This activity teaches the computer science concept of iterative design: programming, debugging and writing pseudocode (instructions for the computer to follow).

This activity involves two teams of 3-5 students each.

**Equipment needed:**
- a. Large room
- b. Supplies to outline maze: Chairs (12); paper tape
- c. Blindfolds(2)
- d. Paper and pencils
- e. Small Basketball
- f. Small Basketball hoop

**Procedure**
1. Clear a space for two simple obstacle courses.
2. Build two simple obstacle courses by organizing chairs
   - a. For elementary school, organize 6 chairs in a straight line with basketball and hoop at the end of the course
   - b. For middle and high school, assemble twelve chairs in an upside down L shape with the hoop at the bend and the basketball at the end
3. Blindfold the two starting players. Using step by step instructions guide them through the maze (and put the ball through the hoop.)
4. Write down instructions
5. Give them to the game supervisors and have them read the instructions to each player
6. If they hit an obstacle, they must go back to the beginning and start again. The team may edit the rules at that time
7. The first team to get their player through their maze (and ball into the hoop) wins

**Going Further**
It is easy to make mistakes when writing programs for robots. Programmers write a program, and then test it to find mistakes. If a bad instruction is found, they fix the problem and retest the program until it works correctly. This is called iterative testing.