

```

clear;

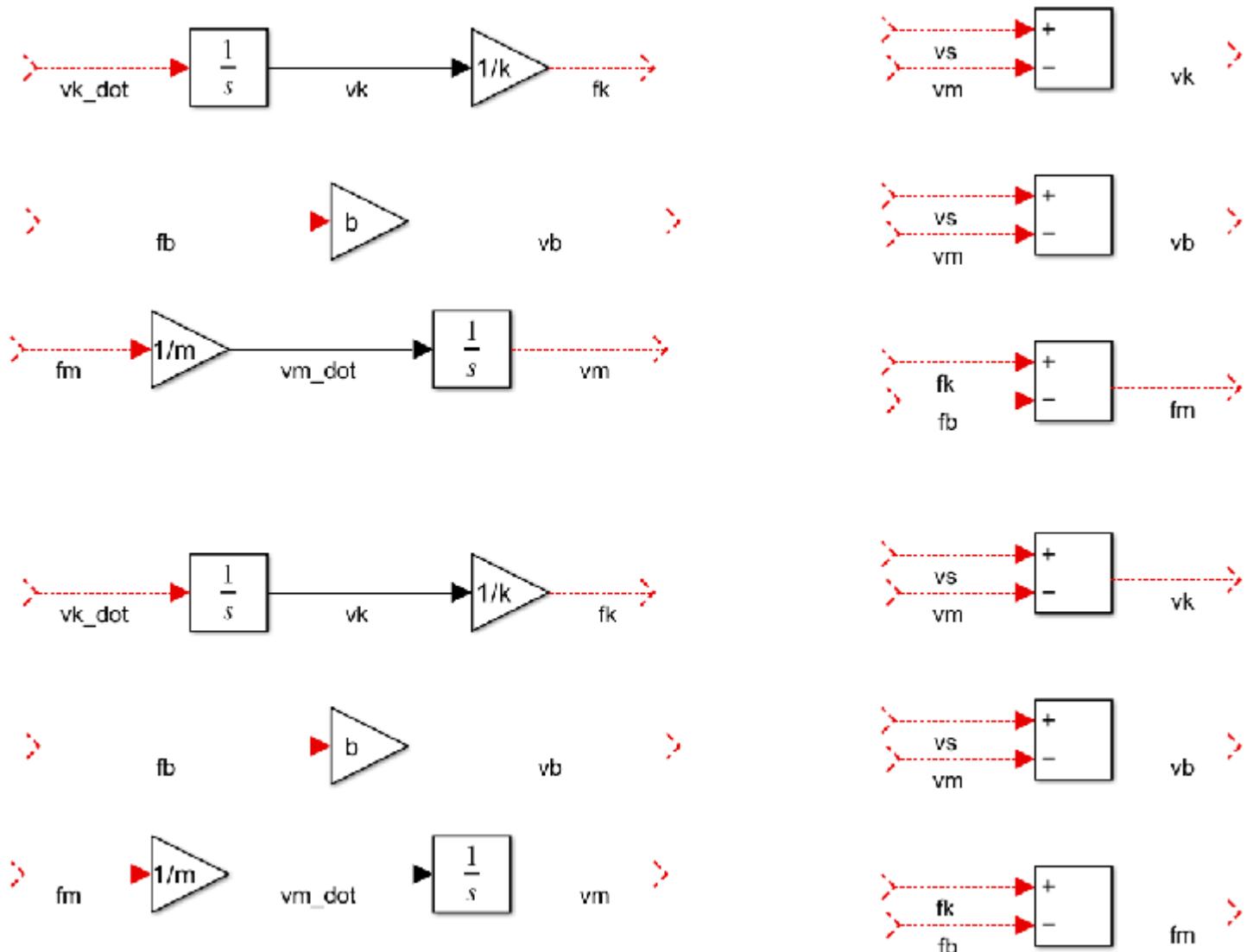
% Mass-spring-damper system parameters
k = 10; % [lbf/in]
m = 1; % [lbf*s^2/in]
b = 2; % [lbf*s/in]

% Define the simulation settings
% opt = simset('RelTol', 1e-6);

% Run the simulation for 5 seconds using selected settings simultaneously
% importing the outputs of the simulink file to the MATLAB file
% simout = sim("ME322_Exercise_2_Prelab_Review_Simulink", 15, opt);

snapshotModel("ME322_Exercise_2_Prelab_Review_Simulink");

```

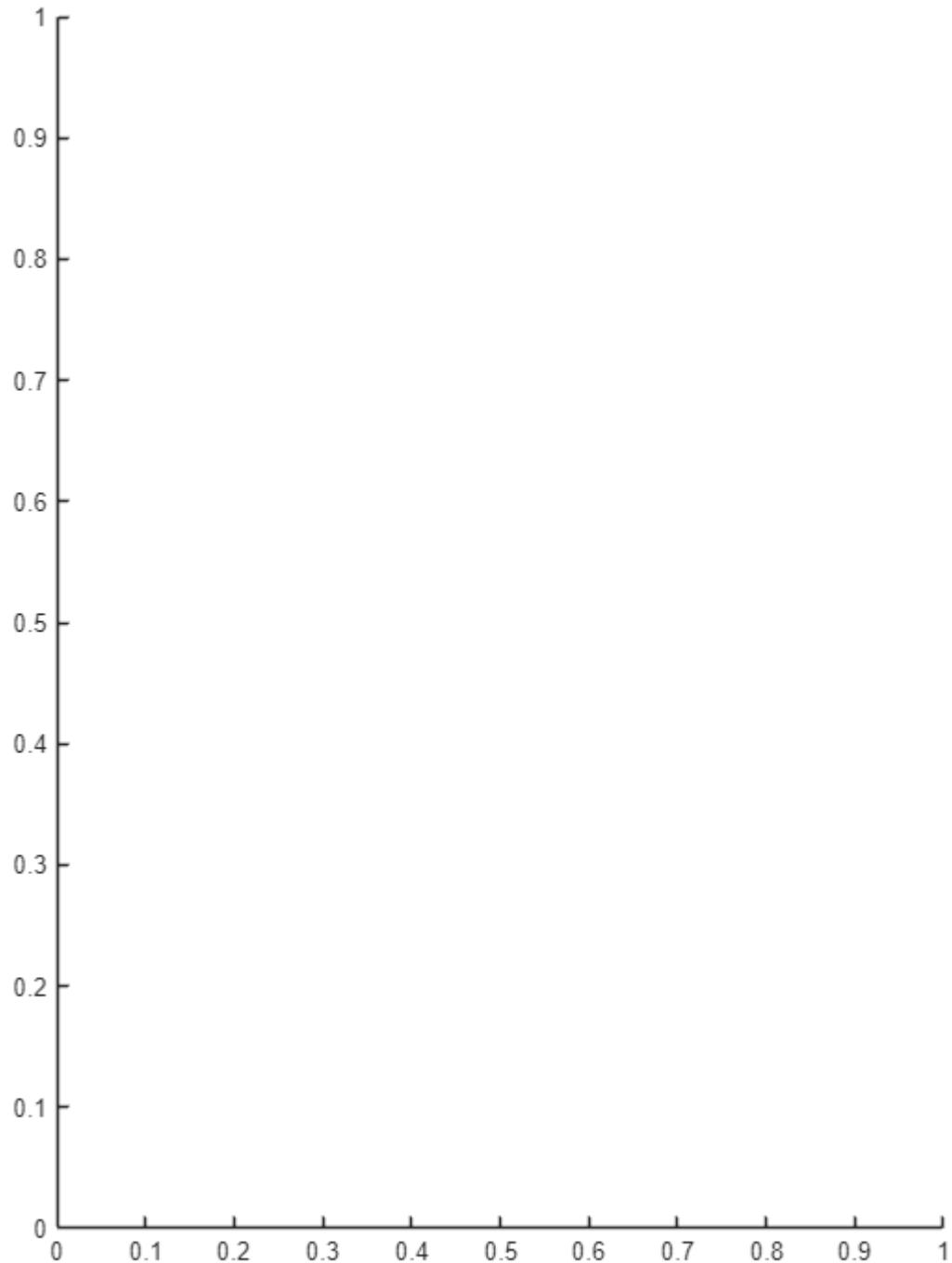


```

% Adjusting the size of the plot to be visible
figure('Position', [0 0 1000 1300]);

```

```
tiledlayout("vertical");
% Create the first subplot
nexttile;
```



```
plot(simout.tout, simout.xm, LineWidth=1);
```

Unable to resolve the name 'simout.tout'.

```
% Label the axes and add a subplot title
xlabel("Time, t [s]");
ylabel("Position, x_m(t) [in]");
title("Position vs Time");
% Create the second subplot
nexttile;
plot(simout.tout, simout.vm, LineWidth=1);
% Label the axes and add a subplot title
xlabel("Time, t [s]");
ylabel("Velocity, v_m [in/s]");
title("Velocity vs Time");
nexttile;
plot(simout.tout, simout.am, LineWidth=1);
% Label the axes and add a subplot title
xlabel("Time, t [s]");
ylabel("Acceleration, a_m [in/s^2]");
title("Acceleration vs Time");
nexttile;
plot(simout.tout, simout.fk, LineWidth=1);
% Label the axes and add a subplot title
xlabel("Time, t [s]");
ylabel("Spring Force, f_k [lbf]");
title("Spring Force vs Time");
```