



Swift

PURPOSE

What is the biggest purpose behind your idea?
(a highly aspirational tagline that tries to solve a global challenge)

We are tackling
SDG#11 Sustainable
cities and
communities by
reducing the carbon
footprint of vehicles
and stalling the
growth of global



Every day, the idling of cars emits a lot of carbon byproducts into the air. Our Idea, Swift, solves this issue by integrating new technologies, thereby increasing fuel efficiency.

SOCIAL IMPACT

What positive impact does your idea have on society?



Implementing our project will ease the management of traffic in communities and towns around the world, thus saving people time and contributing to the extra productivity of the people.

It will further enable people to reach places on time, thereby ensuring that events and gatherings in the business and leisure world take place on schedule, resulting in overall quicker and timely decisions that could affect the whole of the community.

PEOPLE

Who will benefit from your idea?

Everyone on planet Earth (Everyone faces the consequences of climate change without differentiation; Swift helps reduce the impact of carbon footprints and slow down the global warming rate)

MOONSHOT

Describe your idea in 3 sentences!

Swift is a traffic management and monitoring system that makes use of Artificial intelligence, Deep neural network and Algorithms to improve and suggest changes in traffic management and trends which work on the fundamental principle of Ai image tracking by using OpenCV to track cars in real-time. The system captures an image of the road two seconds before the traffic signal turns green, which is then analysed by a pre-defined algorithm which detects the number of vehicles present on the road and sets a time for which the traffic signal would be enabled. It is a device that can be attached to present traffic signals enabling the smooth transition into a smarter monitoring system whilst contributing to lesser emissions since a lesser number of stationary vehicles will wait for their turn at an intersection regulated by traffic signals.

BREAKTHROUGH TECHNOLOGY

Which technologies help you realize your idea?

Artificial Intelligence, Image recognition, Open CV, Deep Neural Network

ENVIRONMENTAL IMPACT

What positive impact does your idea have on the environment?

An average vehicle with a 3-litre engine idling for ten minutes burns 300 millilitres of fuel and this produces 690 grams of CO2. In fact, if drivers of light-duty vehicles in Canada alone avoided unnecessary idling for just three minutes every day of the year, we would prevent 1.4 million tonnes of CO2 and other pollutants from entering the atmosphere. That's the equivalent of taking 320,000 cars off of the road!

We can reduce this impact on our environment, and even the health-related adversities that come with climate change by introducing Swift, which works with existing infrastructure with minimal cost. It not only decreases the CO2 pollution but also provides valuable insights into the traffic inflow of the areas, which can help by diverting traffic jams, providing potential business spots and much more.



FINANCIAL IMPACT

How do you make sure your idea is financially sustainable?

One of the major financial benefits of Swift is how easy it is to set-up (it works with almost any camera); therefore, the initial cost is low, and the return on investment is profitable. The next budget is the improvement of the servers and our Ai to better analyse the traffic, for which we will get funding from the governments and private investors. Further, we will partner up with car manufacturers to improve the accuracy of information sent to and from the car and system.

- Private investors
- Use the data collected to propose suitable locations for advertising and highlight the improvements in road infrastructure needed at a particular location.

- Test our project at particular junctions and collect data regarding bugs and fixes.
- Improve the prototype and further enhance it with features whilst increasing the traffic signals it's available to gain more data and create a web network.
- Work with governments to showcase other details of data analysis and secure funds.



