Status:	Available
Group Members:	TBD
Sponsor(s):	Professor Farid Golnaraghi, Professor Siamak Arzanpour, Future Vehicle technologies, BC, Standen's Calgary
Supervisor(s):	Farid Golnaraghi, PhD, PEng, Professor, Mechatronic Systems Engineering, Siamak Arzanpour, PhD, PEng, Assistant Professor, Mechatronic Systems Engineering

Project Description:

We propose to develop full size quarter car testing apparatus with multiple degrees of freedom. The testing set up will be linked with simulation and control software to create a real time hardware in loop vehicle simulation system. The purpose of this is to allow us to study with accuracy vehicle suspension dynamics as well as incorporate semi and fully active suspension systems. We will be incorporating will be MSC Adams/Car simulation software as well as D-Space and Matlab/Simulink to create our full system. Hardware in loop will allow us to run physical testing of suspension systems and view simulated road response in real time on the computer system. As well the same in reverse we would be able to run simulations where the real physical responses would be observed