ELECENG 3CL4 Lab 1

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L02   L02

February 6, 2021

Simulation Environment

Familiarization Exercises

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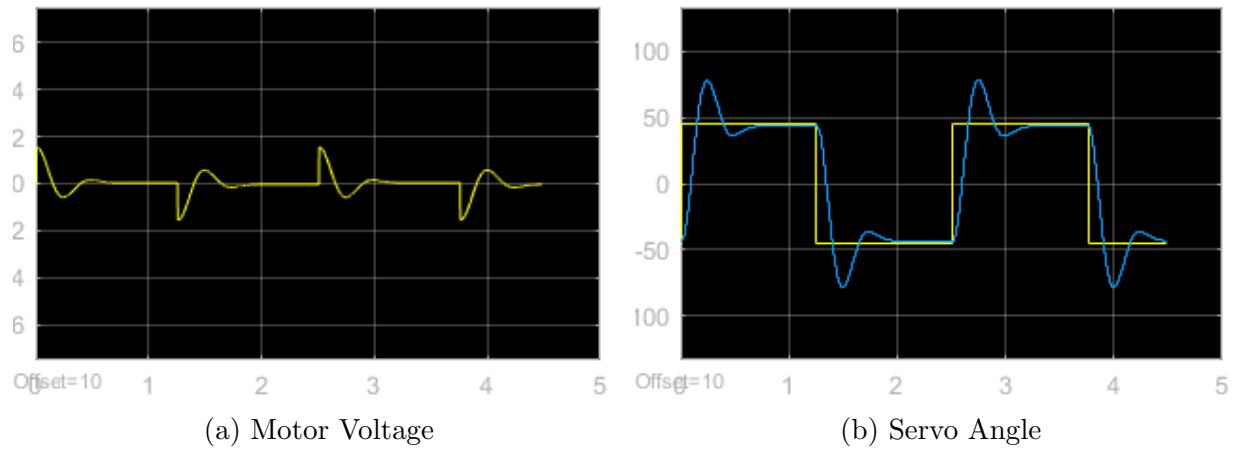
Base settings, proportional gain is 1, no derivative gain

(a) Motor Voltage

(b) Servo Angle

Figure 1: Proportional gain: 1, Derivative gain = 0

ix

Increase proportional gain to 2

(a) Motor Voltage

(b) Servo Angle
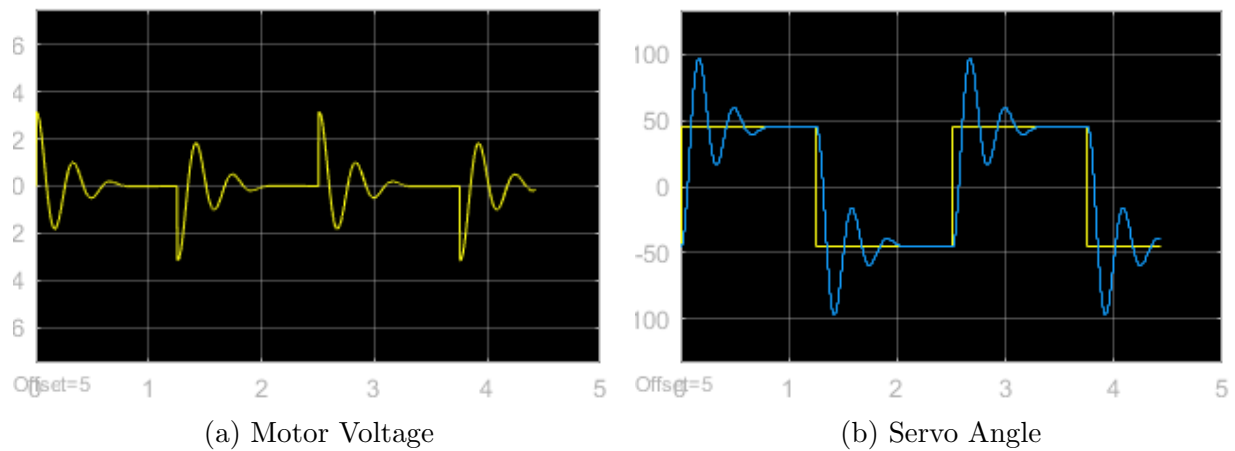
Figure 2: Proportional gain: 2, Derivative gain = 0

x

Increase proportional gain to 4

(a) Motor Voltage   (b) Servo Angle
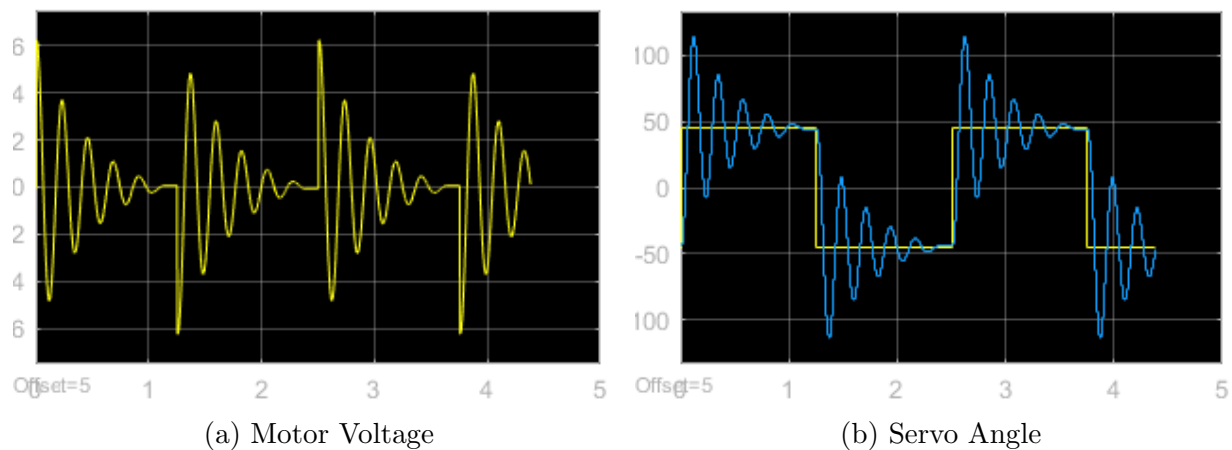
Figure 3: Proportional gain: 4, Derivative gain = 0

xi

Increased derivative gain to 0.1

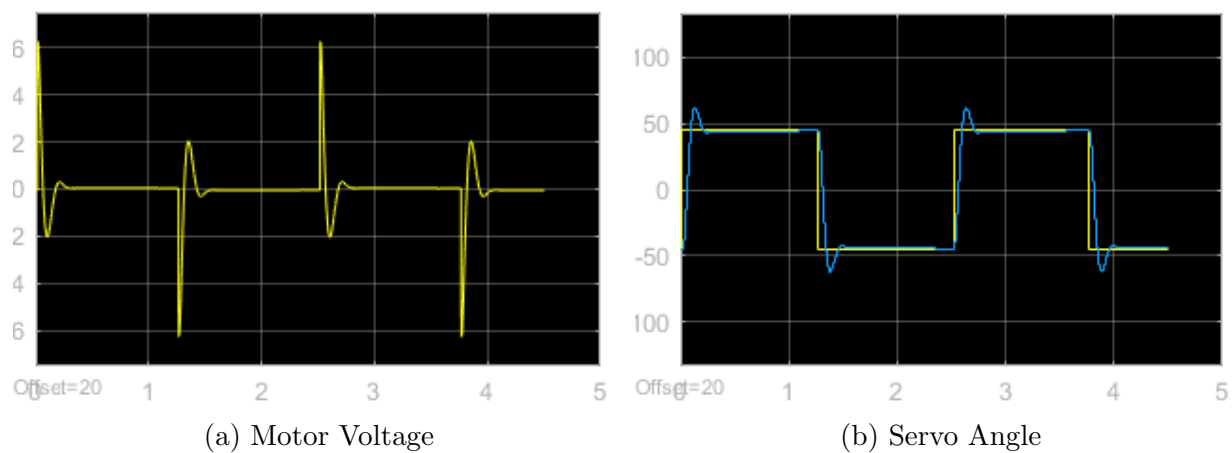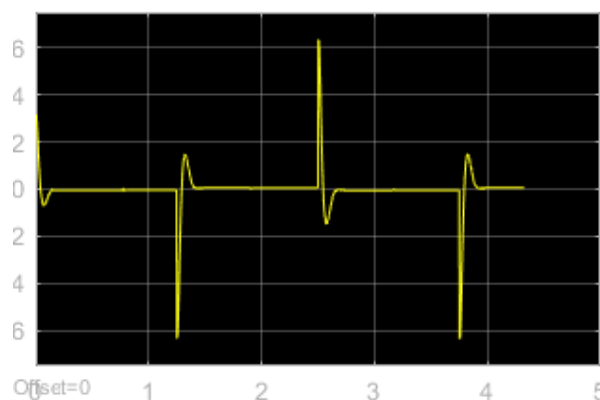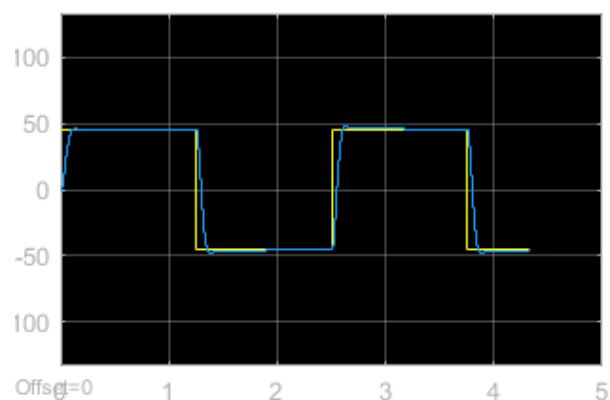(a) Motor Voltage   (b) Servo Angle

Figure 4: Proportional gain: 4, Derivative gain = 0.1

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Increase derivative gain to 0.15

(a) Motor Voltage

(b) Servo Angle

Figure 5: Proportional gain: 4, Derivative gain = 0.15