ME729 Advanced Robotics - Lab #7

4/02/2018
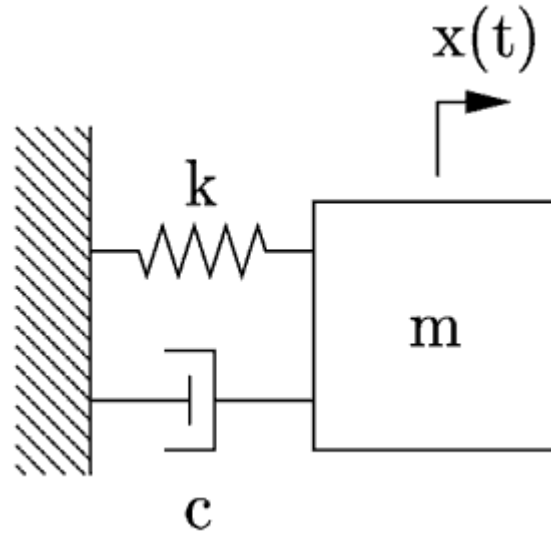
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❑ Matlab and Simulink
  • Get a free 30-day trial version :
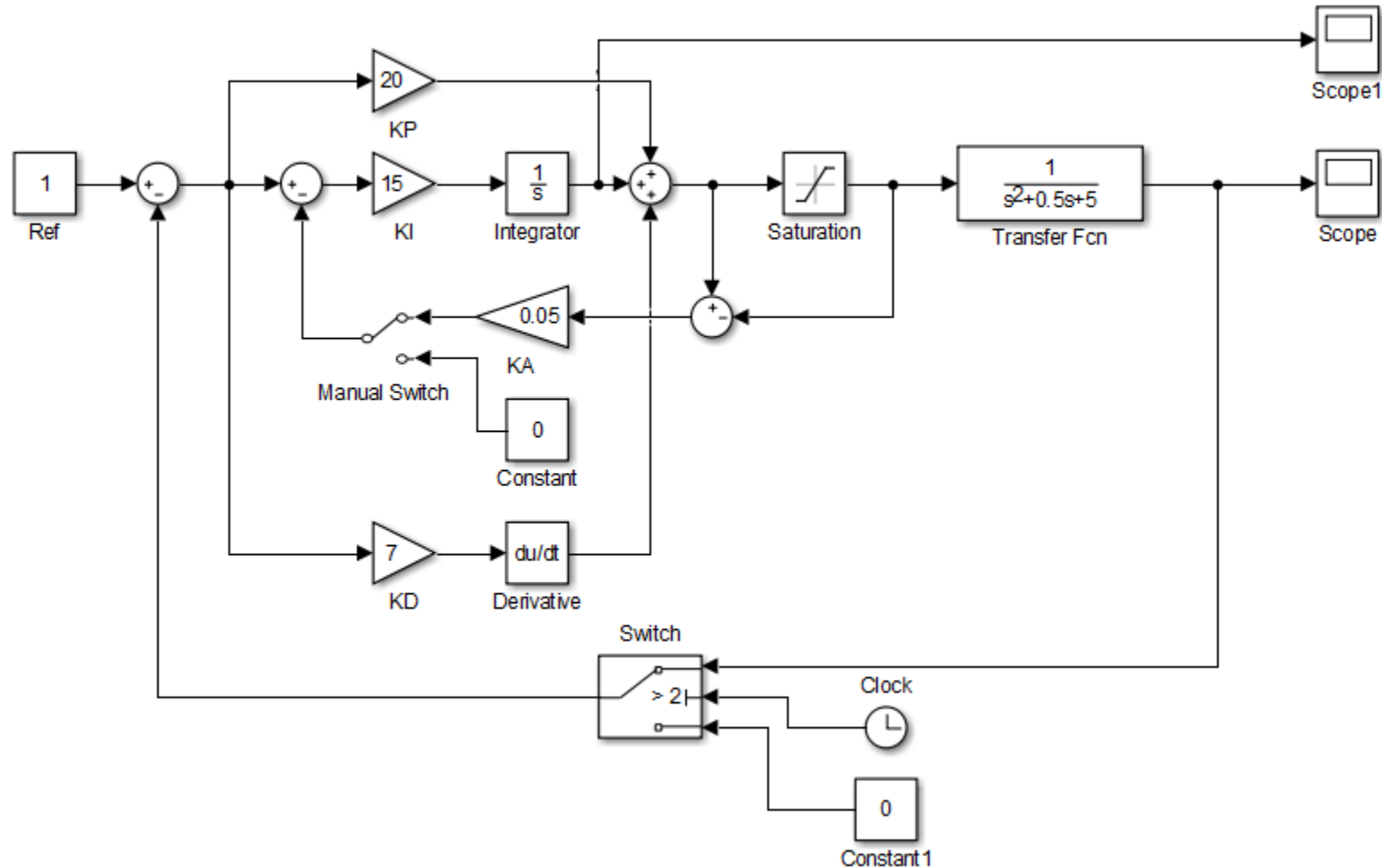   https://www.mathworks.com/campaigns/products/trials.html

❑ Consider a mass-spring-damper system.

  • Equation of motion : $m\ddot{x} + c\dot{x} + kx = 0$
  • m = 1, c = 0.5, and k= 5
  • Transfer function:

$$\frac{1}{s^2 + 0.5s + 5}$$

☐ PID controller with integrator antiwindup

- After 2 seconds, sensor feedback is activated. That is, during 2 seconds, the system becomes open-loop system.
- We can show integrator antiwindup effect using a manual switch.