

Project Name

Design of a Mechanical Spider

Project Overview	
<p>The walking mechanism of spiders has always been the interest of scientists. These types of robots are very useful when used in rugged terrains where traditional vehicles can't travel. The aim of this project is to design a mechanical spider using mainly mechanical linkages. The spider will be driven by an electric motor which will mechanically drive all legs. The legs will be made of mechanical links and properly designed to convert the rotary motion of the motor to propel the spider. The final design will include 4Bar linkages, cams and gearing systems.</p>	
Project Areas	
<ul style="list-style-type: none"> MEE341 Kinematics and Dynamics of Linkage 	<ul style="list-style-type: none"> MEE422 ME Design
Team Size and Majors needed	
MEE: 4 students	INE: 0 student
Project Deliverables	
<p>Project should consist of the following:</p> <ul style="list-style-type: none"> - Modeling of the legs using linkages. - Modeling of the gearing systems. - Design for safety. - Building a small prototype of the robot. 	