Rube Goldberg Machine Challenge (Mechanical Advantage)
AENG 101 Introduction to Engineering
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A **Rube Goldberg machine**, named after American cartoonist [Rube Goldberg](), is a machine intentionally designed to perform a simple task in an indirect and overly complicated way. Usually, these machines consist of a series of simple unrelated devices; the action of each triggers the initiation of the next, eventually resulting in achieving a stated goal. https://en.wikipedia.org/wiki/Rube_Goldberg_machine
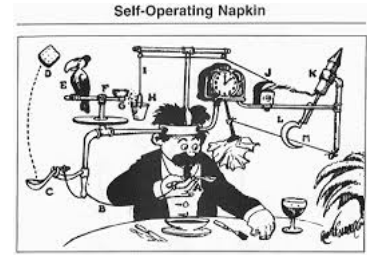
Directions: In small teams, the groups are to develop a Rube Goldberg machine (outside of class) that incorporates the following simple machines (required elements) in the machine's design:

Lever	10pts
Wheel and Axle	10pts
Inclined Plane	10pts
Wedge	10pts
Screw	10pts
Pulley	10pts

Further, the machine should be complex. The more complex, the better! Part of the evaluation will be tied to the number of <u>unique</u> individual elements as follows:

6-9 elements	5pts
10-14 elements	10pts
15-19 elements	15pts
20-24 elements	20pts
25-29 elements	25pts
30-34 elements	30pts
35-39 elements	35pts
40-44 elements	40pts

Your simple task is to ring the bell provided by the course instructor. Each team must video their Rube Goldberg Machine successfully ringing the bell. The teams will present the video to the entire class using a PowerPoint presentation with the following required slides:

- Title Slide
  - Name of the Machine
  - Team Member Names
- Elements
  - Pictures of an example of each simple machine implemented (max 6 total pics – required elements)
  - Total number of unique elements
  - Number of Elements designed by each team member
- Video*
  - Embedded or YouTube link is acceptable

*Note: Video is required for evaluation.
Points may be reduced should the team not complete the PPT as described above or if a team member should fail to participate fully.*