

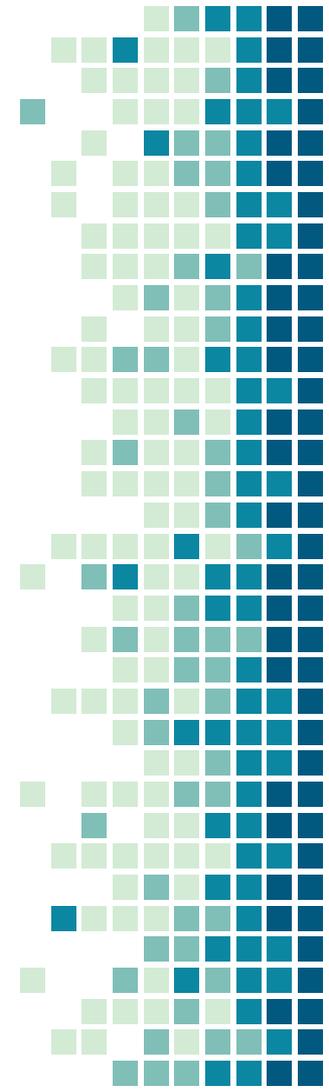
# Anti-Anxy Fidgets



By: Orlando Irizarry

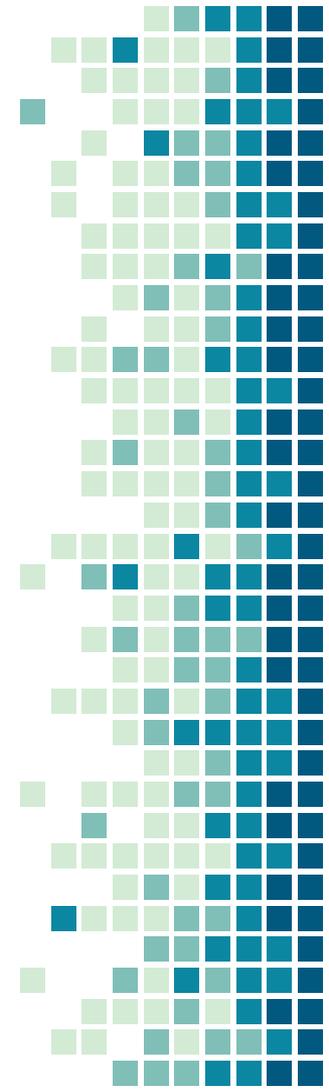
# Introduction

- My name is Orlando Irizarry
  - 18 years old
  - Philly Native
- Social Work major at Temple University
  - Minor in Psychology



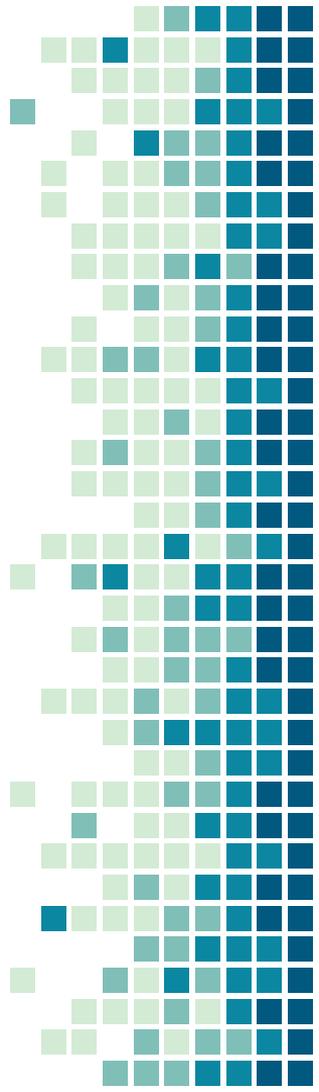
# Essential Question

- How can I create fidget mechanisms that tackle disengagement in class for Highschool students & kids with autism?



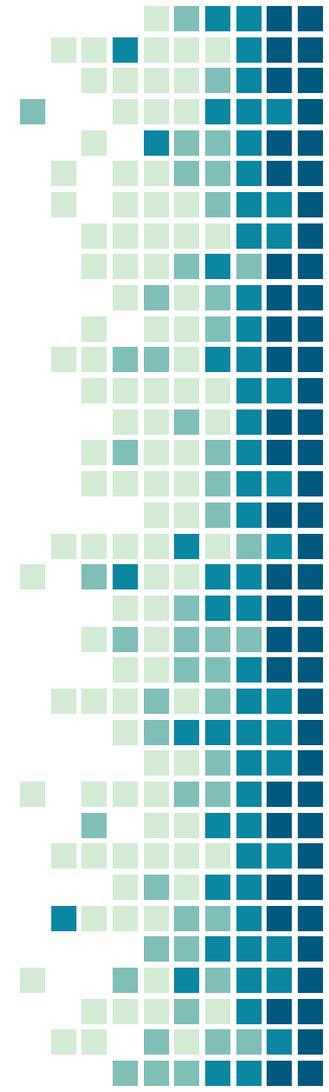
# Why Make fidgets?

- My brother, Elias has autism. Always carry a toy to keep calm and attentive.
- I have fidgeting tendencies connecting to my anxiety which affects how focused I am in class.



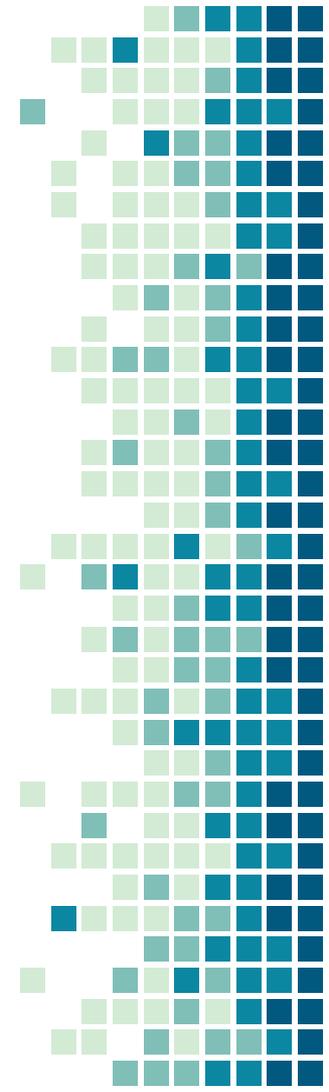
# Goals

- Learn to use Fusion 360 efficiently
- Learn to operate the 3D printer
- Make a effective fidget mechanisms that can help a High school Student focus better in class
- Make a effective fidget mechanisms that can help a student with autism calm down or focus better in class



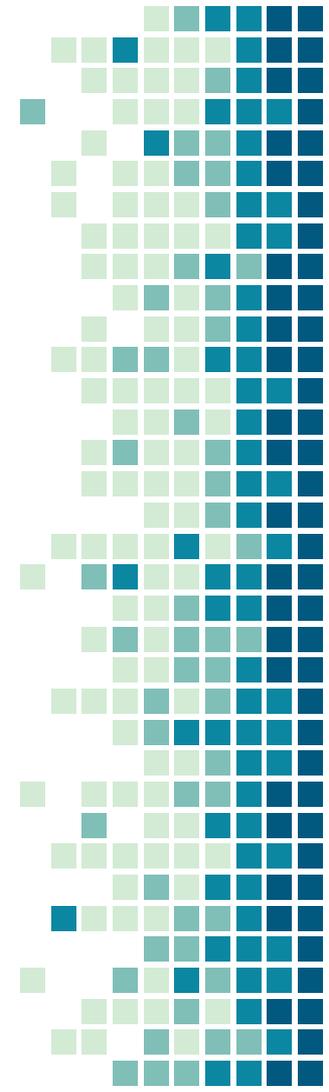
# Process`

1. Create To-Do List
2. Research
  - a. Autism
  - b. Disengagement in class (Survey)
3. Meetups
  - i. Kamal
  - ii. Easter Seals
4. Create 4 fidget mechanisms
  - a. Two for High school students
  - b. Two for kids who have autism
5. Test and Observe
  - a. Effectiveness



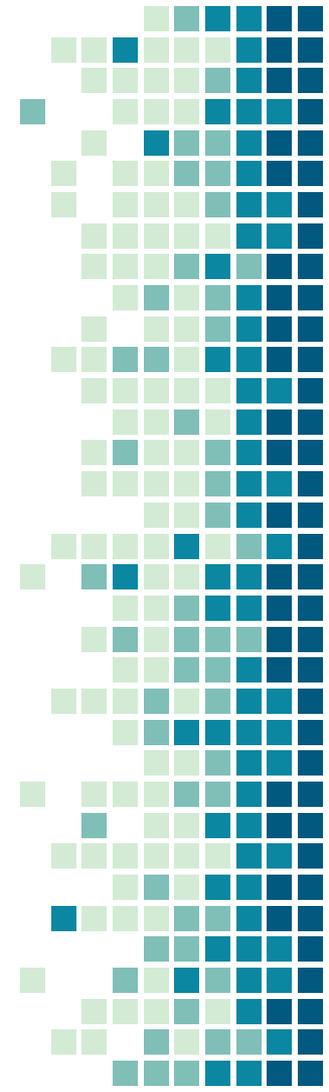
# To-Do List

	A	B	C
1	Capstone To Do List		
3	✓	Date	Task
4	✓		Research Sensory/Fidget Impactful Toys
5	✓		Create a Survey for Highschool Students who get distracted
6	✓		Send Survey around by adding it to the memo and posting on socials
7	✓		Learn how to do sketches again with kamal (short recap)
8	✓		Draw sketches (2 for average high school students + 2 Autistic kids)
9	✓		Get sketches reviewed with kamal + Talk with how we can get them made
10	✓		Start Fusion 360 for fidgets
11	✓		Discuss how everything will be 3D printed and Fusioned (Corona Quinnaire)
12	✓		Check in with Kamal and process of toys
13	✓		Check in with Kamal and process of toys



# Benefits of fidget/sensory toys for kids who have autism

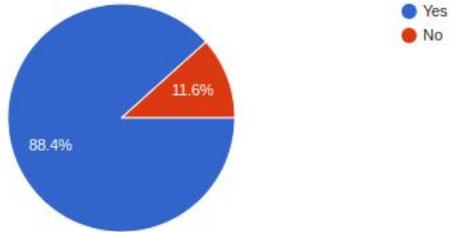
- Sensory toys are for children who need help developing physical and mental abilities.
- For kids who have autism, it's a great way to engage their senses in a less distracting way which is useful when dealing with their health condition while in class.
- Since Kids who have autism tend to also have anxiety or severe aggression it's a way to help the become at ease.



# Survey: Student Disengagement

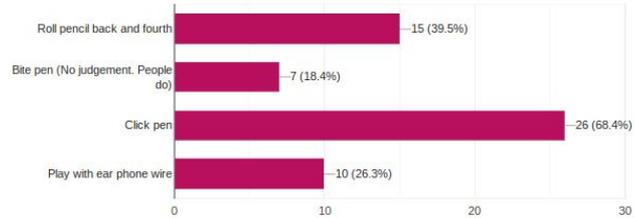
Do you find yourself easily disengaged during class?

43 responses



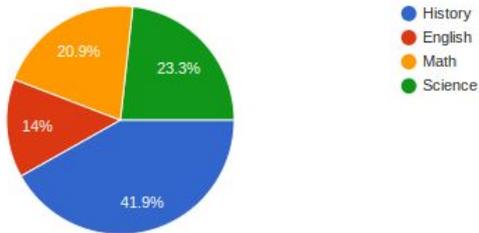
When you find yourself disengage in class what do you find yourself mostly doing? (Other than going on your phone or go to sleep)

38 responses



What is the main class are you usually find yourself disengaged in?

43 responses



If your response was no, What qualities would you like the fidget gadget to have?

12 responses

- Whatever those fidget cubes have, those are nice
- i don't really want one. not gonna lie
- Something that could be used w/ one hand maybe
- Something to move around and use with out looking at it
- Food inspired one
- Something soft and that moves easily.
- N/A
- Instead of me being on my phone all the time. The fidget would be a distraction
- Buttons and other things

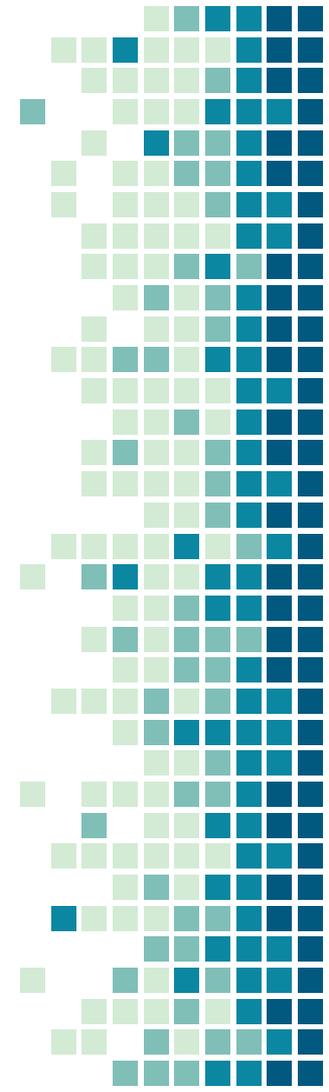
# Meetups

## Kamal

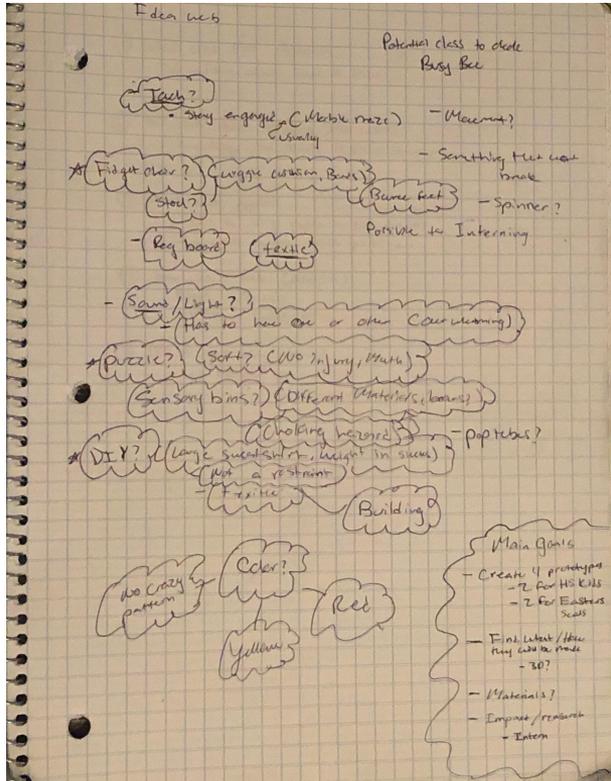
- Met Weekly (Thursdays)
  - Discussed any steps I was previously on & future steps.
  - Helped with reaching pass my potential.
  - Made sure everything was tighten and cohesive

## Easter Seals (Laura)

- Shadowed busy bees
  - Discussed what were popular aspects the toys had.
  - Suggestions that could potentially make my toy my beneficial
    - Size
    - Toy purpose (spin, move up & down)

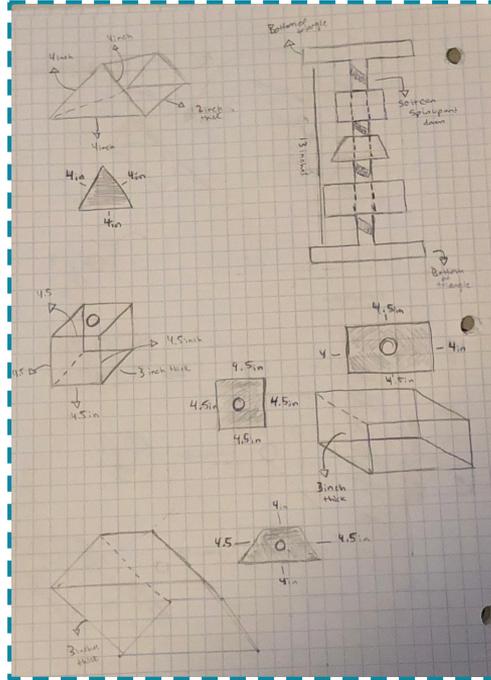


# Idea chart (Easter seals meeting)

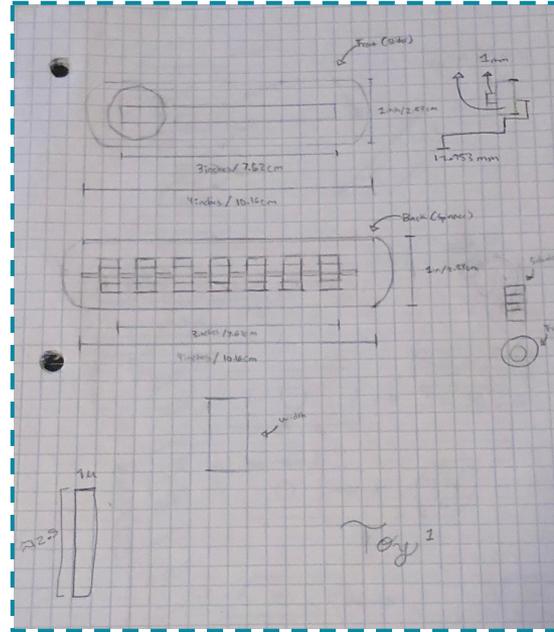


- Useful when I was brainstorming what I wanted to make
  - Consisted of specific toy aspects, potential DIY, Ways to make, etc

# Sketches

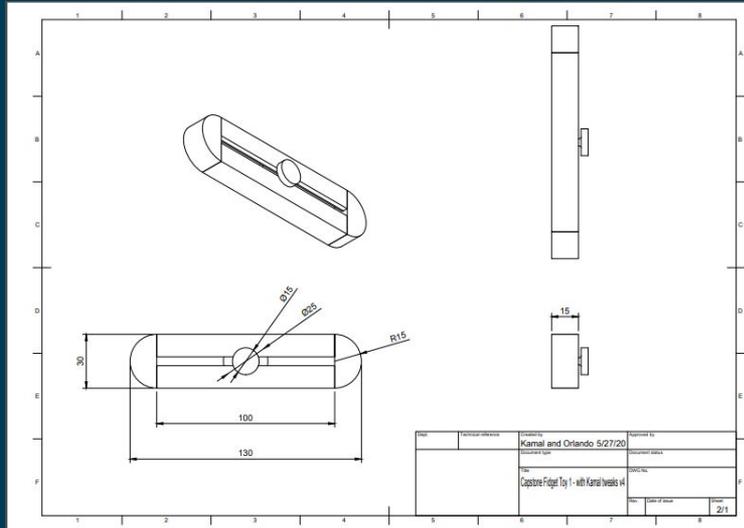
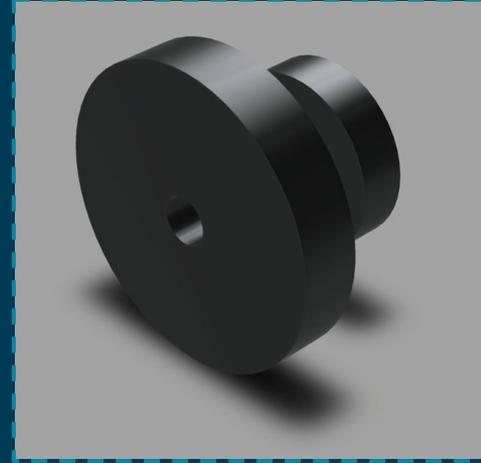
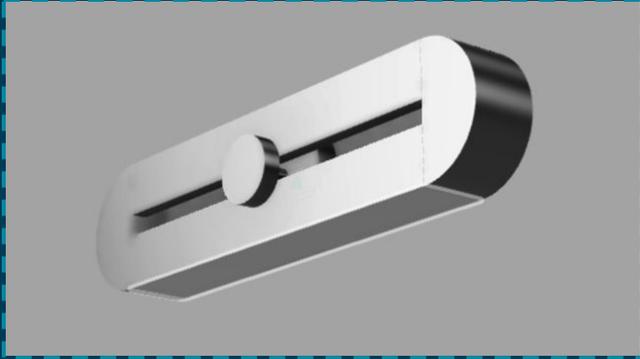


Clock Desk Spinner  
(Original Idea)

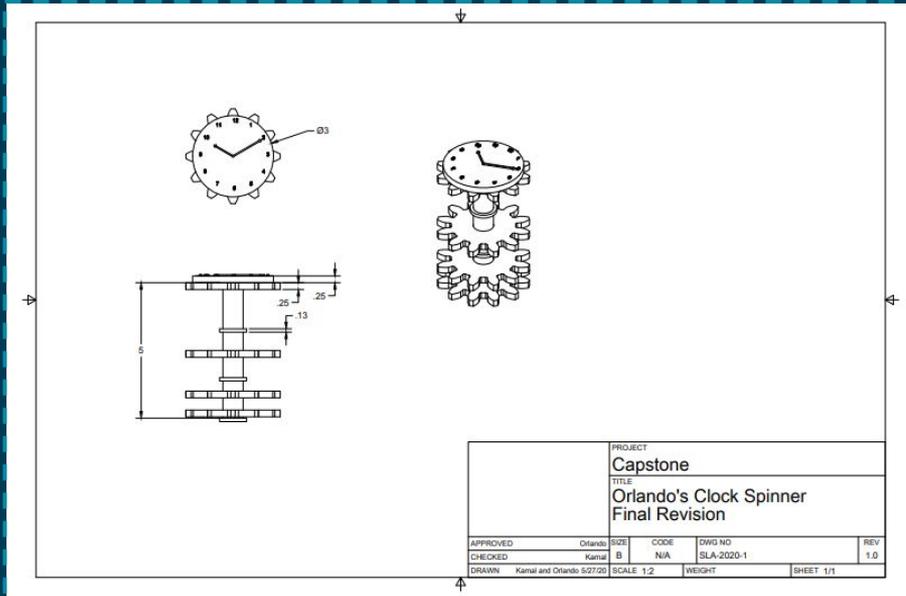


Slider Fidget

# Fusion 360 Model / Drawing: Slider

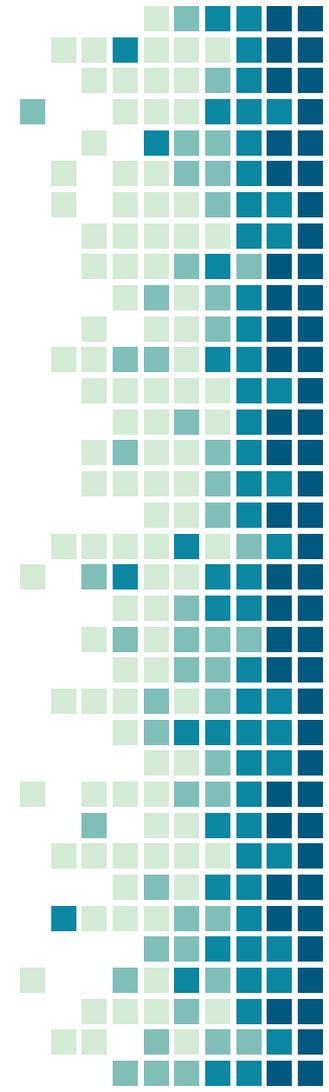


# Fusion 360 Model / Drawing: Clock Desk Spinner



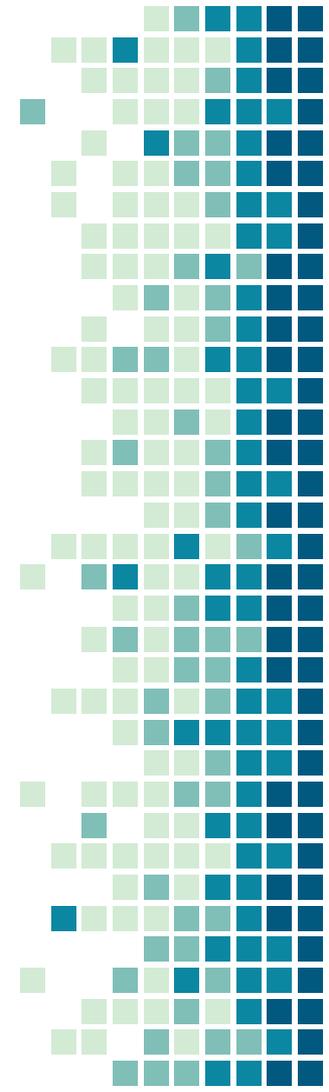
# Why Did You Choose To Make These Specific Fidgets?

- Slider (High school Student Fidget)
  - Handheld
  - Not too distracting
  - Effortless
- Clock Desk Spinner (Fidget For a Kid who has Autism)
  - Has many aspects
  - Spinning can help calm down the mind and emotions
  - Travel Friendly



# Obstacles That I Came Across

- Fusion 360 and 3D printing
  - Didn't have access to a computer that has Fusion or 3D printer
    - I was able to have a discussion with kamal regarding my issue. We decided that he will finish the CAD for the second toy and 3D print each piece once I made final sketches.
- Adding Stoppers
  - The stoppers in fusion would prevent toys to be placed efficiently so that it can spin and move.
    - Decided to have a clock gear then a press stopper with a dab of super glue repeating that process.
- Can't test and examine it's effectiveness
  - Corona prevented this but hopefully in the future we can see.



# How Did You Incorporate Each Core Value?

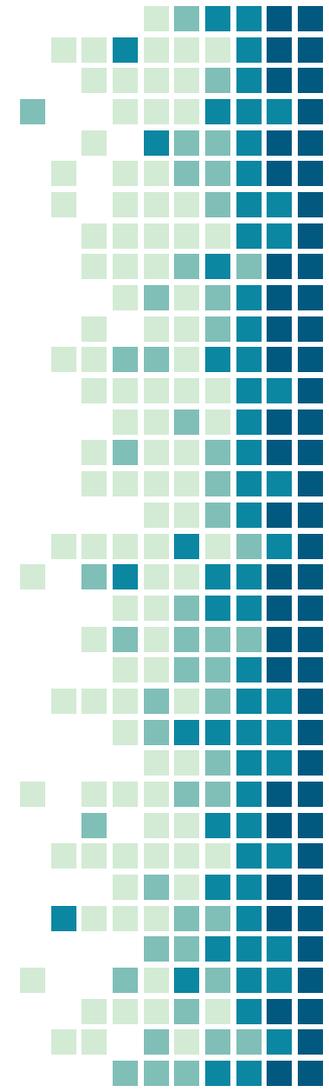
## 1. Inquiry & Research

- a. For Inquiry I got in contact with EASTER SEALS to examine a group of kids called the “Busy bees.” I used my observations on the “busy bees” to my advantage of how I wanted to design my toys

## 2. Research

- a. Research played a great foundation for my capstone due to the fact I needed to strengthen my knowledge of why kids become easily disengaged during school, as well as understanding how kids with autism interact with different toys.

b.



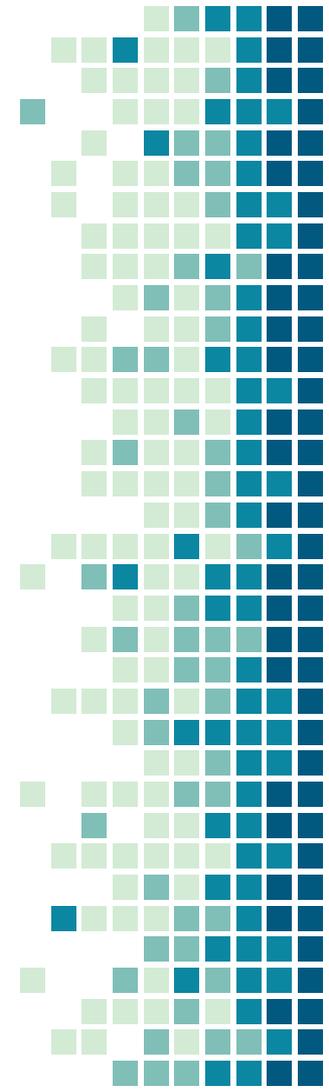
# How Did You Incorporate Each Core Value?

## 1. Collaboration

- a. I was able to gather ideas with both Kamal and Laura that we both seem to agree on.
- b. Kamal and I agreed on creating more than one fidget; two for EASTER SEALS and two for students at SLA
- c. Kamal and I have been getting in contact via google meet where we discussed how we were gonna execute it. We settled with two designs that were done by me and Kamal would finalize a fidget that wasn't made in Fusion 360 to 3D print both.

## 2. Presentation

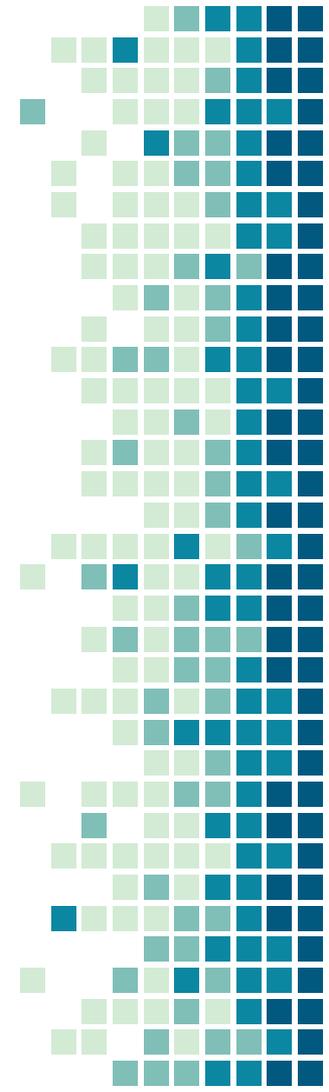
- a. Would be made in Fusion 360 to be 3D printed
- b. Toys would be distributed to 2 different kids from SLA & Easter seals so I can observe the effectiveness and if it was enjoyable.



# How Did You Incorporate Each Core Value?

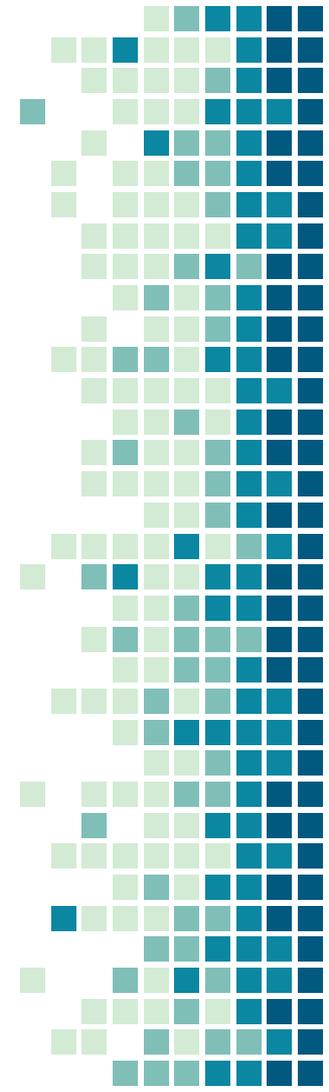
## 1. Reflection

- a. This made me realize my purpose in life. That is to help people in any way that I can.
- b. If it had a positive effect with a student focus in class my next step was to make several more to sell and donate to Autism Speaks foundation.



# Annotated Bibliography

- [https://docs.google.com/document/d/1yBNYO7BEjfhv\\_v1\\_8YxeGmfPnxv7oNNQ3wHKYkf0PMLM/edit?usp=sharing](https://docs.google.com/document/d/1yBNYO7BEjfhv_v1_8YxeGmfPnxv7oNNQ3wHKYkf0PMLM/edit?usp=sharing)



# Acknowledgements

I want to give a special Thank You to:

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4. Serenity
5. Rasa
6. Anyone else I forgot to include teehee

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