Objective

The objective of this assignment is to get some experience working with a class. It is an assignment used from a previous class of CMPS 5J, the below drawings are credited to Professor Charlie McDowell.

Program Specification

For this assignment you will need to add at least three new behaviors to the Pet (link: https://users.soe.ucsc.edu/~dustinadams/CMPS5J/assignment_code/Pet.pde) class or create your own virtual pet that similar to the Pet class but with its own unique set of behaviors. In this later case your pet must have at least 3 behaviors. It is not necessary for your class to be visually sophisticated. It in fact does not need to be even as complex as my very crude drawing of a dog. The key is to demonstrate some understanding of a class as representing an object with state (pose, tail wag angle, and location for the dog) and operations that can be performed on that object (make it change pose and render itself as a drawing). This is intended to be a relatively short assignment that could be completed in one lab session if you come to lab prepared to dive in, having read through this specification and spent some time studying the Pet (link: https://users.soe.ucsc.edu/~dustinadams/CMPS5J/assignment_code/Pet.pde) class and VPet (link: https://users.soe.ucsc.edu/~dustinadams/CMPS5J/assignment_code/VPet.pde) program that controls the pet.

You can download a zip file of both if preferred (link: https://users.soe.ucsc.edu/~dustinadams/CMPS5J/assignment_code/VPet.zip).

Developing Your Own Pet

If you decide to do your own pet, or even in modifying the dog Pet Charlie created, it is useful to work it out on paper. Charlie is not an artist per se, but you can see his process. Here is his original sketch on paper:
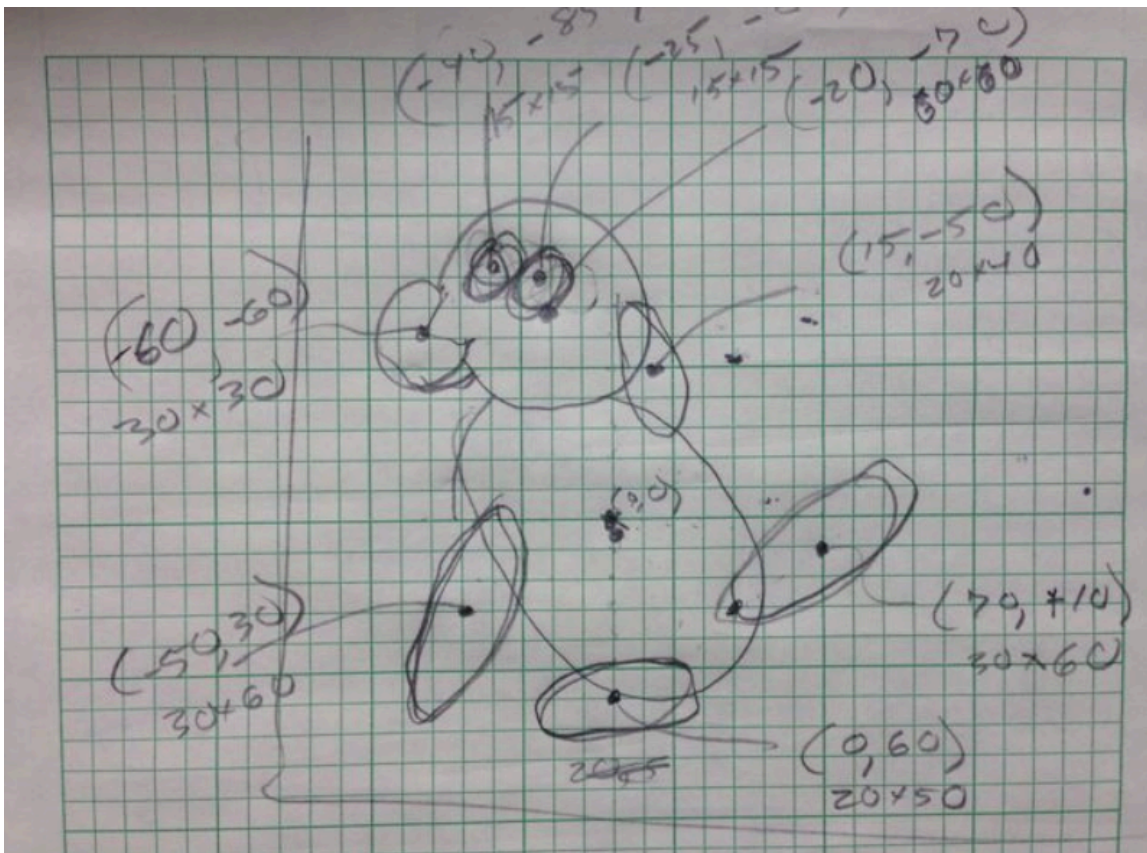
He used the graph paper to determine locations and sizes of the body parts. When he first entered it, it looked like this:

He managed to tweak it just a bit for the current version.

What To Turn In

If you have one file, submit a pde in Canvas. If you have more than one file, put the files in a folder, compress the folder (right click -> compress) - this will create a zip file - and submit the zip file in Canvas.

Grading

10 - Added a at least 3 new behaviors (2 points each) to the provided Pet class using instance method for each and demonstrated how to use them by invoking them from the VPet sketch (4 points).

or

10 - Created your own totally different Pet class that has at least three methods or behaviors implemented as instance methods (2 points each), and properly uses instance variables to capture the state of the Pet. Also demonstrates the use of the class from a sketch (4 points).

One point will be deducted for each of the following deficiencies.

- non-descriptive variable names or method names
- inappropriate use of global variables (rather than instance variables in the class)
- magic numbers (other than single use numbers in drawing the object as in the Pet sample provided)

A "totally different" Pet class that is in fact just a **minor edit** of the provided Pet class via *renaming* the methods/behaviors and changing the drawing commands can receive at most 7 out of 10.