

```

t = [0:0.01:0.8];
%
nG = [50];
tao = 0;
dG = [0.05 1 + 50 * tao 50];
G1 = tf(nG,dG);
tao = 0.0125;
dG = [0.05 1 + 50 * tao 50];
G2 = tf(nG,dG);
tao = 0.025;
dG = [0.05 1 + 50 * tao 50];
G3 = tf(nG,dG);
%
[y1,T] = impulse(G1,t);[y1a,T] = step(G1,t);
[y2,T] = impulse(G2,t);[y2a,T] = step(G2,t);
[y3,T] = impulse(G3,t);[y3a,T] = step(G3,t);
%
subplot(121);
plot(T,y1,'--',T,y2,'-.',T,y3,'-')
legend('tao=0','tao=0.0125','tao=0.025')
xlabel('t(sec)')
ylabel('x_0(t)')
grid on
subplot(122)
plot(T,y1a,'--',T,y2a,'-.',T,y3a,'-')
legend('tao=0','tao=0.0125','tao=0.025')
grid on
xlabel('t(sec)')
ylabel('x_o(t)')

```



