**1. Problem Statement**

In India, approximately 22 million people are physically disabled. Some have vision problems, some have hearing problems, some have mental problems, and approx. 6 million people have problems in movement (data source - Census of India 2001). Some don’t have legs or don’t have both legs and hands or their body is paralyzed below the neck. They face a lot of day-to-day problems like they can’t move from one place to another on their own, and assistance with other everyday activities. They need someone to help them, some people help them, but some people think that why they exist, they are disabled, they are defective, so they are a burden to this whole world. This is a very serious problem. Somebody in conditions like this needs to be cared for with love instead of frustration and anger.

**2. Describe your Idea, and its key characteristics.**

We made a Wheel-Chair which can be controlled by the motion of the head and blink of eyelids, so the operator doesn't need to ask anyone to help them, they don’t need to rotate the wheels anymore. We are trying to add some more features like tongue control and wheelchair standup.

***2.1. What is the Novelty / Uniqueness of your Idea?***

There are many types of Wheel-Chair in the market, manual Wheel-Chair, electric Wheel-Chair (joystick-controlled Wheel-Chair). Both of them are not effective for many people, since there are many people who don’t have both legs and hands or their body is paralyzed below the neck. So keeping these problems in mind, we have made a Wheel-Chair which can directly be controlled by the motion of the head and blinking of the eyelids. This is a completely novel idea and nothing of this kind has ever been made earlier. We have made our sensors and devices quite easy and fun to use. More importantly, it is affordable and can give many people an entirely new life!

***2.2. Explain the relevance of your Idea to address the current social problems.***

Everyone in this world has their own uniqueness, work, their ups and downs. Everyone should identify it and utilise all their abilities, then society will develop. Normal people don’t face as much problems as a physically challenged person when it comes to identifying or exhibiting their abilities. Since many physically disabled can’t move on their own, they need someone to help them. Because of this, they are considered a burden at many places. They face difficulty in getting educated, employment, and basically, living a normal and happy life. They themselves feel bad about themselves because they are unable to fulfil their obligations towards their family and society. Still, our idea can't give them their physical abilities back or remove their disabilities. But we can still enable them to live a happy life and not be a burden on anyone.

***2.3. Explain the effectiveness of your Idea/ Concept***

Our concept is very effective for people with physical disabilities. If they use the Wheel-Chair, which we have made, they won’t need anyone’s help, they won’t need to ask for someone’s help for most of their day-to-day activities. They can move from one place to another by their own, they can call anyone, they can do almost all the things they were deprived of earlier. We are trying to add features like tongue control. (This does seem weird, but with the right tools and guidance, we will make this dream come to reality). In the future we'll also add standup features, which will help people to exercise, and enhance the movement of their body.

***2.4. What is the scale of impact of your idea? Is it widely applicable?***

In India alone, we can impact more than 22 Million people! We can also modify the wheelchair to be used by old people who have trouble walking/doing physical activities. So, we can expand our users even further.  
  
But, At the moment, it cannot be used by the people who cannot move (tilt) their head. If we are successful in making the Wheel-Chair tongue controlled, then most of the people who have disabilities can use the Wheel-Chair.

**3. Annexes**

Wheel-Chair Demonstration video:-

<https://www.youtube.com/watch?v=EwyARcLSddI>

