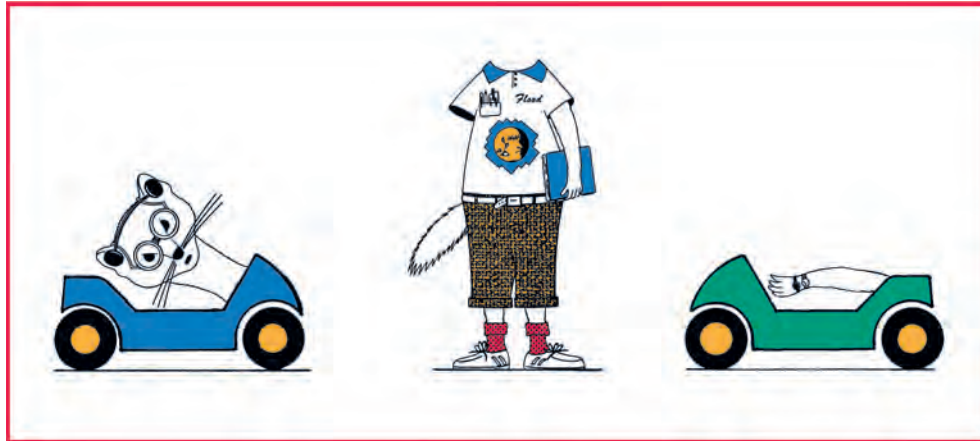




Odyssey of the Mind™

2012-2013

Problem No. 1: Pet Project



Pet Project

Problem No. 1: Divisions I, II & III

A. The Problem

The team's problem is to design, build and run three vehicles from different areas and through obstacles to deliver parts that will be assembled into a pet animal. Each vehicle will be propelled differently and will make at least three trips to deliver parts into an Assembly Area. The team will develop signals to let the audience know which vehicle will run next. Once assembly is completed, the pet animal will perform a trick or be part of a trick. The team will create a theme for the presentation that includes the delivery of the parts and the animal.

The **creative emphases** of the problem are on the theme of the performance, the vehicles and how they operate, and the assembly of the pet animal.

The **Spirit of the Problem** is for the team to design, build and operate three vehicles that each uses a different type of propulsion system. The vehicles will travel through obstacles to deliver parts into an Assembly Area, where the team will assemble the parts into a pet animal. The team will create a signal for each time a vehicle delivers a part. Once the animal is assembled, it will perform a trick or be part of a trick. The team will present a theme for its performance that incorporates the running of the vehicles and the assembly of the pet animal.

B. Limitations (Italicized words/terms are defined in the *2012-2013 Odyssey of the Mind Program Guide*.)

1. **General Rules:** Read the *2012-2013 Odyssey of the Mind Program Guide*. This manual is updated each year and includes basic limitations for solving Odyssey of the Mind problems and the 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 about the rules that will be clarified and the ways to submit those questions. General problem clarifications can be accessed at www.odysseyofthemind.com/clarifications/. Problem clarifications submitted after February 15, 2013, will not be answered. 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 starts when the Timekeeper says, "Team begin," and includes setup, Style, and the presentation of the problem solution.
4. The cost limit for this problem is \$145 (U.S.). The combined value of the materials used during the demonstration of the team's solution, including Style, cannot exceed this amount. The *Odyssey of the Mind Program Guide* explains the cost limit and lists items that are exempt from cost.
5. The team will create an original performance that includes:
 - a. three vehicles that will each make at least three trips.
 - b. team-created signals to show which vehicle is going to travel next.
 - c. a pet animal that is constructed out of a minimum of nine parts that are delivered by the vehicles to an Assembly Area (AA).
 - d. a trick performed by or incorporating the pet animal.
 - e. a theme that incorporates the delivery of the parts and the animal.
6. The **vehicles:**
 - a. must be original creations of the team; however, they may include *commercially produced* parts.
 - b. must each fit entirely within a 12" x 18" rectangle. They can be any height (one must fit in the tunnel to be eligible for maximum score).
 - c. must each be propelled differently than the others.

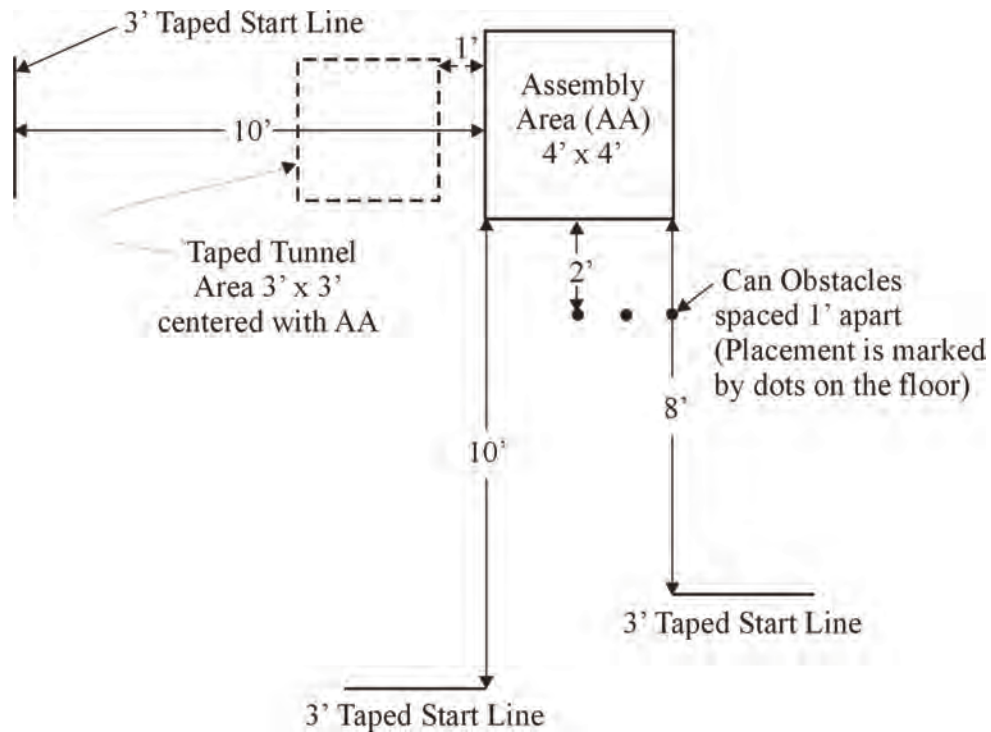
- d. must travel one at a time when attempting a run.
7. The **propulsion systems**:
 - a. must be different from one another. They may use different energy sources, or they can be the same type of energy applied in different ways. The source of energy and the engineering of how that energy is applied for propulsion are what determine how a vehicle is propelled.
 - b. can use parts external to the vehicle to assist in its propulsion. These must remain behind the Start Line where the vehicle will be released and are not considered when measuring the vehicles.
 8. The **signals**:
 - a. can be anything.
 - b. must be visible to the judges and the audience.
 - c. will be used to indicate which vehicle will travel next. These may be the same type of signal for all of the vehicles, a different type of signal for each vehicle, or one system of signaling for all of the vehicles.
 9. The **pet animal**:
 - a. must represent a mammal, reptile, amphibian, fish or bird that currently exists or is considered extinct.
 - b. must be made up of a minimum of nine parts that are delivered to the AA by the vehicles. A part may be added to the animal at any time after it is delivered.
 - c. may include other parts that do not have to be transported to the AA by the vehicles. They may be placed in the AA any time after time begins.
 10. **Running the vehicles to deliver the pet animal parts** (see Figure A):
 - a. Each vehicle will travel from behind one of three Start Lines into the AA. Each vehicle must begin from behind its Start Line and cross over any part of that Start Line for each run it attempts.
 - b. Each vehicle will depart from behind its Start Line carrying a pet animal part that it will deliver into the AA. A run is considered successful if any part of the vehicle carrying the part *breaks the plane* of the AA.
 - c. All external parts of the guidance and/or propulsion systems must remain behind the Start Line if they are used.
 - d. There will be obstacles between two of the Start Lines and the AA. The vehicle can complete the obstacles during a successful run for points or ignore them without penalty. The Tournament Director will supply the obstacles. They are:
 - (1) three cans to be moved. The cans will be empty commercially produced beverage cans not less than 2½" in diameter and over 4" tall. Teams may remove cans between runs or re-set them after an unsuccessful run. If the dot marking the can's placement is visible it counts as being successfully moved.
 - (2) one tunnel that a vehicle may run through on each trip. The tunnel will be made of 3/8" plywood or a similar wood with internal dimensions measuring 24" long with a 16" x 16" opening.
 11. The **trick**:
 - a. must take place after the animal has been assembled.
 - b. can be anything as long as it is performed by the animal or incorporates the animal in some way.
 - c. can be anywhere on the competition site but must be visible to the judges and audience.
 12. The theme of the performance can be about anything as long as it incorporates the running of the vehicles and the assembly of the pet animal.
 13. The team should present the Staging Area Judge with four copies of the Team's Required List Form found in the forms section of the Members Area at www.odysseyofthemind.com/members/ or four copies of a list on one side of one or two sheets of 8½" x 11" or A4 paper. This list must be hand-printed, typed, or computer generated. It is for reference only. The list must include:
 - a. the team's membership name and number, the problem and division.

- b. a brief description of the three propulsion systems and the vehicles they power.
- c. a description of the signals the team will use to indicate which vehicle will run next.
- d. a description of the animal and the trick it performs.
- e. the signal the team will use to indicate it has finished presenting its solution.

C. Site, Setup and Competition

1. The competition area will be a minimum of 20' x 20' (6.1m x 6.1m) with a taped Assembly Area (AA) and three Start Lines (see Figure A). There will also be two obstacles.

Figure A: Site Setup



2. A three-prong electrical outlet will be available. Teams should bring their own extension cords and adapters, if needed.
3. Team members must report to the competition site with all of their props at least 15 minutes before they are scheduled to compete.
4. The Staging Area Judge will direct the team to place each of its vehicles into a rectangle that is 12" x 18". Each vehicle, including any attached propulsion systems, must fit within the rectangle; however, it can extend beyond the height. If it does not fit *completely within this area* and time allows, the judge will give the team time to fix the problem.
5. At the end of the 8-minute competition period, the Timekeeper will call time and all activity must stop. The team may end before the 8 minutes, but it 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 undamaged and clean and dry for the next team.

D. Scoring

1. Overall creativity of the theme of the performance1 to 20 points
2. Overall quality of the presentation1 to 15 points
3. The propulsion systems4 to 45 points
 - a. Creativity of Vehicle 11 to 10 points
 - b. Creativity of Vehicle 21 to 10 points
 - c. Creativity of Vehicle 31 to 10 points
 - d. How different they are from each other1 to 15 points
4. Risk-taking of the vehicles' design, including propulsion system3 to 21 points
 - a. Vehicle 11 to 7 points
 - b. Vehicle 21 to 7 points
 - c. Vehicle 31 to 7 points
5. The signals1 to 15 points
 - a. A signal is used for all required runs0 or 5 points
 - b. Effectiveness in the performance1 to 10 points
6. Parts delivered to the AA (3 points @ max. of 9)0, 3, 6, 9...24, 27 points
7. Obstacles during successful runs0, 2, 4, 6, 8, 10, 12 points
 - a. Vehicle knocks over a can (2 points @ max. of 3 times)0, 2, 4, 6 points
 - b. Vehicle goes through tunnel (2 points @ max. of 3 times)0, 2, 4, 6 points
8. The pet animal2 to 25 points
 - a. Creativity of the way it is designed to be assembled1 to 15 points
 - b. How well it is incorporated into the performance1 to 10 points
9. The Trick2 to 20 points
 - a. Level of involvement of the pet animal1 to 10 points
 - b. Effectiveness in the performance1 to 10 points

Maximum possible: 200 points

E. Penalties (Deducted from percentaged scores.)

1. "Spirit of the Problem" violation (each offense)-1 to -100 points
2. Unsportsmanlike conduct (each offense)-1 to -100 points
3. Incorrect or missing membership sign-1 to -15 points
4. Outside assistance (each offense)-1 to -100 points
5. Over cost limit-1 to -100 points
6. Vehicle does not fit within the 12" x 18" rectangle-5 to -30 points
7. Parts used in the animal that were not delivered by the vehiclesno penalty

Omission of scored problem requirements carries no penalty except loss of score.

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

1. Creativity of the *appearance* of one of the vehicles1 to 10 points
2. *Artistic quality* of a costume worn by a team member1 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 performance1 to 10 points

Maximum possible: 50 points

G. Tournament Director Will Provide

1. A 20' x 20' (6.1m x 6.1m) course (larger, if possible) with a taped Assembly Area, three Start Lines, and obstacles.
2. A three-prong electrical outlet.
3. A judging team and materials necessary to judge this problem.

NOTE: *Contact your 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 list described in B13.
3. Any necessary extension cords or outlet adapters.
4. Cleanup materials as needed.

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

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