A Case Study

# Solar Paint

Solar Paint is an innovation that enables generation of electricity by absorption of sunlight incident on the surface of the paint

# Problem Statement

- Solar Paint hasn't reached commercial application yet.
- Major challenges in adopting Solar Paint Technology.

# SOLAR PAINT TECHNOLOGY

- ## Solar Paint Hydrogen

  Developed at RMIT. Generates energy by breaking down water vapour.

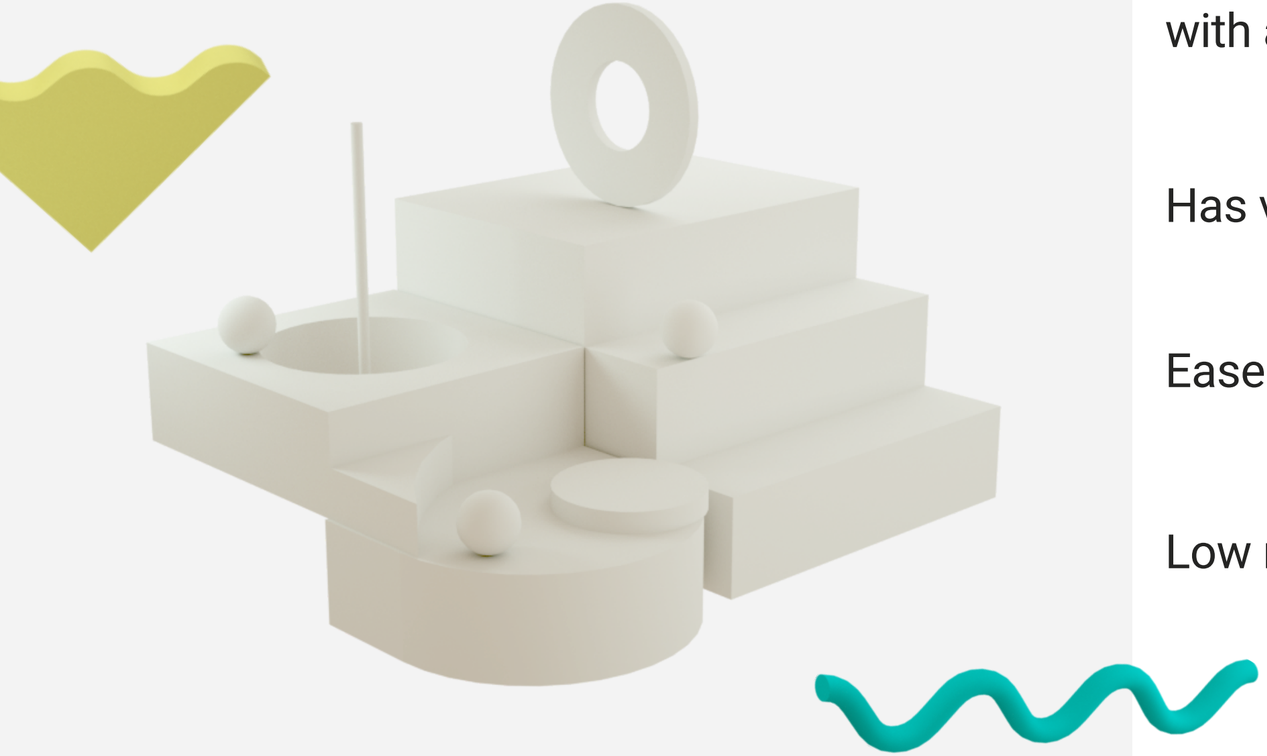
- ## Photovoltaic/Quantum Dots Paint

  Developed at University of Toronto. It uses semiconductors to capture light and generate electric current.

- ## Perovskite Solar Paint

  Developed at University of Sheffield. It uses liquid perovskites cells which can be sprayed.

# ADVANTAGES OF SOLAR PAINT



Hydrogen Solar Paint breaks down water vapour to generate electricity. It generates Hydrogen which can be used for Fuel Cells. If used in dry hot climate near oceans, the moisture produced by seawater on evaporation can be used. Considering water vapour is a greenhouse gas, this is useful.

Quantum Dot based Solar Paint promises a low cost Solar Paint with a 11% overall increase in power conversion efficiency.

Has various areas of application

Ease of application

Low maintenance

# MAJOR CHALLENGES

Solar Paint Technology is not perfected yet. Still under research.

Weathering effects on Solar Paint is unknown.

Solar Paint's effect on human skin is unknown.

Availability of colours

Availability of raw materials

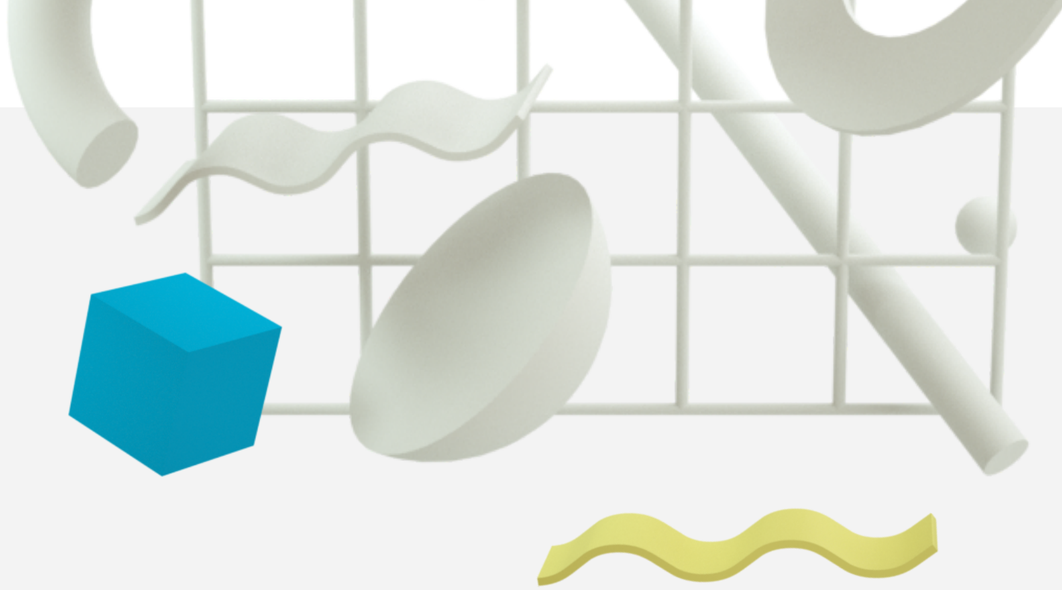
Durability of Solar Paint against impact or friction

Application only by trained professionals

# APPLICATIONS OF SOLAR PAINT

- Rooftops
- High Water Reservoirs
- Stadiums
- Cars
- Drones
- Road Signs
- Advertisement Posts
- Satellites
- Satellite Dishes
- Transmission Posts
- Fences
- Housing
- Animal Housing
- Wind Turbines
- Ships
- Aircrafts

# STRATEGY FOR COMMERCIALISATION



Complete Research → Develop Prototype → Subject Prototype to Testing → Pass Safety & Environmental Checks → Implement suitable Marketing Strategy → Mass Production

The development of Solar Paint technology unlocks our ability to harness the sun's energy on a large scale.  Considering that Solar Paints enables every roof to generate electricity, it promises to revolutionise the energy field.

# THANK YOU

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