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Editor's Desk

Dear friends,

We're learning things every decade we grow through, and ultimately, you do end up with a different way of looking at things - Florence Pugh

Hoping this new decade makes assistive technology a way of life.

Happy Reading!!

Regards,

Bhavna Botta
connectspecial.in

Impacting Innovation

The inclusive mind-set for disability is a topic of discourse in most corporate and government bodies. The 2015 launch of Sugamya Bharat or the Accessible India Campaign to cater to the needs of the disabled is yet another initiative aimed at addressing the largely unmet needs of disabled people.

In his own unique way, Anand Kutre, an Innovator/Entrepreneur from Bengaluru has built a well-engineered and tested Assistive Mobility device for cars, wherein a



simple mechanism is installed under 4 hours in the passenger seat of the car to swivel and come out to enable easy entry and exit and make it disability-friendly. The installation will require zero modification and will maintain the integrity of the vehicle without tampering the warranty.

The Journey

Anand holds a bachelor's degree in Mechanical Engineering and worked in Detroit before moving to India in 2006 to start Augen Technologies, an engineering services company based out of Bengaluru, with a friend. "Within three years of starting the company, we were making close to \$5 million (Rs 24 crore) in terms of revenue and had about 200 people working for us," he adds. However, due to differences with his partner, Anand moved on in 2010. He started True Consultancy, a start-up whose core focus was on innovation in India using technology. Anand adds, "The company was not started for the disabled. Instead, our main goal was to create real impact in society."

Genesis of the idea

Anand recounts his days of living in the US working in Detroit, "I remember my friend's roommate who was disabled from below the neck. We used to take him out, and did so without any difficulty,

because the cars and streets there were disabled-friendly," he says. True Consultancy worked with Toyota during its initial days. The car manufacturing giant wanted to launch in India, something similar to their Welcab project, which is engaged in making cars accessible in Japan. "I made a few designs that were patented by Toyota, but they didn't take off. I continued working on the problem, came up with my own design which was much better, and got it patented," Anand adds.

Anand has also been a recipient of several awards such as; Winner, 2019, Social Alpha Assistive Tech Challenge for TurnPlus; Winner, Finalist, Elevate 2016 for TurnPlus, Elevate 2018 for Tea harvester.

TurnPlus for Inclusion

Turn Plus is designed to make car travel easy for a disabled person, using an easily installable swivel seat mechanism. "The original seat, along with its track and reclining motion, remains intact.

The seat is removed, the mechanism is installed, and the seat is put back. So there is no modification made in the car's structure or core functioning, except that it is now disabled-friendly," Anand says.

The mechanism does not require electricity or batteries, running completely on manual operation. Anand adds, "We have tested the mechanism for endurance test of 8,000 cycles of opening and closing the mechanism at different temperatures. The safety of the product is successfully tested for front crash, rear crash and seat belt anchorage. The mechanism does not require any maintenance and comes with a 3 year warranty."



TurnPlus is registered with MSME and Made in India to cater to Indian cars. The product is at par with International Standards and is available for a substantially low cost in India. Turn Plus comes as a boon not just for persons with disabilities but also for those suffering from back pain, knee pain, arthritis and pregnant women. "We have grandchildren gifting this product to their grandparents to enable them to be independent again, the comfort experienced by our customers has been very encouraging for us" says Anand



Our Plans

TurnPlus is well accepted in the market and has received positive feedback from end-user. TurnPlus is also in talks with cab aggregators like Ola and Meru to provide this product to the masses.

“Our goal is to address assisted mobility holistically by creating a range of well-engineered products that enables easy access from homes to desktops” says Anand

TurnPlus will also have upgraded products which will have a wheelchair attached to it, wherein the entire seat will come out of the car and help the person sit on the wheelchair. Anand is also planning customised products where leg pedals will help run the wheelchair and wheelchairs with live cameras on it.

Understanding the importance of connectivity, Anand has also engineered and tested highly durable and portable aluminium RAMPS which can be easily installed and dismantled.

“Ensuring public spaces are accessible is one of the most important criteria in making India accessible, our product will help fill this need in the market” says Anand.

TurnPlus is easily available across India. The product can be ordered online at <http://turnplus.trueconsultancy.com>

Promising Technology-New AI prosthetic hand

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<https://newzhook.com/story/brainco-prosthetic-limb-ai-technology-disabled-assistive/>

American company BrainCo has developed a new AI prosthetic hand that allows its user to move the hand using brain waves and muscle signals. The makers plan to launch it to the American market by this year end and worldwide after that. This new technology is welcomed. But the cost still remains a huge problem for amputees.



Technology has proved to be a boon for people with disabilities. Over the years, scientists and researchers have developed numerous products that makes live of people with disabilities simpler and easier. American company **BrainCo** has developed a new Artificial Intelligence (AI) prosthetic hand that allows its user to move it with their mind. The user's *brain waves* and *muscle signals* are used to move the hand. The makers are all set to introduce this to the United States market and hopes to expand it to other parts of the world as well.

How AI benefits disabled people

The final model of the prosthetic hand was unveiled by the company earlier this week. But the cost is definitely not affordable for many amputees across the world. Reportedly, it comes up to US Dollars 10-15,000, which is above Rs 10 lakh. Though the makers claim that this amount is much cheaper than many other prosthetic hands, it is undoubtedly a huge amount for many people.

MIXED REVIEWS

Introduction of this prosthetic hand is definitely good news for amputees across the world. Sajesh Krishnan, who is an amputee and blade runner from Kerala says, "There is a lot of research happening in the creation of artificial limbs. When I started using my limb in the year 2005, there was only a handful of companies. But the biggest problem always remains the high cost. Even though the product claims to be below Rs 10 lakh, it is still a huge amount for many of us".

He further adds, "Maintaining a prosthetic limb is also expensive. You have to spend at least 30% of the initial cost every two years. A bionic limb does not always work according to our choice. It depends on the brain's impulses and electrical waves. But this is a good sign. We can hope that more companies will come forward to make affordable prosthetic limbs".

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