CMSC 143: Object-Oriented Programming with Robots

Assignment 2: Team Performance
Due (by class) March 6th, 2015

The next assignment builds upon the sign and dance assignment. You are asked to form small teams (2–3 members) to perform some skit, parody, or dance routine using the robots. We'll have an open demonstration on March 6th during the lab period.

The project's guidelines are:

1. All team member's robots must be involved. Involvement may include moving or backup activities such as narration or vocals (`speak()`, `beep()`) or manipulation of the set.

2. The robots should be (reasonably) synchronized. There are a few ways to synchronize your robots:

    (a) Have the first line of your program ask for user input:
       `ask('Hit Enter on all computers at the same time when you are ready to go!')`

    (b) Use the `currentTime()` function to assure all robots are on schedule.

    (c) Control all the robots from the same Python program by treating the robots as objects.

3. Your performance should include movements, plus some type of sound effects. Sounds may include music, beeping, or even speaking with the `speak()` function.

4. Your robots should be appropriately costumed. You may use tape, colored paper, lights, tassels, cotton balls, pipe-cleaners, etc. to decorate your robot appropriately. The costume should be removable when the performance is over.

5. The performance must be a minimum of 30 seconds in length and a maximum of 90 seconds in length.

Optionally, you could:

1. Construct a set with props for your robots to interact with (background? ramps? doors?) you could even have one robot controlling parts of the set or props.

2. Ask for audience participation. You may pause the program(s) at some point and ask the audience to to make a choice in how the story/performance should evolve.

Learning Objectives

- Work on software as a team.
- Coordinate multiple robots.
- Practice using loops.

Deliverables

Live demonstration on March 6th during lab.

Each team member should submit their code and a group evaluation including:

1. Your name

2. The names of your other team members

3. A list of the items/work you did on the performance

4. What percentage you think this was of the total work your team did.

5. For each of your team members, you should also report:

    (a) Their name.
    (b) A list of the items/work they did on the performance.
    (c) What percentage you think that was of the total work your team did.

Submit an electronic copy of your program using moodle. Your submission should be a zip file that expands to a folder with a copy of your program and your group evaluation:

```
cmsc143-assignment2-LASTNAME-FIRSTNAME/
      team-performance.py
      group-evaluation.pdf
```