P.E.R.C.Y

Travel and transportation

By :
Parantap Mishra, Varun Arora,
Ekaksh Goyal and Pranav Verma
Lotus Valley International School, Noida

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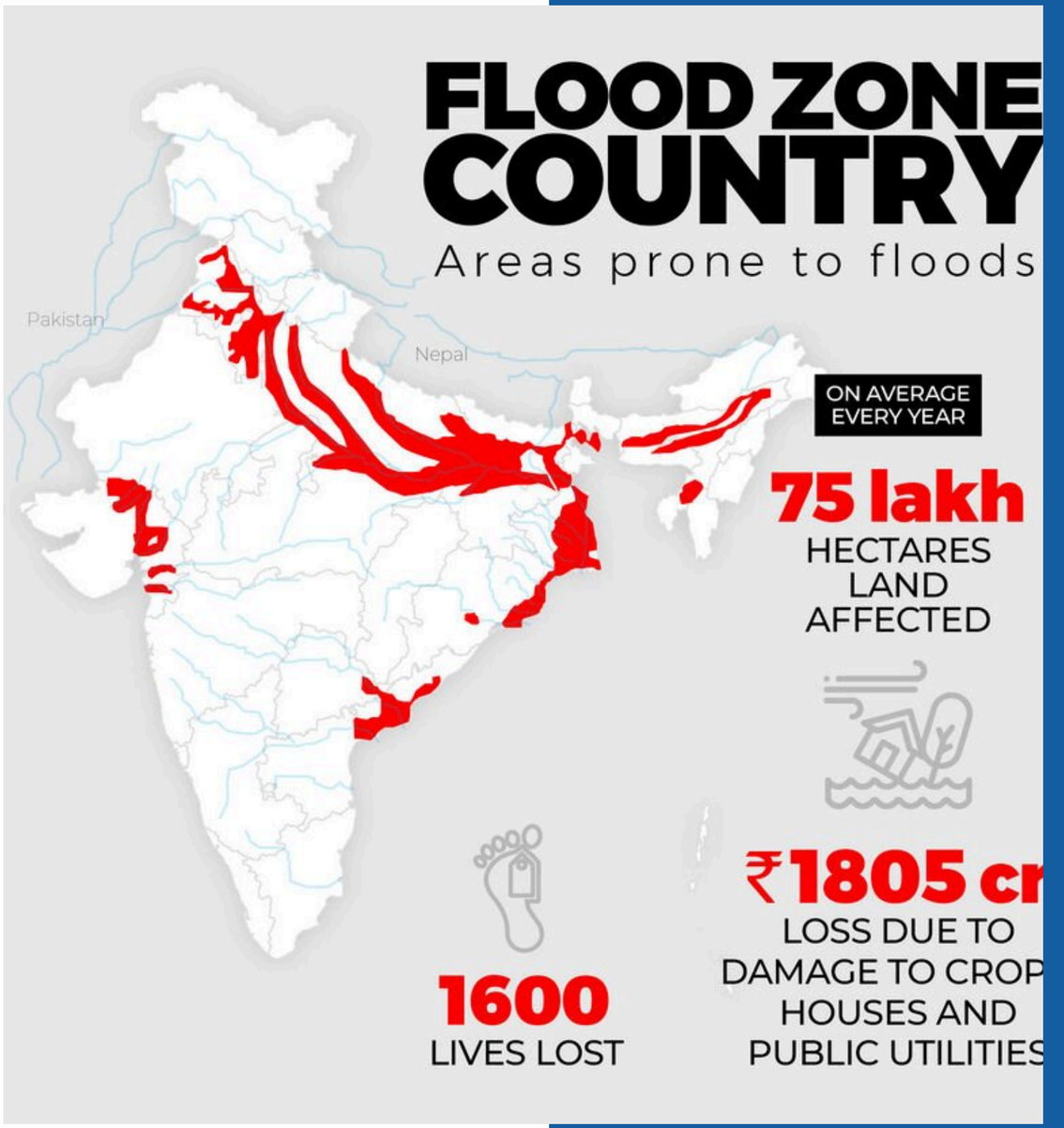


Problem Statement

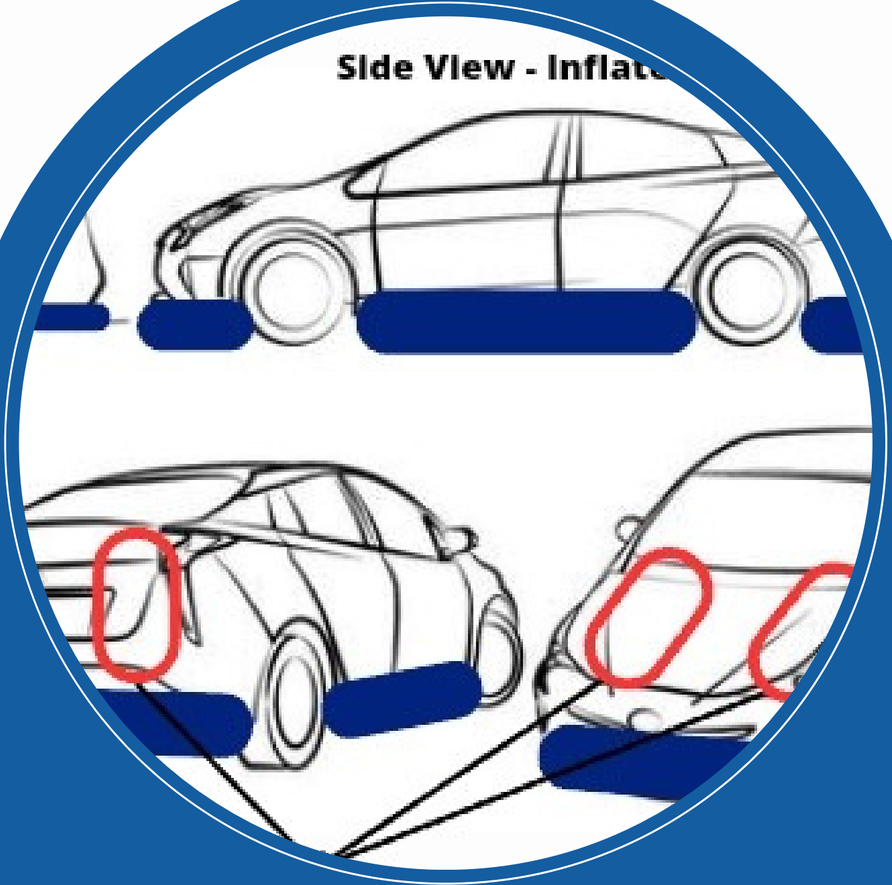
- A study by the National Disaster Management Authority found that the 2018 Kerala floods damaged over 100,000 vehicles, including cars, motorcycles, and trucks
- Another study, by the Centre for Science and Environment, found that the 2019 Cyclone Fani caused damage to over 50,000 vehicles in Odisha.
- According to a report by the National Disaster Management Authority, over 100,000 vehicles were damaged in the floods.
- Due to such high level of floods, mobility of people is also restrained in times of emergency

Project P.E.R.C.Y

P.E.R.C.Y isn't just a vehicle—it's **a transformative, attachable module** that empowers standard cars to navigate both land and water when roads are submerged. Designed to be accessible, cost-effective, and adaptable, P.E.R.C.Y brings **amphibious functionality** to everyday vehicles, providing a reliable lifeline for flood-prone areas."

P.E.R.C.Y has the potential to become a critical asset in flood-prone areas, helping communities stay connected and safe. With widespread adoption, Percy could also **decrease the strain on emergency services** during floods, allowing them to prioritize severe cases.

Much like the demigod Percy Jackson, who bridges two worlds—mortals and gods—our project, Percy, connects two terrains, allowing vehicles to conquer both land and water. P.E.R.C.Y **symbolizes the strength and adaptability** needed to face daunting natural challenges head-on.



Our Objectives

P.E.R.C.Y comes with a variety of objective's and purposes and has addresses **a crucial market as well as safety gap** in the automobile industry.

01 Ensures safety and mobility

02 Reliable in calamities

03 Affordable to the public

04 Decreases the dependence on emergency vehicles

Working of Our Project

Percy’s functioning relies on an interconnected system of sensors, inflatable structures, and, in future iterations, specialized propulsion mechanisms.

Stage 1

Depth sensors are strategically positioned around the vehicle, constantly monitoring water levels.
When floodwaters rise above a critical threshold, P.E.R.C.Y activates its **'Riptide mode’**

Stage 2

The inflatable tubes, in order to provide essential buoyancy, expand automatically in response to rising water levels to ensure stability and safety during floods.

Stage 3

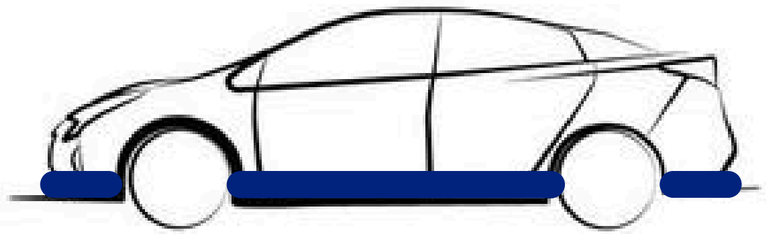
Percy’s customized paddle-like spokes enable efficient propulsion in water, mimicking the powerful strokes of a swimmer to push water backward and drive the vehicle forward

OUR DESIGN

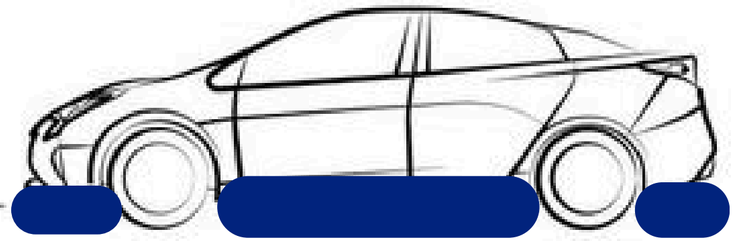
Front View

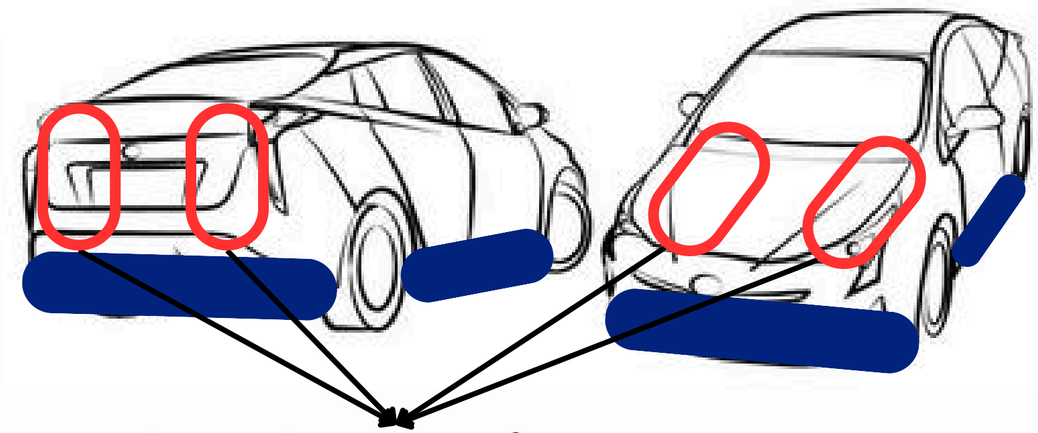
Back View

Side View - Deflated Tubes



Side View - Inflated Tubes



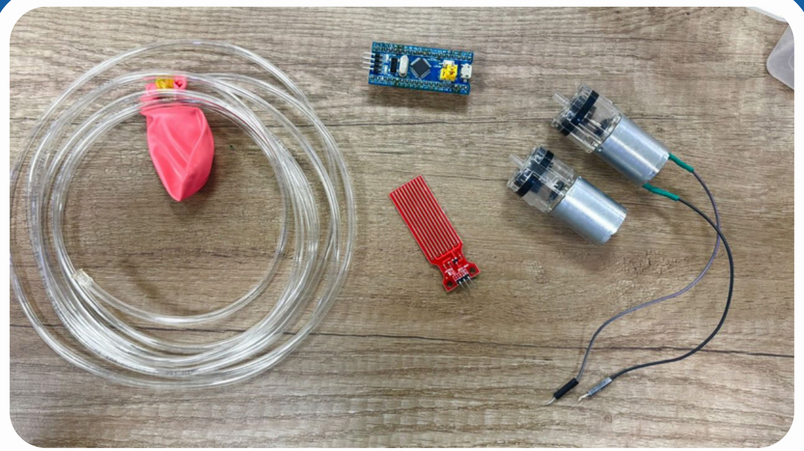


Back and Front Air Pumps

Feasability of P.E.R.C.Y

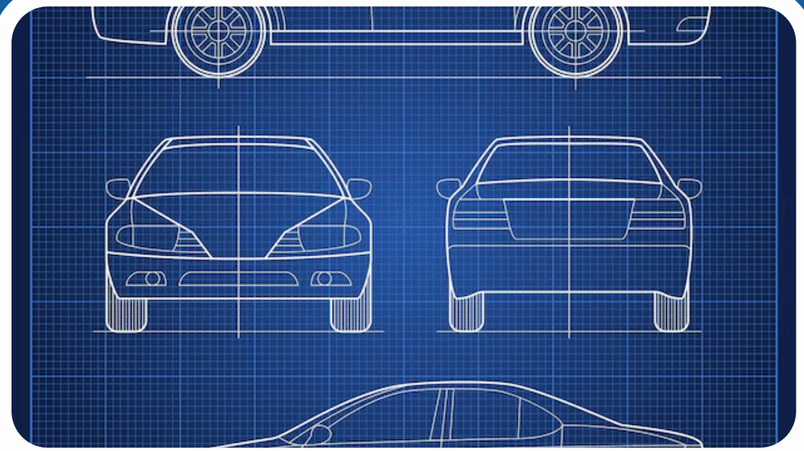
Automobile industry

The modular nature of Percy's design, allowing it to attach to existing vehicles and enhances its feasibility by enabling adaptability across multiple car models without requiring extensive customization.
This allows to it to address a crucial gap in the automobile industry.



Reliable Components

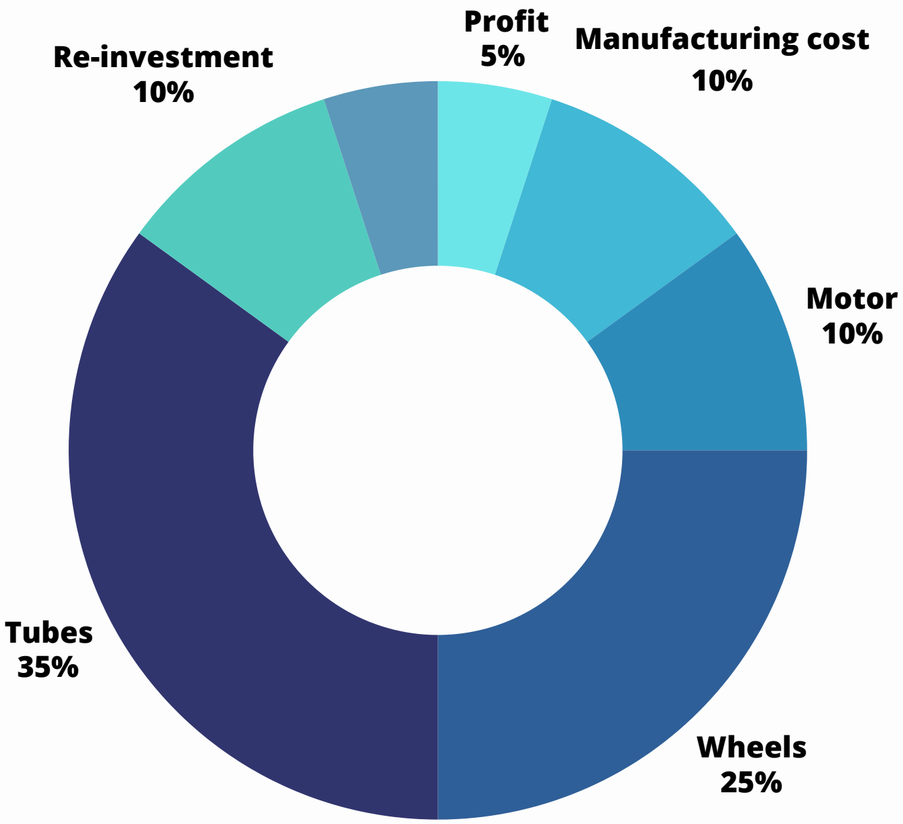
Depth sensors, for example, are already proven in automotive and marine applications, ensuring that Percy's water-level monitoring is reliable and responsive. Inflatable tubes, typically found in emergency flotation devices, are lightweight, durable, and capable of rapid inflation, which makes them suitable for quick deployment in flood scenarios.



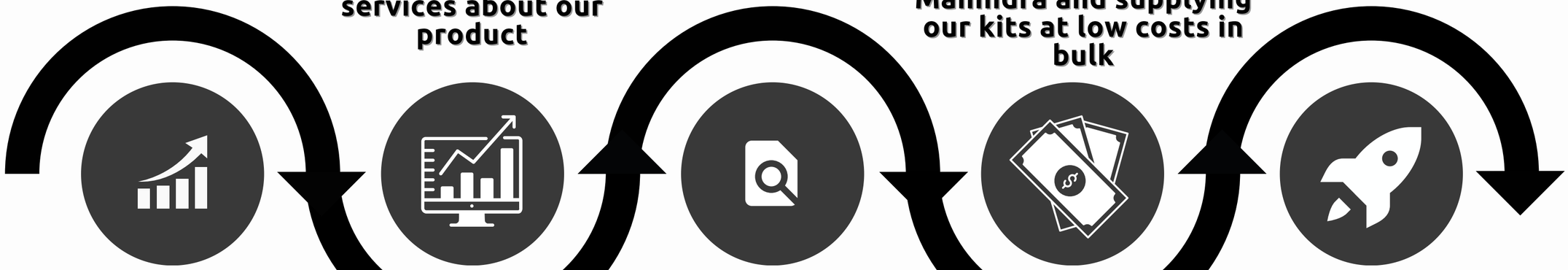
Practical and Easy Design

Designed as a modular attachment, P.E.R.C.Y is adaptable to multiple car models, making it a practical solution that doesn't require extensive customization or complex installation. These factors contribute to its scalability and durability, essential for real-world application in flood-prone areas.

Manufacturing Overview

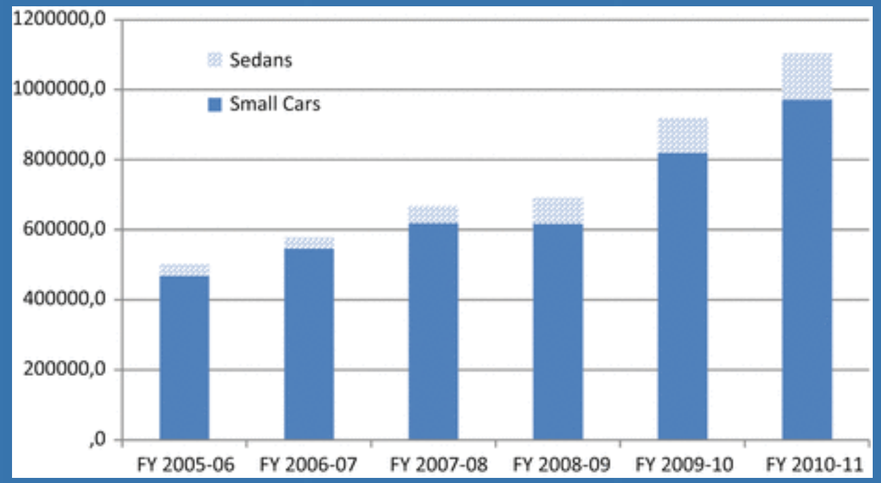


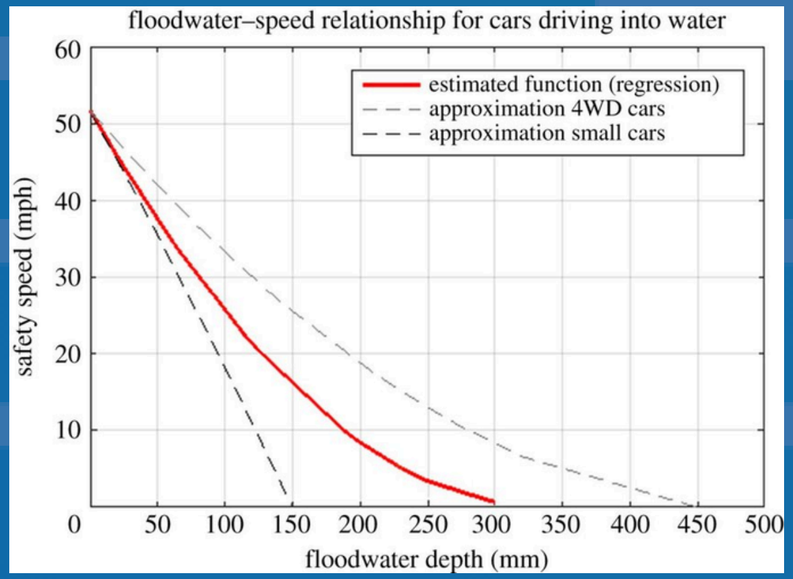
Market Plan


Expanding our team and patenting our tyre design and modular kits.
Reaching out to NGO's, emergency servies, and other emergency services about our product
Expanding our reach on social media platforms and spreading our idea and motives across the autmobile industry
Contacting the various famous companies of India such as Hyundai, Maruti, Honda, Toyota, Mahindra and supplying our kits at low costs in bulk
This leads to a limitless market potential.

SCOPE AND SCALE

Percy's scope extends across various applications, including individual use by car owners in flood-prone areas, urban disaster preparedness, and emergency response. It can be utilized by government agencies, NGOs, and rescue teams for rapid mobility in flood zones, enhancing both civilian safety and access to critical services. Additionally, Percy's modular design provides flexibility, allowing future adaptations or enhancements, such as upgraded sensors or reinforced buoyancy mechanisms, to meet diverse environmental needs.





The scalability of Percy lies in its cost-effective, adaptable design, making it suitable for widespread production and distribution. By partnering with automotive manufacturers, government agencies, and non-profits, Percy could be deployed on a national or even global scale, providing flood resilience in areas frequently affected by natural disasters. This scalability allows Percy to reach a broad audience, from individual households to large-scale fleet implementations, maximizing its impact in regions where reliable, amphibious transportation is essential.

Our Team

Varun Arora

Ekaksh Goyal

Parantap Mishra

Pranav Verma

THANK YOU