

# ODYSSEY OF THE MIND

2022-2023



PROBLEM 2:

BECAUSE iCAN

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# Because iCan

## Problem No. 2: Divisions I, II, III & IV

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### Introduction

Rube Goldberg had many skills, but he is best remembered for his cartoons showing complicated contraptions that required a sequence of actions to eventually complete a simple task. Movies like “*Back to the Future*” include the same style of overcomplicated actions to perform a simple task. These contraptions are the result of human creativity. Ingenuity and creativity allow people to create inventions simply because they can. Now it is time for our OM teams to use their creativity to create their own “solution” to a simple task — because OF COURSE they can!

### A. The Problem

Some contraptions and devices seem to make simple tasks much more complicated — and in this problem that’s a good thing! Teams will create a device that will perform a simple task and a series of actions that make completing it more complicated. The actions include a series of actions selected from a list. Once the device starts, it will complete the series of actions without team assistance and then perform the simple task. The setting will be a team-created laboratory and the performance will include an inventor character and a costume that changes its appearance to show a change of emotion.

The **creative emphases** of the problem are on the overall performance, the device’s engineering and materials used in construction, the team-created action performed by the device, and the costume that changes appearance.

The **Spirit of the Problem** is for the team to design and build a device that completes a simple task without using team assistance. However, the process of completing the simple task is over-complicated by a series of actions that are performed before the task is completed. Actions will be performed in rounds—one round will show all three actions and the simple task. The team will also create a performance that includes an inventor character that explains the device, a costume that changes appearance to show a change in emotion, a signal that indicates when each round is beginning, and a laboratory setting.

### B. Limitations (Italicized word/terms are defined in the Problem Glossary or in the *2022-23 Odyssey of the Mind Program Guide*.)

1. **General Rules:** Read the *2022-23 Odyssey of the Mind Program Guide*. This manual is updated each year and includes important rules for solving Odyssey of the Mind Problems and forms required for competition. This problem cannot be solved without referring to the Program Rules section of the guide.
2. **Problem Clarifications:** The Odyssey of the Mind Program Guide explains the types of questions that will be clarified and how to submit them. Problem clarifications can be submitted and accessed at [www.odysseyofthemind.com/clarifications](http://www.odysseyofthemind.com/clarifications). The deadline for submission is February 15, 2023. CCI may find it necessary to issue clarifications after that date, so continue to check for them after February 15 and before each competition.
3. The **time limit** for this problem is 8 minutes. This includes setup, Style, and the presentation of the solution. Time will start when the Timekeeper says, “Team, begin,” and will end when the team gives its signal that it is finished or the timekeeper calls “Time.”
4. The **cost limit** for this problem is \$155 (U.S.). The combined value of all materials used during the presentation of the solution, including Style, cannot exceed this amount. The Odyssey of the Mind Program Guide explains the cost limit and how to determine the value of the materials used.
5. The team will create an original performance that includes:
  - a. a team-created device.
  - b. a series of actions performed in rounds by the device that makes finishing a simple task complicated.
  - c. a signal that indicates when each round is beginning.

- d. a laboratory setting.
  - e. an inventor character.
  - f. a costume that changes its appearance to show a change in emotions.
  - g. five Style elements including two that are chosen by the team listed in F. Style.
6. The device:
- a. will be used to perform a simple task that is made complicated by adding unnecessary additional actions. The simple task can be anything the team wishes and will be considered simple as *portrayed in the performance*.
  - b. must be an original device designed and constructed by the team. It may include commercially-produced parts.
  - c. may use only one or more power sources allowed in the General Rules of the Odyssey of the Mind Program Guide.
  - d. may consist of multiple components that do not have to be connected. Each component that is designed to perform the actions and complete the simple task will be considered for score.
  - e. cannot use *human power* after it is activated for Divisions 2 – 4. Teams can trigger the device to begin each round but cannot touch any part of the device until the round is finished. Division 1 may use indirect human power after the device is activated for each round.
7. The series of actions that lead to completing a simple task:
- a. must be completed before the device performs the simple task. The team must select one action from each list PLUS a team-created action not from either list.
  - b. must always be attempted in the same order.
  - c. must be completed before the next action or task is completed. If an action is unsuccessful the attempt is over and the team must try again.

There must be a minimum of three total actions that include, in any order:

List 1

- ring a bell
- raise a flag
- knock something over
- uncover something
- make something travel backwards

List 2

- turn on a light
- turn something upside down
- make something travel upwards. (This must be noticeable to the judges and audience.)
- make 3 or more different sounds (a separate action from ring a bell).
- make something come to a stop and then continue moving again without team member assistance

Team-Created: an original action that will be scored for its creativity.

- d. must be completed only by the device; no team member interaction is allowed after the device is activated for each round except for Division 1, which may use indirect human power. If a team member interacts with the device during an attempt, that round will be considered over at that time.
  - e. must be demonstrated by the device in rounds. However, only the last successful action completed in a round will be scored. For example, if in the first round all three actions are attempted and the first two are successful but the third action is not successful, the second action will receive score. If it has already received score it will be considered a duplicate (see B7g).
  - f. If a team member directly (all divisions) or indirectly (divisions 2-4) interacts with the device during the actions, that attempt stops, but the last successful action is eligible for score in that round.
  - g. may be attempted as many times as time permits for score. Each action and the simple task are only eligible to receive score once. If an action receives score, it will keep that score even if it fails in a new round. For an action to receive a score, it must be the final action in the round.
8. The signal:
- a. can be anything the team wishes, but it must be noticeable to the judges and audience.
  - b. will indicate that a round is being attempted.
  - c. will occur as the device begins a round.
  - d. will be the same for each round.

9. The laboratory setting:
  - a. can be anything the team wishes but will be scored for originality.
  - b. must be tangible and visible to the judges and audience. It will be considered a laboratory as *portrayed in the performance*.
  - c. will be the setting for the device when it successfully completes the simple task.
10. The inventor character:
  - a. must be a single *character portrayed by one or more team members* in costume.
  - b. will explain why each component that is intended to complete an action was added to the device.
  - c. will explain the inspiration for the device.
11. The costume that changes appearance:
  - a. must change in a way that is noticeable to the judges and audience.
  - b. can change any way the team wishes.
  - c. will portray a change of emotion of the character wearing it.
  - d. cannot be worn by the Inventor Character.
12. The team should present the Staging Area Judge with four copies of the Team List Form found in the forms section at [www.odysseyofthemind.com/members](http://www.odysseyofthemind.com/members) or four copies of a list on one side of one or two sheets of 8 ½" x 11" or A4 paper. This list can be hand-printed, typed, or computer generated. It is for reference only. This list must include:
  - a. the team's membership name and number, the problem and division.
  - b. a brief description of how the device operates.
  - c. a brief description of the signal.
  - d. a brief description of the simple task performed by the device.
  - e. a brief description of the team-created action.
  - f. for each action and the simple task, a brief description of what will occur when each is successful.
  - g. a brief description of the inventor character.
  - h. a brief description of the costume that changes appearance.
  - i. the signal the team will use to indicate it has finished its performance.

### **C. Site, Setup and Competition**

1. A stage or floor area a minimum of 10' x 10' (3m x 3m) will be used, but a larger area is desirable. This will not be marked. Teams must be prepared to perform in a 10' x 10' area. If space permits, the team may perform and/or place equipment, props, etc. outside the 10' x 10' area. If a drop-off exists beyond the 10' x 10' dimensions, a caution line may be taped 30" (76.2cm) from the edge of the drop-off. This will serve as a warning, not a boundary.
2. A three-prong electrical outlet will be available at the performance area. Teams must bring their own extension cords and adapters, if needed.
3. The team members should report to the competition site with all items for the presentation of their solution at least 15 minutes before they are scheduled to compete.
4. There will be a chart that shows when the actions and the simple task have been completed successfully for score. It will be visible to the team during its performance.
5. At the end of the 8-minute time period, the Timekeeper will call "Time" and all activity must stop. The team may end before the 8 minutes but must signal the judges when it is finished.
6. Teams should bring cleaning utensils to clean up any mess. Should a team take an unreasonable amount of time to clean the site, or leave a mess, the judges will assess an Unsportsmanlike Conduct penalty. Others not on the team's roster can help the team clear the site and remove the team's props. The competition area must be left clean and dry for the next competing team.

## D. Scoring

1. Creativity of the overall performance (originality, effectiveness)..... 1 to 15 points
2. Overall quality of the presentation ..... 1 to 15 points
3. The device ..... 7 to 50 points
  - a. Creativity of its engineering .....3 to 20 points
  - b. Risk-taking of its functional design .....2 to 15 points
  - c. Creativity of the use of materials in its design .....2 to 15 points
4. The four rounds ..... 0 to 45 points
  - a. first three actions are completed  
within limitations (0 or 10 points each) (see B7e) ..... 0, 10, 20, or 30 points
  - b. simple task is completed within limitations ..... 0 or 15 points
5. The creativity of the team-created action ..... 2 to 10 points
6. The laboratory setting ..... 2 to 15 points
  - a. Is presented ..... 0 or 5 points
  - b. Originality of the setting .....2 to 10 points
7. The inventor character..... 5 to 20 points
  - a. Originality of overall appearance .....2 to 10 points
  - b. How well it explains the device as described in B10b & c .....3 to 10 points
8. The costume that changes appearance ..... 2 to 15 points
  - a. Shows a change of emotion ..... 0 or 5 points
  - b. Creativity of how it's designed to change .....2 to 10 points
9. Signals (all rounds considered) ..... 2 to 15 points
  - a. Occur within limitations ..... 0 or 5 points
  - b. Originality of the signal ..... 2 to 10 points

*Maximum possible: 200 points*

## E. Penalties

1. "Spirit of the Problem" violation (each offense) .....-1 to -30 points
2. Unsportsmanlike conduct (each offense) .....-1 to -30 points
3. Incorrect or missing membership sign.....-1 to -5 points
4. Outside assistance (each offense) .....-1 to -25 points
5. Over cost limit.....-1 to -30 points

*Teams that don't present a scored element of the problem will not receive a penalty, they will receive a zero score for that category.*

## F. Style (Elaboration of the problem solution; use four copies of the Style Form from the 2022-23 Odyssey of the Mind Program Guide.)

1. Artistic quality of a poster or picture in the laboratory setting ..... 1 to 10 points
2. Effectiveness of a *dramatic pause* in the performance..... 1 to 10 points
3. (Free choice of team) ..... 1 to 10 points
4. (Free choice of team) ..... 1 to 10 points
5. Overall effect of the four Style elements in the performance..... 1 to 10 points

*Maximum possible: 50 points*

## G. Tournament Director Will Provide

1. 10' x 10' (3m x 3m) presentation area (larger, if possible).
2. A three-prong electrical outlet at the performance area.
3. A judging team and materials necessary to judge this problem.
4. Chalkboard, chalk and an eraser – or - an easel, easel pad and marker – or – a whiteboard, marker and eraser to indicate if the actions and task have been successfully completed.

**NOTE:** Contact your local Tournament Director for site specifications, such as actual dimensions, floor surface, etc. Do not submit a clarification request for this information.

## H. The Team Must Provide

1. Four copies of its Style Form, one Cost Form, one Outside Assistance Form, and all team-specific clarifications.
2. Four copies of the Team List as described in B12. This list is to assist the judges. If the team fails to provide the list, there will be no penalty; however, it benefits the team to have the lists because without them the judges might miss a scored aspect of the performance.
3. Any necessary extension cords or outlet adapters.
4. Cleanup materials as needed.

## I. Problem Glossary (*Italicized terms that are not in this Glossary can be found in the 2022-23 Odyssey of the Mind Program Guide.*)

*Dramatic pause*— a moment during the performance with no dialogue and little or no scripted sound meant to heighten the anticipation before something occurs with the device or within the performance, or both. It can be any length of time but should be noticeable to the judges and audience.

Problem by Dr. C. Samuel Micklus and Samuel W. Micklus.

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