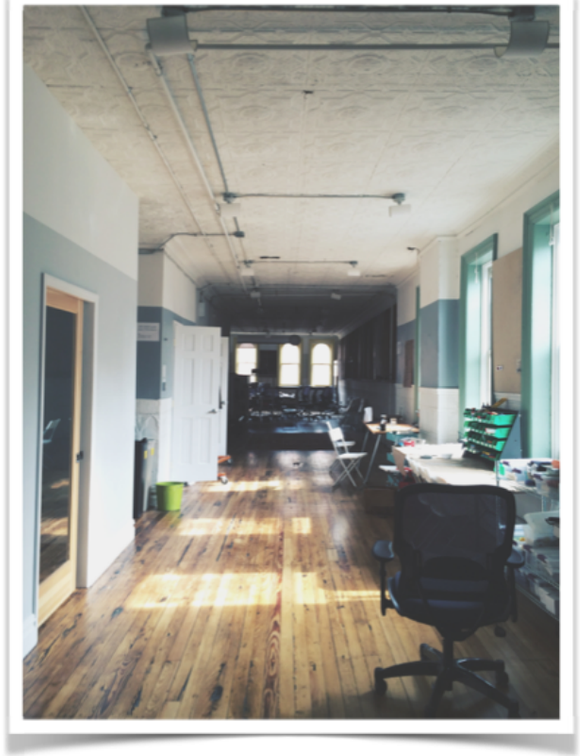
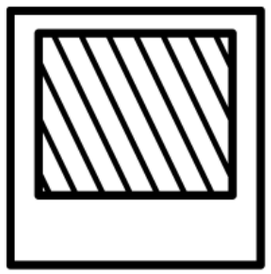
CLASS



This is the place to try, the place to explore, and place to learn from each other.
Tools, books and tables, were ready and awaiting for us.

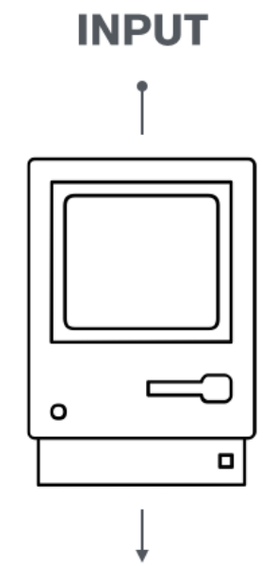
I thought I was fully ready by the time I got to NY, but something kept me unsecured
for some reason. I was literally thrilled.

IMAGE



SOUND

When Zach opened the Image file on audio app, I feel like we are breaking some rules. You can’t and you don’t ever try to open the image file in audio app.
But it works. When noise is applied to the image, you will get the noise audio, I’m shocked. Visual is sound, and vice versa.



When Taeyoon gave us a simple exercise “Draw how computer works.”
I couldn’t connect the dots between input and output.
When I type ABC, I get the ABC on my computer screen, simple fact.
But which components are responsible for preparing the points for drawing the character A? Which one converts the keyboard signal to “A”? Lots of unconnected components in my drawings.

I've been listening to music on my laptop for long time,
and I never thought I can listen to image, can you?
I knew CPU, memory, graphics card, but I can't explain how they are working together to output letter ABC.

Seems like it's rediscovering the lines I thought connected but apparently not.

emo-v1.9 - .play file.

```
🔢🐑 💾 🍕🍕🍕🍕🍕🍕🍕🍕🍕🍕🍕🍕

🔨🐙 (🔢🐴, 🔢🐱) ↣

    ✏️
    🔢🐶 💾 🐭
    🔁
        🔢🐘 💾 🐑 ✖ 🐶 ➗ 🐱
        🔢🐟 💾 (🎉 cosine 🐘) ✖ 🐴
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        🎉 📏 🐟, 🐤
        🔽🐶
        🏁 🐶 👌 ⬅️ END
    🔁
    🙌
↢

🎉 🐙(40, 3)
🎉 🐙(50, 360)
🎉 🐙(60, 4)
```

Declare TWO_PI variable

Start the function declaration which takes number type of radius and points as arguments.

Get ready for drawing.

Store the starting count.

Start a loop.

Calculate the phase.

Calculate the coordinate of x.

Calculate the coordinate of y.

Draw a line to coordinate of (x, y)

Decrement the count.

If count is 0 then stop the loop.

Leave the pen.

Draw a shape with radius of 40 that has 3 edges.

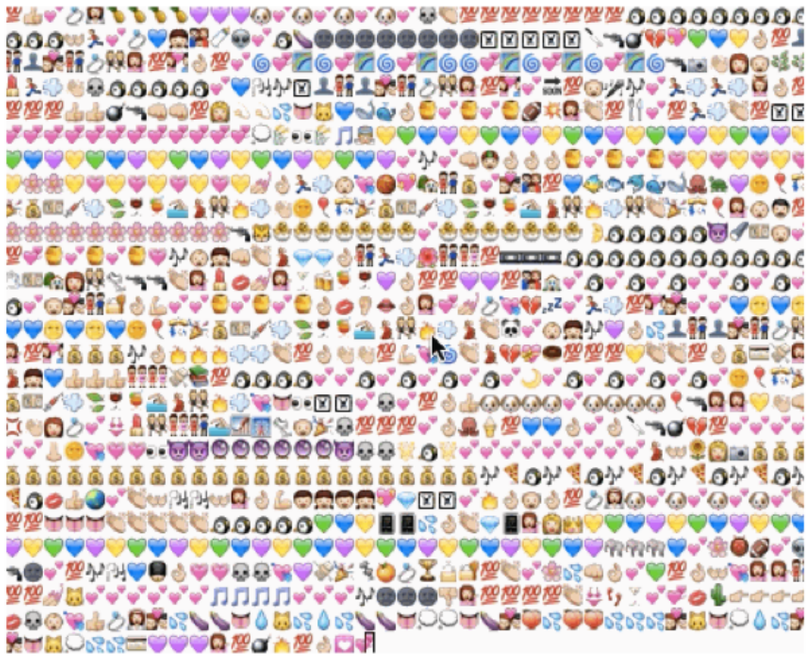
Draw a shape with radius of 50 that has 360 edges.

Draw a shape with radius of 60 that has 4 edges.

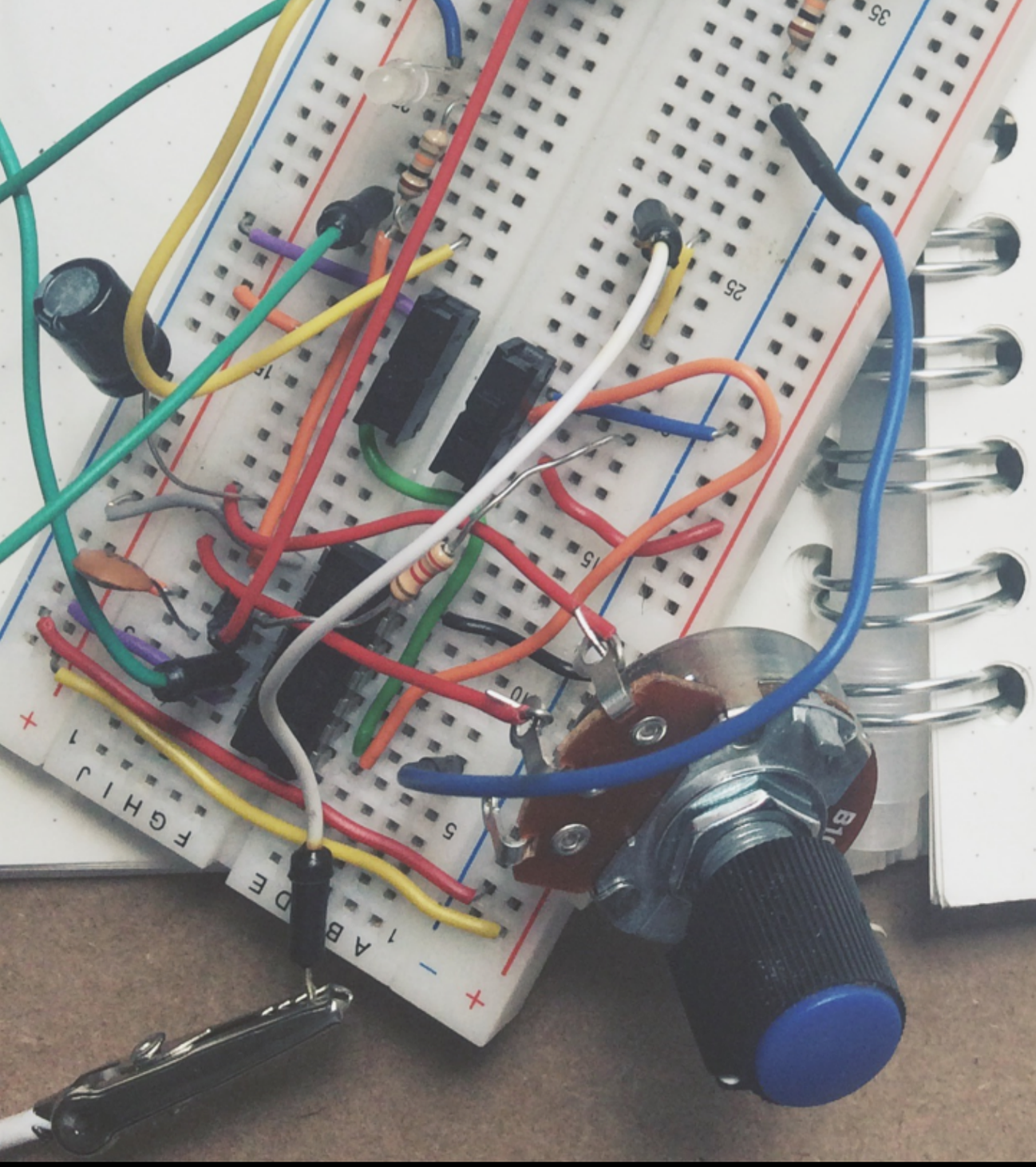
One of the assignment was to create an language.

As I like the emoji's I made the one with emoji. Floppy disc means assignment, and you are allowed to use Animal emojis to declare variables.

This one is v1.9, milestone to 2.0 includes finding the appropriate emoji for sine, and cosines.



Also I was curious how people use emoji's on twitter, I hooked up with twitter realtime api, called stream api, then grab the random tweets and if the tweet contains any emoji, I dumped onto terminal. it's quite mesmerizing, to look at and some people use same emoji in sequence. interesting right?



Also I was able to make the oscillator from NAND gates and capacitor and resistor. Also hooked up with potentiometer and light sensor to change the frequency of the sound. It was really fun that firm and I were jamming late at night.

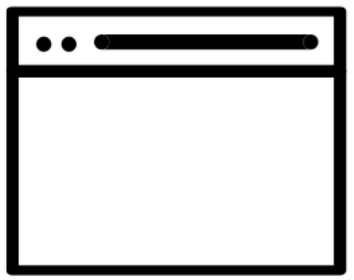
SOMETHING

Even though it’s not mandatory, I really want to make something on my own toward the end of the class,, I’m not from an art background, and I’m more towards the design / development background that I’m not used to make something on my own. But I want to break the comfort zone to make something, okay, what I should do?

WEB

BROWSER

www.

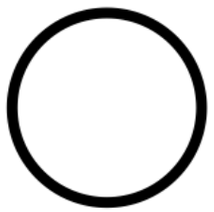


We have become more “social” pushed by the media such as Facebook, Twitter, Snapchat, etc. We are sharing and retweeting as one of the daily interactions.

"Share" originally means *cutting* or *division*. But we are not *sharing* in that context on the web. But rather we simply copy, paste the information, and sends that to the web hoping people will look at it. Only when other people recognize it, the act of share will be accomplished.

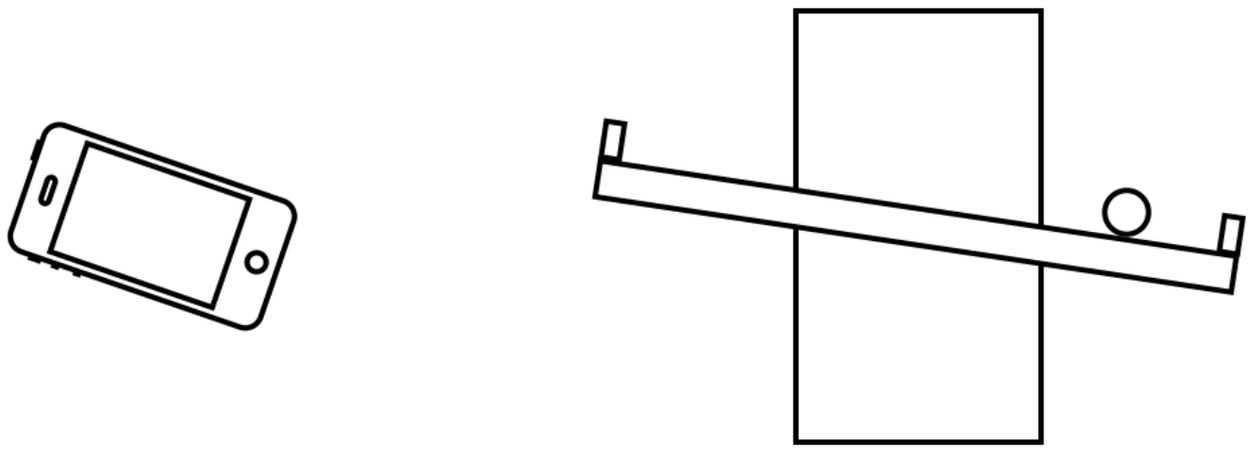
DIGITAL

ANALOG



Is there any way we can bring those two together?

BALANCE BALL GAME



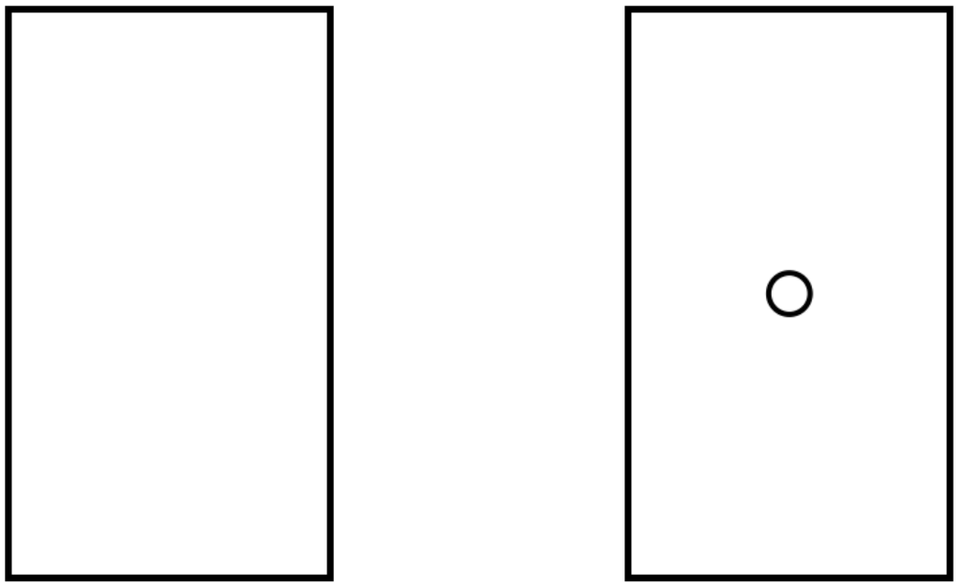
To maintain the original concept of sharing on the web, I built the Seesaw toy that lets multiple people control with their phone. Each tilt of user's phone affects the angle of the seesaw toy which sits in physical space.

Let’s get started.

Ok, Putting together servo and arduino, write some node.js app to talk to the arduino, and setup the server that people can access to, and connect that accelerometer data back to arduino. That part is relatively straightforward for me.

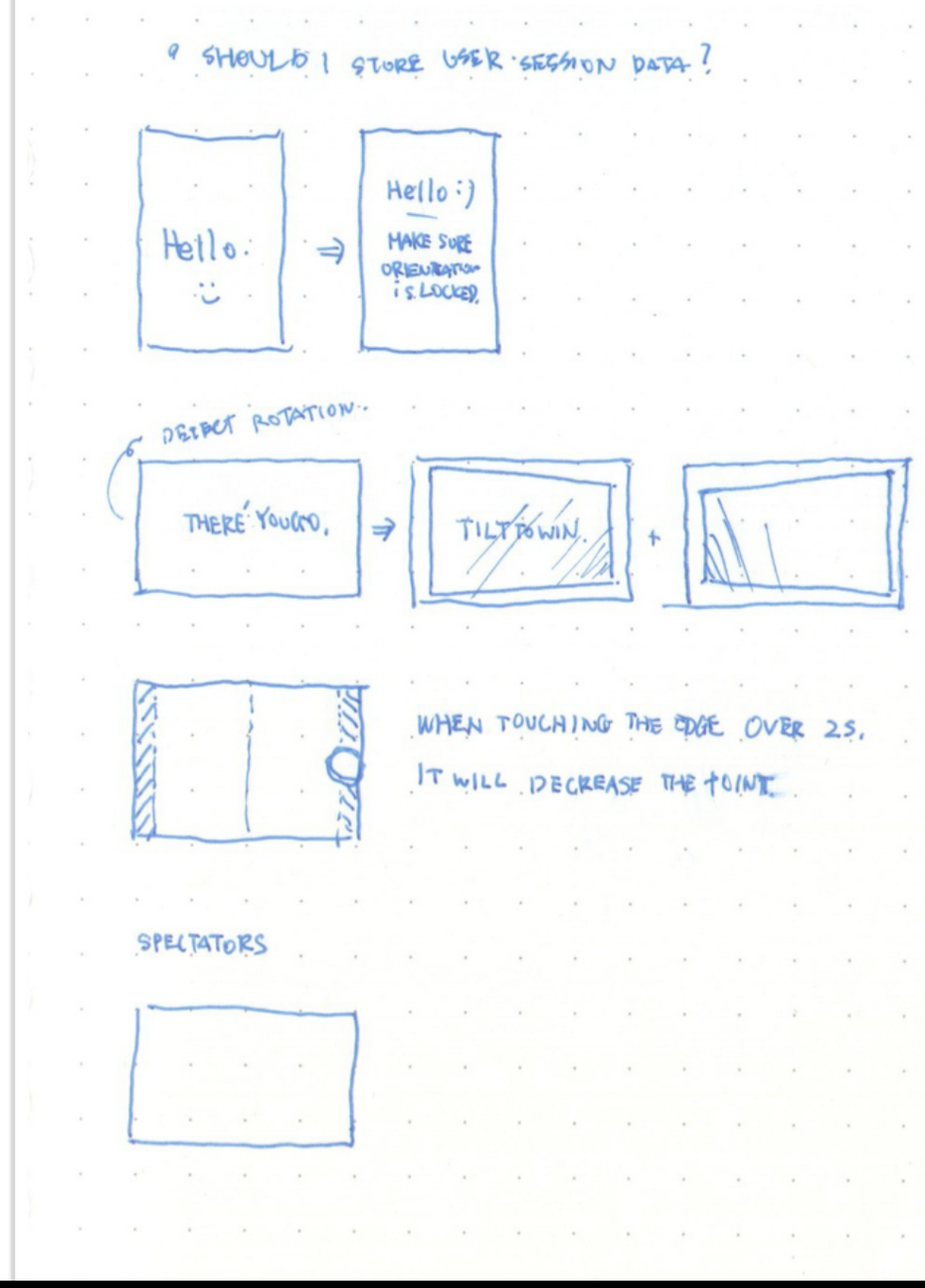
Now, let’s build this simple box, that holds the servo.

MAKE A HOLE



So, I need a hole to connect the servo and the balance board part.
But this simple task required lots of questions to be asked.

- How to measure the servo's axis radius?
- How to draw the circle with the specific radius?
- Motor screw drill doesn't have the exact size of the radius, what should I do?
- Oh, the thickness of the wood is a bit too thick for servo to hold the parts…
- Need to curve the wood so it can reach the parts, but no chisel is at hand…
- How should I attach the servo to the board?
- I don't want to expose the screw to its facade…



I had this design sketches to how to make it fun experience when page loads, but I couldn't do any of this stuff. Building the hardware is hard, and takes lots of care and thoughts beforehand.

Software you can do infinite amount of iteration to try things out, but building hardware, you have limited amount of screws, specific size of screw drivers, wood boards, and tools. I thought I know how hard it is, but when it comes to making by my own, this fact is quite a surprise. You can change the width of the box, but if you cut the board, you can't make it longer, no redo.

LET'S SEE IF THIS WORKS.

Demo time.

BY THE TIME I SEE THIS SLIDE,

I HOPE EVERYTHING WORKED WELL :D

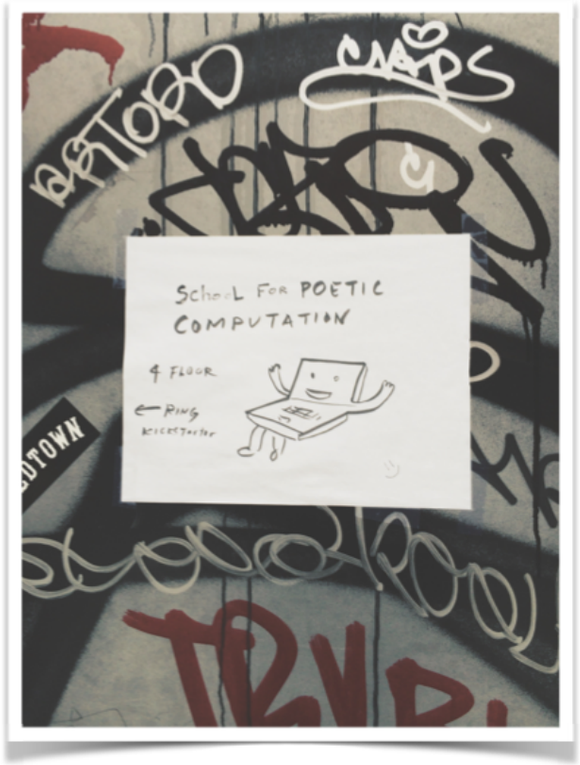
It actually worked, for a bit though :D

When I am asked to explain what's SFPC like I would say SFPC is like a wind bell.

No one can see the wind, but this simple bell allows you to see and hear the wind, the wind that's invisible but surely exists.

When you see and hear wind bell during hot summer, you will feel a bit cooler because you can see and hear the wind around us. When you change the way to look at things, you will naturally change the you experience.

Again SFPC is like a wind bell, SFPC allowed us to help see the invisibles and change the way we see the world around us.



Again, I’m super lucky to be here, and great to learn with you all. Two weeks is a bit too short to be honest, but probably it’s good timing to keep the momentum going.

Thanks all.