

257/757 Programming in the Arts with Processing

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Getting started with Homework #1

_____ #1 Downloading Processing (the software which is **free**)

Go to the course web page;

<http://www.andrew.cmu.edu/course/60-257/>

Click on the "Downloading The Software (Processing) link

Processing has just released a major revision - version 2 - so if you have the old one, you will need to get the new one.

- Click on Download.
- Click No Donation.
- Click the version of the software that matches your computer.
- Read carefully and follow the directions.
- This works about 95% of the time,. If it does not, check in with the Cyert help desk or your favorite expert (which is not Jim).

_____ #2 Find and double click the Processing icon on your computer.

This will open a window where you write your program. This is called the "Processing IDE". IDE stands for "Integrated Programming Environment".

_____ #3 The first lines of your program **MUST** (Jim's requirement - not Processing's or Java's) be the "required comments". Two slashes (//) start a "comment". Comments are for humans and are ignored by Processing. The "required comments" are

1: your name and Andrew ID and

2: a copyright notice.

_____ #4 The first line of "program code " after the comments must be: `size(400, 400);` which sets the size of the output window. This line of code is referred to as a "function call" because `size()` is a function. Its function is to make a window that is 400 by 400 in which you can draw.

_____#5 Using the Processing API ("Application Programmers Interface) from the link on the course web page, read about the seven 2d Primitives functions and how they work.

_____#6 Using the 2d primitives functions, lay out your initials. The upper left corner of the window is the (0, 0) location. **x** increases in value as you move across from the left edge to the right edge. **y** increases in value as you move down from top to bottom. The right edge has a coordinate value of 400 and the bottom edge has a coordinate value of 400.

_____#7 Use the API to look up the functions that control the color of the figures, their borders (or **stroke**) and the size of the **stroke** to see how they work. Then figure out how you want to color the background and your initials. You can use the **color selector** choice in the **tools** menu tab to get the **red**, **green**, **blue** values for different colors.

_____#8 Write and debug your code. Be sure to save your code.

_____#9 You cannot print the Processing window. You have to "take a picture" of it when you are finished. To do this, the last line of code in your program must be: `saveFrame("hw1.jpg");` This will literally take a picture of the graphics window and save it in your homework 1 folder as hw1.jpg. **You must print this file and turn it in Thursday. The print does not have to be in color.**

_____#10 Completely erase or comment out with two slashes the line of code you added in step #9: `// saveFrame("hw1.jpg");` This line can cause problems with your program posting on OpenProcessing.org classroom page that we will talk about on Thursday.

_____#11 Go to Openprocessing.org and create an account. The link is on the course web page. This is where you will post your work for class. Remember your account id and password - please. . .

_____#12 We will show you how to post your work on Open Processing on Thursday.