

## **Project Humdinger Exercise Rules – Extreme PM**

1. You will be developing a product design and prototype for the Humdinger product.
2. Pay close attention to the requirements, like any project.
3. Elect a different PM and a technical lead first!
4. You will get prototype parts after you turn in the project plan.
5. Each team will have a “sponsor”, who will be the overseer of the work. They can answer any question you have, and should be used extensively.
6. Tools available are:
  - a. Black marker.
  - b. Scissors

## **Project Humdinger Customer Requirements**

- Req. 1: The product will be an electro-mechanical device.
- Req. 2: The product will fit into a closed brown paper bag with a single string protruding from the bag.
- Req. 3: The bag will have only one outside label: the words “The Humdinger” will be on the bag, near the top, in 1” high letters, written with black marker.
- Req. 4: The primary function of the device will be to hum when the string is pulled, then ding once when the string is released.
- Req. 5: Manufacture will be outsourced to China and is guaranteed at \$0.30 per Humdinger, no matter what the construction.
- Req. 6: Due to an oversupply of certain materials, the product can only use the materials provided in the Bill of Materials worksheet. You may use only these materials.
- Req. 7: You must fill out a completed project plan BEFORE you start any design work.
- Req. 8: You must conduct a design review of the completed design with your team and sponsor before you start any construction of the prototype.
- Req. 9: The deliverables of this project are an updated design, the bill of materials, and a working prototype.
- Req. 10: The product must work 90% of the time when tested by the sponsor after delivery of the prototype.
- Req. 11 – The product should hum loud enough to hear from a distance.

Note: These requirements are subject to change.

## **Project Humdinger – Change in Requirements**

- Req. 4: The primary function of the device will be to **always hum when the string is not pulled. When the string is pulled, stop humming. When the string is released, then ding once and start humming again.**
- Req. 6: Due to an oversupply of certain materials, the product can only use the materials provided in the Bill of Materials worksheet. You may use only these materials.  
**Note: Due to supply constraints, only five rubber bands are available.**

## Project Humdinger Bill of Materials

Project Team: \_\_\_\_\_

Item Name	Max Qty	Qty used
Battery	1	
Battery holder/connector	1	
Motor	1	
Wire – 60 cm	1	
Short stick	4	
Medium stick	4	
Long stick	4	
Wooden hub	4	
Large wooden board - predrilled	1	
Small wooden board	1	
Clothespins	2	
Rubber bands	10	
Binder clips	4	
String – 100 cm	1	
Paper clips	4	
Bell	1	
Tape – 50 cm	1	



# Project Humdinger Design

Project Team: \_\_\_\_\_