

CS 1301 – Spring 2010

Homework 8 – Lights, Camera, Robot Action!

Due: Friday, April 16th, before 6 PM EST (10% off if turned in before Monday, April 19th, before 6PM)

Out of 200 points

Files to submit:

- **filmingCode.py**
- **actingCode.py**
- **editingCode.py**
- **performanceCode.py**
- **movie.avi or movie.wmv or movie.mov**
- **project_write-up.txt**
- **team_evaluation.txt**

For Help:

- TA Helpdesk – Schedule posted on class website.
- Email TAs
- Newsgroups

Notes:

- **Don't forget to include the required comments and collaboration statement (as outlined on the course syllabus).**
 - **Do not wait until the last minute to do this assignment in case you run into problems.**
 - If you find a significant error in the homework assignment, please let a TA know immediately.
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Lights, Camera, Robot Action!

You have the special effects, the robots, and now all you need is the inspiration to compose your short-length robot feature film. The robots will be the actors, the camera, and the stars of the movie. Together, your group will shoot and edit a 30-120 second movie with the robots. This assignment is very open to the director's choice of genre.

Here are a few examples from past years:

[RoboMovie](#)

[Pacman\(\): Try and Except Error!](#)

[The Scribbling](#)

[Mad Cow](#)

Grading

This assignment is worth a total of 200pts, so we stress that you do **not wait until the last minute to complete this assignment**. 100pts of the project will be code-based (i.e. Filming Code, Acting Code, Editing Code, and Performance Code). The other 100pts will be split up into The Film, Project Write-up, and the Team Evaluation. Both the Project Write-up and Team Evaluation should be submitted as .txt files. Every member of the group needs to submit the same code, film, and project write-up. The team evaluation should be different for each member in the group.

- Filming Code (30pts) – Although you may choose to use images from other sources if you want, at least 30 frames used for the footage of your movie must be taken from the robot's camera. The filming code captures these images
- Acting Code (20pts) - Robot(s) should do some kind of interacting with other robot(s) and/or the environment. The acting code controls your robots. If you need extra robots you can come to the TA helpdesk to film portions of your movie with multiple robots in it.
- Editing Code (30pts) – Editing code is code used to edit the film, do special effects, etc. You should use several of the special effects you created for the last assignment.
- Performance Code (20pts) – This code plays back the individual images as a complete film and *may* add interesting music or narration.
- The Film (30pts) – The short-length motion picture should be between 30-120 seconds in length. You can capture it using a screen capture tool (see references below) that creates movies, or put it together using a 3rd party film editing program. When creating your film, through any of the above-mentioned methods, you are allowed to use outside (non-scribbler) music.
- Project Write-up (20pts) – The project description text file is broken down in two parts: 1) Describe (in English not Python) what your movie is about and the special effects you used. 2) Describe and justify any deviations you made from the code layout we have provided above. If you made no such deviations, go ahead and state that no deviations were made.
- Team Evaluation (50pts)
For team evaluations: Each member of the group should also submit an individual file (team_evaluation.txt) which contains:
 1. Your name, and the name of the other team member(s).

2. What you did, and what each of the other member(s) did.
3. What percentage of work each team member did (should add to 100%) (i.e. if two people contributed equally, each person gets 50%)

Notes:

In semesters past, people have found it convenient to break each type of code (acting, filming, editing, etc...) into its own code file. You are not required to use this approach, but please justify any deviations you make (for example, if you need to mix the acting code and filming code into one file, then explain and justify that in your teams project write-up text file.)

Don't forget that you have the ability to import code files that contain already-defined functions into other files. Hence, if you have a file named specialFx.py, which contains all of your special effects, you can create a new python file, and at the top type: 'from specialFx import *'. You will now have the ability to use any of the functions you defined in the specialFx file in your new file.

Extra Credit:

In each recitation awards will be handed out based on the movies in their own recitation. The TA's for each section will sift through all of the movies and decide which movies are awarded. Each individual award is worth 10 extra credit points and a total of up to 5 awards may be given out per recitation.

- The Walter Award for innovative robot camera work.
- The Walter Award for outstanding robot performance.
- The Walter Award for excellent audio accompaniment.
- The Walter Award for stellar special effects.
- The Walter Award for superb screenplay.

Resources:

Various software for video capture can be found here:

http://en.wikipedia.org/wiki/List_of_screencasting_software