

# Implementation Log

Problem 1: How to make the player stay in the middle and object will spouse around the environment.

The game I try to make is inspired by the RPG game, and I am still trying to figure out how to start it. So I did a little research for a whole day, without remembering that WE ALREADY DID IT IN CLASS (arrggghhhhhh), your example in class, the fire canon one.

Since I want to create the player class in a different tab instead of putting it into the main one, so the tutor showed me an example code that uses the method that he had for this kind of game, it's better to have it in one part like this in the void update.

<https://www.youtube.com/watch?v=yKv02lq7JHs>

I know that the "position" is meant for the actual position on the screen, while I want it to be in the center of the screen, not moving around! So the velocity should be used for the key assigned, and "position" on the display as the fixed actual location of the player. So it's not wrong! And also because the bush movement is based on the player's velocity, I have to call it in the main class together, he told me to use sub() to make it move opposite but when I searched about it, I still don't really get how it would work. Bye bye tutor...

Okay but how can I imply the WASD? I made the code based on what we showed in close it into the player, but then it didn't work. So what if I applied the WASD to the tree and kept the character still in the middle, still doesn't work ?!

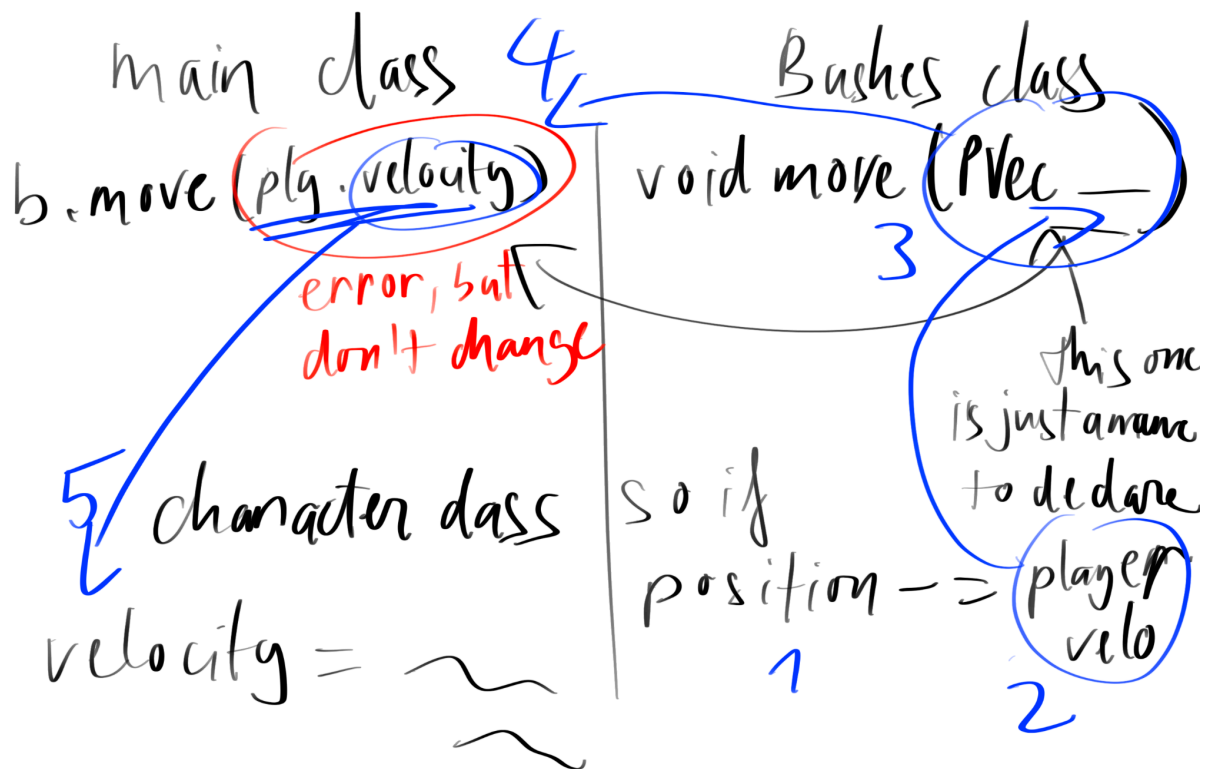
YESS YESS, okay!! I will be honest, I found this code from here.

<https://openprocessing.org/sketch/2274712>

```
void makeExplosion(float xpos, float ypos) {
```

I didn't remember that "void ()" can have a parameter inside the bracket, I normally only see it in like "Object (float x, float y)", that's why the code keeps giving error but I don't want to delete what the tutor already help me out. So I think "Wait PVector contains floats, so what if I put it in there instead?", back to bushes classes and added the Pvector into the move() since I already called it in the main class, which keeps giving me an error this whole time. Then I tell the code "hey! The position of the bushes will be the opposite (-=) of the

player velocity, which declare as the PVector above. (position -= playerVelocity). It's hard to explain, but this is how I understand it!



## PROBLEM 2: HOW TO MAKE THE ENEMY WORKS

I use the same setup as the bushes class for this one since it's quite the same element, like it both shows up randomly and reappears when get to the other side of the screen if it goes past the player, it just moves this time. So I think right away the train animation again! But I want it to go like wandering around with velocity like player the screen instead. So the setup wasn't too hard, but the condition of it to collide with the player is quite a challenge. The challenge in this one is checking the collision, check the area I can think of right away of the distance than I used on assignment 2.

3 things should be noted:

- The mouse reaches to the box which makes it work => replace the mouse by the e.position should work.
- If it touches, gameOver== true.
- Collide should be at the still object, which is the player.

The player does lose, when the ghost hits the player, but the candies couldn't hit it? Even when I already call collide and stuff.

### PROBLEM 3: CANDY SHOT

I got a problem now, when I have no idea how to make the “shot”. In the sketch, the player will throw out the candy to the enemies, but right now I only have mousePressed so that you will kill the enemies, but it absolutely doesn't look like my sketch at all.

<https://processing.org/tutorials/pvector/#vectors-normalizing>

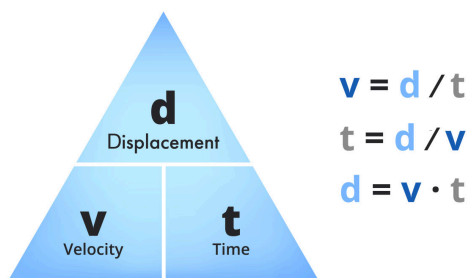
I found this one, it looks just like what I want, but I couldn't understand it, and I don't want to risk it.... But I do find something great! I understand that I will need 2 of theses to write the line of the candyshot thrown, one will be based on the mouse, and one stays at the center just like the player. But because I want to make the player kinda of spousing out the candy from them, so instead of making 2 Pvector, I will use float for the center and float for the

```
PVector mouse = new PVector(mouseX,mouseY);  
PVector center = new PVector(width/2,height/2);
```

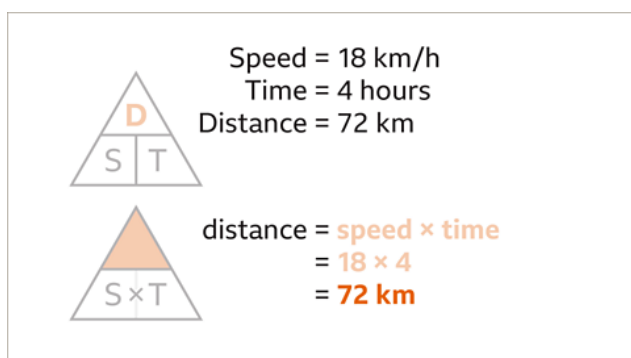
Okay now the problem is how to make the position of each single candy is spouse evenly, definitely something about the velocity, it's always the problematic one.

I went back to your Implementation log example, I remember  
“Oh...physique!Math”

#### VELOCITY FORMULA



So in my code right now, I have the distance, I have the position, and target mouse position, speed. We can see down here, that time = speed \* distance, the distance from mouse to the center (mouse.postion-center.position). Then because velocity is Pvector so it has (float x, float Y) so I just have to replace the formula in there!!!! AHGGGGHHHHH



I think the biggest mistake I made when doing this code was when I thought I knew what am I doing and planned out the base code beforehand without thinking, based on my Pseudocode... too early and left it there, so when I really came back to it, everything is just wrong.