

# Expectations for Mini Design Review for Exam

Concepts I  
Tuesday 8<sup>th</sup> Week

## Mini Design Review

The Mini Design Review objectives:

- Industry mechanism to improve product quality
- Check in with groups to identify problems
- Check that mile stones are being met

Mini Design Review

- A graded homework assignment
- Each team member should be prepared to answer questions
- Teams should anticipate criticism & use it to improve product quality

Sign up for a 20 min slot

Reviews will be 15 minute discussion with Dr. Lengsfeld

Location = department conference room

## Mini Design Review

### **Your group should bring the following**

- Meeting rules (typed and signed)
- Objective list (typed)
- Constraint list (typed)
- Conceptual designs (3 alternatives, sketches and be prepared to discuss)
- Preliminary design (be prepared to discuss why you selected it by showing evidence of simulation and/or prototyping, also think about what you need to acquire to build this design)

## Lab Activities

Lab objectives today is to use a simulations software to optimize design parameters such as: pivot location, arm length, rope length, arm CG location, pivot height etc.

Several simulation programs are available on line, both free and for a small cost.

Feel free to use any, but the one we provide is located at.....

## Lab Activities

Down loading Wintreb similation program:

- [www.engr.du.edu/clengsfe/ConceptI/treb2zip.exe](http://www.engr.du.edu/clengsfe/ConceptI/treb2zip.exe)
- Save file to laptop
- Double click on file
- Unzip file
- Double click on Setup.exe
- Start—Programs—Wintreb

## Review for Exam

1-hr exam next Tuesday covering all material in course:

- Iso standards
- Force & mass
- Vectors & torque
- Work & Power
- Pulley & Lever
- Wheel & Axel
- Screws & Gears
- The Design Process
- Combustion Engines

## Review for Exam

Questions will be in the form of:

- True or false
- Multiple choice (but you must show work)
- Fill in the blank
- Long answer design problems
- Long answer homework style problems

What to bring:

- Pencil & eraser
- Calculator