

Idea Challenge Application

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Project Concept (200 words or less): Provide us with a brief summary of your project.

Problem statement: Delay faced by the emergency vehicles due to high traffic density and poor traffic management, resulting in serious consequences.

Project Description: We are developing a system to improve coordination between traffic management and emergency services to better the response time of emergency vehicles.

Problem (200 words or less): Provide us with a detailed summary of the specific problem you are looking to solve.

- 1. What is the specific problem that your project is going to solve? (e.g. hard to afford/expensive prosthetic devices)**

In developing countries, the traffic at the intersection is generally controlled by cops. However, it is very difficult to manage the traffic due to the high density of vehicles. Generally, during peak traffic hours vehicles will have to wait for almost an hour, and these conditions are very common on weekdays. Given such conditions making way, for the emergency vehicles is very difficult as the vehicles in traffic are tightly packed and the golden hour for the patient is lost.

Opportunity (800 words or less): Demonstrate your knowledge of the actual opportunity associated with your project. This includes numbers and market research/data on how many people are affected by the problem you stated in Section 1.

1. Clearly discuss any research you conducted, including:

- 1. Data on real-life people/customers you have talked to, interviewed, and/or surveyed who are actually affected by the problem or could benefit from your proposed project solution that you stated in Section 1 (e.g. 10 doctors about a new medical device)**
- 3. Is there another organization(s) or business(es) doing something similar to your project? If so, who are they and what are they doing similarly?**
- 4. Online research, numbers, databases and articles you found that supports the need and demand for your project**
- 5. Why is your project better/different than there's? (Competitor Analysis)**

A:

In places where there are high traffic congestion, it is hard to navigate any emergency vehicles to destinations. Every minute makes huge difference, it is found that delay by 7 minutes reduces the chances of saving critical patient's life by 70%.

In developing countries with high population density directly leads to high traffic density. During peak traffic hours, average speed of the vehicle is less than 10 km/hr, this leads to traffic congestion. At these hours it is quite difficult for emergency vehicles to navigate through traffic, this leads to poor response time and reduces the chances of survival for critical patients.

B:

Based on the research we have observed that most of the developing countries are working towards this problem by upgrading the existing system. Many private organizations are working with the government to provide solution to tackle this problem.

Most of the solutions offered are mainly aimed at managing the traffic better but these changes are still not helping the navigation of emergency vehicle.

One of the major solution provider for better traffic management is Opticom(gtt.com), their current solution is to turn the signal at the intersection Green when the emergency vehicle is in line of sight.

C:

We have witnessed the problems first hand and following links supports the statement:-

<https://www.facebook.com/Deaths-Due-To-Ambulance-Delay-In-Traffic-Block-568609536572523/>

<http://timesofindia.indiatimes.com/city/bengaluru/When-city-traffic-halts-ambulances-lives/articleshow/37055671.cms/>

<https://www.kenfolios.com/block-ambulance-lose-license/>

<http://www.hindustantimes.com/delhi/stuck-between-life-and-death-on-delhi-s-roads/story-cgwlw1axDIBwLZ1gxM0VDO.html/>

D:

The solution that they offer is very similar to the ideas they have offered in developed countries which is quite impractical in developing nations. This is due the fact that developing nations generally have high population densities which leads to higher vehicular traffic which makes traffic management a tedious task coupled with poor infrastructure leads to congested roads that spans for more than a mile.

These conditions make it more challenging for the vehicles to clear a path for the emergency vehicle. The existing solution provides a very small time frame for the vehicles to clear path. Our solution aims at improving the time frame for vehicles to clear a clean path for the emergency vehicles. We alert the traffic well in advance and thereby clearing the path even before the ambulance is in sight.

Describe the solution you are proposing to the problem you addressed in Section 1. Please support your claims.

- 1. Clearly describe your proposed solution (e.g. low cost prosthetic limbs)**
- 2. How does this specific solution solve the problem you stated above?**
- 3. How is your solution new, innovative and/or unique?**
- 4. How will your solution be sustained over time? Please provide details and be clear. (e.g. Will you work on it after you graduate? Pass it off to someone else? How will your idea continue on in the years to come?)**
- 5. What stage of development is your project in? (Idea stage, prototyping/testing stage, raising funds stage, ready to launch stage)**
- 6. Why is your project valuable? What value does your solution provide? To who? (Value Proposition)**

A,B: Our solution is more tailored to the needs of the developing nations problem that are stated above.

1. We will setup many alert poles at strategic points between the opposite lanes.

2. When an emergency vehicles is taking one of the busy roads during peak traffic hours it signals the alert poles, which in-turn alerts the traffic that an emergency vehicle is inbound and they can clear a path in advance.

3. To make the solution more cost effective, we identify areas that generally have high traffic congestion.

C: Our solution is unique because it helps traffic create an ad-hoc path for the emergency vehicle.

D: We would continue working after graduation on it, as we are motivated by the problem that we are trying to solve.

E: Idea stage

F: Our solution could be difference between life and death for the patient, as we strive towards preserving the golden hour.

Resources: Demonstrate why you need funding from the DifferenceMaker Idea Challenge.

1. How much funding do you require to implement your project?

2. How much time will you and your team members commit to your project after the Idea Challenge?

3. How will these DifferenceMaker funds be used to support your project?

4. Please provide an estimated budget for use of DifferenceMaker funds from May 2015-2016.

A: \$5000 - \$7000

B: 20hrs a week

C: Most of the funds will be used in developing the prototype and some will be used for travel to speak with the authorities.

D: We will not be needing more than the above mentioned as we would be working with the government to implement the solution.