# CISC 3120 Fall 2012 Homework 1

## Instructions

- This is the first homework assignment for CISC 3120.

- **It is due on Wednesday September 5th** and must be submitted by email (as below).

- **Follow these emailing instructions:**

  1. Create a mail message addressed to *parsons@sci.brooklyn.cuny.edu* with the subject line **CISC 3120 HW1**.

  2. Attach ONLY the two **.java** files:
     ```
     MovingEllipse.java
     MovingGraphicsComponent.java
     ```

  3. Write your name, that is the name under which you registered for the course, in the email. When I get an email from `deathmetal@aol.com` or `pinkprincess@yahoo.com`, I can usually guess whose program it is, but that is not as good as *knowing* whose program it is.

  4. Failure to follow these instructions will result in points being taken away from your grade. The number of points will be in proportion to the extent to which you did not follow instructions. . . (since it can make it a lot harder for me to grade your work — grrrr!)

## 1 Note

You should start from versions of the two Java objects:

```
MovingEllipse.java
```

```
MovingGraphicsComponent.java
```

which you can find on the homework page. I know I said in class that we would use the "HelloMoving" example, but this is not much more complex, and gives you some simple graphics to play with.

## 2 First build your project

Okay, there is a step before this, which is to install Eclipse on your computer. You can find links on the course webpage to where you can download it from.

Once you have a working copy of Eclipse (make sure you can run the `HelloWorld` example from the class, do the following:

1. Create a new Java project:
   File > New > Java Project

2. Add the files:
   ```
   MovingEllipse.java
   MovingGraphicsComponent.java
   ```
   to the project.
   A not-very-elegant way to do this is to create new file:
   File > New > File
   and then paste in the code.

3. Run it:

   Run > Run

   will try to run the project that contains the file that is displayed in the main part of the Eclipse window.

4. You should see a window that looks like this:
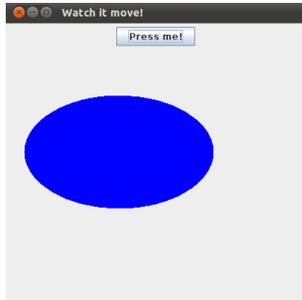


# 3 Quick modifications

These are all easy things to do, but I suggest just making one change at a time — get each one to work before you do the next.

1. Change the text on the bar at the top of the window.

2. Change the text on the button.

3. Change the color of the ellipse.

4. Change the way the ellipse moves.

# 4 Bigger modifications

These next things are a bit harder to do. Again, I suggest doing them one at a time.

1. Add a second button.

2. Add code to the `actionPerformed` method to have the second button have an effect on the ellipse.

   (I had the second button make the ellipse change color, but you can do what you want).

3. Modify the code so that it contains at least one more control structure in addition to the `if` in `actionPerformed`.

   Java contains control structures like `for`, `while` and `if/else` that are basically the same as those in C/C++. You need to add at least one of these that is not just another `if`.

   Where you add this, and what it does, is up to you.

# 5 Document it and hand it in

1. Change the comments in the files to reflect the modifications you made.

   In particular, the comment at the start of `MovingGraphicsComponent.java` should should explain which control structure you used and what the buttons are supposed to do.

2. Send it to me, as described at the start of this document.