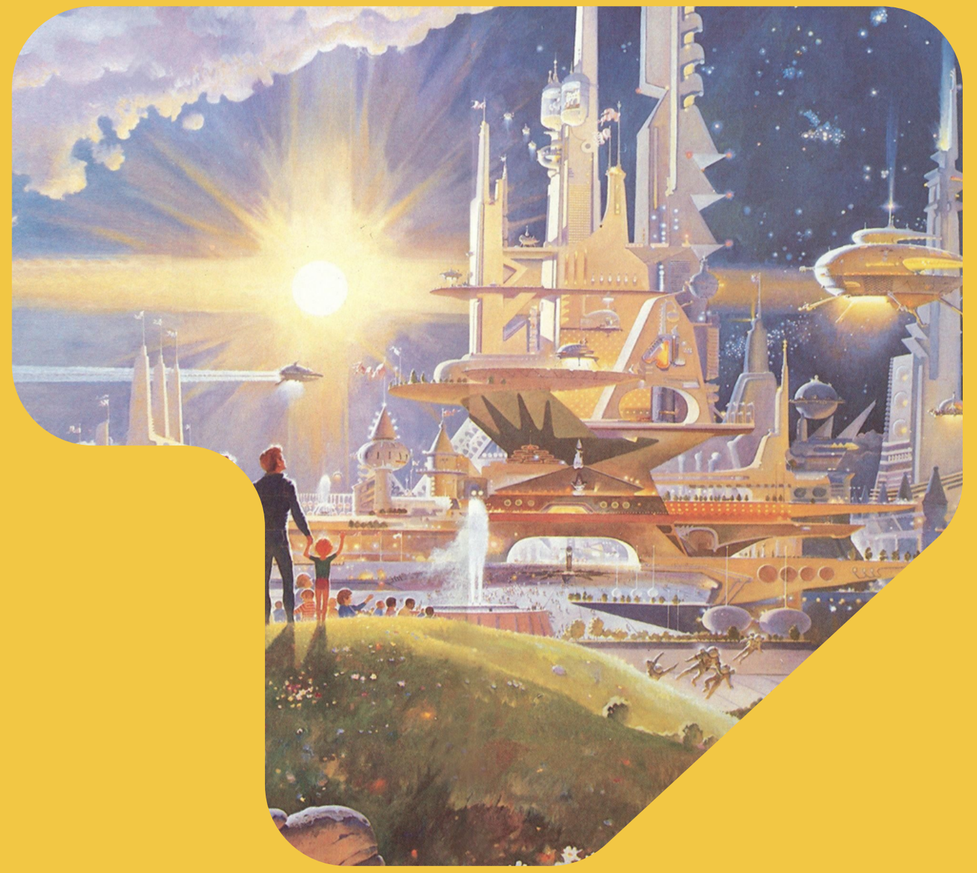
THE MANHATTAN PROJECT



Opportunity Identification

Final Project Ideas

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- Invisible speed-breakers and scarred roads
- Smart tech for people with special needs
- Difficulty in driving two-wheelers during monsoon
- Weather prediction
- Checking Alcohol purity
- Reducing Loan defaults
- Astroid mining
- Ocean Imaging using underwater drones

Problems

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NAPKIN PITCH

WeatherAI

Problem

AI based modeling of substratum soil composition and vegetation in low lying areas, to generate accurate prediction of extreme weather events such as avalanche and landslides.

Benefits

As global warming makes the weather more extreme, it becomes more important to predict the weather especially in the low lying regions which are more prone to disasters. This helps not only common citizens, but farmers, the government, logistics organisations and more.

Execution

A real-time based model that can give early warnings through a suite of sensors such as seismographs. This will be a centralised network spread across the world for both better models and redunancy.

Rationale

As the majority of Earth's population resides in the coastal regions, and many world centers are also coastal cities, they become important customers. However, even private farmers, who too can benefit from these are potential customers.

2-Wheeler

Problem

- Pathetic condition of roads
- Poor navigability
- Detrimental health hazards.
- Discomfort to use two-wheeled vehicles during monsoon season.

Benefits

Improved comfort for the driver, and the pillion where applicable, would significantly reduce healthcare bills by minimizing the health risks drawn upon while riding on a 2-wheeled vehicle. This device would also reduce accidents caused by bad road conditions, increasing safety too.

Execution

- Lightweight array of sensors and camera
- Processing chip linking the two
- The necessary set of algorithms that will power the chip.
- Changing the basic structure of two-wheeled vehicles.

Rationale

Our target customers are the potential buyers and manufactures of 2-wheeled vehicles.

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TIPSC

WeatherAI

Timely

Climate change is causing increasing natural calamities such as landslides, avalanches etc. which can cause losses to property and loss of life. Many of these can be prevented with adequate knowledge of the environment at that given point in time.

Important

It is in the interest of the general public and the government to prevent damage to public and private property and the government would be willing to finance such a system.

Profitable

The upkeep of such a system will bring in a consistent amount of money, and it would be desirable to keep spending small amounts of money to prevent larger damages down the line

Solvable

Current solutions are very primitive, such as the Anderson's pulley in Scotland, which warn of oncoming rocks by tripping a wire. These are time consuming to reset and after they trip and sometimes are triggered by things like strong winds and wild animals.

Context

Installing such a system in mountainous areas to warn of oncoming landslides and preventing damages in the order of millions to cargo as well as human lives cannot be understated. Any government that wishes to help its people will be willing to invest.

2-Wheeler

Timely

Mostly roads do not follow standard codes as well as have large number of potholes and since the basic design of two wheeled vehicle remains same the problem has been exisiting for a long time and will continue to exist if required action is not taken.

Important

Two-wheelers are a common mode of transport for many people across the world. All of them deserve to have the benefit of a life of good health.

Profitable

Highly scalable, large market.

Solvable

Electronics, such as a processing unit and depth sensor, is all we require. A single company can provide the necessary resources at competitive prices.Changing the structure of two-wheeled vehicles.

Context

Large market, PMF achievable.
Design changes requires company cooperation.

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Opportunity Statements

Certain environments are more prone to natural disasters such as landslides, earthquakes, avalances, etc. These annually cause millions, if not billions in losses to cargo passing through such regions, that is not to mention the massive loss of human life. Our solution aims to reduce the damage from such events, by tracking environmental data from such disasters to come up with a AI powered model to predict such events before they happen, with increased accuracy

More than 20 million people use two wheeled vehicles across India.It is a great discomfort to ride them during monsoon season and even due to the pathetic condition of roads.Our solution aims in giving the CUSTOMERS comfort and tension free ride. It will be done by changing the basic structure of scooter and by using equipments like depth sensors and cameras.

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THANK YOU!!