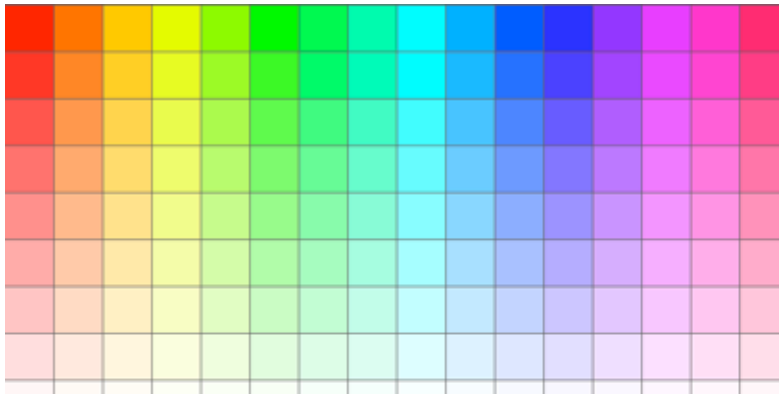
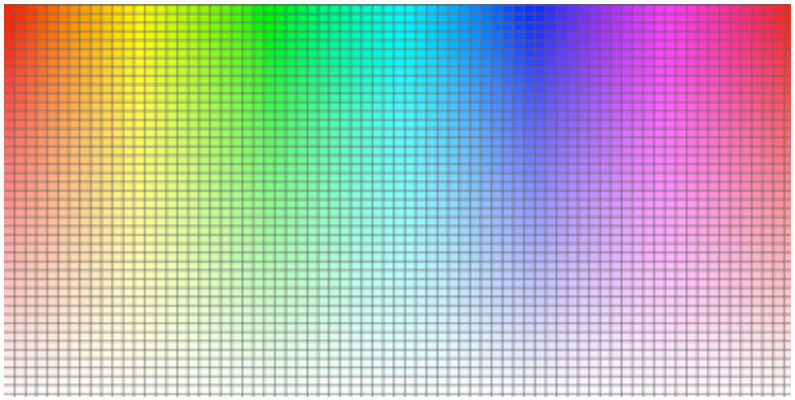




// Functions Create Form

In this exercise you will write a program that uses at least one custom function. You can work more design-based and abstract to create an interactive color tool (explore/explain a principle of color) or more animation-based and figurative to create an interactive character with eyes that track the mouse location

Review the many Schiffman examples that deal with color display and interaction. There are also many helpful examples on processing.org/learning

Sketch each design on graph paper first. Look for values that have a mathematical pattern/relationships that can become variables, loops and functions

Your Processing sketch should be at least 500 x 500 (save as ex4_1.pde)

Begin all sketches with comments that include a description of the sketch, name and date

Comment all code

// Iteration

Create a second version that asks *what if* and uses a transformation (save as ex4_2.pde)

Helpful code :

call function from draw()

```
void draw()  {
showColor(); }
```

custom function definition

```
void showColor()  {
//statements        }
```

custom function called when mouse pressed

```
void draw() {
//check if the user is pressing mouse
if (mousePressed)  {
//call custom function, brush()
brush(mouseX, mouseY);  }   }
```

//define custom function

```
void brush(int x, int y) {
fill(0, 100, 100);
arc(x,y,brushSize,brushSize,0,TWO_PI);  }
```

checking keyboard input

```
void keyPressed(){
      if(key == 'R'){
// set the color variables to make
//the color red
      } else if(key == 'B'){
// set the color variables to make
//the color brown}  }   }
```

For quick reference, here's a list of mouse and keyboard event handler functions:

mouseClicked()	mouseDragged()
mouseMoved()	mousePressed()
mouseReleased()	keyPressed()
keyReleased()	keyTyped()

// Challenge (optional)

Add more interactivity using detection of mouse and keyboard

// Digital Submission

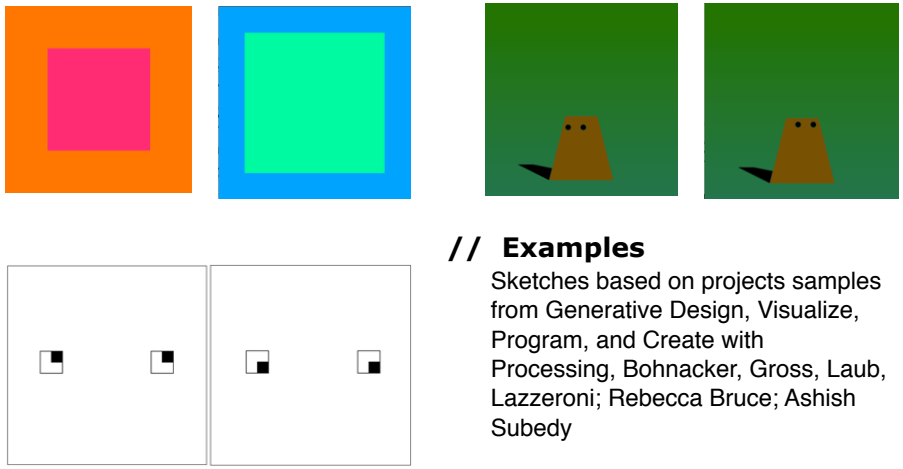
A folder to the class files (in SCC 2102) titled
FirstNameLastInitial_ex4
with all 3 sketch folders (with pde files)

// Analog submission

Graph paper sketches, code printouts, screen shots of all sketches

// Note

We will view and discuss this exercise in class. Check Canvas for specific due dates.
Your work must be complete before class. Be prepared to discuss your ideas and results.



// Examples

Sketches based on projects samples from Generative Design, Visualize, Program, and Create with Processing, Bohnacker, Gross, Laub, Lazzeroni; Rebecca Bruce; Ashish Subedy