

## CMSC 143: Introduction to Object-Oriented Programming with Robots

# Assignment 2: Team Performance

Due (by class) February 29th, 2012

The second assignment builds upon the sign and dance assignment. You are asked to form small teams (3 members) to perform some skit, parody, or dance routine using the robots. We'll have an open demonstration on February 29th during the class period where we'll invite the broader Bard community.

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()`, `beeps()`) 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:  
`input('Hit Enter on all computers at the same time when you are ready to go!')`
  - (b) Use the `currentTime()` method 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 make a choice in how the story/performance should evolve.

### Learning Objectives

- Work on software as a team.
- Coordinate multiple robots.
- Practice using loops.
- How to properly document a program.

## Deliverables

Live demonstration on February 29th @ 10:10am.

Each team member should submit 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 and your group evaluation via moodle using files named:

**cmisc143\_team\_performance.NAME.py.**  
**cmisc143\_group\_evaluation.NAME.pdf**