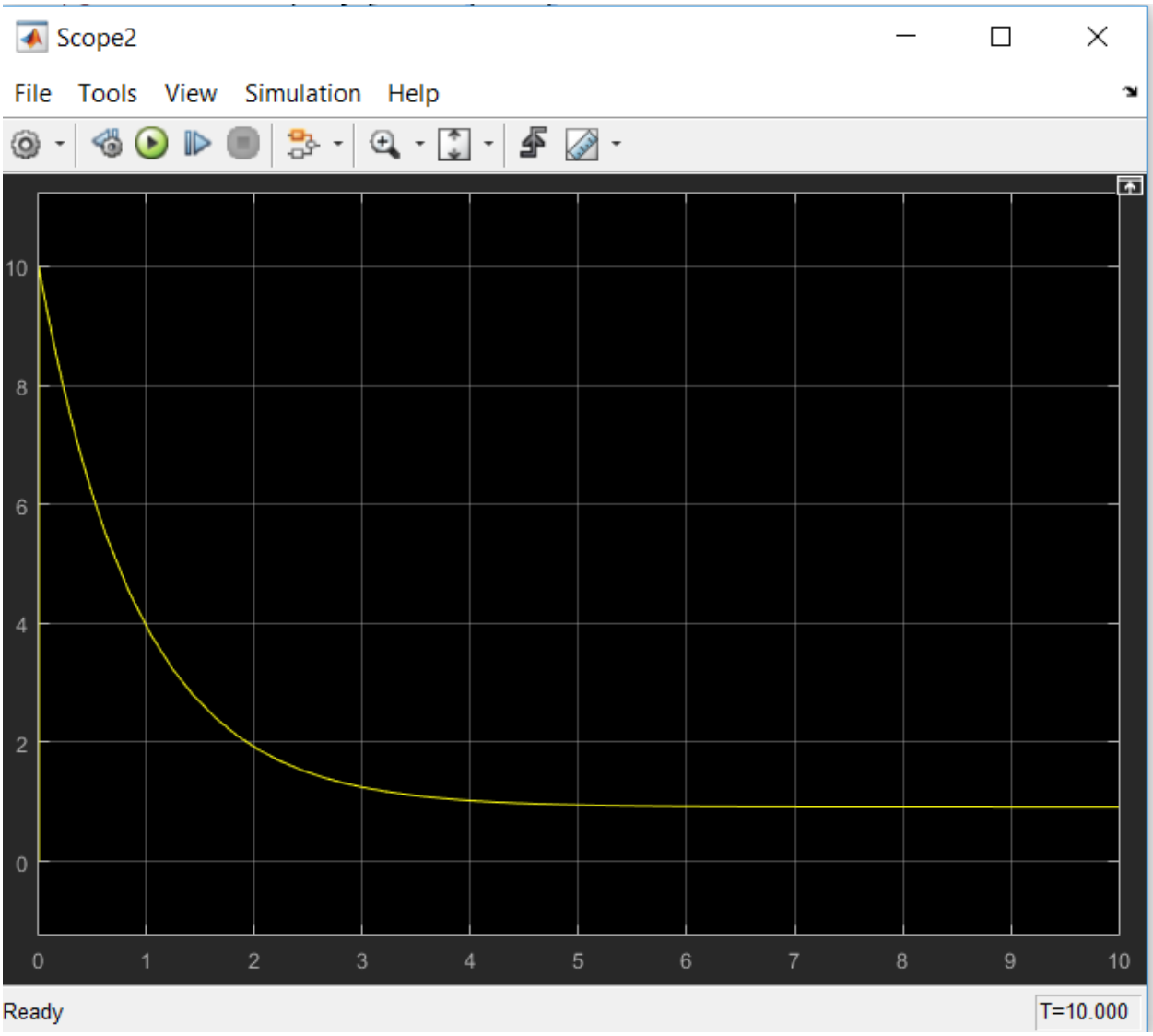

Figure 5 – DC motor torque

References

[1] M. (2013, May 3). Modeling a DC Motor. Retrieved March 6, 2017, from https://www.youtube.com/watch?v=ESE2vw92nbA

[2] DC Motor. (n.d.). Retrieved March 6, 2017, from https://en.wikipedia.org/wiki/DC_motor