

# Analysis and Experimental Investigation of Double Wishbone Independent Suspension System by using Ansys

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**Abstract:** Suspension system is the critical part in the assembly of the any auto mobile to design. Design of the suspension system should take of several aspects like holding space, space for movement, mounting location, specified load carrying capacity, rigidity, flexibility etc. This paper deals with the design of suspension system, static load calculations to be performed so that initial loads and load conditions should be known to us. Using these loads and load conditions multibody dynamics simulation can be carried out in the MSC ADAMS. Then 3D model is created by using NX cad software. Different types of analysis are carried out by using Ansys 15.0. After getting the result from the MSC ADAMS, Ansys and Load calculations and comparing it we can move towards for making actual prototype. Also the actual prototype will be tested for the different road conditions. And the results of the actual testing will be compared with the simulation results.

**Keywords:** Suspension system, load calculation, finite element analysis, multibody dynamic analysis

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