



HyperX

Team 204

Zooming into the future

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TEAM INTRODUCTION

- ★ **Mohammad Muntazar** is an Engineering 1 student at McMaster University, residing in Dubai, UAE. This designation, being his first, was an exciting opportunity to network, develop skills and present ideas on a great platform
- ★ **Daniel Ventura** is in his 2nd year of mechanical engineering at Ryerson University. This is his first designation.
- ★ **Boryana Angelova** is also an Engineering 1 McMaster University student. Her hobbies include hanging out with friends, spending time outside (hiking) and most importantly, designing! This designation is her first.
- ★ **Nam Tran** is Mech Engineering Student at University of Waterloo. This is his first Designation.



WHY HYPERLOOP?

With the increasing growth of world population and pushing modernization of technology, the need for faster and more reliable form of transportation, the idea of a Hyperloop has emerged as the next big idea.

The Hyperloop problem was unique, needing a combination of creativity and and technical skills to develop a solution. It required us to put ourselves in the passenger's seat (literally ;)) and explore their vision of a futuristic transport. All this while fulfilling the major objectives and limiting constraints.



DESIGN PROCESS

Choosing the problem

Listing objectives and constraints

Problem Analysis

29th January

Researching reference designs

Drawing up concept sketches for Hyperloop, seats and accessories

Finalising dimensions and structures

Distribution of roles among members

Detailed Design

30th January

Admiring the model and simulation

Completion of deliverables

Validation and Presentation

31st January



DESIGN PROCESS

- Researching articles and images of means of transport to explore utilisation of space and maximising the consumer comfort
- Drawing up several concept sketches to work out a structure
- Using dummy humans on SW to visualise passengers and finalise dimensions
- Surveying family and friends to list out consumer wishes in a futuristic Hyperloop from a neutral perspective



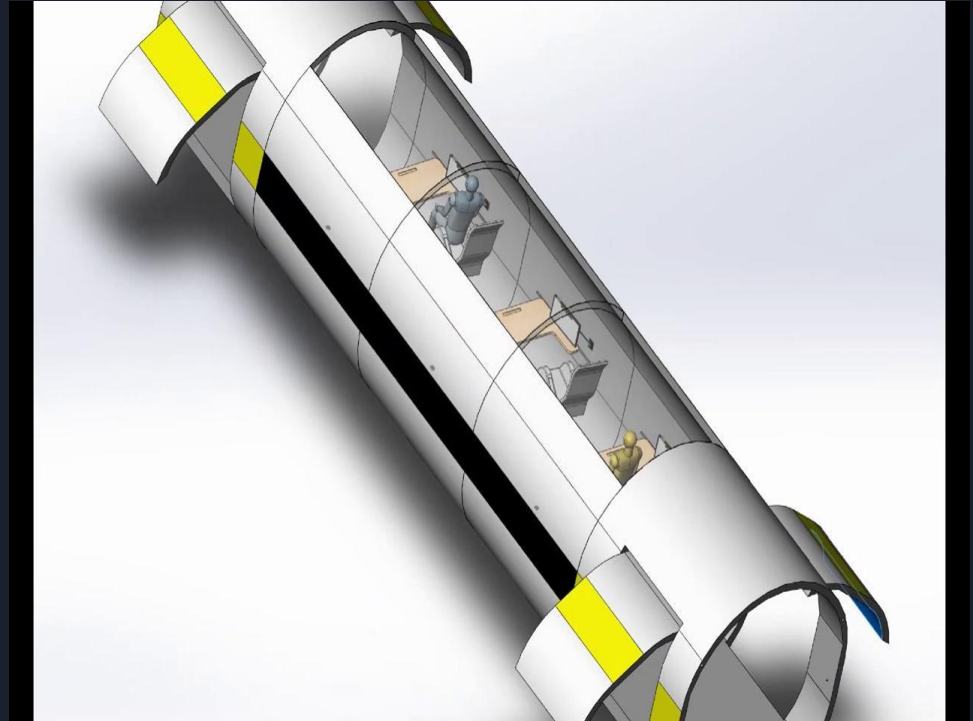
SOLUTION

2 doors on either side

Aisle space for easy access

Minimalistic design

HYPERLOOP





SOLUTION

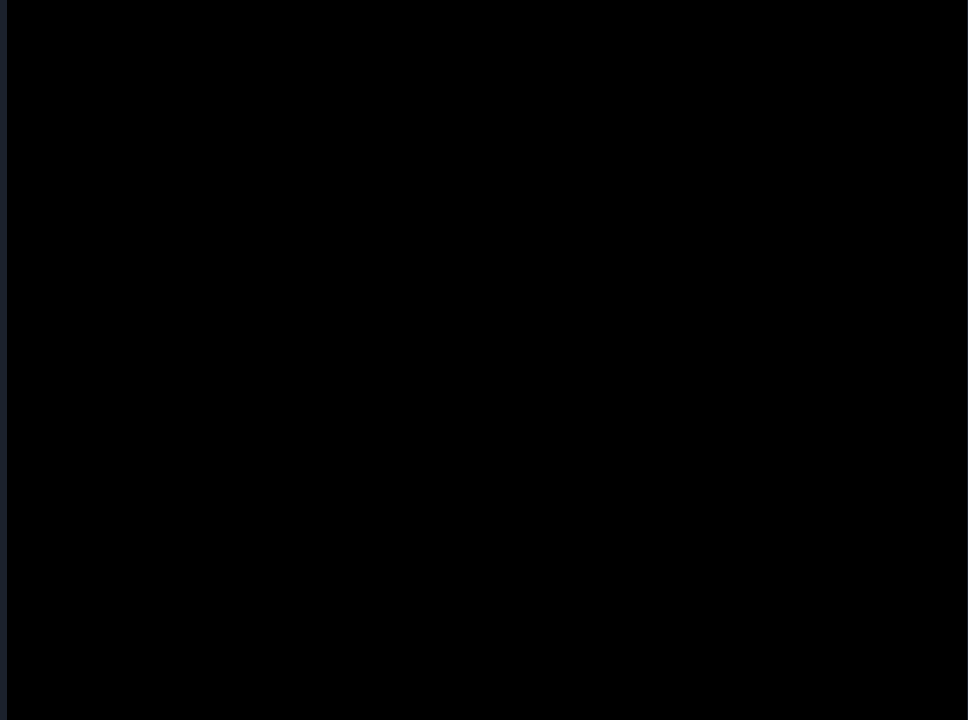
Ergonomic seat

Sliding table

Reclinable and
Rotatable

Cushioned

SEATING



SOLUTION

Luggage compartment

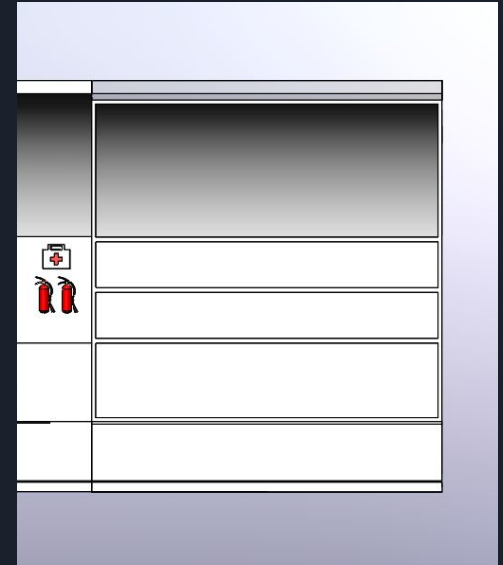
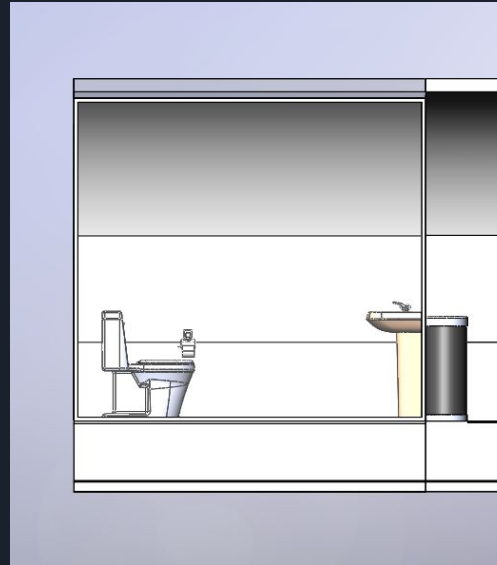
Bathroom

Foldable monitor

USB port

Fire extinguishers

First aid kits



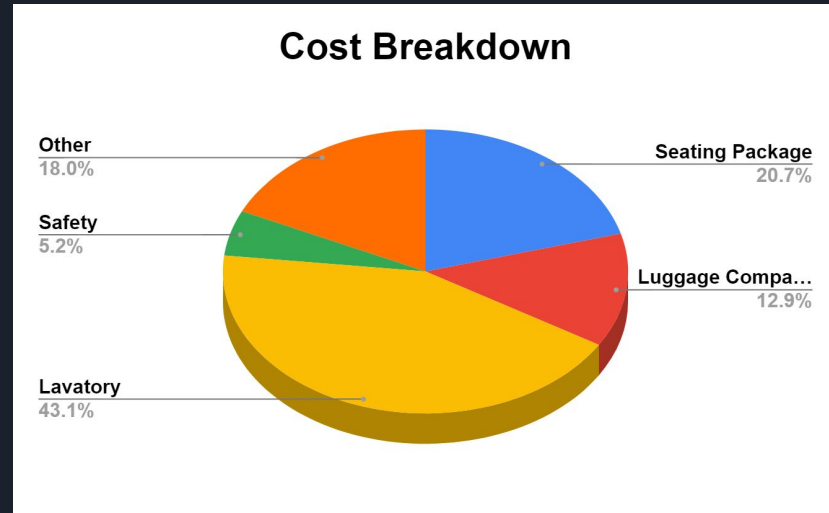
FACILITIES

COST BREAKDOWN (per one pod)

- Seating package (6x)
= \$ 2 400
- Luggage compartment
= \$ 1 500
- Lavatory (1x)
= \$ 5 000
- Safety (seat belt, first aid, etc)
= \$ 600
- Other (monitors, outlet, etc.)
= \$ 2 090

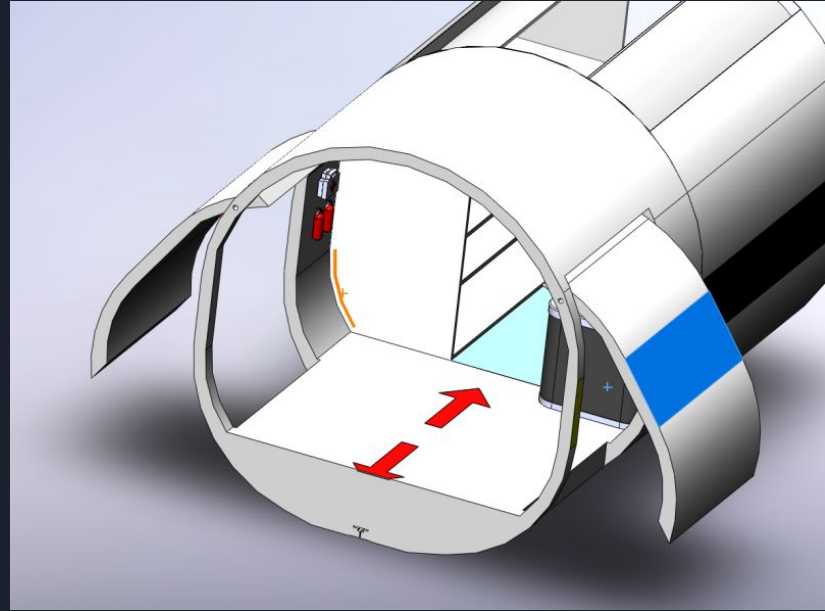
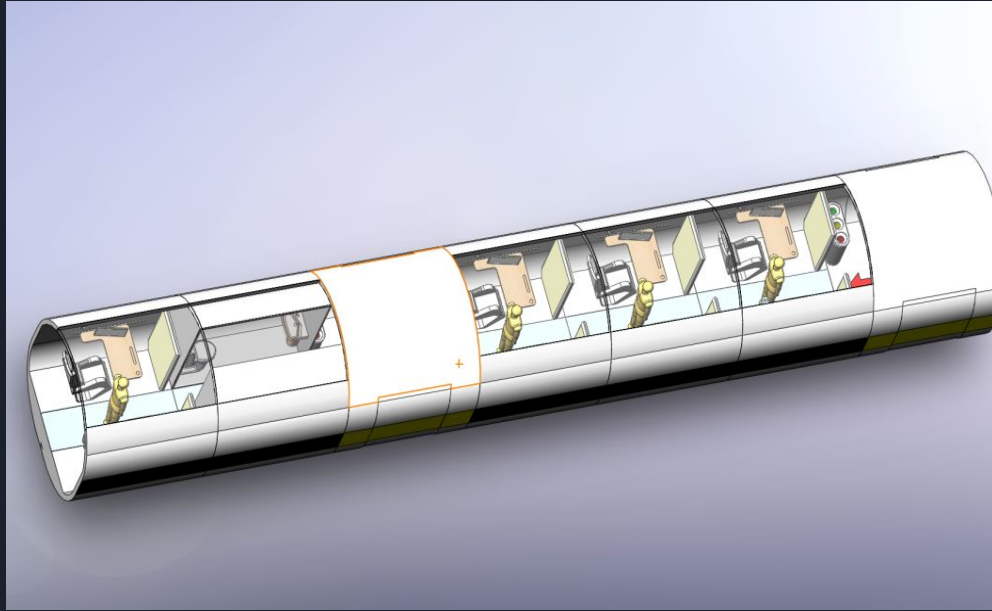
TOTAL

\$ 11 590

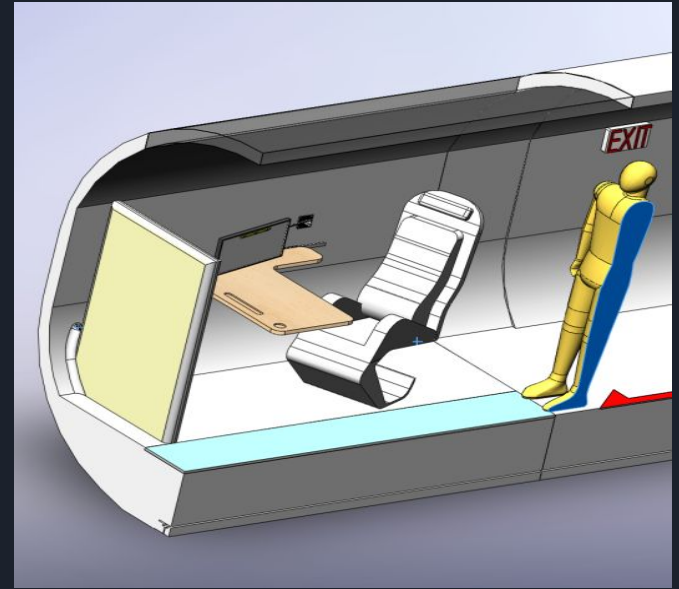
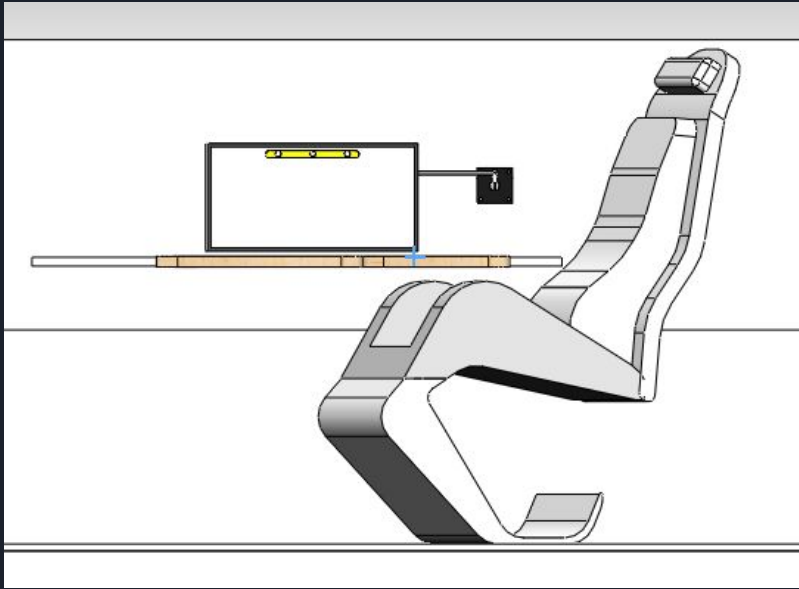


Note: This does not include electrical components, lighting and labor costs. This is based on retail prices.

CAD MODEL



CAD MODEL



Further Development

- Optimize space for every pod - Move seats to align families together
- Amenities offered in different pods - Refreshments, Entertainment
- Improved accessibility - Slope for wheelchairs
- Lighting
- Cost efficiency





THANK YOU FOR LISTENING

