Homework Assignments (for South Africa flight)

**HW #1**

1. Create a random walker with dynamic probabilities. For example, can you give it a 50% chance of moving in the direction of the mouse?
2. Rewrite your Walker objects with vectors. What happens if you make an array of them, adding new ones wherever you click the mouse.

var bug; // Declare object

function setup() {

createCanvas(710, 400);

// Create object

bug = new Jitter();

}

function draw() {

background(50, 89, 100);

bug.move();

bug.display();

}

// Jitter class

function Jitter() {

this.x = random(width);

this.y = random(height);

this.diameter = random(10, 30);

this.speed = 1;

this.move = function() {

this.x += random(-this.speed, this.speed);

this.y += random(-this.speed, this.speed);

};

this.display = function() {

ellipse(this.x, this.y, this.diameter, this.diameter);

}

};

HW #2

1. Rework your motion sketch from week 1 using vectors (PVector in Processing, p5.Vector in p5). Try incorporating the concept of *forces* into the environment by affecting *only* the acceleration. Create a formula for calculating a dynamic acceleration, one that changes over time based on any number of factors. What happens if you make more than one object via an array.
2. Using forces, simulate a helium-filled balloon floating upward (and bouncing off the top of a window). Can you add a wind force which changes over time, perhaps according to Perlin noise?

HW #3

1. Design a creature with oscillating parts (legs, wings, antennae, etc.) Consider tying the speed of oscillation to the speed of the creature's linear motion. Can you make it appear that the creature's internal mechanics (oscillation) drive its locomotion? [Example solution](https://github.com/shiffman/The-Nature-of-Code-Examples/tree/master/chp03_oscillation/AttractionArrayWithOscillation).
2. Create a simulation of a vehicle that you can drive around the screen using the arrow keys: left arrow accelerates the car to the left, right to the right. The car should point in the direction it is currently moving.

HW #4

J 1

Am on the plane right now, an hour and a half outside of cape town. I forgot to write a quick entry before leaving, and now is the perfect time for one. I thought there was only 30 mins until landing, and my stomach feels max bad, like I have stomach cancer or am going to vomit. After traveling for 36 hours, I cannot cannot wait to land, so this last hour and so is going to stretch on forever.

I have a weird tension of emotions, where I’ve been traveling so long, all I want to do is land and get off planes. And to see Georgia. But I feel so bad, it is such a bummer that her whole family is picking me up instead of just her. And then having to just jump in with them, I’m starting to dread it real bad. So I want to get off this flight, but am relishing the last of my solo time as well.

Thursday

Got picked up by everyone by cate

So many people came over for a picnic like right when I got back

Wasn’t that much fun, stressful

I broke the glass and the gma said I looked like a girl

George and I got handsy

Friday

Couldn’t sleep, woke up at 430

Went to bomb breakfast at bootstrap, shared avo toast and potato/bacon rosti w George

We went to the beach, small then big one

Then ubered to the market with clothing and food stands, I bought my ring

Then we met her family at the brewery

Went home, first shower I took, then napped, glorious

Had leftover dinner with gin and tonic and chicken and broccoli salad in basement

I gave George massage, she said she was porky and went to sleep, annoying

12.23 - Saturday

12.24 - Sunday

12.25 – Mon

Went to the Italian club for lunch at 1pm, cant rememeber what we did for breakfast

Sat at our own table of 6 with the cames for the meal, was real fun but horrible food, had the meats and cheeses, then gross pasta, then even grosser mystery meat. Got pretty boozy there

Then went to George brothers house, had gin and tonics, got even boozier.

Then went to megs, it was chaos, with the hammered hillbilly but famous dad calling chicks cluts and slapped the sisters face. I hated that party and house, the only thing I regret was not going home when I was locked out. It seemed like such hillbillies dacning to the worst music, George was kind of mean but I kind of overreacted because I was so drunk. It was crazy, I had this feeling down to my bones that I just wanted to go home and not be with her anymore and it’s kinda not gone away since (writing this on the 28)

12.26 – Tue

Went to the most delivious breakfast at 12 apostles hotel, unlimited champagne, osyters, cheese, etc

Bummer bc felt pretty unhappy and not great vibes because of the fight between us the night before

Then went home, meg came over, we drove to the beach town like an hour away, went to that restaurant where we got beers, prosecco, sausage, clamari, kind of a cross between a real reataurant and a poolside place. Good but hsouldnt have been, was just hungover and the grease was tasty.

Then walked around a bit, then went to the café with the best polenta ive ever had, great mussels, sat outside in the back.

12.27 - Wed

flew to leopard creek at 10am in the small plane

12.28 - Thursday

didn’t do much in leopard creek that varied day to day

30

last full day in leopard creek. Went golfing with rich and George, then cindy made the best dinner, malazone and steak. Had sex a bunch with George, both after golf, and then I got super sleepy, went to sleep early, and she woke me up, domed me out, got so handsy, it was awesome.

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woke up so sick, with such a twisted stomach. Barfed up the malazone, then had the worst day ever. Had to drive and fly allll day. Then had to go to a new years party when felt like I hadthe flu, was so hard going and drinking and trying to have fun.

1

woke up feeling so much better. Went to bootleggers with George, cait, and harry. Then met Georgie for the first time, and a few other ouples at la perla, place on the water. Had rose, spritzes, then got a bunch of booze, was going to try to go to other bars but a bunch were closed and guess they didn’t want to go to the ones open on water that were kinda lame. Went back to georges, were locked out of the house, drank a bunch, went on the rocks. Then cait and harry came back. George was being a bit mean all day, called me “judgy” which made no sense when I was like harry wont be stoked to be just sitting at the table with Charlie. She also was asking if I had fun, and then was like “butttt”, made me feel like such a negative nancy. Then everyone danced for like 6 hours. Was fun at first, then got so boring. At end of night, I was bit frusterated, told George felt like I had to perform for her and her friends, which was ironic for the next day, but I def shouldn’t have bc turned a fun day into a sour ending, and then she came into bed naked but we just laid there. I couldn’t sleep, went outside to watch college football

2

woke up feeling terrible, and George was so quiet. I thought she was mad from the night before, or felt akward, but she was really just starting her period. She I was sick and mad and she was hormonal, terrible combo. We went to her garden restaurant, I didn’t know it was a big deal to her, I guess it was, and I was feeling so lousy, we basically just sat in silence, then tried to walk to the other restauarant we ended up eating at the last morning I was in town. Then I barfed in the street and barfed / used restroom in the coffee shop, we ubered home and I took a nap. It seemed like George just wanted to party with friends, it annoyed me, the day spiraled out of control. We spitter spattered when I woke up, then sat in silence when we went to the grand on the beach and the good tapas place. George was getting boozy, then Georgie and Charlie met us at the tapas place. I felt terrible and it was getting late.

worst day ever.

3

George said sorry, on her period

Went to bomb breakfast at 12 apostles, I literally couldn’t eat anything

We laid back down and talked in bed, made everything so much better

Finallllly had sex again, felt really good

Went to bootleggers, got her food to go, she had a massage

Met Georgie and Charlie at bungalow on the beach, was so hot, had 2 aperol stpriztes, made me feel terrible

Went home, caits friends came over, two hilarious dudes, first two of her friends I liked, we ordered sushi for dinner, was then so tired, didn’t feel great, went back upstairs, both felt terrible, fell asleep

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both sleepy, I think she felt bad, said she woke up tons during the night, didn’t have a ton of energy, probably could’ve left on a bit of a better note but not a terrible one either

didn’t have sex

went to the bomb place with cait too after packing, then ubered straight to the airport

23

beach

biscuit mill

24

long hike

brunch at outside place

george’s college + living stuff

wine farm

had cousins over for making beef wellington

25

Italian club

26 – went to