

## 1 Lab 4

### Goals

The goals for this lab are:

1. Practice writing an interactive Processing program
2. Practice using conditionals in your program
3. Practice testing where the mouse is clicked within your scene
4. Practice using animation variables
5. Make an interactive program that animates when a mouse is clicked in a certain area

### Modality

**This is a pair-programming lab - please form teams of two people and trade off typing in commands and giving instructions to they-who-are-typing.**

### Details

**Tasks:** This lab is composed of two tasks. You must first add code to an existing Processing program called ‘pool’ in order to match the behavior shown by your instructor. In general, when the user clicks inside the pool’s water area, your program should draw an expanding ‘ripple’.

Your second task is to write your own interactive Processing program which is a ‘magic box’. The box can be any size that is reasonable (i.e. big enough to see but smaller than the entire screen). When the user clicks on the box, something magic must happen (i.e. your program must animate some scene). For example, consider taking your creature from lab 2 and

having the creature emerge from the box, or having several balls fly from the box, etc.

Your 'sketch' of the scene must:

- include a box (big enough to be seen but smaller than the screen)
- Use conditionals to only respond to a user's click within the box
- Trigger a simple animation (either moving position or size)
- The animation should be controlled by an animation variable
- The interaction should be controlled via the `mousePressed`, `mouseDrag` or `mouseMove` functions

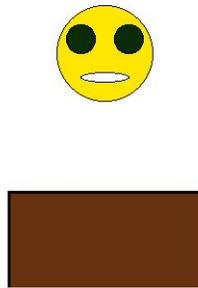


Figure 1: An example of one frame of a face emerging from a box after it was clicked.

## Demo:

In order to receive credit for this lab, you and your partner must demo your sketch to your instructor along with handing in the image and sketch of your creature via handin. Ask your instructor for details.

## 2 Resources

some useful commands:

```
mouseX  
mouseY  
mousePressed  
mouseDrag  
mouseMove  
if/else statements
```