

Activities MATLAB R2018b Sat 21:26

MATLAB R2018b

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Current F... / home / manan / Desktop / College / Sem5 / control-2 / practical / cruise_control

Editor - /home/manan/Desktop/College/Sem5/control-2/practical/cruise_control/ccmodel1.m

```
1 m=1000;
2 b=50;
3 u=500;
4 A=[0 1; 0 -b/m];
5 B=[0; 1/m];
6 C=[0 1];
7 D=0;
8
9 step(A,B,C,D);
10
11 [num,den]=ss2tf(A,B,C,D);
12 k=600;
13 [numc,denc]=cloop(k*num,den,-1);
14 t=0:0.1:20;
15 step(10*numc,denc,t)
16 axis([0 20 0 10])
17
18
19
20
```

Command Window

New to MATLAB? See resources for [Getting Started.](#)

```
>> ccmodel1
fx >>
```

Figure 1

Step Response

Amplitude

Time (seconds)

Workspace

Name	Value
A	[0.1; 0. -0.05]
b	50
B	[0; 1.0000e-4]
C	[0.1]
D	0
den	[1.0 0.500 0.]
denc	[1.0 6.500 0.]
k	600
m	1000
num	[0.1 0.0000e-4]
numc	[0.0 6.000 0.]
t	1x201 doub
u	500

Ln 1 Col 1

