ENGR:1100, Introduction to Engineering Problem-solving
Sections 11, 12
Dancing robot-project Specification

Problem Statement: Your team is to design and create a robot that moves across 1 foot distance with the least time. The goal is to design a moving robot that is highly effective with the given constraints.

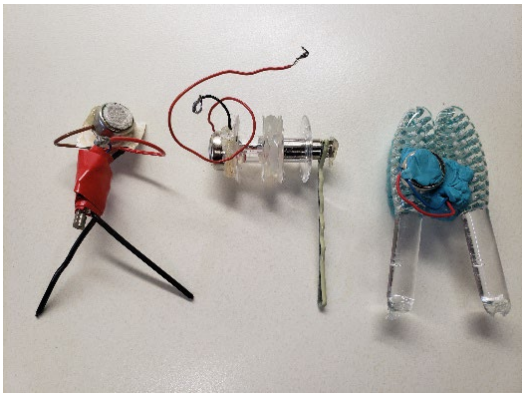
Constraints:

1. Use a cell-phone vibrator.
2. You may use additional items that can be readily purchased at a drug store or supermarket. The cost of all items used to construct the working prototype should not exceed $5.00. Teams will be expected to include an itemized expense list if necessary.

Deliverables: Each team must produce a working robot. In addition, each team will do an in-class presentation and competition of their robots on Sep. 18 or Sep 20 **Be creative!**

Judging Criteria/Evaluation of Prototypes: A competitive judging of prototype devices will be conducted. To earn full credits, you team will have to be in the top half of the class. The overall performance of the working prototypes will be determined by a test scenario: the robot will be asked to move across 1 foot distance within a minute. The exact time will be measured.

Some examples:



http://user.engineering.uiowa.edu/~eng_0055/2021/video/Dancingrobot3.wmv
http://user.engineering.uiowa.edu/~eng_0055/2021/video/Dancingrobot1.wmv
http://user.engineering.uiowa.edu/~eng_0055/2021/video/Dancingrobot2.wmv

More examples from previous classes.
http://user.engineering.uiowa.edu/~eng_0055/2021/video/Dancing2018-11.wmv
http://user.engineering.uiowa.edu/~eng_0055/2021/video/Dancing2018-12.wmv