



Edition 61

## **Editor 's Desk**

Dear friends,

A full year of pandemic taught many lessons and new dimensions. Life goes on whether we like it that way or not.

*"Be open to adjustments. There's nothing about this current moment in history that allows for stubbornness" -unknown*

Regards,

Bhavna Botta

<http://www.connectspecial.in/>

# Innovative Ideas

## 'Saarthi – New Smart Cane'

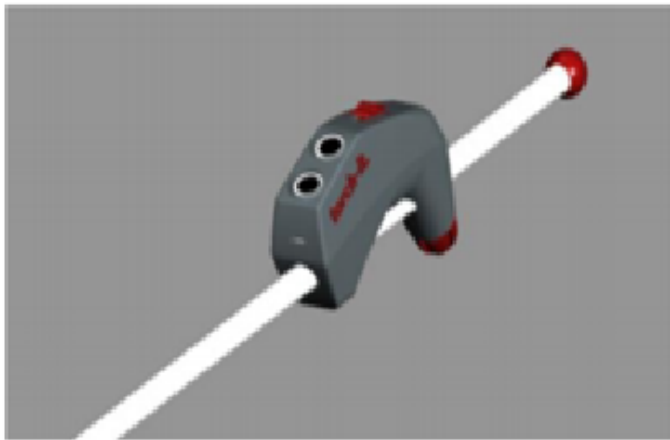
Saarthi is ergonomically designed, battery efficient device that can be used standalone or can be attached to any white cane. Saarthi is an innovative product which can be used to sense the surroundings by the visually impaired people, which will help them in navigate into their dark world. "Saarthi", provides 99.7% Obstacle Detection Accuracy in all possible setups including closed rooms (within 2 feet), lobbies (within 4 feet) and streets & open areas (within 8 feet).

Saarthi can be attached to the white cane and the user will be able to sense the obstacles through feedback in the form of a buzzing sound and vibrating sensations. A powerful battery and micro controller have been used to make it more effective and long lasting with the availability of three accurate ranges. The user can use the device with a cane to find directions & obstacles in unfamiliar territories, whilst the device can be used independently in familiar regions for obstacle detection.

Saarthi comes with built-in detection sensors which helps the user easily and accurately identify the surroundings for the person using the device. The battery lasts for 30 days which saves the inconvenience of charging again and again. This unique and ergonomically designed product is extremely simple to use after a training of mere 5 minutes.

## Product Utility:

- Reduction in Collision Rate
- The increase in Obstacle Awareness
- The increase in the confidence of the user



### Picture description

First picture shows a grey c shaped device- saarhi and its packing box in brown

Second picture shows saarhi attached to the white cane

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## Tech corner

### Screen Reader 3.29

Originally featured in [Access and Inclusion through Technology](http://www.accessandinclusion.news/?edition_id=48e3f040-9606-11eb-8369-fa163ed80008#/)  
[www.accessandinclusion.news/?edition\\_id=48e3f040-9606-11eb-8369-fa163ed80008#/](http://www.accessandinclusion.news/?edition_id=48e3f040-9606-11eb-8369-fa163ed80008#/)



Picture description

A blue high light box with word "screen reader with font size and high contrast - leader WCAG tool for JOOMLA" written in bold white font. An icon of read aloud is on the left side and [www.STOREJEXTENSIONS.ORG](http://www.STOREJEXTENSIONS.ORG) displayed

### **SCREEN READER WITH FONT SIZE AND HIGH CONTRAST IN A SINGLE PRODUCT!**

**Make your site ACCESSIBLE NOW!**

**Install this plugin accordingly to WCAG requirements!**

**All browsers and all mobile devices supported with HTML5!**

**NOW OUT version 3 that supports ONE CLICK PAGE READ, FONT SIZING, DYSLEXIC FONT AND MUCH MORE!**

Screen Reader for Joomla! is an amazing and lightweight plugin that will add accessibility features for reading contents of any length to all users with accessibility issues and embed controls to adjust font size of the text on your site or apply the Dyslexic Font to improve

readability to visually impaired people.

All is completely integrated in your Joomla! site and no additional resources are needed for you or for users, simply install plug in and all is done!

It has a lot of additional features to improve the accessibility of your contents such as:

- Font sizing
- 3 high contrast modes
- Dyslexic font
- Gray hues
- Enlarged cursor
- Text spacing
- Skip to contents
- Focused elements highlighter

Screen Reader will show in front end as a little tool bar that you can position at the top or at the bottom of the page. It supports multiple read mode with override, you can click on 'Play' button or use one single access key to start reading the main content of your pages! The tool bar shows controls for screen reader, font size, Dyslexic Font, high contrast, etc. You can also choose to disable certain features if not needed. More over if you select a specific text part on pages Screen Reader will read only the selected text with a priority algorithm. This ensures that users who need to use access keys can read the whole contents of your pages in a single keystroke. Thanks to a CSS3 selector parameter main content area of pages can be adjusted to work on every Joomla! template.

Additional controls are provided like: pausing and resuming reading, stop and playback, volume adjustment.

Full support for access keys is available, so that users can control reading using keyboard following WCAG specifications. Using access keys users can control both screen reader and font size buttons.

Screen reader is based on an advanced algorithm for the generation of the voice, so that users will be able to listen to a natural reading with interpretation of punctuation.

### **Tatvika – The New Reality product.**

In today's era of technological revolution, every aspect of mankind is touched by the digital products and solutions. Technology is being used to make our lives easier, our homes smarter and our work faster. However, when it comes to the therapy of the differently abled children, there is still a large dependence on the conventional methods of therapy and rehabilitation. It is necessary to ensure that this society is also provided equal opportunities of technological intervention to make their lives better. At Punarjeeva Technology solutions, we aim at providing game therapy-based platform for enhancing the overall fine and gross motor skills, along with their cognitive and intellectual capability. Though we have a range of products, the focus of this article is on Tatvika – The New Reality product.

The product provides immersive learning through Virtual Reality platform with games, learning materials which will improve the limb movements and cognitive capabilities of children. TATVIKA can be defined as a reimagined game therapy solution for people with motor, neuromuscular and cognitive difficulties. The platform provides 360-degree videos to learn the day-to-day skills and activities necessary for enabling social skills. The platform is bundled with new environments and limitless resources for their learning, self-care, and special education. The aim is to leverage motor, cognitive and overall development accompanied by improvement in confidence, self-encouragement, and other behavioural aspects.



Picture shows a lady wearing virtual reality headset

## **The major features of TATVIKA are:**

1. 360-degree relevant videos for the children taken with the help of the faculties of the school.
2. Native scenarios tailored and customized for the school along with the stakeholders for learning and special education.
3. Games played using real objects (cricket) to create more physio-motor and cognitive enablement.
4. Virtual opportunities for children to empower them face the real-world scenarios.
5. A complete rehabilitation platform with interactive and cognitive learning.

<https://www.punarjeevatech.com/>

## **Help Talk**

HelpTalk is directed at people unable to communicate fluently orally or through writing with health professionals, family or any other person.

HelpTalk allows users to create sets of actions that represent their needs in terms of communication, with the actions most suited for each disability/user.

When the user taps each of the options the device speaks the selected command.



With Help Talk, you can create a profile containing the actions most useful to any situation. A user can create a profile suited for their day-to-day life, a specific event, traveling, education, etc..

It helps people unable to communicate in a traditional fashion (people with aphasia, tracheostomized, etc.) to express their basic needs.

When each action is tapped, the device speaks the respective command. If what you want to express isn't contained in the currently loaded profile, just switch to the "Talk" screen and you can write any sentence you want.

Help Talk remembers the most common sentences typed, so that you can have easy access after writing just a few characters. For users with reduced dexterity, Help Talk presents two big Yes/No buttons.

If what the user wants to express isn't contained in the currently loaded profile, the user can switch to this screen to answer basic questions.

Help Talk allows the user to configure an emergency phone number and an emergency message.

When the user taps the S.O.S. button, an SMS message is sent to the configured number. The user also has the option to include his current location's coordinates.

<https://vimeo.com/49388177>

## 3 D MOUSE

Mycestro is a 3D mouse that enables more mobile computing. Whereas a traditional computer mouse requires a flat surface to operate, this design places it on the index finger and allows you to control your computer with hand gestures and mouse functions.

The small and lightweight piece of wearable tech leads to more intuitive interactions as it tracks hand motion in three-dimensional space. Mycestro incorporates Bluetooth 4.0 Low Energy Protocol and has a range of up to 30 feet. It is activated by your thumb so when you're not touching it, the cursor pauses until you use it again.



Picture shows a person wearing wearable mouse ring on index and middle fingers

published in

<https://mashable.com/2013/02/19/3d-mouse-ring/>

The touch-sensitive panel initiates cursor movement and you can control the cursor position by moving your hand in the direction you want it to go. To make selections, you simply release the touch panel and then tap it again on the left, middle or right button section.

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