JED-I

How to Control Electromechanical Systems

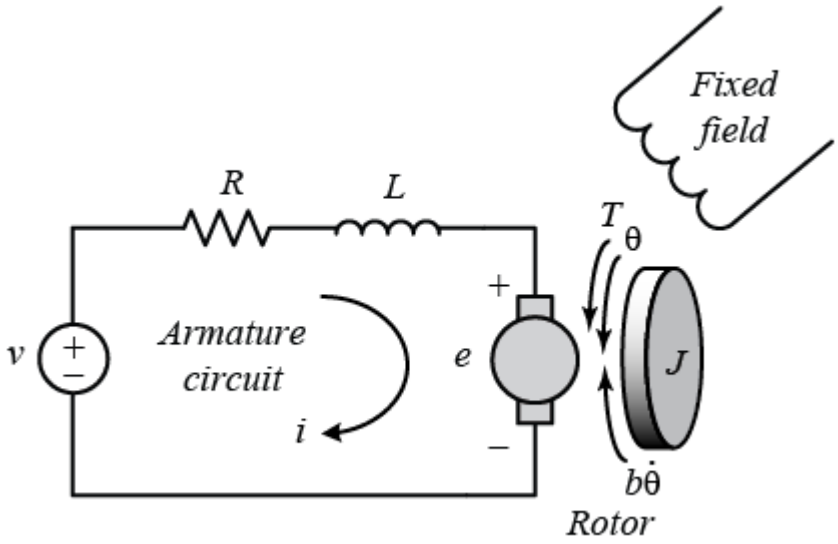
Assignment # 2

1. Pick a device or gadget or process that interests you. Identify the various components of the control system within this device/process. Describe the following

(a) underlying system or process being controlled
(b) sensor
(c) actuator
(d) computational element

Include detailed specifications of the components. Indicate all references. You can add diagrams/pictures as needed. There might be some details which are not clear to you which you can mention in your answer. Please try and understand the working of the controller and cite any references you have used.

2. Write the mathematical model (in matrix form) of a DC motor. Include back emf and viscous friction in your model. State clearly what variables you have used.



Submit a printout of your answers in class.

Due date 11/9/2013, 1:30 p.m.