

Freedom Flowers

est.1985



Project Description

Our project mission was to create a hyper personal prototype for someone outside of our immediate social circle. We deliberately chose to design a prototype for local flower shop owner since 1985, Zafar Honarmand. Initially, there was a small language barrier that made it somewhat difficult to communicate. However, after three in depth interviews and our group getting to know Zafar and him becoming comfortable around us, he opened up to us about his passion project (flower shop) and how he strongly believes in freedom, equality, and democracy for all countries. As a result, we designed Zafar a hyper-personal sticker machine, that dispenses stickers with a motion sensor. Ideally, when Zafar hands his customers their flowers, his hand will pass by the servo motion sensor, and a sticker will automatically print out. The physical box itself was completely personalized with Zafar's Farsi handwriting, an English translation of his larger message and vision, and an engraving of his favorite type of Iranian flowers with the words of his shop, "Freedom Flowers". The stickers were hyperpersonal in many ways. The green sticker in itself represents freedom and growth, and his signature is on the stickers as long as the words "Humans For Freedom" and the year 1985 to exemplify the history and longevity of his local flower shop. In addition, the hand-made origami is in the shape of a globe, and represents his macro vision of freedom for all cultures. The flowers are red and green to embody the Iranian flag, but we chose to use origami to incorporate Japanese culture and show the power in the fluidity of freedom for all cultures. Our goal was to capture and make evident to students all that Zafar's flower shop stood for.



FREEDOM FLOWERS TEAM MEMBERS!!!

Chloe Ng | Brian Nguyen | Zafar | Enkhtushig Namkhai | Kloey Battista

Interview Documentation

Please note: below are the outlines of questions we asked to prepare for our interviews. Please go to <https://drive.google.com/drive/folders/0B1UEeOrRxtVGdDNLRG1OSkUzWHM> to see all our full videos and interviews we conducted.

Interview 1 Questions:

Introduction

- Tell him about assignment ask if we could record

What's your name? Are you originally from Berkeley? What brought you here? What's your story?

Struggles? Hobbies? Family members?

Tell me about a typical day.

Could you tell me about what running a business in Berkeley is like?

Can you show us around your shop?

Tell me about some customers you typically interact with.

Can you walk us through how you get your flowers?

You've probably had some interesting experiences in your time in Berkeley. Can you tell us about some of them?

When you are not working here, what do you really like to do?

What kinds of responsibilities do you like to take care of?

Interview 1 takeaways:

Freedom Flowers is a passion project

His wife and him have been running Freedom Flowers for over 30 years

He likes running this business in Berkeley

It is good business for him that students come and go in waves of 4 years

He sees new faces all the time

Buzzword: "happy"

Flowers to represent happy occasions (Birthday, Anniversary, Etc.)

Themes:

Community

He's a constant, but the people around him change

Generous, gives back to community

History

Been here for a long time

Potential Prototypes:

A sign to show the history of the shop?

Cute personalized plant

Something personal that he can cherish, reminds him of something (not just for business)

Interview 2 Questions:

Tell me about your journey to Berkeley

What are some of the most important moments in your life?

Tell me about a typical day in the shop, rundown from morning to night

Tell me about what you do when the shop isn't as busy.

If he mentions downtime, try to uncover ways we can work within that time?

Have you met a student who has made an impact on you, and why?

You mentioned that the students turn over every 4 years, how does that feel for you?

Where did you and your wife meet? Tell me about your story together.

What motivates you to continue running this shop?

Interview 2 Takeaways:

- Came to Berkeley from Iran in seek of freedom and democracy
- Likes Berkeley because it is a liberal, progressive place
- "Happy people, Happy City"
- Democracy, Freedom for all countries
- Has 2 kids who went to UC Berkeley and now live in Berkeley
- Works 8 months, travels 4 months (with wife and sometimes kids)
- Likes going to Europe for leisure, cruises, vacation, etc.

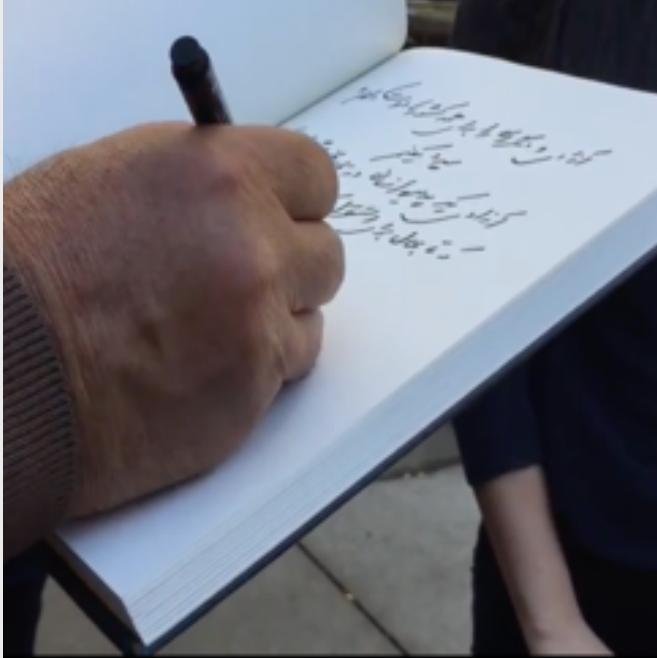
We also observed Zafar's interactions with various customers that came by. He was very friendly, asking students why they were buying flowers, and promising to be "there for them." **However, we also felt that many students weren't aware of the message behind Zafar's flowers. That led us to think about how we could communicate all that Zafar's flowers stood for in the interaction between Zafar and his customers.**

Interview 3:

We approached Zafar and asked him what message he wanted to express to students. He was extremely hesitant to write in English, however, once we told him any language is acceptable, he immediately took off writing in Farsi. He was excited and eager. See pictures below. He also talked about how he doesn't only want freedom in America or Iran, but for every single country and for every individual.

Deciphering the Text:

A picture of Zafar writing in Farsi.



Brian Nguyen ▶ Free & For Sale
October 26 at 11:56am ·

Does anyone know farsi that can translate this? Thank you so much! (Its for a project)

کناره و سرمه دیدار کوچه را دیدند
پس از پیش از این دیدار
کناره پس از این دیدار
کناره

Deciphering the Text: Consulting Fellow Students

When we asked Zafar what the message he wrote meant, he couldn't explain it in English, therefore, we decided to consult fellow students.

Kloey Battista PLS
Like · Reply · October 26 at 11:57am

Parisa Lotfi I can translate it for you Brian. Although there are a couple of words that I can't read very well but I will do my best.
Unlike · Reply · 1 · October 26 at 12:01pm

Brian Nguyen thank you so much! any help would be appreciated!
Like · Reply · October 26 at 12:15pm

Brian Nguyen we think its along the lines of.. "Many people died for freedom all countries deserve freedom" but we are not sure at all
Like · Reply · 1 · October 26 at 12:16pm

Parisa Lotfi you are on the definitely on the right track. I will message it to you in a sec.
Like · Reply · October 26 at 12:18pm

Enkhtushig Namkhai Thank you for helping us!! 😊 you are awesome!
Like · Reply · 1 · October 26 at 12:28pm

Narges Pourmandi Jayson Wang
Like · Reply · October 26 at 12:28pm

Jayson Wang LOL there is no way i could've read this at first... but i can read it now that the guy below translated it accurately
Like · Reply · 1 · October 26 at 3:23pm · Edited

Narges Pourmandi even with the translation I can very barely read cursive 😊 it's always so elegant! im trying to get better at deciphering it

Write a reply...

Griff Potrock Pouya Ganjali
Like · Reply · October 26 at 12:32pm

Melissa Ly Nader Namini
Like · Reply · 2 · October 26 at 12:33pm

Jonathan Chernoguz Helia Bidad
Like · Reply · 2 · October 26 at 12:39pm

Angela Jiang Pounya
Like · Reply · 1 · October 26 at 12:45pm

Murali Subramanian Google translate?
Like · Reply · October 26 at 12:51pm

Aiden Amir Rafii Nima Shajarian i cant read cursive
Like · Reply · 3 · October 26 at 12:54pm

Newsha Salehi Us Persians can't even decrypt our own hand writing...!
Like · Reply · 4 · October 26 at 1:28pm

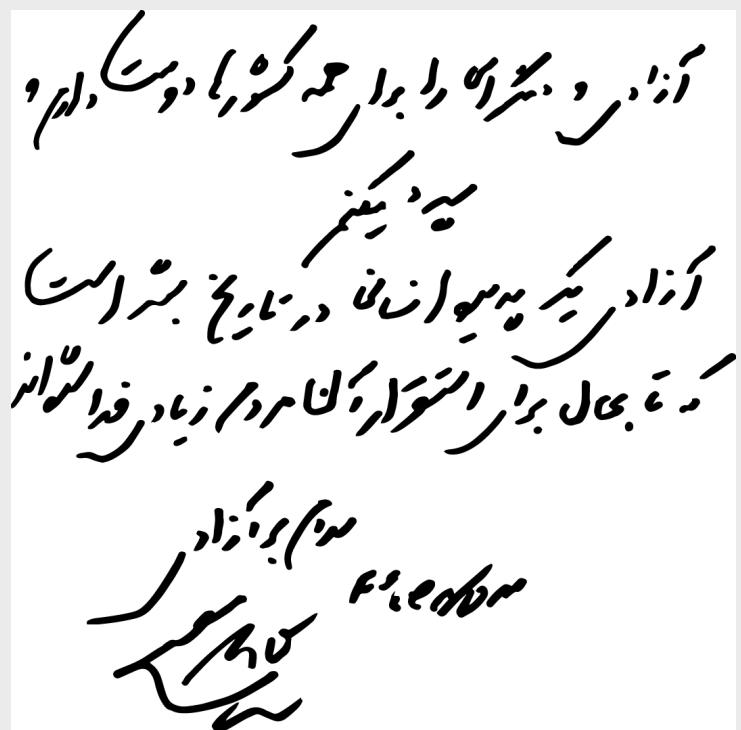
Shivani Thombare Hana Hyder
Like · Reply · October 26 at 1:33pm

Ava Asly I'll send you a translation via messaging 😊
Like · Reply · October 26 at 1:34pm

Omid Shams Solari I like freedom and democracy for all countries and (one word here which is not readable but I think it's "I wish") I wish it (for them). Freedom is a humane phenomenon in the history of mankind for whose establishment many people have been sacrificed.
Like · Reply · 13 · October 26 at 1:40pm

Raffi Margossian Sohrob Nayebaziz
Like · Reply · October 26 at 7:11pm

Matt Canals he dont know shit
Like · Reply · October 26 at 7:22pm



Translation Struggles

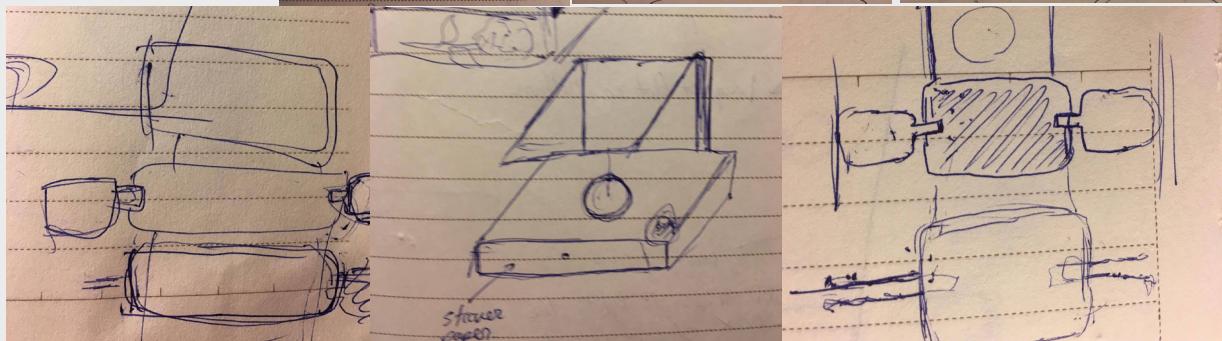
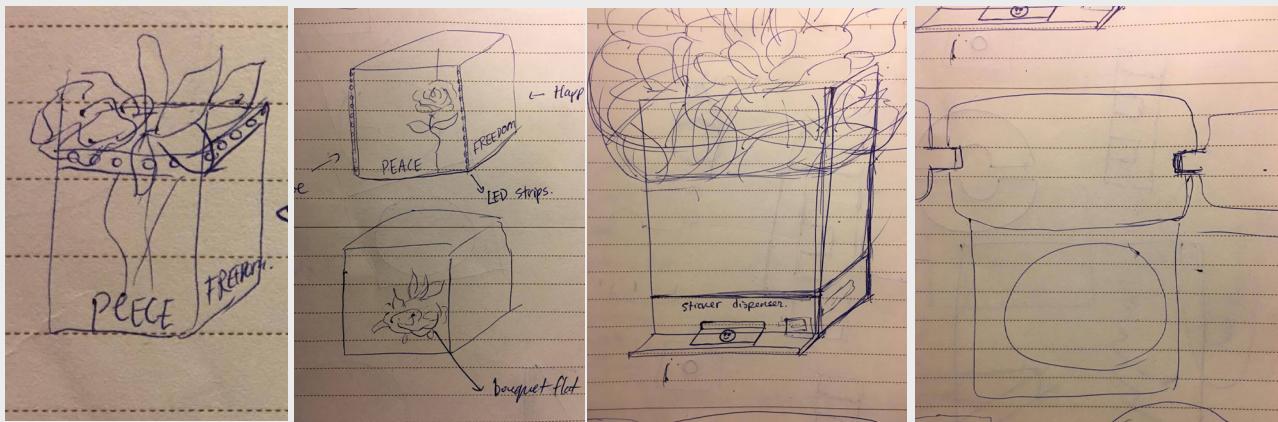
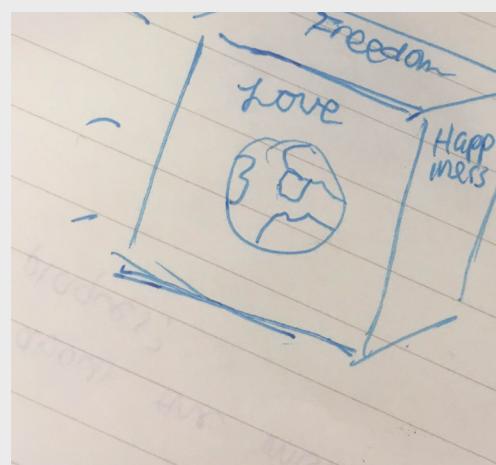
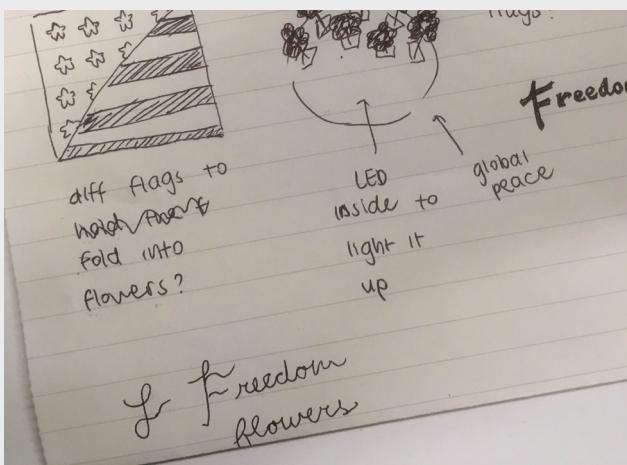
Although we got many responses in the Free and For Sale group on Facebook, all the translations were a bit different from one another. However the main idea was same throughout all of the translations. So we finally arrived at our final translation:

I LIKE AND ADMIRE FREEDOM AND
WANT IT FOR ALL COUNTRIES.
FREEDOM IS A HUMAN PHENOMENON
IN THE HISTORY OF MANKIND.
SO FAR, MANY PEOPLE HAVE SACRIFICED
THEIR LIVES FOR THE SOLIDIFICATION
AND ESTABLISHMENT OF FREEDOM.
HUMANS FOR FREEDOM.

Design Process Documentation

(Brainstorming hyper-personal object for Zafar)

Below are photos of our sketches, ideas, and designs. Initially, we wanted to create a sign that would help him with business but we had trouble with the interactive aspect of that. We also felt that it wouldn't meaningfully capture Zafar's exchanges with students, which was what really made his flower shop unique to the Berkeley community. From there, our group moved on to designing a type of flower pot that would be strategically laser cut to reflect physical designs from sunlight and shadows (see pictures below). However, as Zafar's shop is mostly outside, this box wouldn't fit well into the environment. After a lot of brainstorming and sketching, we decided on combining the idea of a flower pot and a sticker dispenser, and combined the ideas while utilizing the laser cutter, handmade origami, and electronics. A motion-controlled sticker dispenser would fit neatly into Zafar's current interactions with students. When he hands flowers to the customer in front of the box, the sticker would immediately print an additional memento for students to take with them.



Design Process Documentation (Making of the Hyper-Personal Sticker Dispenser)

Sticker Process | Box Process | Origami Process | Electronics used

Sticker Process: Went through several iterations of the sticker so that we could make it hyper-personalized.



Green, symbolizing growth,
happiness, unity, and vitality

His Signature

White, symbolizing freedom

Zafar's Handwriting
that says Humans for freedom in Farsi

Iranian Roses

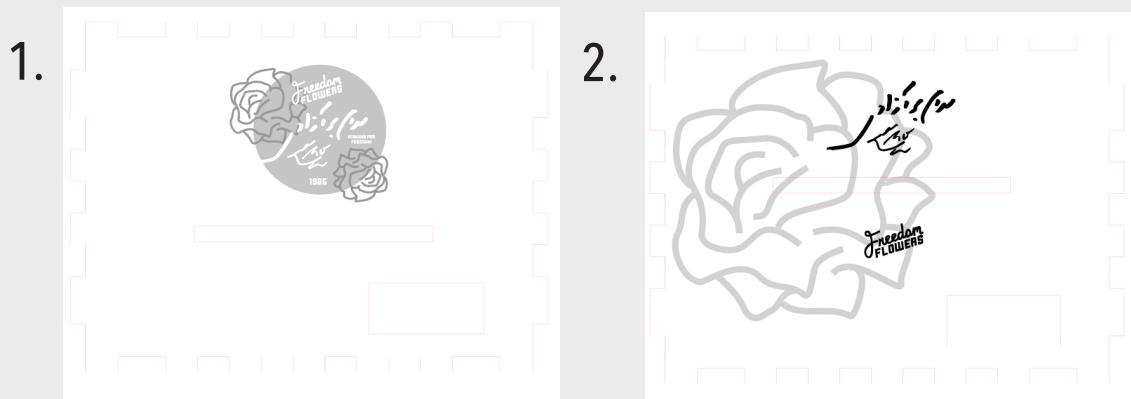
1985, showing the history of Freedom Flowers

Box Process: To make the box, we also went through several iterations. We used [MakerCase](#) to make our box. Please go to https://drive.google.com/drive/folders/0B_4tjSY61wT4SnVwREg0NVVKMEE to see timelapse of us making the box.

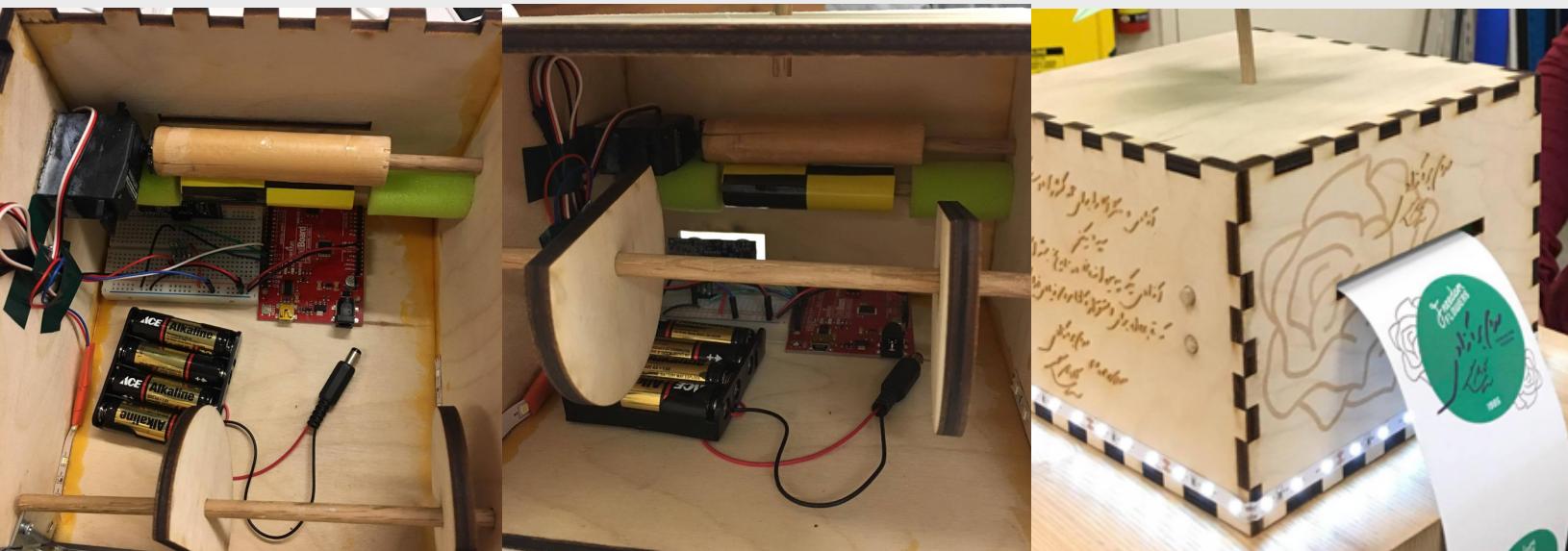


Brian using a dremel to get rid of the sharp edges from the hinge used on door.

Drilling hole into Dowel



When we tested the sticker box after we laser cut it, the hole where the sticker should come out was too low, so we decided to re-laser cut the front of the box so that the hole was higher now. Because of this we also had to change our design (from 1 to 2). Below are pictures of what the final box looked like from inside and outside. We purposely designed the box such that the back had a hinge door and the top was removable so that putting in more stickers and turning the sticker dispenser on would be easier. We also held the sticker up with a dowel. This dowel was removable so that they could put the sticker in.

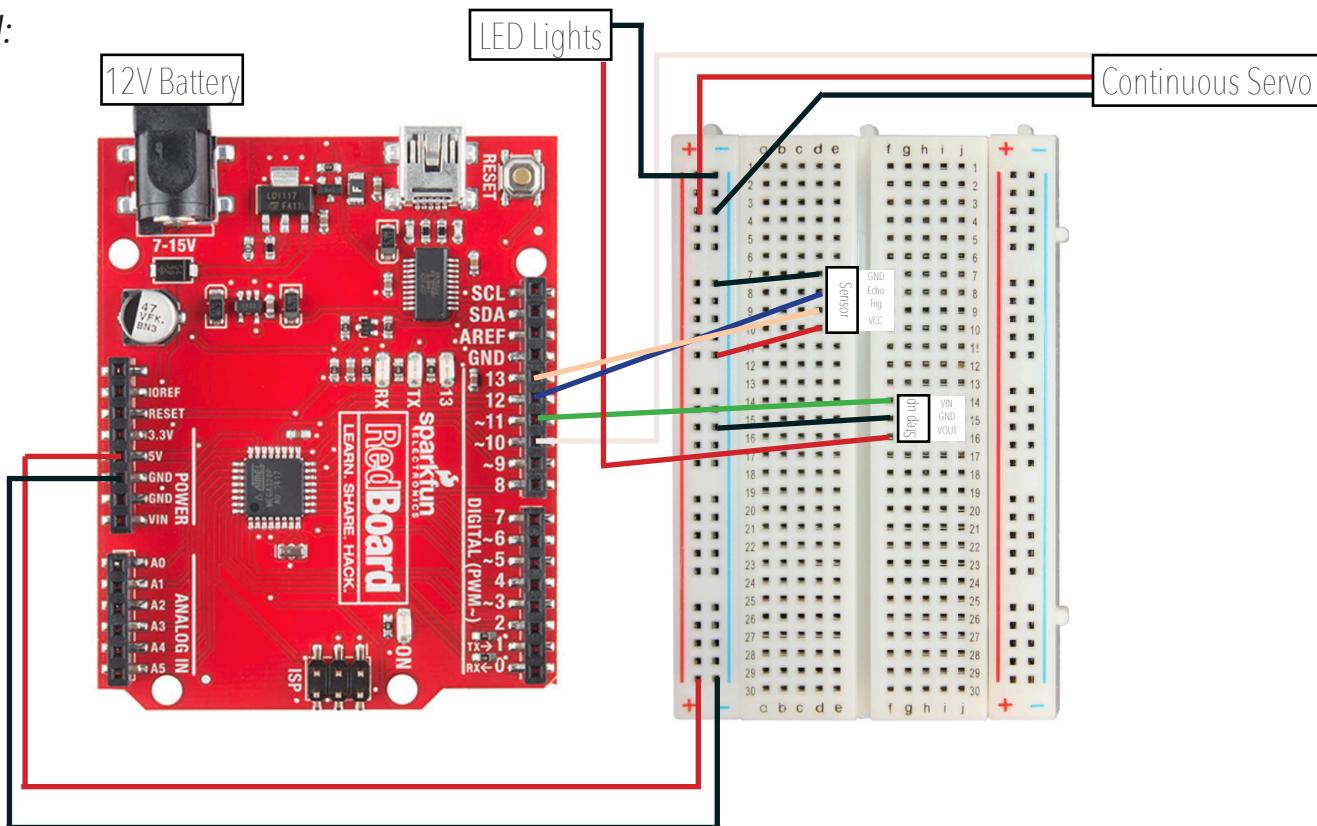


Origami Process:



We wanted to decorate the box in a way that not only embodied Freedom Flowers, but also would be meaningful to Zafar. Zafar is always selling flowers to bring joy into others' lives, so we saw this as an opportunity to give something back to him. We decided that handcrafted origami flowers reflected the level of care that Zafar puts into his interactions with students--asking students why they're buying flowers, helping each of them choose flowers, etc. Additionally, we liked how bringing in origami, a Japanese craft, contributed an additional layer of culture to the box that appropriately mirrored Zafar's global vision of freedom and democracy. In our interviews, we found that Zafar particularly liked roses and lilies, which are also flowers of Iran. Therefore, we decided to make origami flowers in red and green, colors of the Iranian flag. By putting the flowers on a foam globe, the final product is symbolic of Zafar's mission to spread freedom, democracy, and happiness over the globe through selling flowers.

Electronics used:



```

#define trigPin 13
#define echoPin 12
#define led 11
Servo myservo;

void setup() {
  Serial.begin (9600);
  pinMode(trigPin, OUTPUT);
  pinMode(echoPin, INPUT);
  pinMode(led, OUTPUT);
  myservo.attach(10);
}
void loop() {
  long duration, distance;
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  duration = pulseIn(echoPin, HIGH, 3000);
  distance = (duration/2) / 29.1;
  if (distance < 5 and duration != 0) {
    digitalWrite(led,HIGH);
    // Start turning counterclockwise
    myservo.write(180);
    // Go on turning for the right duration
    delay(3000);
    // Stop turning
    myservo.write(90);
    delay(20000);
    digitalWrite(led,LOW);
  }
  else {
    myservo.write(90);
    Serial.print("Out of range\n");
  }
}

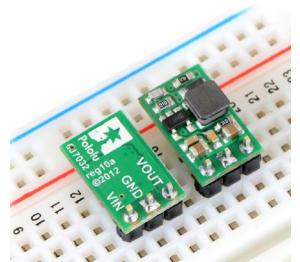
```



Continuous Servo Motor



Distance Sensor



12 Volt Step Up



LED Strip runs on
12 Volts

Final Hyper-Personalized Sticker Dispenser

Showing to Zafar:

"I'm crying in the inside"

He gave us all 2 flowers each at the end and wanted to take picture with his new sticker dispenser

He wanted us to write our names on the box.

He made us also write "Happy 70th birthday Zafar!"

Also mentioned that this was his first time receiving a gift in all his time that he has been at Berkeley.

Did not want to give away the stickers because it meant so much to him.

Also said that once he passes away he would like to give it to his kids and pass it on.



Please go to <https://www.youtube.com/watch?v=ANoUTNoluuA> for our video of the project

Instructable: Making each part

Box | Electronics | Origami | Stickers

Instructable for the Box:

Parts you need:

Plywood 1/4" 18" x 30"
Hinge
Wood glue
Clamps

Files you need:

Box file: <https://drive.google.com/drive/folders/0B7Tc9rZNUuPgc0pjUklxbWwUmM>

Steps:

1. Laser cut the box.
2. Assemble the box by fitting the t-slots of the sides together. Use wood glue to attach the front, left, and right walls to the bottom, but leave the back and top free.
3. Clamp overnight to ensure the wood glue will dry.
4. Attach the hinge to the back to make it a door.

Instructable for the Electronics:

Parts you need:

Continuous Servo Motor
Distance Sensor
LED Strip
12 Volt Step up Regulator
MicroController
Breadboard

Files you need:

Code in the previous Electronics page

Steps:

1. Download Arduino. Open Arduino, copy the code from the electronics page, and paste it to a file in arduino and upload the code into your Microcontroller.
2. Connect all your devices following the diagram in the electronics page.

Instructable for the Origami:

Parts you need:

Square origami paper, in red, pale green, angreen
Foam ball
Wooden Dowel
Hot glue gun

Sites:

- (1) <http://www.origami-flower.org/kawasaki-rose-budding.php>
- (2) <https://drive.google.com/file/d/0B1UEeQrRxtGQWNEdFvNmc/view>
- (3) <http://www.origami-make.org/origami-lily.php>

Steps:

1. Fold origami paper into Kawasaki roses. Step-by-step instructions for folding Kawasaki roses can be found here (1). You can also see a video of our folding process here (2). Make sure you have enough to cover the majority of the ball except the bottom.
2. Fold origami paper into lilies. Step-by-step instructions for folding lilies can be found here (3). You should have enough to circle the bottom of the foam ball.
3. Poke a hole through the foam ball with the wooden dowel.
4. Hot glue gun the origami roses to the foam ball, leaving the bottom free. For ease, clamp the dowel so that you can move around it efficiently.
5. Hot glue gun the origami lilies to the foam ball, so that they circle the bottom.

Instructable for the Sticker:

Parts you need:

Adhesive Paper

Files you need:

Sticker file: <https://drive.google.com/drive/folders/0B7Tc9rZNUuPgcTdkdnBtZzFxRnc>

Steps:

1. Make a sticker design of your choice or you can download ours under "Files you need"
2. After you have made the design, print the stickers on an adhesive paper using an Epson Printer.
3. Cut the sticker width to be around the same size as the dispenser hole that is on the box. Ours is 3.5 inches wide.
4. Roll the sticker up and rubber band it so it stays in a rolled form.

Instructable: Bringing it all together

- 1.** Cut the wooden dowel into several pieces -- one 3 inch long, two 7.5 inch long and one 8 inches long.
- 2.** Get the Servo motor and glue the wooden cylinder (same size as the small circles with holes in the box file) on the motor's part that rotates (Do not take off the black fan plastic covering, glue it on top of it).
- 3.** Glue the motor onto the side of the box. Attach the 3 inch long dowel to the other end of the wood cylinder and put it through the top hole on the box's side.
- 4.** Take the small circles with holes from the box file and thread them through one of the 7.5 inch long dowel pieces such that you have a stack about as tall as the first cylinder. Wrap electric tape around this. This creates a second cylinder.
- 5.** Use the dowel to attach the second cylinder to the box's side. You should now have two cylinders attached to the box, with a small gap in between for the stickers to be dispensed.
- 6.** Beneath this, connect the servo motor, battery, and distance sensor to the Arduino breadboard. Place the distance sensor in front of the rectangular hole at the bottom corner of the front. This ensures that it will be able to sense motion in front of it.
- 7.** Also attach the adhesive LED lights such that they circle the bottom of the box. Connect it to the Arduino breadboard as well so that they light up.
- 8.** Take the 8 inch long dowel and put the roll of stickers on it, bracketed by the two large discs from the box file. These discs help the stickers stay in position while being dispensed. Attach this dowel to the box by threading it through the larger holes at the back of the box.
- 9.** Thread the stickers through the gap between the cylinders and the slit at the front of the box. Let the edge of the sticker roll rest at the slit. The stickers are now ready to be dispensed.
- 10.** Drill a hole into the top of the box the size of the wooden dowel for the flower globe. Attach the flower globe to the top of the box with the dowel.