**CSC 545 Computer Speech, Music, and Images**

**Test 2**

Copy the Test2 folder from trace to your computer. Add your name in a comment at the top of Test2.pde and complete Test2.pde to blur an image by randomly swapping pixels within a region. For example, if the region size is 10 and the target pixel is at position (115, 312), swap the target pixel with one randomly chosen from all pixels with an x position ranging from 105 to 125 and a y position ranging from 302 to 322. For full credit, animate the effect (call the fuzz function from inside the draw loop) and process all pixels to the edges of the image—do not leave an unprocessed border. Allow the user to control the region size using hot keys or mouse wheel (implement both—the user can use either one at any given time). Set hot keys as follows: ‘f’ toggles fuzzification—if the fuzzed image is shown, show the clear, unfuzzed image; otherwise show the fuzzed image (default is fuzz on with a region size of 20). Up arrow increases the region size by a constant (REGIONDELTA); max region size is determined by another constant (MAXREGION). Moving the mouse wheel forward (away from the user) one click is equivalent to pressing up arrow one time; moving the mouse wheel backward (toward the user) one click is equivalent to pressing the down arrow one time. Down arrow decreases the region size by REGIONDELTA, with a minimum size of MINREGION. The test will be graded according to the following criteria:

Name in comment at top of program………………………………………………...5%

Load and display test image………………………………………………………... 20%

Create fuzzedImg (whether or not it is fuzzed)…….……………………………… 10%

Modify & display pixels in fuzzed image………………………………………….. 15%

Correct hot key (f, Up, Down) and mouse wheel implementation.………………... 20%  
Pixels processed to edge of image (no unprocessed border)………………............. 15%

Able to handle region sizes from 1 to 50 (default is 20)……………...……............ 15%

Copy the Test2 folder, with your completed program, to your upload folder on trace; Be sure your name is in a comment at the top of the program.

This is an open-notes test; you may use anything on trace and the online Processing language reference but not the web outside Processing.org.