GOING VIRAL
DIAGNOSING FOR A HEALTHY FUTURE

BUSINESS PLAN

Going Viral

May 2023

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I. EXECUTIVE SUMMARY

Going Viral is a healthcare technology company founded by Cecilia Beckerbauer that focuses on bringing new technologies to the unknowns of diagnosing and testing for infectious diseases. Using a hand-crafted AI, our BOARDDs (Biometrically Observant Automatic Respiratory Disease Detection) analyze respiratory responses and output a highly accurate infection diagnosis that will be outputted to a public healthcare website. This website will show the current spread and projected simulation of future spread for an assortment of infectious diseases, viruses, and bacteria. Going Viral is bringing this revolutionizing technology to the general public to promote a healthier and more knowledgeable world.

THE PROBLEM

Costly and inaccurate infection testing
Worries about AI privacy and accuracy
Fear of the unknown and lack of information

TARGET MARKET

Younger then 18 ; trust healthcare
18–30 ; value accessibility
31-50 ; value experience

SOLTUION

BOARDDs with an AI neural network
High cybersecurity policy with hashes
Public website with current cases and predicted spread

CHANNELS

- Local News
- Conferences
- Direct Mailing

KEY METRICS

- Number of Locations
- Different Types of Locations
- Customer Satisfaction

VALUE PROPOSITION

Going Viral aims to provide a knowledgeable and safe environment to the general public by diagnosing respiratory responses and reporting cases on a live map.

COST STRUCTURE

Cost of Goods: $3,372.26
Operating Cost: $229,777.28
Total: $233,149.54

REVENUE STREAMS

- BOARDDs
- Website Ads
- Donations
- Grants

COMPETITIVE ADVANTAGE

High accuracy
AI is able to quickly grow in accuracy with more exposure
Very easy to train the AI to recognize new infections
Untouched target with no competition currently
High demand based off of recent pandemic

CONCLUSION

We are aiming to raise $275,000.00 to propel a startup and future innovations.

II. PROBLEM STATEMENT

A COMPLETE UPROOTING - COVID-19 PANDEMIC

December 12, 2019, China sees a wave of unusual pneumonia looking cases that to do not respond normally. Only 39 days later, the United States sees its first case of this mystery virus, and by the time March 13th comes around, the United States is officially in a lockdown. In less than 100 days, the world came to a standstill due to one infectious virus that would have a grip on society for over two full years. In those years, 765 million cases were confirmed, and 6.9 million people died. It had been 102 years since a virus held this much control over the entire world. The world quickly had to become the most innovative, hardworking, and curious version of itself to try and find detection kits along with a vaccine. As time went on, prices of these detection kits skyrocketed and became harder and harder to access due to shortages and priority lists. No option had a large enough supply, had more than one use, and maintained a reasonable, affordable price.

TECHNOLOGY WITHIN HEALTHCARE

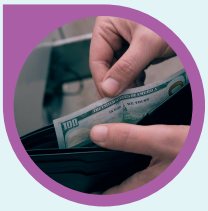
During the crisis of COVID, technology was booming especially with AI. It became more sophisticated, detail oriented, and accessible. However, a few concerns arose with it including privacy of a user's data, accuracy over time, and helpfulness / accessibility when compared to other options.

PRIVACY & CYBERSECURITY

Technology companies are notorious for monitoring you consistently and selling your data for a profit. With AI, a mass fear developed of what power these companies could hold over a individual as the collection process of data could be speed up and automated completely.

ACCURACY - SHORT & LONG TERM

As this was a brand-new technology, accuracy quickly became a main concern for individuals. There were growing training data sets, but they were limited and far between in 2019. The fear of an unknown accuracy in the future only limited the growth of these data sets as well.



HELPFULNESS / ACCESSIBILITY

Technology is viewed to be at least a certain price point no matter what technology is offered. The "you get what you pay for" idea has dominated the technology consumer's mind and even pushed them to question if they really need the new technology solely based on this assumption of price.

INFECTIOUS DISEASES, VIRUSES, & BACTERIA TESTING

COVID-19 is only the most recent infectious diseases that has taken over the world, but other diseases, viruses, and bacteria also have high infection rates and prices with questionable accuracy. Stomach flu, the common cold, and pneumonia claim lives every year and yet limited progress has been made to stop this trend.

III. CUSTOMER SEGMENT

MARKET PROJECTION

The current healthcare IT market is worth about $167.7 billion currently. It is projected to see a 17.9% increase in worth in the next 5 years. Some current trends include Big Data, cloud migration, and cybersecurity measures. Some challenges are data management, security, and equitable access.

MARKET TECHNIQUES

After an analysis of our main markets, we have decided educational and health conferences, working with local news, and creating a mail platform with email and physical mail would be the best techniques for us. We will focus on privacy for all target markets with a main branch of accuracy for our primary target market group. We will have a specialized branch for our tertiary market of helpfulness.

Privacy will the main focus of our marketing as we have seen a trend of concern through out collected market research survey. We have been able to link this specifically to AI and how the media covers / treats AI currently. With this in mind, we will focus on emphasizing the lack of recording and storing of any auditory media with just the diagnosis made by the BOARDD being displayed. This will be an evident focus in all forms of marking that we commit to.

Accuracy will be the second focus as two our of three target markets showed a trend of concern and also have limited trust when it comes to the age or accessibility of a healthcare option. We will be conveying this secondary focus through our use of local news and mail platform.

Helpfulness will be our tertiary focus and will be limited to our mail platform as the age group we wish to best target with the creation and maintenace of the mail platform is the same age group that displayed a concern with the helpfulness of our life. We will be focusing on the ease of involvement into daily life with this target market.

More details can be found in the table below about each technique and in the channels page. All data shown above was collected in a marketing research survey linked here.

TARGET MARKETS

	PRIMARY	SECONDARY	TERTIARY
DEMOGRAPHIC	Younger than 18 Less than $15,000 1-2 health conditions (previous or current)	18-30 years old Less than $15,000 1-2 health conditions (previous or current)	31-50 years old $50-99,000 3-4 health conditions (previous or current)
PSYCHOLOGICAL ABOUT HEALTH	Highly value their daily health Trust all healthcare options	Highly value their daily health Prefer at-home / urgent-care options of heathcare	Highly value their daily health Trust more established healthcare over newer options

III. CUSTOMER SEGMENT CONT.

PSYCHOLOGICAL ABOUT AI	Accuracy Privacy	Privacy	Helpfulness Privacy
PUBLIC OUTING HABBITS	Daily - education / school buildings 2-3 times a week - grocery store	Daily - education / school buildings 2-3 times a month - grocery store; food option / location	Once a week - grocery store
MARKETING FOCUS	Focus on daily visit to education / school buildings Promote accuracy and trust with privacy for both students and schools by focusing on lack of recording and vast amounts of training data	Focus on less specified typical location other than education / school buildings Promote privacy for all users by focusing on lack of recording	Focus on weekly grocery store visits and 3-4 health conditions (previous or current) Promote helpfulness with privacy by focusing on the easy integration of this device in daily life

IV. VALUE PROPOSITION

The general public wants to feel safe and knowledgeable about the unknowns concerning infectious diseases, viruses, and bacteria.

Going Viral's device will monitor respiratory reactions and diagnose with a high accuracy while still maintaining maximum privacy of public and customer.

Going Viral aims to have an incredibly quick and accurate display of results to both the customers and general public.

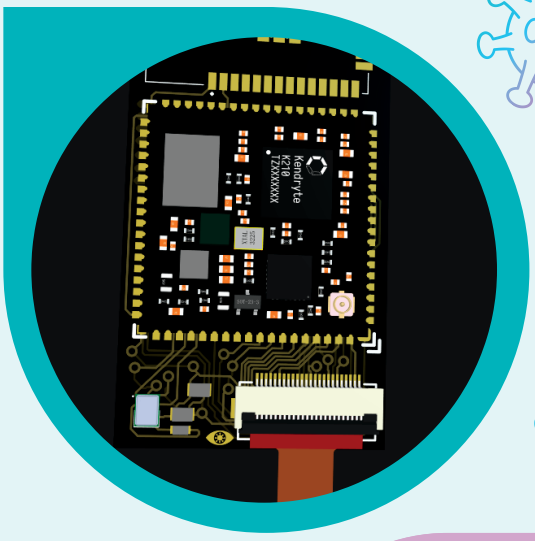
GOING VIRAL AIMS TO PROVIDE A KNOWLEDGABLE AND SAFE ENVIRONMENT TO THE GENERAL PUBLIC BY DIAGNOSING RESPIRATORY RESPONSES AND REPORTING CASES ON A LIVE MAP.

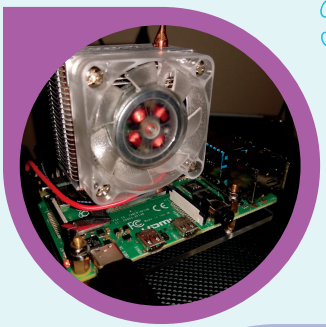
V. SOLUTION

Going Viral has a multi-faceted solution to infectious disease, virus, and bacteria testing. Here is how Going Viral has fused the multiple parts together to create a complete solution.

COLLECTION

Going Viral's BOARDDs (Biometrically Observant Automatic Respiratory Disease Detection) embodies the brand's goal of bringing a more universally accessible and accurate means of testing for infectious diseases, viruses, and bacteria. It all starts off with the collection of respiratory responses. Using a microphone located on the actual device, a trained AI, trained off of a MIT data set containing different respiratory responses, detects and recognizes a response as made by the respiratory system. The microphone records the response and submits it to the diagnosis AI. Once the diagnosis AI is finished, the recording is rewritten over the old audio file, thus preventing any saving of audio files. If multiple respiratory responses are recorded, they are broken up into five different files. Within the system, there is a set of ten different audio files that will be in use.





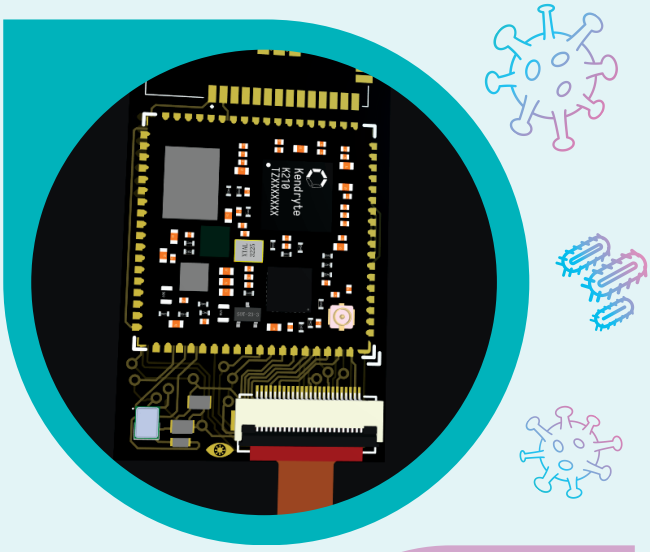
DIAGNOSISES

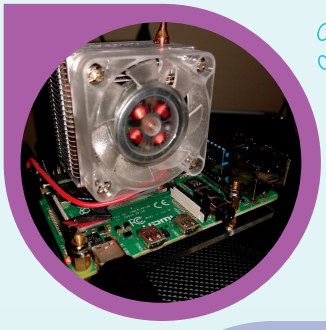
The diagnosis AI is our own creation of many hours and an MIT 2020 dataset containing similarities for different infectious diseases, viruses, and bacteria. We have expanded this dataset with more over the time of development and currently have over 50 different infection similarities cataloged for our device to use. Using this dataset as a training set for our Python AI, we have tested it running a different test dataset. which has allowed the neural networks to start and work up to 92% accuracy as of current day. We will run the audio file through this AI and it will output a list of the five most likely infections or a response of unknown infection. The BOARDD will output this list and send it to the Going Viral servers. Then it will return the audio file back to the response AI to be recorded over.

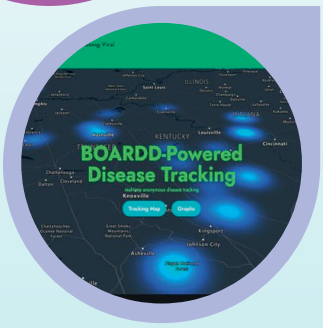
V. SOLUTION CONT.

MASS COMMUNICATION & MAPPING OF DATA

Once Going Viral's servers have received the most likely infection case and the location of the device from the operational BOARDDs, it will feed them into our public website. It will also feed the case into a infection spread simulation which will predict how the infectious disease, virus, or bacteria will spread depending on population density, calendar events, and other common factors listed by the CDC. It will not count any cases that are marked as unknown or none. It will also feed hospital, WHO, and CDC data into the website and the simulation for further accuracy and a fuller picture for our website viewers. Once the spread simulation is calculated, it will display on the website for our viewers to view if they wish. Our website will also send out notifications for any new local cases if users opt into this option.







CYBERSECURITY

Seeing as this product is highly technical and does interact and collect data regarding the public, we have taken our cybersecurity very seriously. For our audio files, they are all encrypted on the BOARDD with a series of hashes. These audio files are also effectively destroyed once they are over written by the BOARDD. If the device was ever to go offline or loose power, the local battery will only keep the device running for the first three hours. After this time is up, any remaining used audio files are rewritten as blanks. For our servers and website, only the data collected by the BOARDDs regarding diagnosis and location are sent and interpreted. This data is also encrypted with a series of hashes to protect the data from possible attackers. All data collected for the notification option will be highly encrypted with complex hashes and stored on the local device rather then the servers. No other data will be collected on the website.

VI. CHANNELS

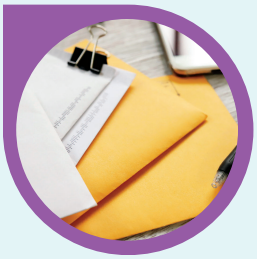
At Going Viral we have varying channels that we have divided into two main categories: personal and facilities. We understand with our product being a public health researcher and reporter that we need to have as many locations as possible for the highest accuracy rate. With this in mind, our two categories focus on diversifing our BOARDDs locations as much as possible.

FACILITIES

Our facilities channels category focuses on bringing our BOARDDs to public locations including but not limited to government buildings, grocery stores, public parks, hospitals, schools, education buildings, sports complexes, and other locations where the general public gathers at. These locations have high traffic of people, but there is a wide range of diversity on type of location. Because of this, we have dedicated the following channels to the facilities category.

PERSONAL SELLING - CONFERENCES

We will be attending education and healthcare focused conferences as it has been shown to be in the top five ways to reach facilities of the health, education, and government fields. As we have researched, we have found that speeches and booths at these conferences show the most success rate for sales. With this in mind, we will be focusing on accuracy and privacy as our primary target market would be highly impacted by this direct channel.



DIRECT MARKETING - MAILING PLATFORM

Throughout our research we have found that online and offline mailing seems to be the most effective direct channel for reaching a target market. Using techniques that have been shown to work, including a physical mail and online advertisements, we will focus on the helpfulness and ease of incorporation of our devices. This channel will be utilized in both our facilities and personal markets as it targets our secondary and tertiary target market's habits.

PERSONAL

With our personal channels category, we will be taking a more personal approach and trying to get our BOARDDs in the general public's homes. Although these locations do not provide us with high traffic, these devices will utilize the device's features for the individual customer. We will be utilizing both the mailing platform and local news for this purpose.

PUBLIC RELATIONS - LOCAL NEWS

Local news has been shown to be the best way to reach our entire target markets especially our tertiary market. Local news will include articles, advertisements, and TV coverage. As we have found with our survey, our tertiary market is the most likely to install home locations and thus we will be focusing on privacy within this indirect channel.

VII. REVENUE STREAMS

PRIMARY

Our product, BOARDDs, selling is the primary source of revenue for Going Viral. Through a website that we programmed and designed, we are able to monitor our website traffic and effectively sell the BOARDDs to businesses, public institutions, governments, and the general public. We accept any credit cards, debit cards, and PayPal through a Google plug in for our website to aid with cybersecurity issues. With all of this, the purchasing of the Going Viral BOARDDs will our primary sources of revenue as of currently.

SECONDARY

- Website Advertisements: Advertisements on our main public mapping page will one of the secondary revenue streams we will exercise. Seeing as our mapping website service is free and open to the general public, we are able to place small ads on the high traffic website and gain a reasonable amount of revenue.
- Donations: Donations are another key secondary revenue stream as companies prioritize the health of their customers and employees.
- Grants: Seeing as the nature of our business is to provide a public health service, this makes Going Viral ellgible for several local and federal grants.

REVENUE MODEL

VIII. COST STRUCTURE

Listed below is the projected yearly cost structure for Going Viral. It lays out the projected costs for both the startup and continuation of the business. All prices and costs were carefully calculated through a variety of websites, mostly local, and will be altered if change occurs. This cost structure is also prepared for future innovation and growth of Going Viral as a nation-wide business.

PROJECTED YEARLY COST STRUCTURE

Type	Cost of Goods	
Startup	Dell Computer, Printer, Shipping Label Printer	$2,882.00
Ongoing	PCB, Sipeed M1W, Memes Microphone, Miscellaneous SMD, Priority Mail Tyvek Envelope, Sticker Paper, Printer Ink, Shipping Label Paper Roll, Postage	$490.26
Human Resource Cost		
Ongoing	Technology Assembly, Cybersecurity / Server / Website, Marketing, Accountant / Manager, Unemployment Insurance, Disability Insurance, Workers Comp	$48,750.00
Operating Costs		
Ongoing	Nebraska DBA Renewal	$100.00
Ongoing	Mortgage on Purchased Location, Utilities, Product Liability Insurance, Business Owner's Insurance	$42,515.28
Startup	Location Mortgage Down Payment	$137,500.00
Intellectual Property		
Startup	Utility Patent, Trademark	$912.00
Taxes		
Ongoing	Federal Small Business Taxes	19.8%
	Total	**$233,149.54 + 19.8% Taxes**

IX. KEY METRICS

As we are aiming for building a huge customer base with high accuracy in a majority of the United States, we will be evaluating ourselves on the following key metrics.

NUMBER OF LOCATIONS

With our focus of accuracy, it is essential that we measure ourselves on the number of locations our devices are operating from. This will help us track the improvements in our accuracy rating for the nation while also displaying to us how many of our products are actually being used after the purchase. What we wish to see in five years is at least 500 devices per House of Representative members for each state. This will help us have an accurate representation of the concentration of our devices for each state population, based off of how many House of Representative members that state has. Once we have reached this goal, we will upping the numbers to at least 1,000 devices per House of Representative member with a higher focus in the less populated states.

NUMBER OF DIFFERENT TYPES OF LOCATION

To build on our focus of accuracy while trying to diversify our reach, we will be measuring how many different locations our devices are operating from in each state. We will be keeping a running count of how many different locations have how many devices. Without violating our cybersecurity policy, we will be using a personal AI that will compare each device location to Google Maps and zoning maps. From those two evaluations, it will categorize each device's type of location for our own analysis of success. Our goal for this metric will to have at least 50 devices in at least 25 of the most dominating public facilities and development zones within five years. Once we have accomplished this, these numbers will up to 150 devices in at least 75 different public facilities and development zones.

CUSTOMER SATISFACTION

In terms of measuring our goal of building a huge customer base, we will be measuring our customer's satisfaction and desires of future innovations / updates. Our goal will to have at least 400 customers per House of Representative member for each state. In order to achieve this goal, we will be measuring our customer's satisfaction with a survey. This survey will consist of a series of questions regarding our BOARDDs, access to the website, troubleshooting issues with the devices, and how likely they are spreading the word about our devices. Each question will be answered by the customer choosing from a scale, one being the far negative like never going to buy this again to ten being the far positive buying more right now. Our goal for these questions will to see a 70% response rate with a six or more. We will also have an innovation / upgrade question at the end of our survey that will be updated with our new ideas for innovations and upgrades. These responses will be just a list where the customers can select up to three different innovations and / or upgrades they would like to see implemented. We will use these responses to prioritize the upgrades and innovations our customers would like to see the most. This entire metric of customer satisfaction will show up overall how our customers view our product and what we could do to increase their satisfaction with our product and future products.

X. COMPETITIVE ADVANTAGE

WHAT SETS US APART

Here at Going Viral, we have been able to create a market for ourselves with the perfect conditions. Currently, there is no competition being publicly distributed and sold for mass infection testing and reporting with AI. Additionally, we are launching after a world-wide pandemic has altered the entire globe's "normal". With everyone having a shared personal experience of what can happen when we don't have the technology to test people on mass, we have a huge opportunity to create this AI based healthcare market. Our device's strengths of high accuracy and ease of training for new infections will allow our device to maintain a dominating position in this new market and discourage newcomers to enter the market. It is this position that will additionally grant us a price advantage as we will be able to maintain and even possibly lower the cost of our device. This price advantage will set competitiors, shall they enter this market, further back due to high level of development we have invested in at Going Viral.

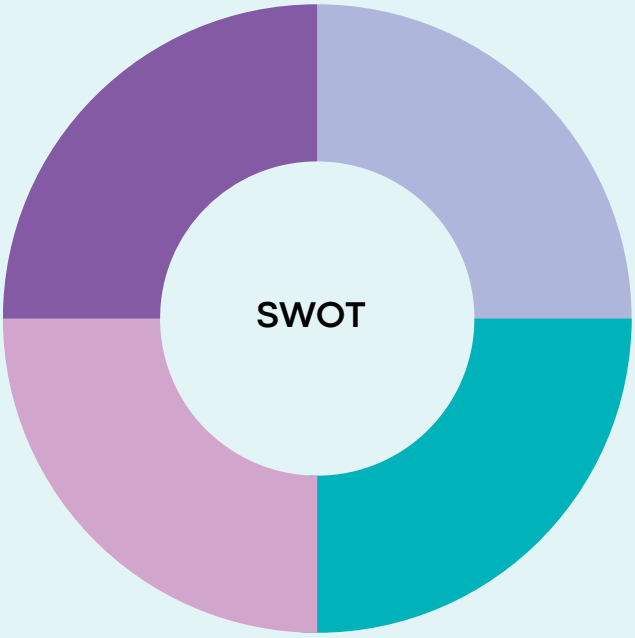
SWOT ANALYSIS

STRENGTHS

- High accuracy
- AI is able to quickly grow in accuracy with more exposure
- Very easy to train the AI to recognize new infections
- Builds on existing prediction simulations

OPPORTUNITIES

- Untouched market with no competition currently
- High demand based off of recent pandemic
- Knowledgeable customers about AI and its uses



WEAKNESSES

- Difficult to gather large data sets for different infections
- Map rendering varies with rate of spread for each infection
- Lacks efficiency unless at a large scale

THREATS

- High chance for future competition
- Fear of surveillance and violation of privacy with AI and recording audio files
- Lack of a mass brand support to create trust in customers

OUR FUTURE SUCCESS

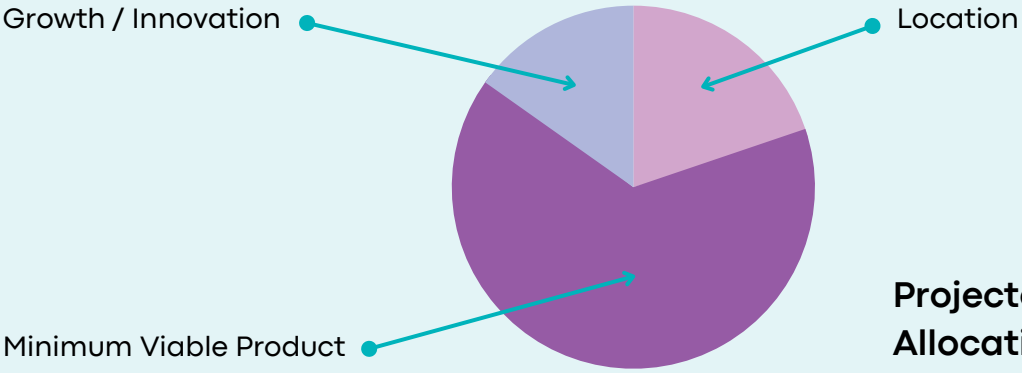
With all the new opportunities that come with a new market, we at Going Viral believe that we are set up for amazing success thanks to our strengths and how we are marketing ourselves. We are actively building up our strengths by increasing our AI abilities and addressing our weaknesses by looking into partnerships with research institutes to allow our AI to become even better. We have a high level of understanding when it comes to our target market and what they want, and we have been able to address our threats throughout that with our marketing techniques such as focusing on our cybersecurity policies. With all of this combined and a high level of awareness of our new market, we believe that Going Viral will be a great success.

XI. CONCLUSION

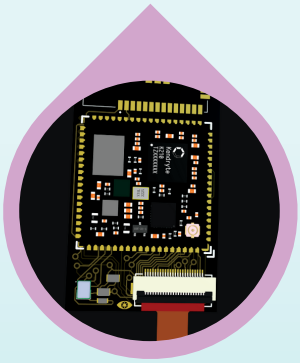
Going Viral is a sole proprietorship, brining more accurate and accessible infection testing to the public in both facilities and personal locations. We are focusing on diversifying the locations of our devices to create a strong accuracy platform that would be free for website use. All current profits are being put back into the business to support innovation with our AI, advances with the cost of our physical product, and increasing the accuracy and detail of our infection spread simulation.

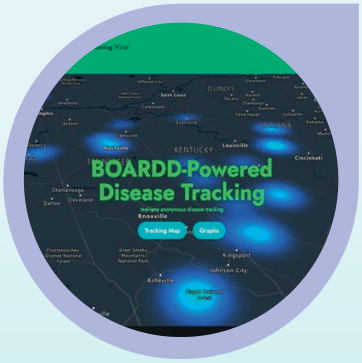
We are confident that Going Viral will have large returns and lots of room for future innovations with AI in the healthcare field. We wish to help diversify our current AI into cancer research, inherited disease research, and conditions that have been receiving limited research in the past. AI has great potential with neural networks, and all we need for this to become possible is time and money.

With this in mind, we have decided to be funded by both our personal capital and government grants specified for disease testing. We will be aiming for $275,000.00 raised in the next six months, but we will be fully operational for the production and sale of our product at $75,000.00.



Projected Financial Allocation Goals





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