DP Deliverable 2: Mousetrap vehicle pre-test!!

- Due: 8A during class
- Your vehicle must travel 20 feet in one direction

**Do not**

- Permanently attach your mousetrap to your vehicle
- Shorten the lever arm used to extend the length of the mousetrap arm (the string is connected to this arm via the locking bar)
- Superglue or permanently attach the locking bar to the lever arm (the string is attached to the locking bar)
Mousetrap vehicle pre-test!!

- **Do not**
  - Permanently attach your mousetrap to your vehicle
  - Shorten the lever arm the string is attached to
  - Superglue or permanently attach the locking bar to the lever arm (the hook arm the string is attached to)

- You will be testing your vehicle with various configurations of these things after the pre-test – DP: Deliverable 3
Tools & Supplies are available

- **Dillman 112: Supplies**
  - Rubberbands (to hold things in place, not to provide energy)
  - Extra string
  - Extra Mousetraps ($0.50 each)
- **In the residence halls: Tools & Supplies**
  - Superglue & wood glue are available for checkout for Eng1100 students
- **If you are a Mechanical Engineering student, you can also use tools in the shop in the MEEM.** See Jerry Dion or Robe Rowe in 604 or 607 in the MEEM. The shop is open from 8 am – 9 pm Tues – Fri & 8 am – 5 pm on Mon.
DP Deliverable 3: Trial Results

- Test 6 different vehicle configurations
- Choose 2 of the following parameters to modify:
  - $P_x =$ distance between drive axle and trap spring
  - $L_{arm} =$ extension arm length
  - $R_a =$ drive axle radius
- For parameter #1 use 3 different variations
- For parameter #2 use 2 different variations
DP Deliverable 3: Trial Results

- For each vehicle configuration record:
  - Parameter values (Px, Larm, Ra)
  - Time for 3 runs, each run consists of driving 10 ft to target line and back to start line
  - Other parameters if they change
  - If your run did not make it back to the start line
  - Any additional observations

- Record only once if it remains constant:
  - Py – vertical distance from drive axle to trap spring
DP Deliverable 3: Trial Results

- Due: 9B
- In a memo discuss the following:
  - Objective of test
  - Experimental Methods
  - Results
  - Significance of Results – How will this influence your final design?
- Enclosures:
  - Table of your results