

## **2017 ASSOCIATION FINALS**

HANDS-ON SPONTANEOUS PROBLEM: GUIDE ME HOME

- **A.** When the team members enter the room, tell them, "This is a hands-on problem. You have one minute to select the five team members who will compete. The others must sit quietly in these seats (indicate seats) and watch or leave the room. They may not participate in any way."
- B. JUDGE READS TO TEAMS: (Do not read material in parentheses.)
  - (1) **This is a two-part problem**. In Part I, you will have 4 minutes to discuss the problem, create a solution, and practice. In Part II, you will have 3 minutes to test your solution for score. The judges will warn you when one minute remains in both parts. You can ask the judges questions, but time will continue.
  - (2) There is a taped Scoring Area and two taped Launch Areas (*point to areas*). You are not allowed to change the setup.
  - (3) Your problem is to use materials to move balls from Launch Areas into the scoring area (demonstrate). You must stay within the Launch Areas (point) when attempting to score.
  - (4) There are materials on the floor to use to move and guide the balls (*point to materials*). You are not allowed to damage or change any material with a label on it (*point to label*). Nothing else can be used.
  - (5) In Part I, you may move around and practice as you wish. When Part I ends you must remove the practice balls from the course and the judges will replace them with the balls for Part II. Materials may be left anywhere when Part I ends.

#### In Part II:

- (6) After releasing balls, you must use only the materials to guide them. For example, you cannot push them by hand, foot, etc. once they leave the launch area.
- (7) You must be entirely within the Launch Areas when attempting to score. You are allowed to leave the Launch Area any time a ball is not being moved for score.
- (8) Once a ball leaves the Launch Area, you may not touch it in any way unless you want that attempt to be over. You are allowed to retrieve any ball and try again.
- (9) You can ask to be scored at any time. Competition is over when you ask to be scored or when time ends.
- (10) You will be scored as follows:
  - (a) Each ball will receive the value of the area it rests in when Part II ends.
  - (b) You will receive 1 to 10 points for the creativity of your solution.
  - (c) You will receive 1 to 15 points for how well your team works together.

(Repeat items in boldface. Begin by saying, "I repeat.")

#### C. FOR JUDGES ONLY:

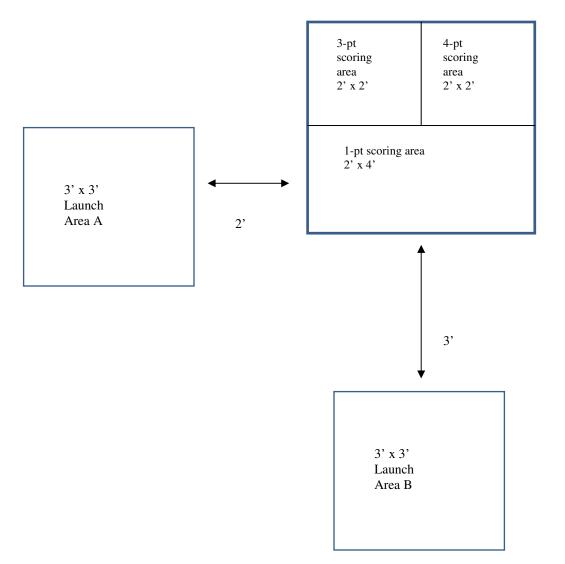
- 1. Discuss and practice the problem before the first team competes. Make any necessary decisions and/or notes. All decisions must be applied uniformly to all teams.
- 2. Practice reading the problem out loud before the first team competes. When reading to the teams, judges should illustrate the problem by indicating items and portraying actions.
- 3. Place two copies of the Team's Copy in full view of all team members before you read the problem to them. They may refer to them during the competition.
- 4. Set up the competition site as shown in Figure A. For Part I, place 1 tennis ball in Launch Area A and 1 small rubber ball in Launch Area B. In Part II, place 10 tennis balls in Launch Area A and 5 small rubber balls in Launch Area B.
- 5. Before the team enters the room, place a set of the following materials on the floor:

Ramp materials	5 Rubber bands	1 baseball hat*
3 pieces of balsa wood, 36"	*2 pieces of molding, 12"	2 paper plates
5 straws	3 adhesive labels	3 unsharpened pencils
*1 sneaker	*1 plastic spatula	2 plastic cups
*1 yard stick	*1 ruler	*2 dowels, 6"

\*mark with yellow label.

Note: Be sure there is a complete set of undamaged materials and balls before the team enters the room.

- 6. Be sure to give the team exactly 4 minutes in Part I. Warn the team when 1 minute remains. Give the team exactly 3 minutes in Part II to test its solution for score. Warn the team when 1 minute remains.
- 7. When Part I ends make sure the team removes the balls from the course, take them from the team and place a container of balls in each area.
- 8. Materials may be left anywhere on the course. When not rolling a ball, teams can leave the Launch Area to move materials.
- 9. The team may try to combine or move more than one ball at a time. They can release by hand within the Launch Area, but once released must rely on materials to guide/stop the balls.
- 10. Teams may start again at any time and as many times as it wishes in Part II. If they touch a ball after it leaves the Launch Area, that roll is considered over.
- 11. If it is obvious that the team does not understand the problem, you should provide information to clarify the problem's intent and its limitations. **Do not offer tips on how to solve the problem**.
- 12. When scoring **creativity of the solution**, consider how teams use materials to release/guide the balls, if they develop a strategy, combine balls into one roll, etc. When scoring **how well the team works together**, consider the extent that all team members are involved in the solution: Did they delegate duties? Share ideas? Did the team members value one another's input?



4' x 4' Overall Scoring Area surrounded by a .5" thick raised surface (wood, plastic, etc). Areas within square are taped and marked

# Team's Copy

### Hands-On Spontaneous Problem: Guide Me Home

- (1) This is a two-part problem. In Part I, you will have 4 minutes to discuss the problem, create a solution, and practice. In Part II, you will have 3 minutes to test your solution for score. The judges will warn you when one minute remains in both parts. You can ask the judges questions, but time will continue.
- (2) There is a taped Scoring Area and two taped Launch Areas. You are not allowed to change the setup.
- (3) Your problem is to use materials to move balls from Launch Areas into the scoring area. You must stay within the Launch Areas when attempting to score.
- (4) There are materials on the floor to use to move and guide the balls. You are not allowed to damage or change any material with a label on it. Nothing else can be used.
- (5) In Part I, you may move around and practice as you wish. When Part I ends you must remove the practice balls from the course and the judges will replace them with the balls for Part II. Materials may be left anywhere when Part I ends.

In Part II:

- (6) After releasing balls, you must use only the materials to guide them. For example, you cannot push them by hand, foot, etc. once they leave the launch area.
- (7) You must be entirely within the Launch Areas when attempting to score. You are allowed to leave the Launch Area any time a ball is not being moved for score.
- (8) Once a ball leaves the Launch Area, you may not touch it in any way unless you want that attempt to be over. You are allowed to retrieve any ball and try again.
- (9) You can ask to be scored at any time. Competition is over when you ask to be scored or when time ends.
- (10) You will be scored as follows:
  - (a) Each ball will receive the value of the area it rests in when Part II ends.
  - (b) You will receive 1 to 10 points for the creativity of your solution.
  - (c) You will receive 1 to 15 points for how well your team works together.