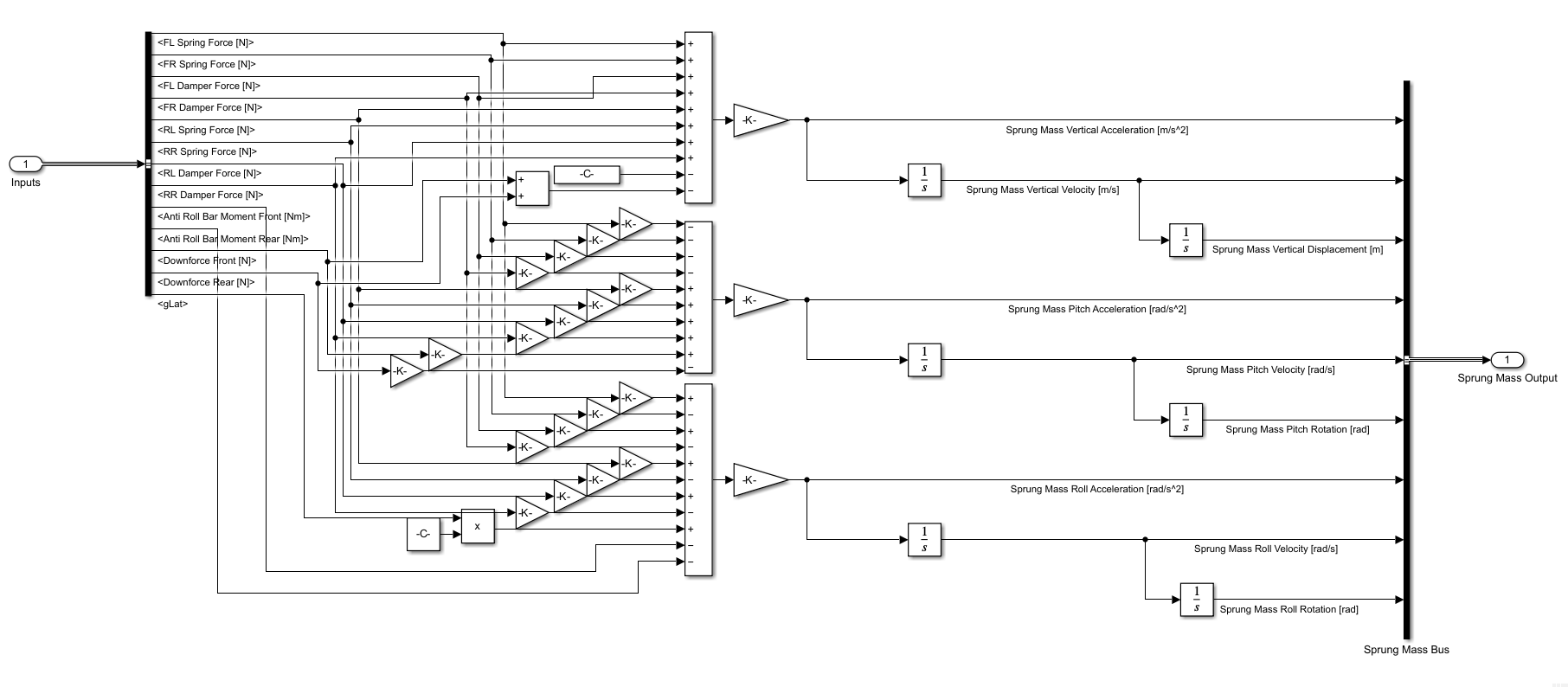
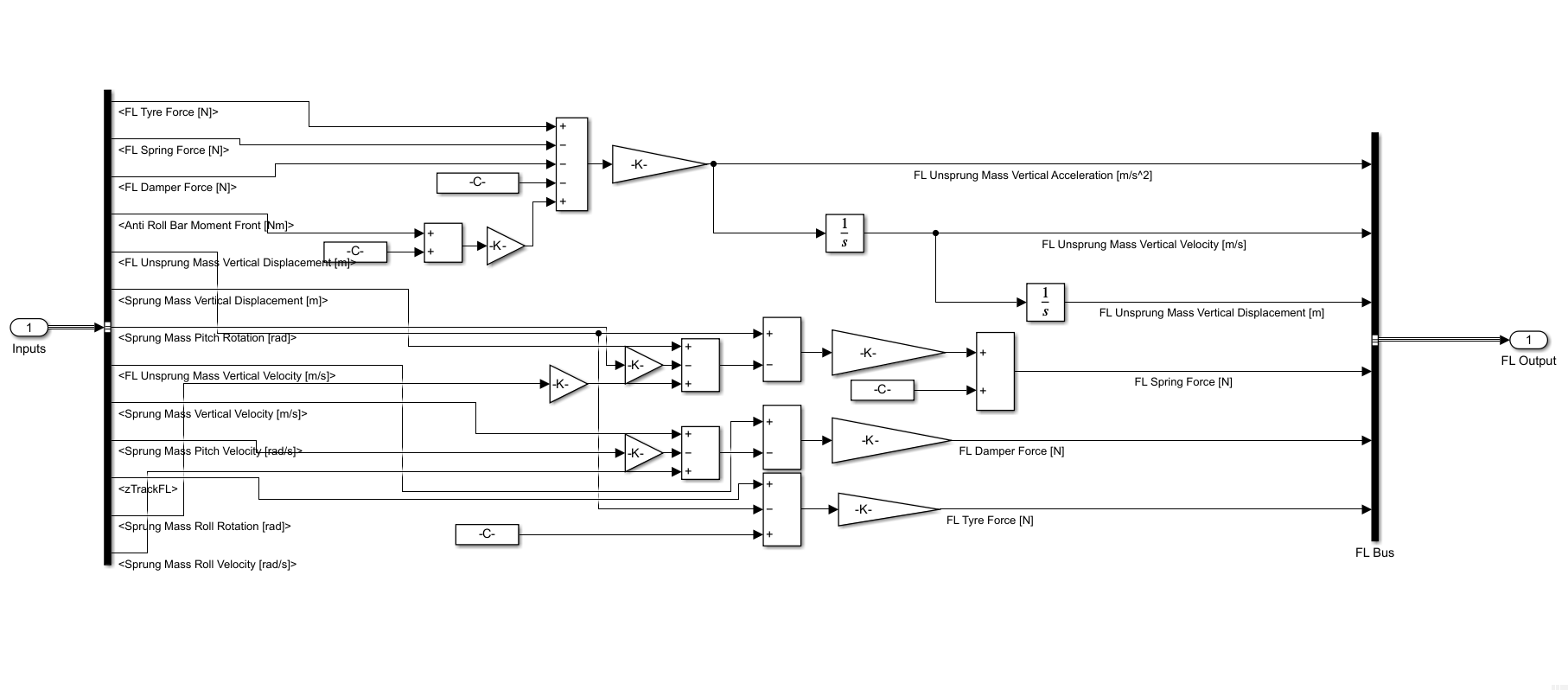
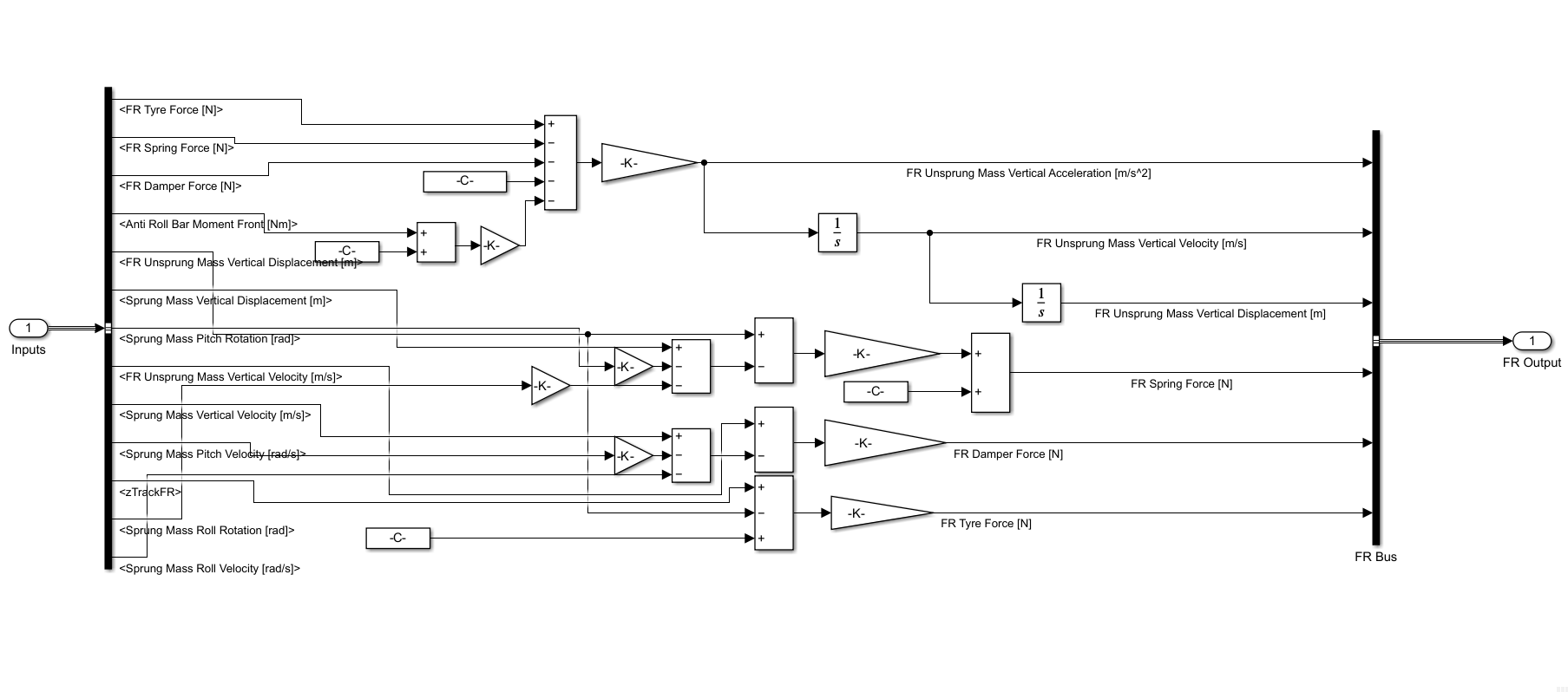
1. 7DoF Model Screenshots
   1. Sprung Mass:



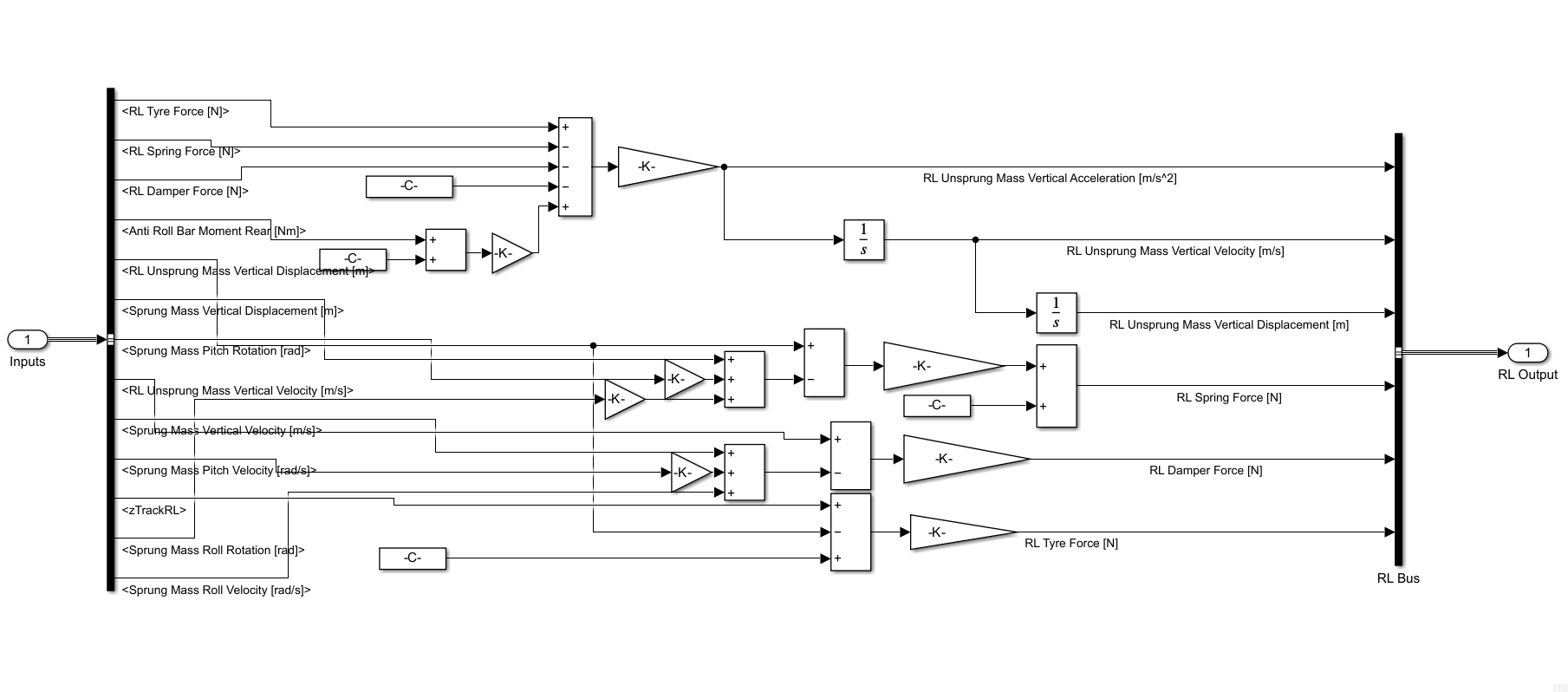
* 1. FL:



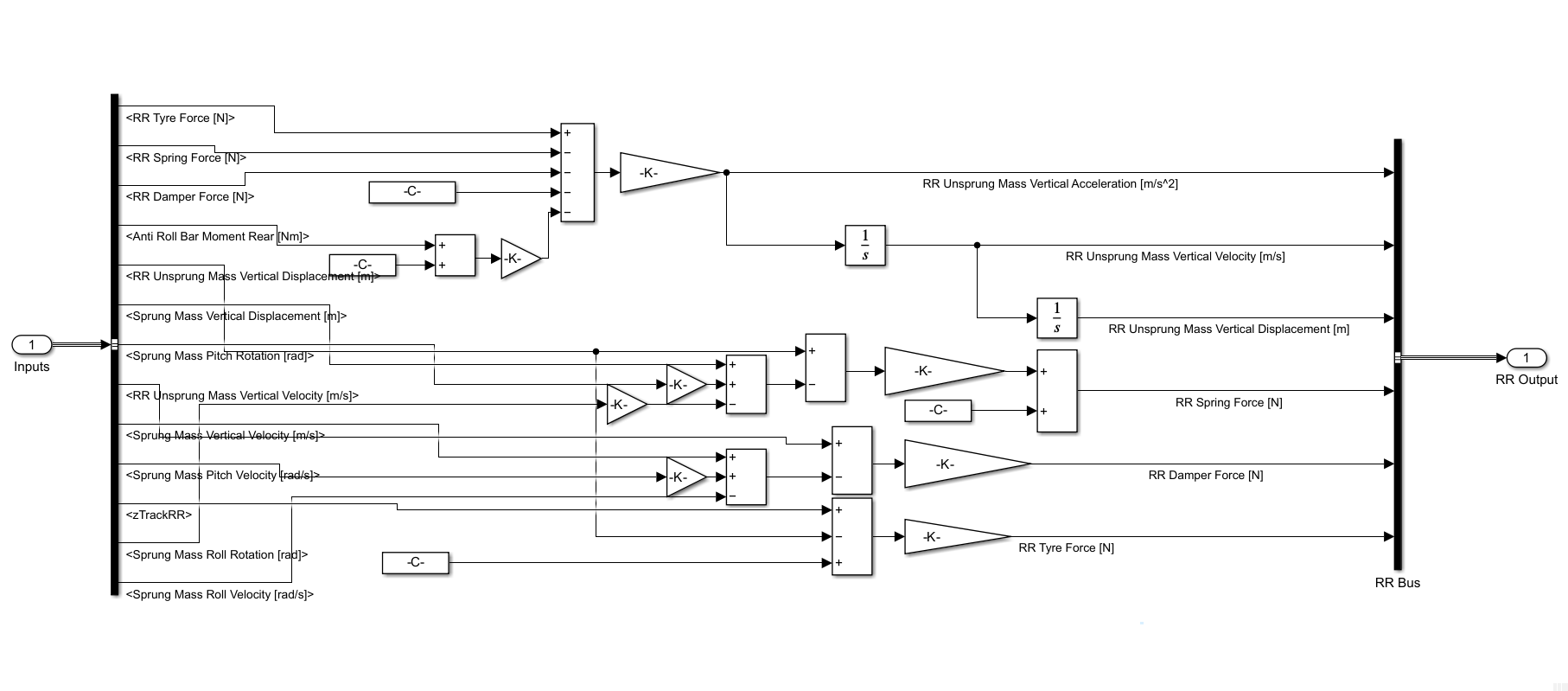
* 1. FR:



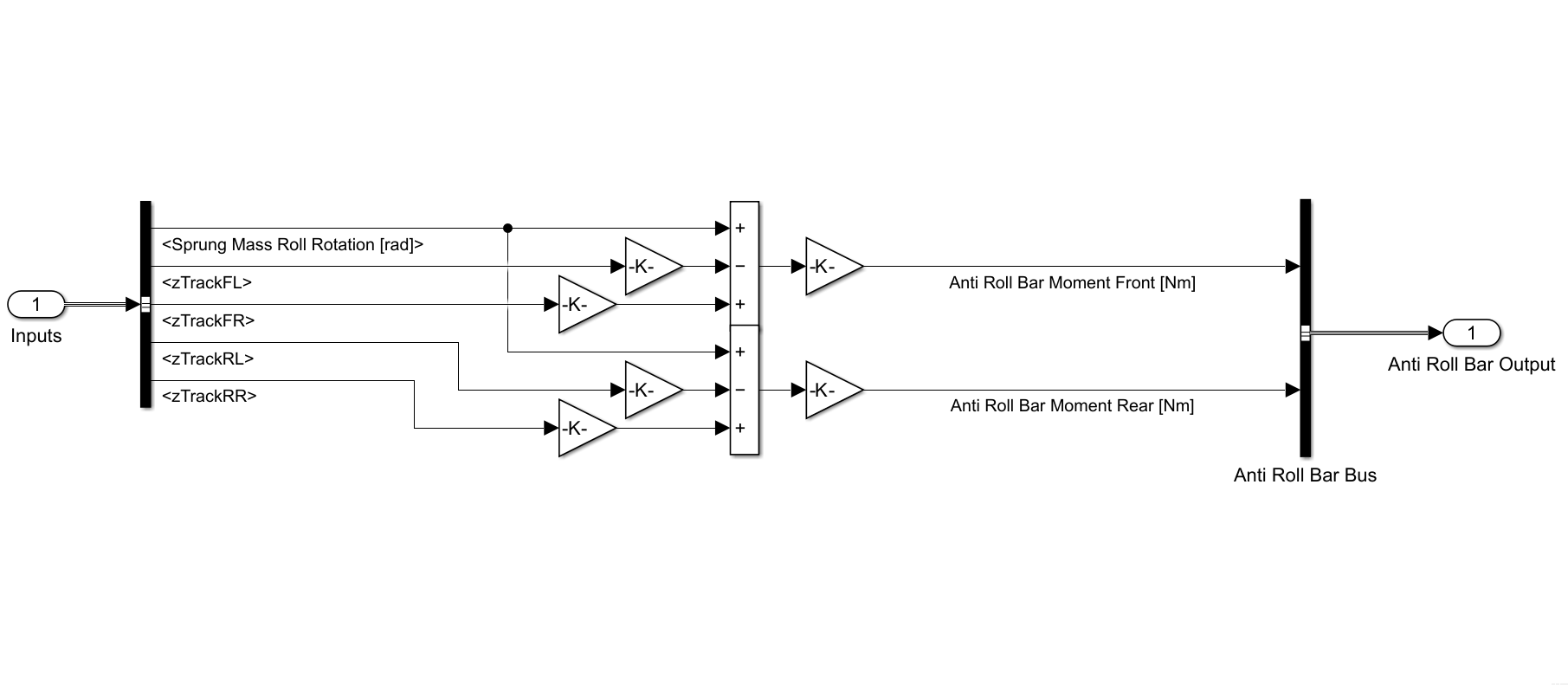
* 1. RL:



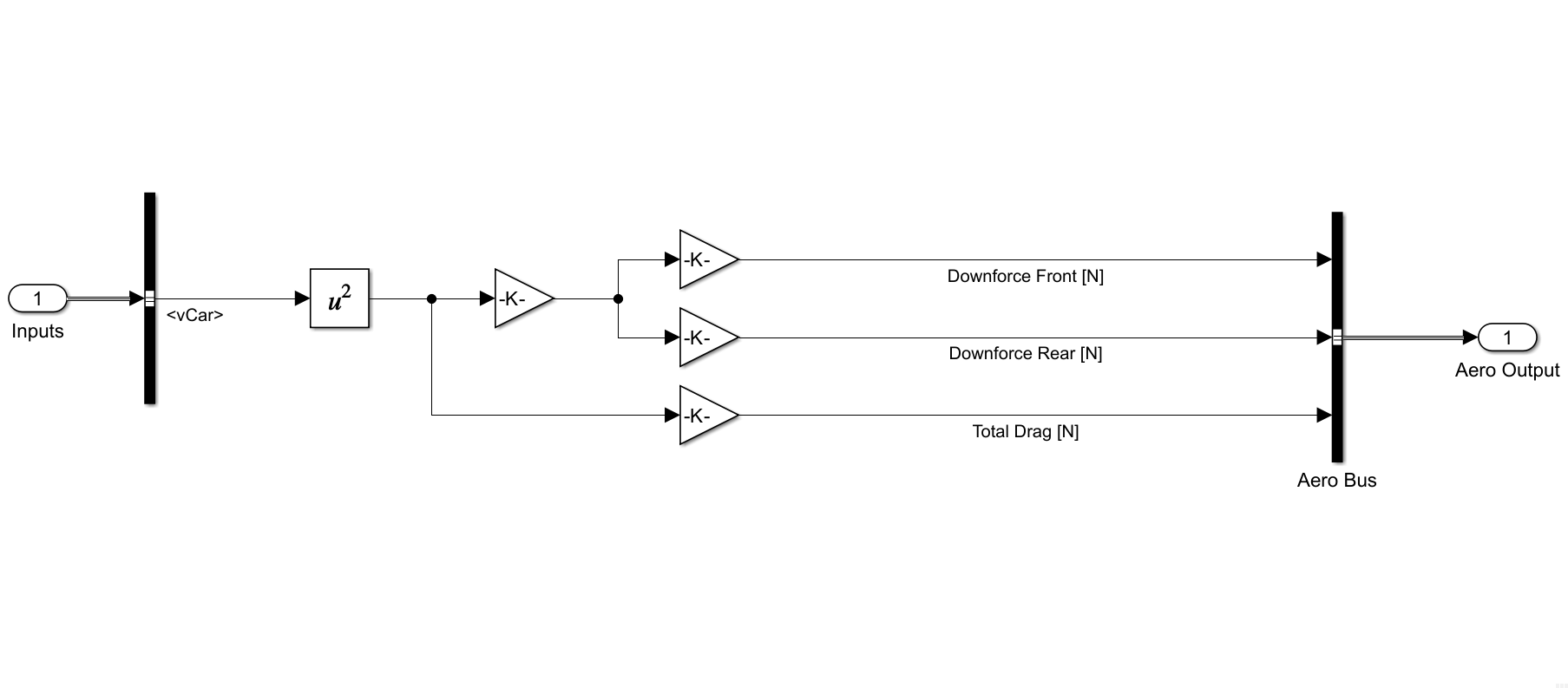
* 1. RR:



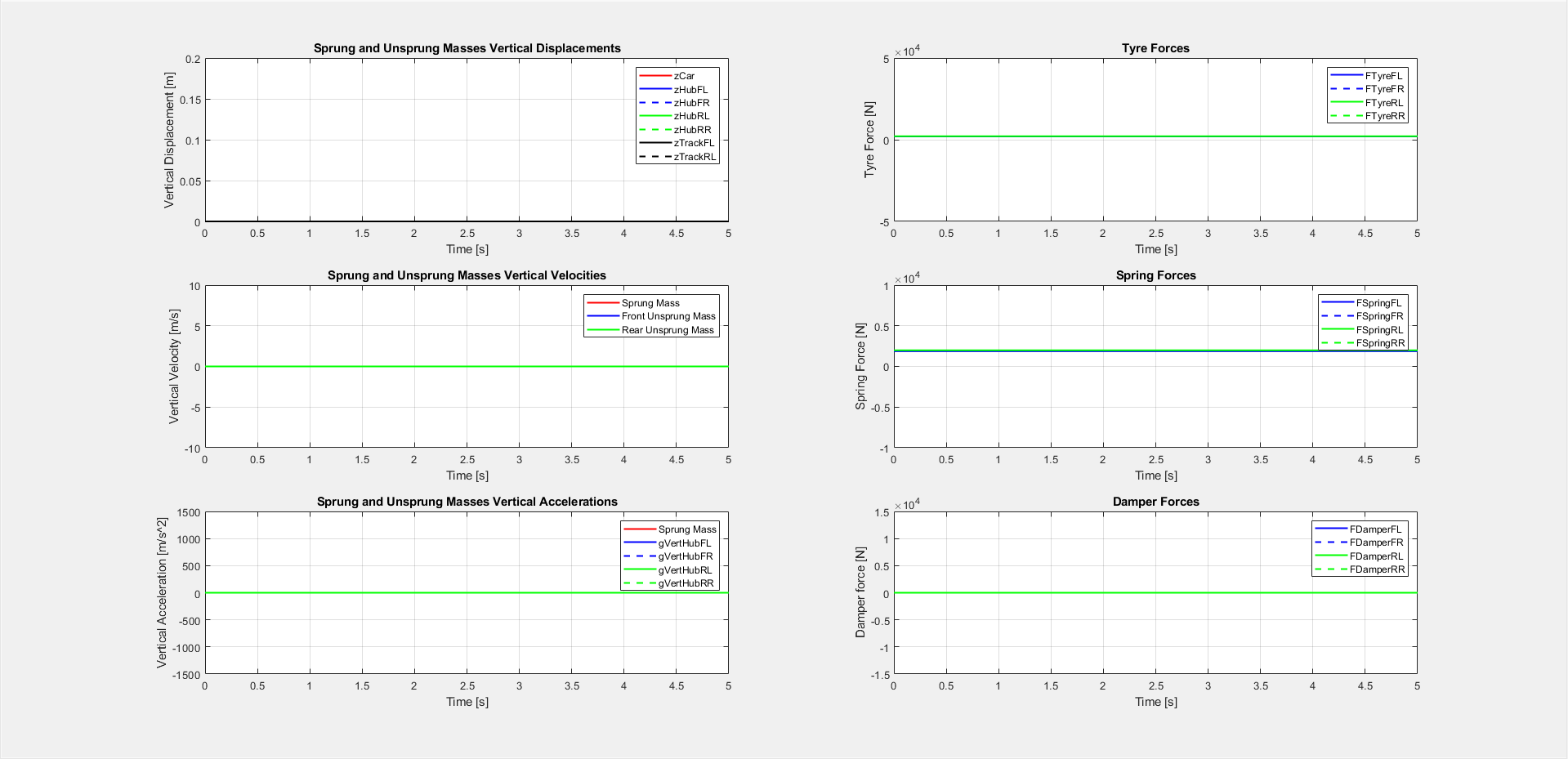
* 1. ARB F & R:



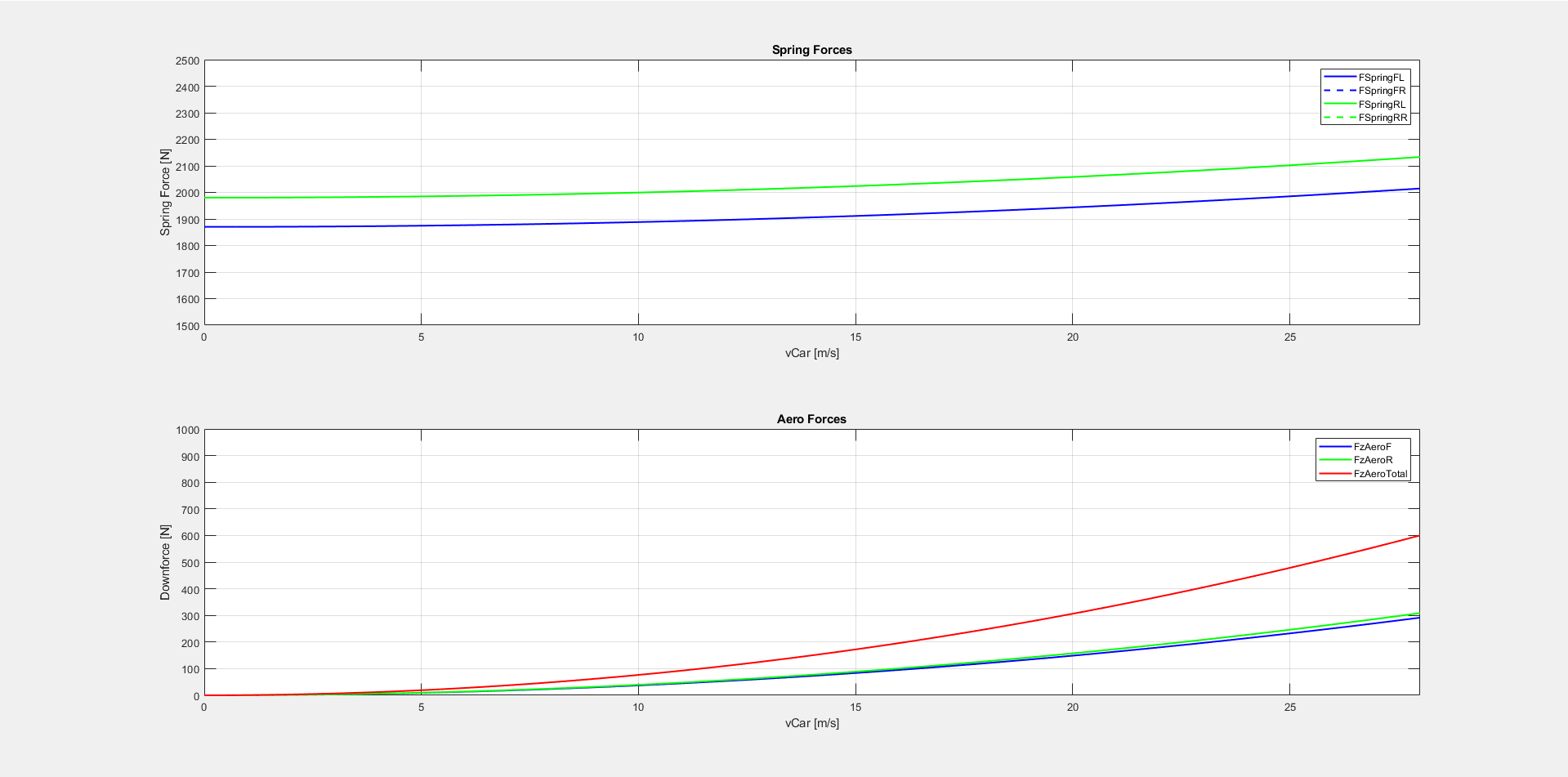
* 1. Aero:



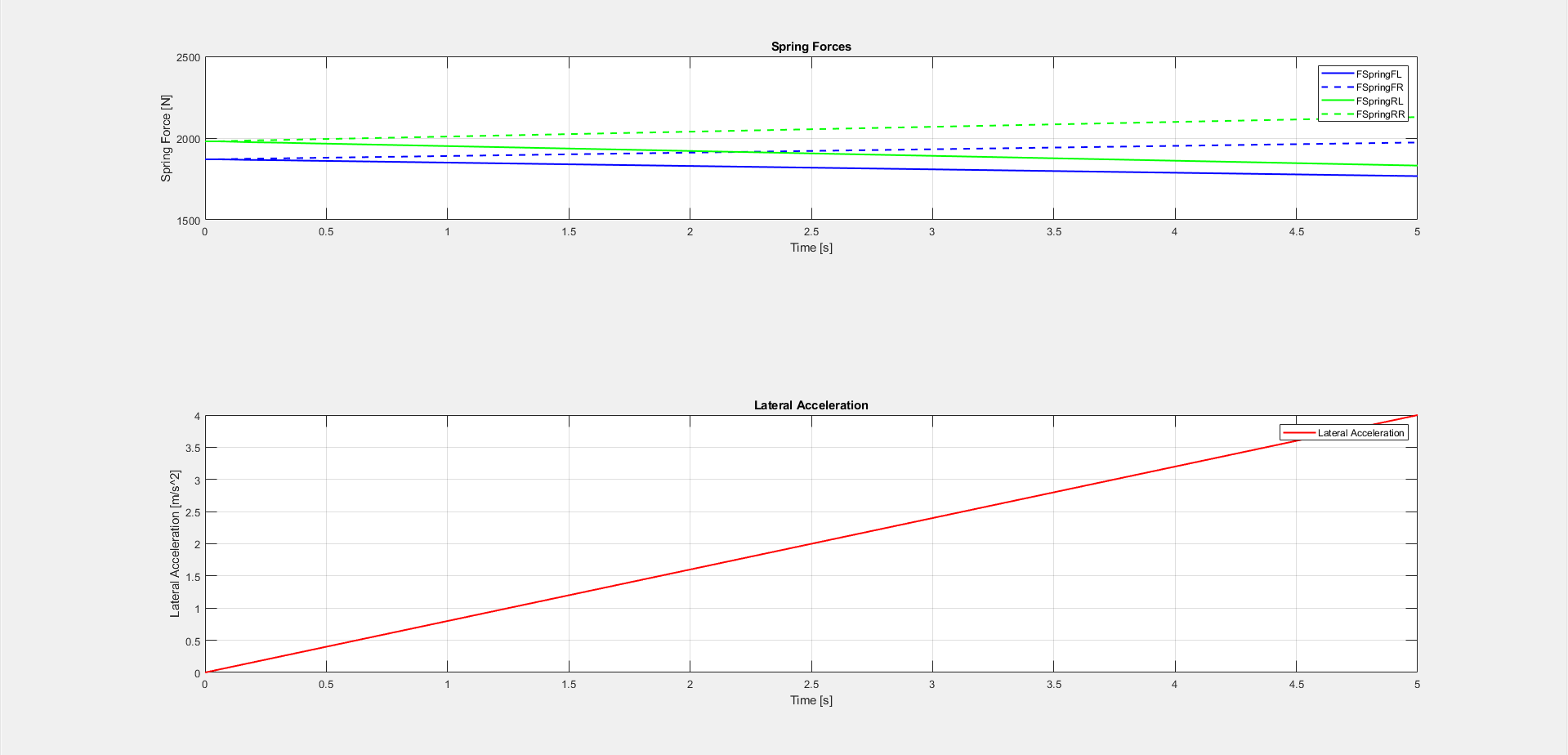
1. Model Verification Steps:
   1. Static Equilibrium:



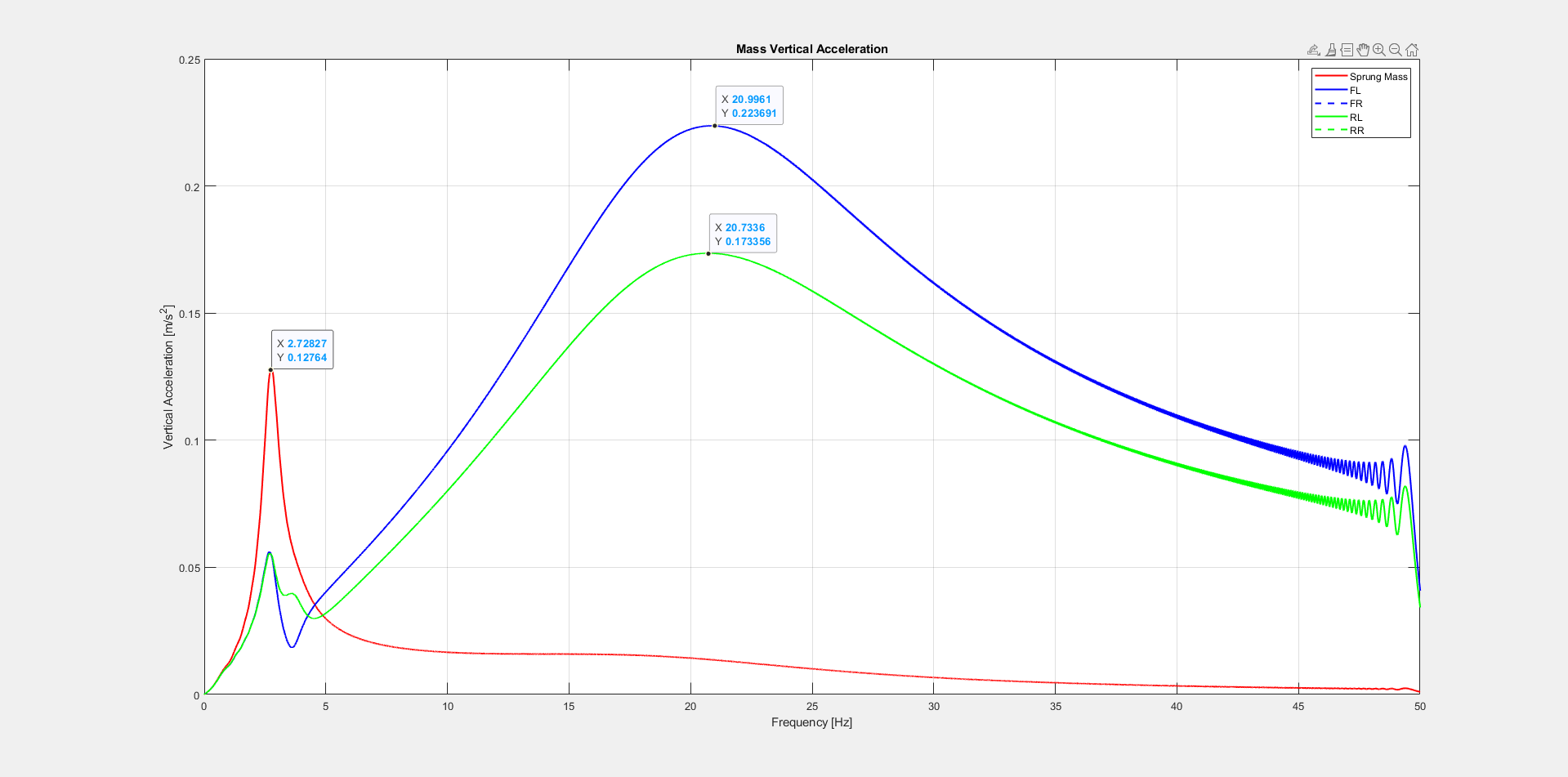
* 1. Aero Forces:



* 1. Lateral Load Transfer



* 1. Wheel Hop Natural Frequencies in Heave



% Ride Frequency Front Left [Hz]

postsim.f\_rideFL = (2\*pi)^-1\*(suspension.k\_springFL/(chassis.m\_s/2 \* (chassis.b / chassis.L)))^(1/2);

% Wheel Hub Frequency Front Left [Hz]

postsim.f\_hubFL = (2\*pi)^-1\*((suspension.k\_tyreFL+suspension.k\_springFL)/chassis.m\_usFL)^(1/2);

% Critical Damping Front Left [Ns/m]

postsim.c\_criticalFL = 2\*(suspension.k\_springFL\*(chassis.m\_s/2 \* (chassis.b / chassis.L)))^(1/2);

% Damping Ratio Front Left [-]

postsim.c\_ratioFL = suspension.c\_damperFL/postsim.c\_criticalFL;

% Ride Frequency Rear Left [Hz]

postsim.f\_rideRL = (2\*pi)^-1\*(suspension.k\_springRL/(chassis.m\_s/2 \* (chassis.a / chassis.L)))^(1/2);

% Wheel Hub Frequency Rear Left [Hz]

postsim.f\_hubRL = (2\*pi)^-1\*((suspension.k\_tyreRL+suspension.k\_springRL)/chassis.m\_usRL)^(1/2);

% Critical Damping Rear Left [Ns/m]

postsim.c\_criticalRL = 2\*(suspension.k\_springRL\*(chassis.m\_s/2 \* (chassis.a / chassis.L)))^(1/2);

% Damping Ratio Rear Left [-]

postsim.c\_ratioRL = suspension.c\_damperRL/postsim.c\_criticalRL;

