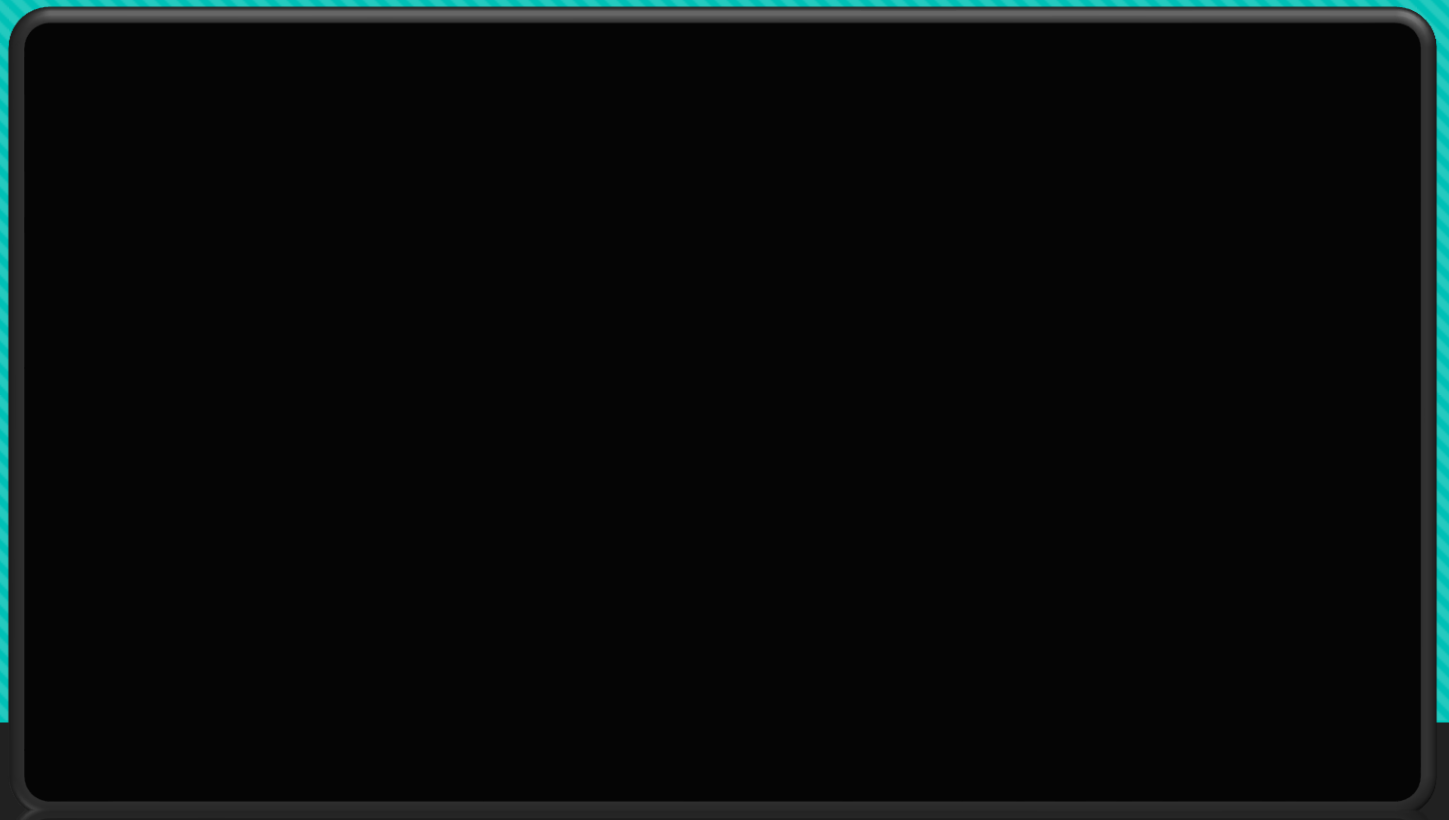
Pneumatic delivery system



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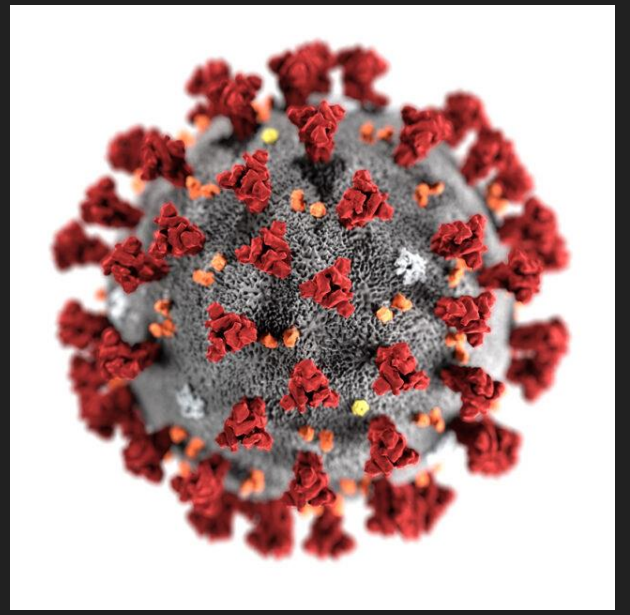
Introduction

CONNECTIVITY WITH SECURITY

Introduction

- We want to use this connectivity and utilize it within modern day systems of delivery and shipping.
- More and more people are ordering/ selling products which all uses different methods of shipping and delivery. These companies all have production caused by delivery drivers vehicles to deliver products.
- Through this system we noticed it contributes to climate change and have taken account of our environment. We value the environment we live in and want to ensure that carbon footprint is reduced on an international scale.

Traffic in all countries is increase due to the increase use of postal services. As we know there is a direct correlation of CO2 production caused by delivery drivers within the top 100 cities. C02 levels is predicted to increase by 36% of overall global production



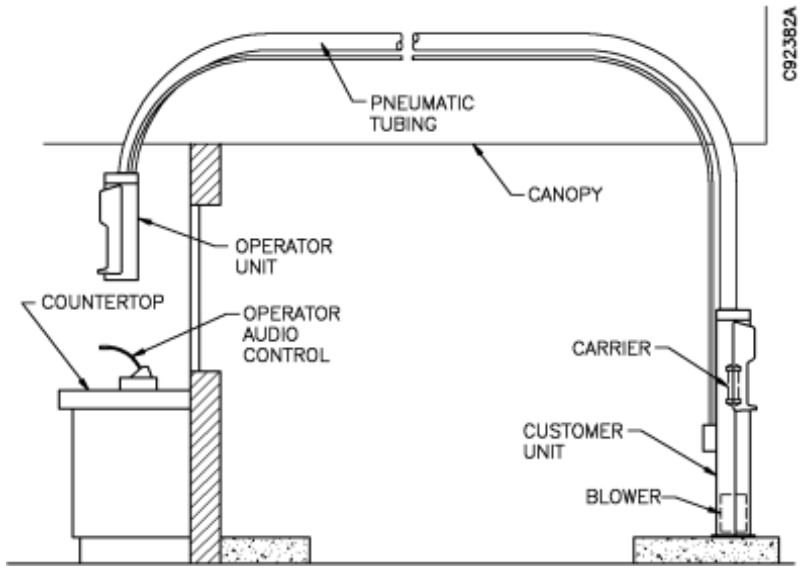
Current conditions

- Incompetency
- Theft
- Covid19
- Carbon footprint
- Online shopping boom

https://giphy.com/gifs/mic-futurama-hyperloop-dblqyJOl4N4R2

Concept

- Our concept stems from our mission statement and values. We want to create a connectivity between products and customers which is efficient, sustainable and reliable.
- Our concept is a large scale, multi-tiered independently maintained maglev or vacuum tube system that can be used for delivery straight to the outside of the end users house or corporate business. There is a very valid use case for this, however; large cities and city centres such as London, Beijing and New York City come as some of the highest on the air quality index, therefore something like an electronically or pneumatically controlled tube delivery system can be more effective in these use case scenarios.
- Our product will be used in delivery/ shipping sector.
- We have taken this initial idea to upscale it, and create an inter-city or inter-country system that allows delivery of items much more quickly and efficiently.
- The vendor/ storage station has a temporary storage room underground with items within capsules ready to be delivered. Our pneumatic tube system will serve as a vendor for postal delivery companies, and we offer our system to be leased out to other companies which are not postal services.
- We see our concept to be revolutionary, it creates this connectivity between the products and the customer as they feel more comfortable receiving the item in a small-time frame. The most similar product we have as mentioned are delivery through vehicles by the companies mentioned beforehand, which may can be construed as an outdated style of delivery.
- There are obvious benefits to our system, less energy used, better cost effectiveness over time and no limit by human error.



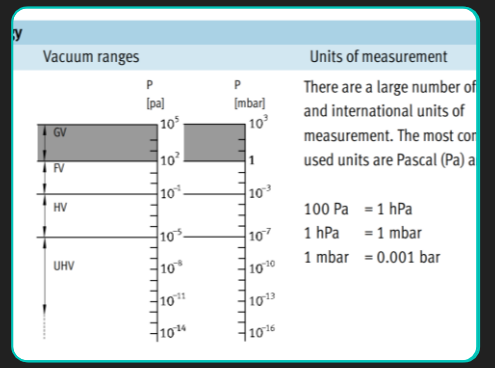
Conceptual Idea

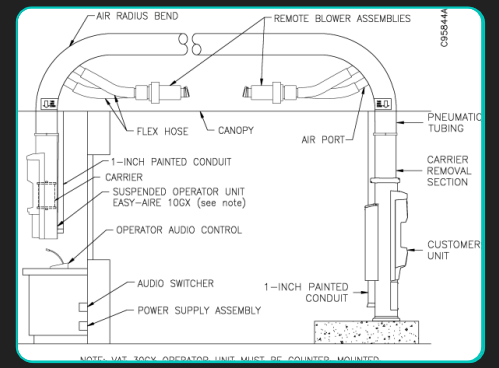
Conceptual Idea

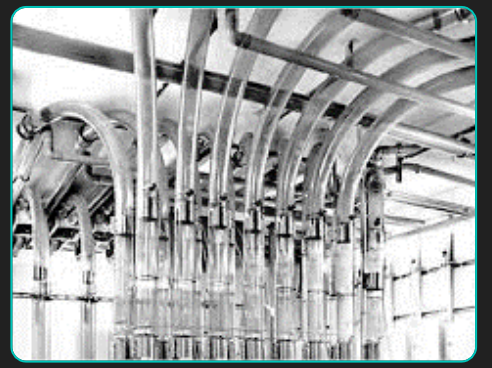
These capsules move within tunnels of compressed air causing a high pressure vacuum inside the tunnel, forcing the capsule to move.

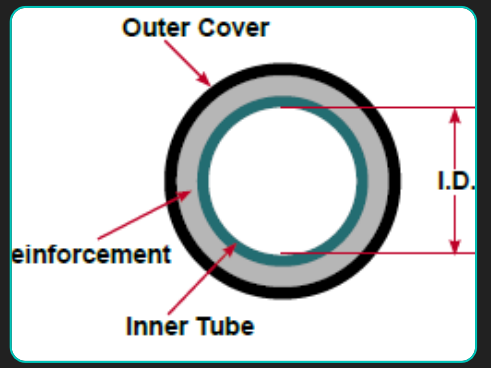
$$E = \frac{1}{2}hv$$

Energy within the tube is half the power of the vacuum diameter, therefore for a 278.58ml cannister [17inch package] it takes half of the size to push through the pneumatic tube [where the tube is 18 inches].



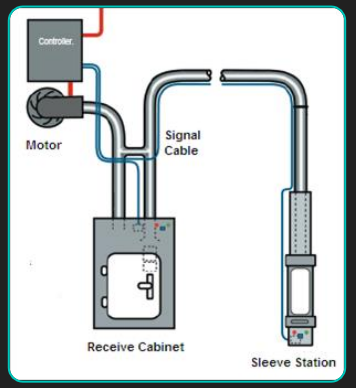






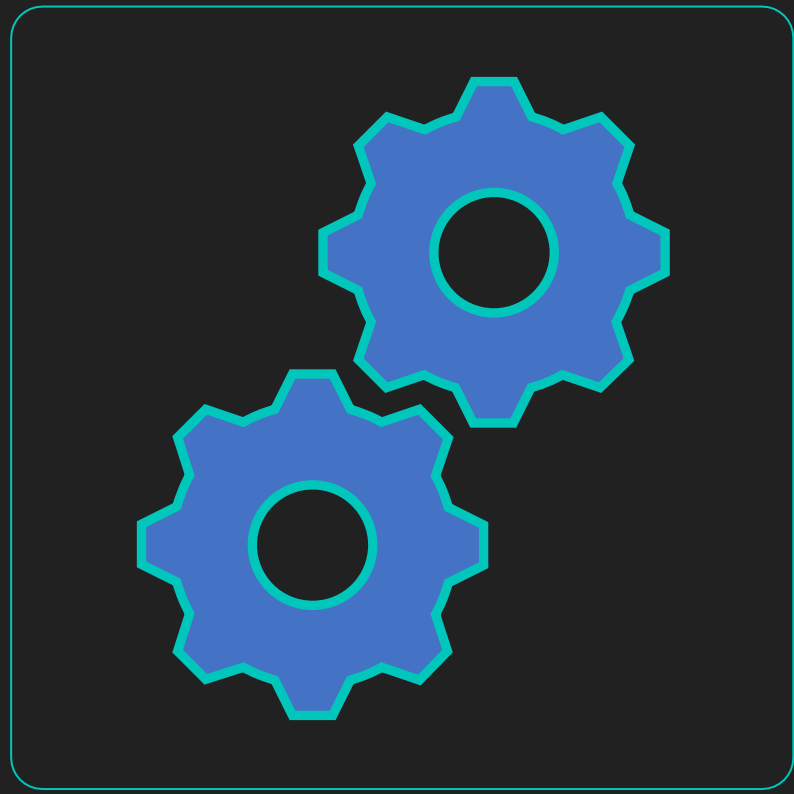
Conceptual Idea

- As we are creating a network, each starting tube will relate to 3 or 4 sub-connected tubes that allows interpolated movement of delivery.
- This allows the ease items to be sent back and forth, and the being able to deliver multiple items at once.
- The large-scale system can be built having 10,000 tube systems branching off with approximately 30,000 subsystem tunnels, giving us a ratio of 1:3 tube to sub-tube.



Technical Considerations

- Technical aspects of the physical properties of the tube itself
- Mechanisms of how the tube will deliver
- Packaging of goods to go back and forth down the tube systems
- Large scale development of the pneumatic system integration, terranean or sub-terranean
- Ensuring that there's not backlogging with delivery systems.



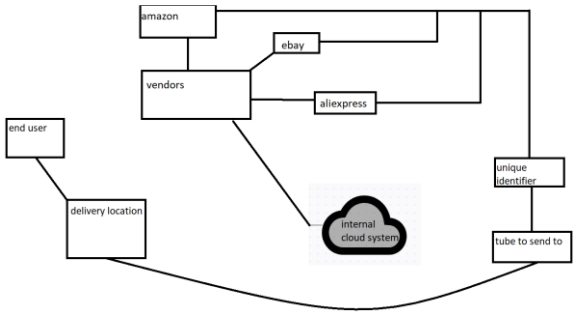
Human error reduction and theft prevention

- Tamper proof evident tape can be used on the cannisters to show that they have not been intercepted by any external source before reaching the end use, such tape can be cost effective enough that it can be accosted for partly through the delivery cost of the cannister.
- Cannisters, once primarily used can be upcycled to go back to large scale distribution centres that can re-use these cannisters to ensure systems operate with high levels of efficiency.

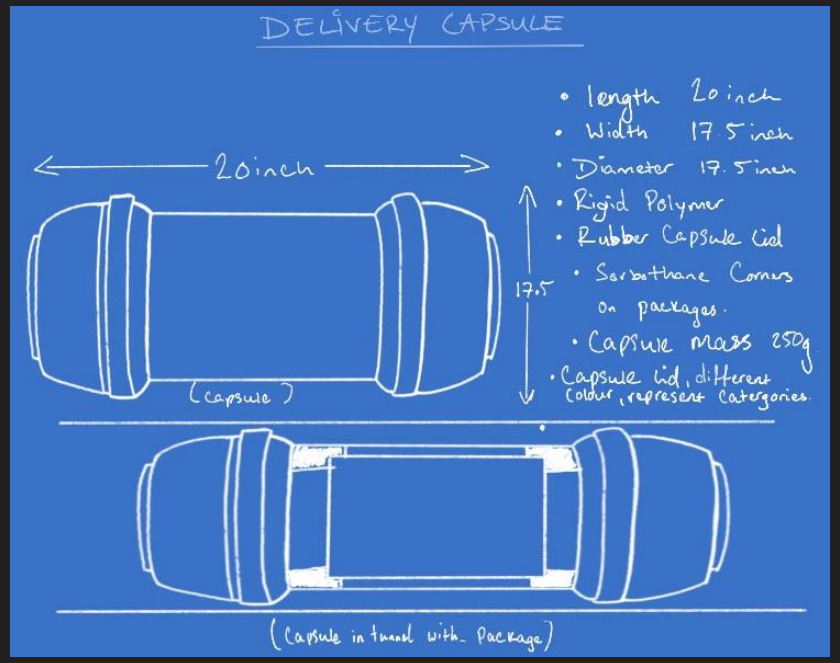
Deployment

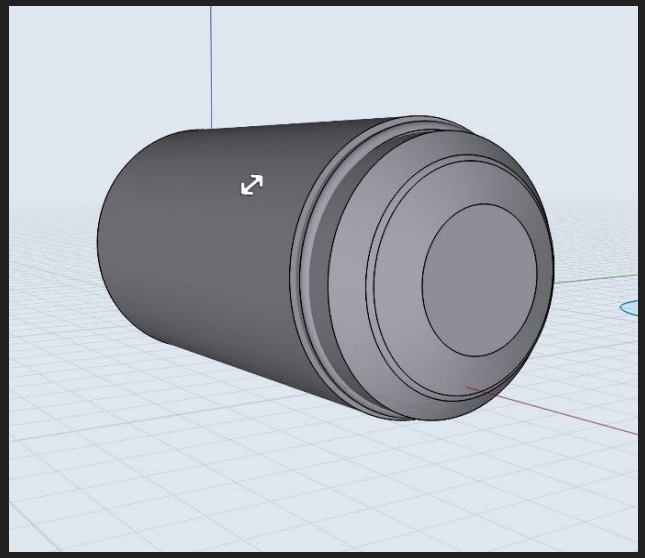
- There are two main ways of which the system can be integrated, terranean or sub-terranean.
- consideration of aesthetics.
- There's a fair reasoning to believe these tubes will be aesthetically displeasing, especially on such a large-scale format as described.
- Secondly in a system that takes multiple sub-divided tubes within tubes we might see different types of technology to distribute these cannisters, such as part vacuums or full vacuums.
- The tube system will be created underground, this network can be expanded further to reach nearby stations. This forms an inter-city where it is away from buildings and other important infrastructures

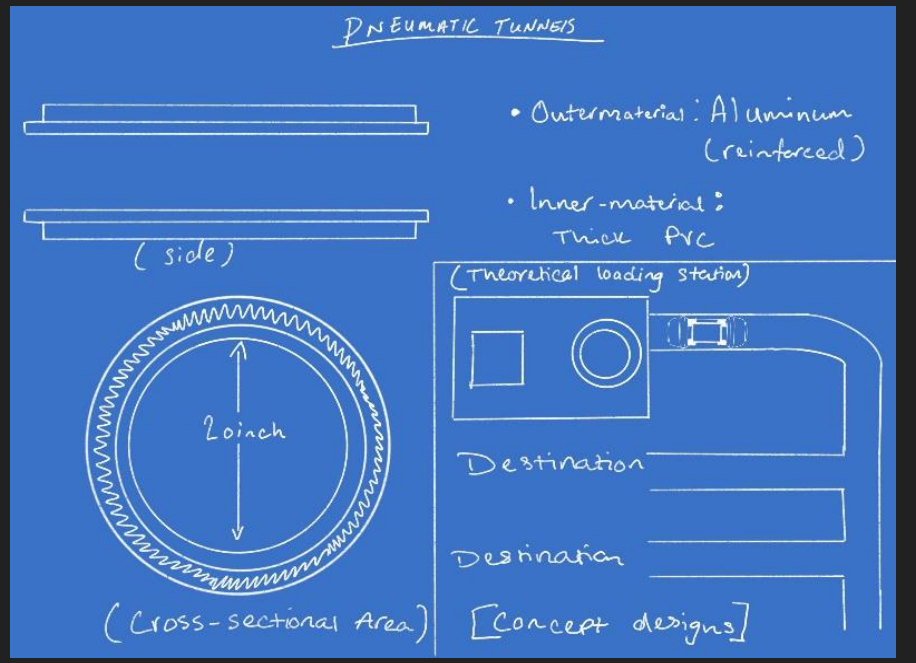
Infrastructure



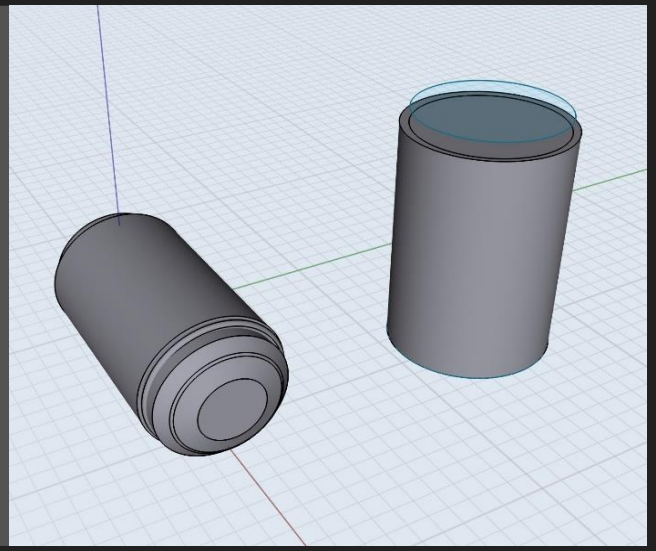
- As mentioned before the large-scale development will be created above and underground. The tube system will be created underground, this network can be expanded further to reach nearby stations. This forms an inter-city where it is away from buildings and other important infrastructures.
  - When building these tubes, they will be built with material that causes less static charge between the material of the tubes and the capsule.
  - The material for the tubes will be durable and sustainable. Nevertheless, the dimensions of the tubes will differ, as we have sub-tubes.
    - PETG/ STEELS/ ALLOY
- Implementation with cloud systems
- Worldwide network
- Global intranet structure

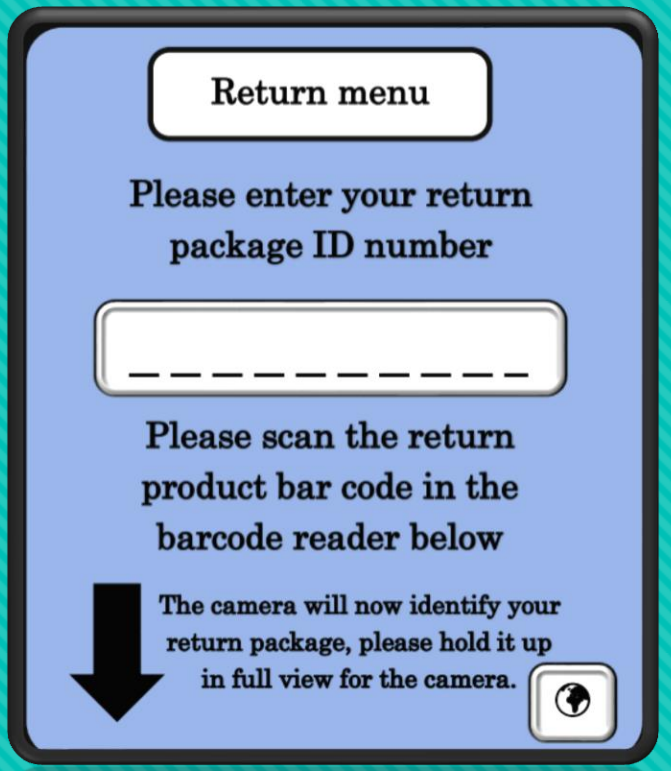




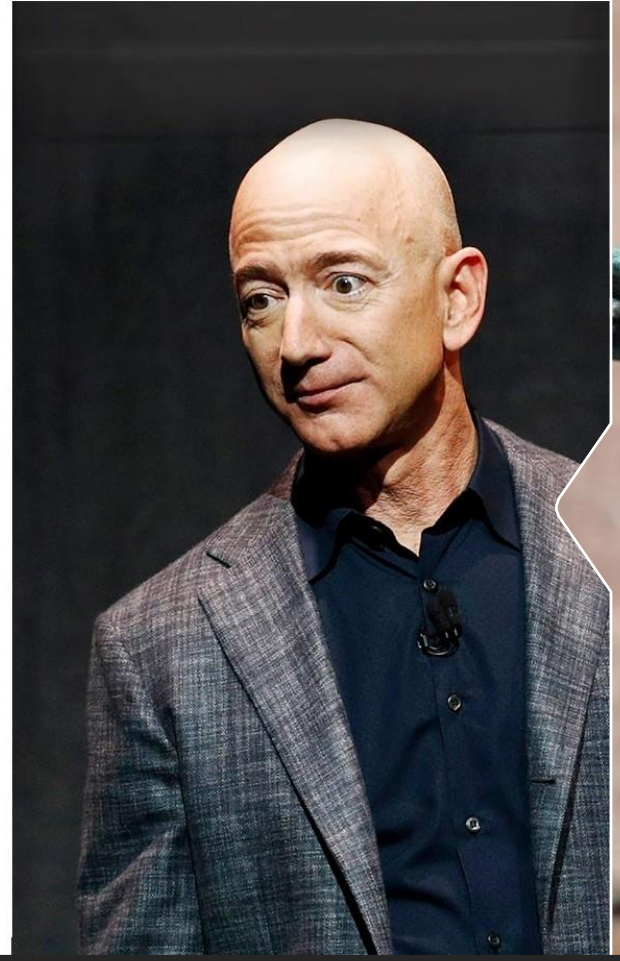


Technical designs





User Interface : Collections & returns



Ethical Considerations

Ethical Considerations: Continued

Resonance will have revolutionized the delivering/shipping sector, impacting the social and environmental society we live in. People will be able to use or sound/share/resonate with their items much quicker. This inter-city will create a new connectivity across the globe, allowing more of a connection. We hope this connection better the lives and spreads more positive mind.

“The connectivity which helps society, to interact, work, play and truly resonate with one another.”

Conclusion and Final thoughts

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