Alice Programming Assessment: Lists

Assessment Overview

• This assessment is designed to cover use of lists of objects and how to manipulate parts of objects using lists. It should take 20-25 minutes to complete this challenge.

• Before attempting this challenge please complete the tutorial: “Making Objects Move in Unison: Using Lists”.

Starter World

• Open the ListsAssessment.a2w world

• You will see that there are already objects and methods written: world.salute and world.armCrook.

• Press play and view the current state of the world

The Problem

• Four of the six soldiers, yell “Atten-HUT!”, and their right arms seem to break awkwardly.

• The goal is to have all of the soldiers move one meter forward together, then all of them turn to the left one at a time, and then all of them salute correctly together.
soldierList

• toySoldier5 and toySoldier6 are slackers, and must be added to the soldierList if they are to perform methods with the rest of their squad, so do this first.
• soldierList is a world variable, and can be found under the world's properties. Do not worry about rightArmList.

World.myFirstMethod

• World.myFirstMethod needs to have a method that moves the soldiers forward one meter at the same time.
• Next, the soldiers should all turn left one quarter of a revolution at a duration of 0.25 seconds one at a time.

World.salute

• World.salute needs one method added to it, a method that turns the rightArm of each soldier backwards 0.45 revolutions at a 0.5 second duration simultaneously.
  • Hint: Use the toySoldier function “part named key” and replace toySoldier with the list from the For All Together block.

Completion

• Run the program now. The soldiers should all move forward simultaneously, then each of them should turn left one at a time, and then they should all salute correctly with their hands on their heads.
• If this occurs, then the assessment is complete!