



Project ID# _____

Group Letter: _____

MD-4 Mechanical Group/Team Engineering Design Problem Project

Using the Engineering Design Process: *Groups eligible to participate: A and N*

This classification is for students in a Gateway to Technology, EbD, PLTW or Mechanical Design and Drafting program. *Drawings and/or 3d Computer Generated Mechanical Models* entries in this classification are for the presentation of a mechanical design shown by an engineer to his client, or a mechanical system solution to solve a problem. The entry should include all necessary information and drawings to indicate the scope of the project.

The entry must include plans with dimensions, the size must not be greater than 24" x 36". Drawings are not to be mounted but should neatly bind together with all relevant material. All work submitted must be original ideas developed by design team.

* *Submissions should include in Design Packet:* An Isometric Drawing on printed cover page, dimensioned perspective drawing(s) (limit individual drawings to 6), Scaled 3D Model or Prototype.

Each group needs to also include: Design Brief, Design Decision Matrix, Final Design Sketch, Individual Team Members Sketches and Team Design Page with each team member's job assignments. Technical Report will not be included in Design Packet, but must be completed.

Plans must be plotted on media the size must not be greater than 24" x 36". The work submitted is original.

Entry Title: _____

Required drawings must include: _____ Isometric/Perspective Drawing _____ Plans w/dimensions

Entry Violation Checklist: _____ 3D Model/Prototype _____ Team Design Page

-2 per item missing _____ Design Packet is Bound _____ Design Brief

_____ Decision Matrix _____ All sketches Included

Each project will be subject to this checklist with negative points deducted from 100.

Category:	+/- 4 or more	- 3	- 2	- 1	- 0	Neg. Pts.
Functional & Shows Good Design						
Finished appearance & presentation - overall impact						
Drawing Technique, Accuracy & Neatness						
Accuracy of Dimensions as required						
Complexity, Layout, Quality of Related Information, etc.	+3 or more	+1	0	-1	-3	
Subtract Negative points from 100			Project Rating =			

Judges may subtract more than the -4 at there own discretion.

Entry Violation: _____ Missing information: _____ No Technical Report: _____ (Total violation) _____

Overall Project Score _____

- 2 or more pts. = shows effort, but more could have been done.

- 1 pt. = a very good effort - with minimal flaws or defects

- 0 pts. = excellent effort - no mistakes or visible flaws

100-90 = I (blue) 89-80 = II (red) 79-60 = III (white)

Group (A) - Middle School: 6th, 7th or 8th Grade Group.

Group (N) – Novice – HS Groups; 9th Grade and beyond.

Student info / Project ID# _____

School. _____

Instructor. _____