Project ID# _____ Group Letter: _____

MD-3: Mechanical Drawing Presentation: "Solid Modeling / Animation / 3D Printed Projects";
Groups eligible to participate A, N and P

The entry shall consist of a computer generated drawing of machines, accessories, jigs or fixtures, or any advanced drafting project.

____ **Option I:** The entry includes the *animation* in the rendered mode. The title of the entry must be presented within the animation. The animation drawing must be student generated, while the background and/or text fonts can be part of the computer program. *The animation drawing must be generated totally by the student. No sample components or sample animation's are permitted with the entry.* The animation must be on display and running for the judges to view the entry. *This entry must include a selection of no more than five orthographic drawings of the parts used in the model including dimension. If five sheets are involved in the project, An assembly drawing and the best four detail sheets must be selected and submitted. The work submitted must be original. These drawings must be printed on media not be greater than 24" x 36".*

____ **Option II:** This category uses the technique for representing solid modeling objects or 3d printed through computer processing. These entries are 3d computer models in this classification are for the presentation of a mechanical part or machine shown by a mechanical draftsman to his client. Modeling methods include surface models, (used extensively in automotive and consumer product design) and wire frame models. Solid models are for CAD, engineering graphics, rapid prototyping, or 3d printed product visualization. Solid modeling creates a virtual 3D representation of components for machine design and analysis. This entries must include an orthographic / multiview working drawing with dimensions, a selection of no more than four detail drawings of the parts used in the model. If five sheets are involved in the project, the multiview working drawing with dimensions, plus assembly drawing and the *best three detail sheets must be selected and submitted*.

or

Selection should include orthographic / multiview working drawings with dimensions, and no more than four pictorial exploded or other types of pictorial assembly drawing of the 3D model. Details of three of the principal parts including dimensions must accompany the solid model drawing on suitable media or displayed on a computer. The printed media must not be greater than 24" x 36". *Work submitted must be original.*

Classification: MD-3 ***Mechanical Drawing Presentation*** Entry Title: _____

Entry Checklist: _____ Required Drawing included Option I or II _____ Drawing in rendered mode or 3d printed model

_____ Animation with displayed background _____ Entry title presented within animation

_____ Animation created by student _____ Technical Report

Major Evaluation Factors: **Comments:**_____

Each drawing 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 drawing technique						
Wire Frame &/or Rendered Display						
Computer animated display &/or 3d printed model						
Drawing quality, appearance & attention to detail						
Complexity – Creativity - Originality	*-3*	*-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) _____

100-90 = I (blue) - 89-80 = II (red) - 79-65 = III (white) **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

Student info / Project ID#. _____

School. _____

Instructor. _____