

TKS ×  kidogo

Kidogo Communal Water Filtration

utakaso wa maji

PROBLEMS

How can Mamapreneurs increase their income while improving the quality of their centers? How can we positively impact the community to make a profit?

SOLUTION

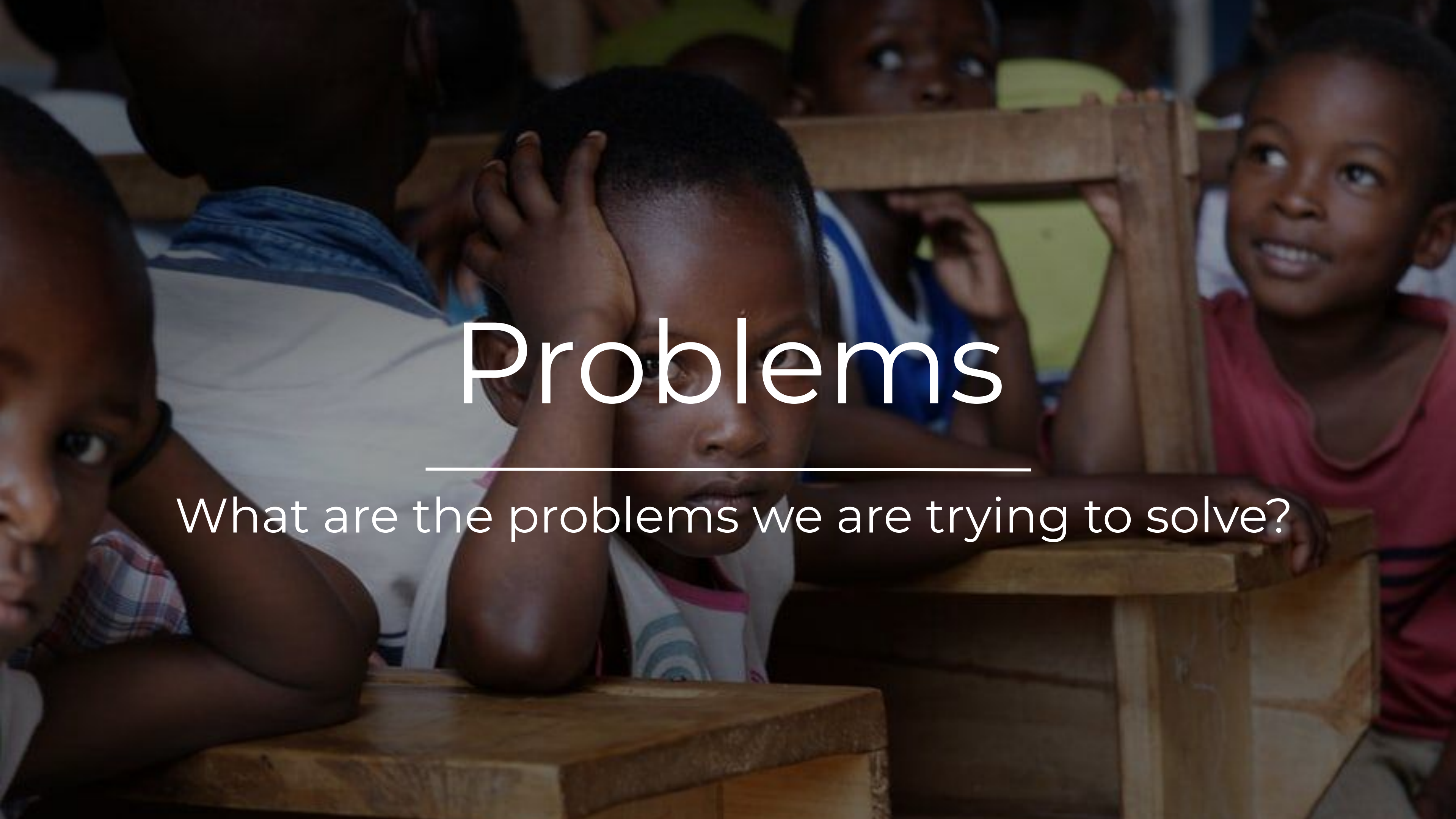
Mamapreneurs can earn passive income by providing water-filtration services to the slum residents. Part of the income will go to improve the child care quality.

OUTCOME

Mamapreneurs would generate surplus passive income to increase center quality while solving the water security problem in the area.

EXECUTIVE SUMMARY



A group of African children are seated on wooden benches in what appears to be a classroom. The child in the center foreground is looking directly at the camera with a serious expression, resting their head on their hand. To their right, another child is smiling and looking off to the side. Other children are visible in the background, some looking towards the camera and others looking away. The scene is dimly lit, with the text overlaid in white.

Problems

What are the problems we are trying to solve?

Problem #1

How can we:

- Provide mamapreneurs with extra income?
- Improving the quality of the Kidogo centers?
- Reduce kid per caregiver from 15 to 8?

Problem #2

How can we:

- Reduce the amount of money people spend to get clean water?
- Help families who don't have access to clean water?
- Reduce the risk of people getting waterborne diseases?



TOUGH TO MANAGE ALONE

Because the income is so low,
Mamapreneurs need to care for at
least twelve children in order to make a
living.

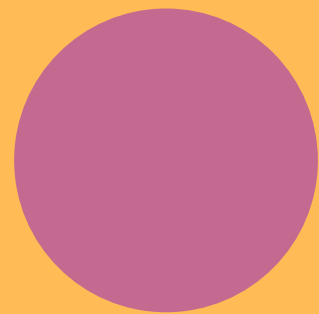
If we could reduce the amount of
children each Mamapreneur must care
for, the quality of the center will be
improved.

A WATER CRISIS

In Kenya, water is at extremely high demand. The infrastructures that were placed by government can barely meet the needs of the people.

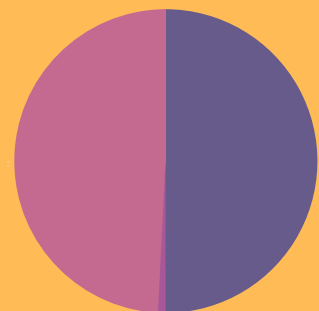
This demand for water has caused many private companies to attempt to deliver water to it's local population, but the water is often still dirty with harmful bacteria and parasites.





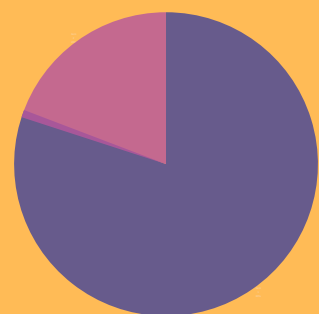
> 3.4 Million People

Are killed by water-related diseases annually.



56% of Kenyans

Are at risk of water-related diseases.



361,000 Children's Deaths

Could be avoided each year if the water purification problem can be addressed.

Waterborne Diseases: The World's Leading Killer

According to the WHO, more than 3.4 million people die because of preventable waterborne diseases. Most of the people who die are children.

Insider's view

"The lack of water and improper waste disposal are a big threat to our lives due to the risk of water-borne diseases [. . .] the threat of typhoid, cholera and other diseases from poor sanitation is real."

- Nancy Wangari, Korogocho
community health worker



A photograph of a group of African children. In the foreground, a young boy is smiling broadly and pointing his right index finger towards the camera. To his left, another child's face is partially visible, looking towards the camera. The background is filled with other children, slightly out of focus. The overall tone is warm and hopeful.

Solution

What is our solution for this problem?



OUR SOLUTION

Offer a service that filters polluted water into drinkable water and provides a form of semi-passive income to a Mamapreneur. This low-effort income generation allows the quality of a Kidogo center to be maintained or improved.

STEP 1

Educate the local population on the issues concerning polluted water and how our method can combat it.

STEP 2

Establish the water filtration method across all Kidogo centers, train the Mamapreneurs to meet demands.

STEP 3

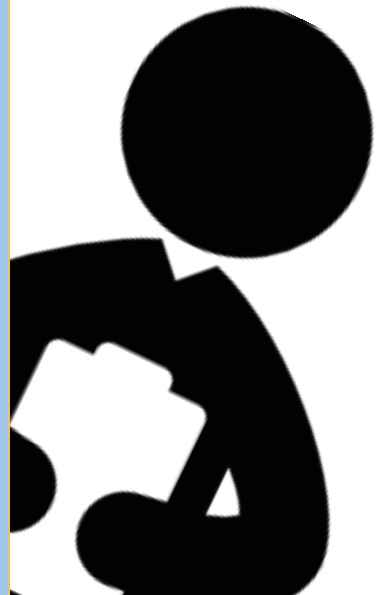
Begin filtering water brought by the locals within the community, generating bonus profits for the Mamapreneur.

Incorporation





**Come to the Kidogo
center today for CLEAN &
DRINKABLE water!**



ADVERTISING

To make our systems well known, posters can be distributed throughout the area surrounding the center.

These posters will educate the local population about the importance of clean water and how we'll bring the service to them.

The Purification Profit Process

After making our services well known with a small customer base, here's how the water will be purified and distributed.

Step 1

Customers will arrive at a Kidogo center with needed drinking water (still dirty) for the day.

Step 2

After greeting the Mamapreneur, the customer will measure out the water and offer payment based on the amount of water in gallons.

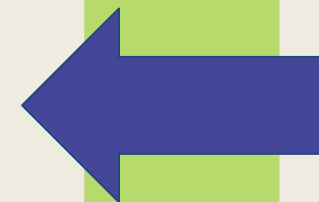
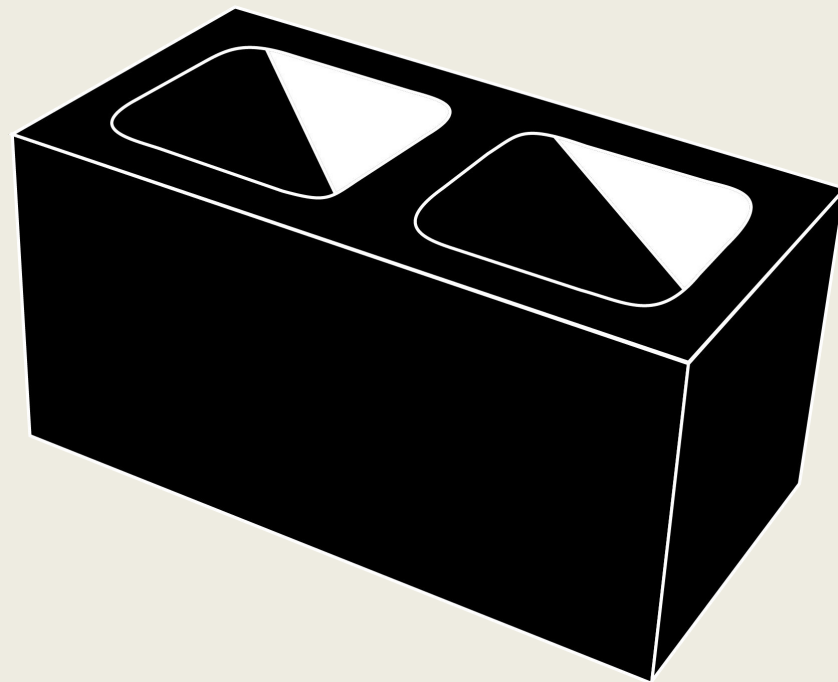
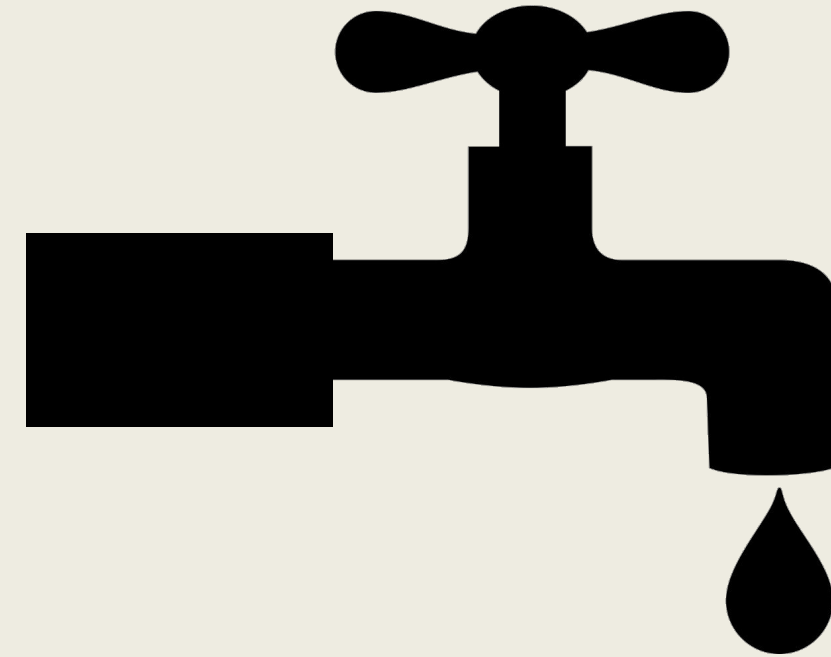
Step 3

The filtration process can take roughly 6 minutes for each gallon of water. After this length of time, the customer takes their clean water home.

SECURITY

Valves:

- Can provide simple and safe control of the water services.
- Allows the Mamapreneur to control the amount of water that flows into the bucket.



Inexpensive and Weighted Casing:

- Can be made out of reused materials
- Will use cheaper materials such as wood and concrete
- Counters the idea of stealing a heavy device for a small filtration system.

A photograph of a classroom in a rural setting. Several young students are seated at wooden desks, looking towards the front of the room. The students are wearing light-colored shirts and dark skirts or trousers. The background is a textured, reddish-brown wall. The lighting is warm and slightly dim, creating a focused atmosphere.

Costs + Analysis

How much profit can the system generate?

Cost Overview Per Center

**Total= \$54 per 1-2 Years
+
\$72-\$96 per Month**



Filter Straw x 2

- From Uzima Water Filtration
- Need replacement every 1-2 years

2 x \$25= \$50



Posters + Making

- Any material
- Can DIY

≤ \$10



Buckets x 2

- 1 bucket is needed for each filter

2 x \$3= \$4



Wages

- Hire an extra caregiver can increase quality
- Monthly cost

\$72-\$96/month

BREAK EVEN ANALYSIS:

-\$54 + -\$2.85/day

- \$54 for filters and buckets, replaced every 1-2 years
- \$2.85 will be the daily pay for the extra worker

+\$6.75~13.5/day

- Gross income
- Charging 5 shillings/gallon
- Running on half capacity to full capacity

+\$3.90~10.65/day

- Net income
- After deducting the cost to hire an extra caregiver

5-14 days!

- How many days it takes to break even
- Very short initial costly period

ESTIMATED PROFIT



This is the extra profit after decreasing the child/caregiver ratio from 15 to 8 (increasing quality). The graph shows the extra income for the mamapeneurs. The extra income can also be used to scale the Kidogo business and to reach even more young kids in need of early education!

**This data is calculated by $(3.9 * N * 365) - 50N$

N= number of years



Outcomes & Impacts

What will happen if our idea was implemented?

The Outcome

Localized water filtration can become a source of passive income for the mamapreneurs while maintaining the quality of the Kidogo centers. Due to the high demand for clean water, this service will also allow the local reputation of Kidogo to flourish.

Make an impact...

The water filtration system provides the slum residence and the kids with a cheap way to get access to clean, drinkable water. This can potentially decrease the risk to contract a waterborne diseases and save lives.



Conclusion

1

Promises

We promise a method that provides clean water to our customers.

2

Goals

To increase the quality of a Kidogo center while increasing income of the Mamapeneurs and building involvement in the community.

3

Value

The value of our idea is to transform the kids' trajectory to something greater by increasing the quality of the childcare centers.

4

Our Hope

We wish that our recommendation can transform a kid's life, and save many lives by providing cheap drinkable water.

Meet The Team



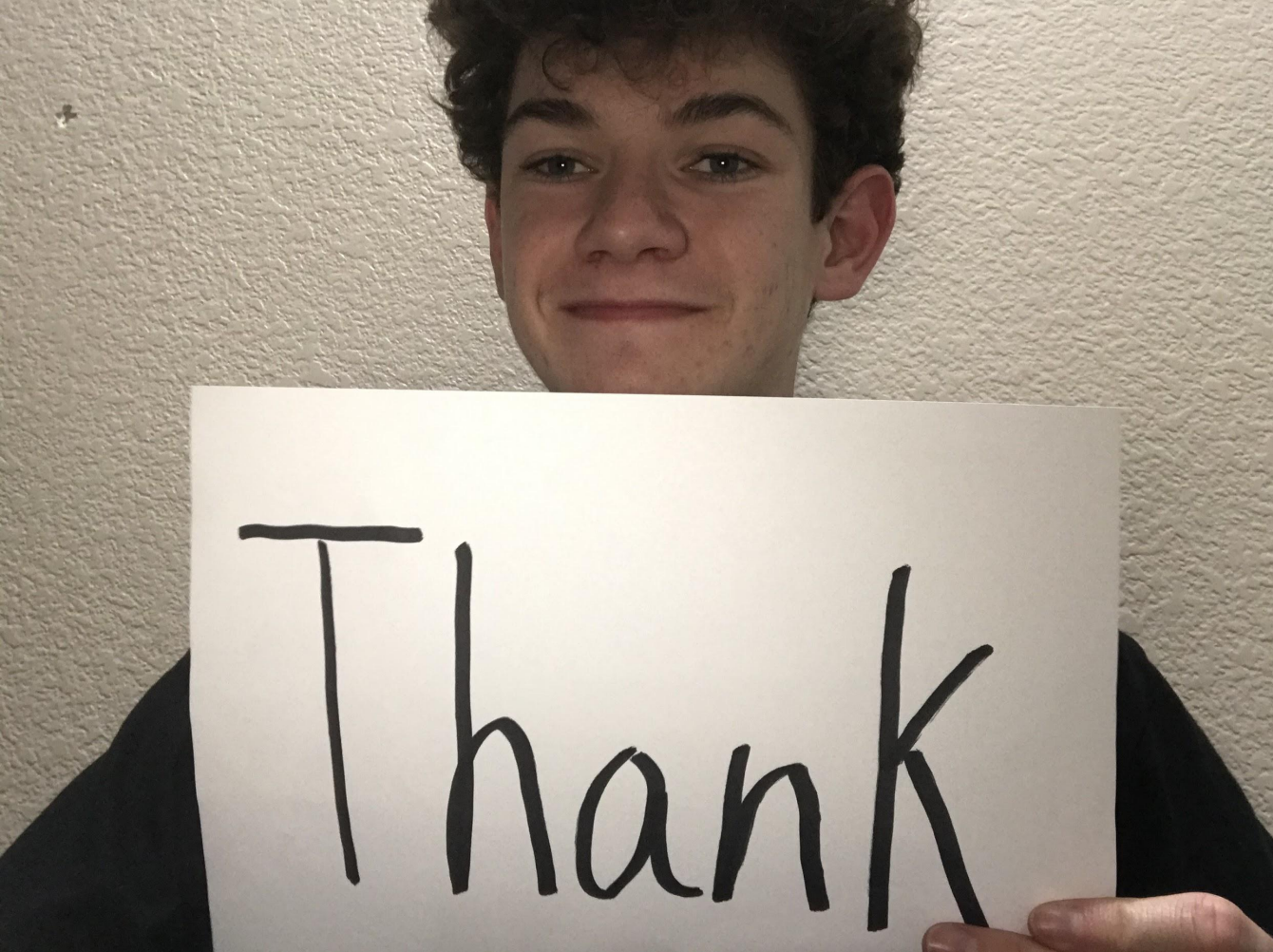
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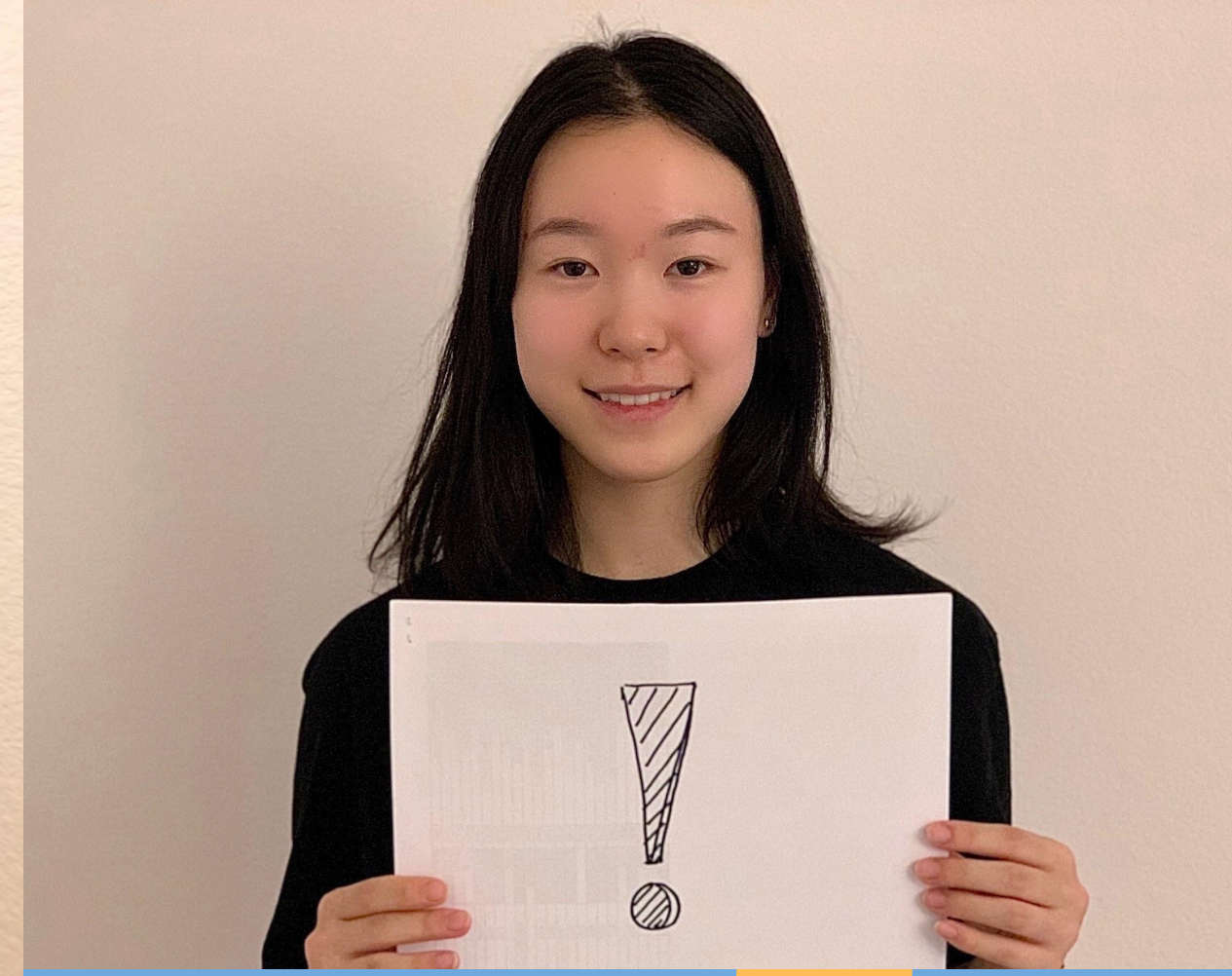
Gabo Zhang
gabo.zhang@gmail.com



Orion



Soleil



Gabo

Thank You!

Our recommendation will end here, but our hope for better childhood education for all will not end. We appreciate this opportunity to work with such an amazing organization with the sole intent to change young kids' lives. We hope that what we did as three young innovators can make a difference in people's lives for the better!

- Orion, Soleil, Gabo