



Sponsorship Brochure

Avishkar Hyperloop

Developing scalable technologies for India's first Hyperloop



avishkarhyperloop.com





TABLE OF CONTENTS

WE ARE AVISHKAR HYPERLOOP	1
OUR JOURNEY AND ACCLAMATIONS	2
OUR MOST RECENT POD AND TRACK	3
THE TUBE	4
SPONSORS AND FEATURED ON	5
REACH OUT TO US	6



We are Avishkar Hyperloop.

We are an internationally acclaimed student team of 60+ from IIT Madras focused on revolutionising transportation via scalable and sustainable Hyperloop technologies. We are working on a whole host of new infrastructure and pod technologies needed to safely implement a full-scale Hyperloop. In our pursuit of developing #IndianHyperloop, we have designed and developed many pod, tube and track prototypes, thereby engineering all three spheres of a Hyperloop system.



Team 1.0 & 2.0
2017 - 2019

2017 - Team's inception

2019 - Developed an autonomous pod and emerged in the Top 10 in SpaceX Hyperloop Competition



Team 3.0 & 4.0
2019 - 2021

2020 - We worked virtually during the pandemic and built India's most advanced pod with contactless braking and propulsion

2021 - Won the 'Most Scalable Design' award among others at European Hyperloop Week 2021



Team 5.0
2021 - 2022

May 2022 - The Indian Railway Minister announced support for building the 400m tube facility

July 2022 - Emerged in Global Top 5 in Electrical, Traction and Complete Pod categories at European Hyperloop Week 2022





Our Latest Pod - Pod 5.0

Our latest pod, pod 5.0 is designed to run on our **custom made track** which supports **levitation**.

The pod supports **contact-less propulsion and braking**.

This pod was nominated to be part of **Global Top 5** in categories like Electrical Systems, Traction Systems and Complete Pod Category in EHW 2022.



Designed for
Custom Track

DSLIM - 60% efficiency at
120 kmph

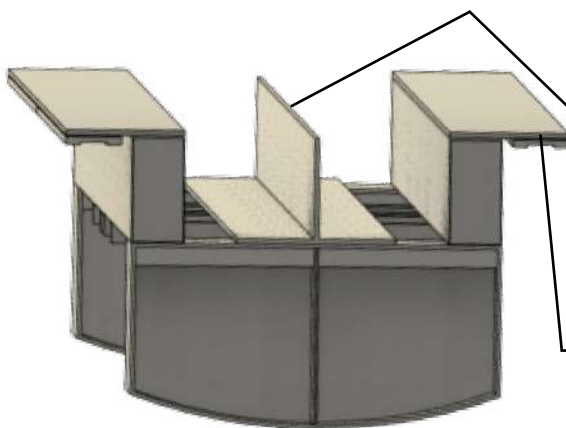
Levitation System
Lift : Weight ratio is 8

Eddy Current Braking
deceleration of ~1.4 g

4 KWh Battery Pack
max discharge of 400A

Inverter - max power
capability of 200 KVA

Our Track

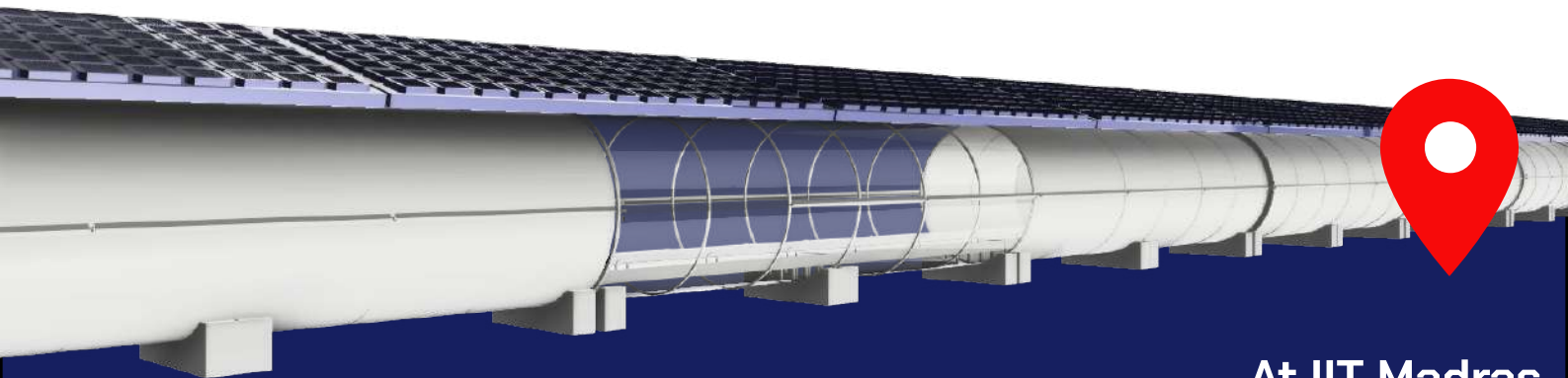


Our custom dual track system provides higher stability which is essential for scalability.

Al T-beam that supports contactless propulsion and contactless braking

Ferro-magnetic F-shaped structure on both sides of the track that supports levitation

World's largest student-run Hyperloop testing facility



At IIT Madras
Discovery Campus

400 m

Tube length

2 m

Diameter

Mid 2023

Target



3.6 m

Tube length

1 m

Diameter

< 100 Pa

Tested at

OUR SPONSORS



L&T Technology Services



INDIA



Avishkar Hyperloop to get funding from LTTS

Team Avishkar of IIT Madras to collaborate with IR for Hyperloop technology transportation



BusinessLine

Indian Railways collaboration With IIT Madras produces Indigenous Hyperloop System

#SWARAJYA

Railways approves Rs 24 cr Hyperloop Tech



DECCAN HERALD

INDIA TODAY

500-meter-long hyperloop test facility to come up in India, IIT-Madras students' team secures funding



Outlook

FEATURED ON

Railways, IIT-Madras to develop India's own Hyperloop

It's the Hyperloop's low energy requirement that has drawn the Railways towards the project, a statement issued by the ministry said Thursday, highlighting the help this technology can offer as the country endeavours to attain Carbon neutrality.

VISIT US AT



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