

# Eyemate, Big Keys, SeeColors and Lastpass

This issue we are covering four topics, ranging from a service to improve television for the color blind, to an intraocular implant that is now available to measure IOP.

## SeeColors

Samsung have released a new app called SeeColors. The application interacts with modern Samsung TVs and improves the visibility of colours on the screen for those with colour vision deficiency. The requirements of the system are quite significant, but it's impressive nonetheless. Individuals will need to have access to a Samsung Android smartphone (Galaxy S6 or later) and a modern Samsung TV (2016' SUHD or 2017' QLED or later QLED). Assuming both requirements are met, the next step is to use the SeeColors app. The app presents a series of modified Ishihara type test plates to the user. The results of the test are used to categorise the level and type of colour deficiency. That data is then transmitted to the TV, resulting in an adjusted calibration and colour profile. Other than the significant requirements to use the system, shared viewing will also likely be a constraint. The adaptations may provide a better experience for the individual concerned, but a reduced experience for other, normal sighted individuals, viewing the screen at the same time.

## Big Keys

Smartphones and tablet computers offer features to increase the size of the displayed content to improve visibility for the sight impaired. In most situations, these enhancements do not increase the size of the on-screen keyboard.

A few applications do exist to fill this gap, but Big Keys Keyboard offers the needed large keys but also some extra tricks. To cover the main requirement, the application provides the user with options for both the size, colour and font used on the keyboard. Additional features, making this application more unique, are the inclusion of the now ubiquitous, but enlarged, emoji and also highlighting the last tapped letter. Unfortunately, the application is only currently available for iPhone and iPads, and costs £3. Larger on-screen keyboards do exist for Android devices, but none currently have the polish and refinement of this product. Figure 1 shows a screenshot. The app has a dedicated webpage at [www.youapps.co/BigKeys](http://www.youapps.co/BigKeys)

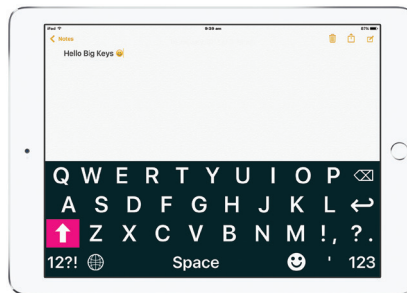


Figure 1

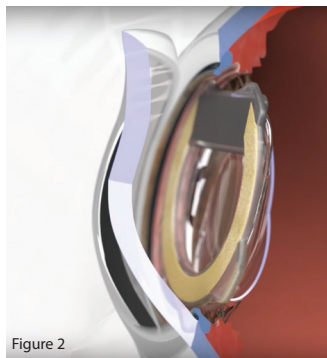


Figure 2



Figure 3

this solution is harder to administer and more expensive than using the same few memorable passwords for all websites. That latter method is far from ideal though. With our increasing reliance on online tools, this service provides a reliable way to use good quality passwords.

## Eyemate

The Eyemate is an implantable intraocular sensor designed to measure IOP. This type of technology has been in development for some time but has come to light again because it is now being actively implanted into patients. The device, made by the German manufacturer Implants, gained CE marking in 2017. Structured as a ring, the implant is inserted at the time of cataract surgery. It is placed in the sulcus after the IOL has been placed and, in most patients, will be completely hidden behind the iris. Much like a modern IOL, the implant is flexible, so it can be inserted through a 2.7mm incision. The unit doesn't require a battery as the current needed to activate it is induced in the device by the measuring tool. The battery powered external tool is held up to the eye which activates the implant. The IOP value is then captured on the tool and also made accessible to the monitoring app. An image of the implant and the measuring tool can be seen in Figures 2 and 3.

The sensor is designed to be permanent and shouldn't require any maintenance. Further details can be found on the Implants website ([Implants.com](http://Implants.com)).

## Lastpass Families

I have covered and recommended the LastPass service in the past. To recap, it is a paid service that allows you to use strong and unique passwords for all your online services. The passwords are securely stored in your online vault. This can be accessed from the LastPass app or via a browser add-on. The family feature has recently been added which provides full access for up to six users. The single user account is currently \$24/year. The family plan is \$48/year. Other than the cost saving over buying licences for more family members, the main benefit is sharing. The family admins (mum and dad) have their own passwords, but are able to have shared access to others. For instance, parents may have individual email passwords, but want to share the login details for the supermarket and the household energy supplier. The family admins can also share any accounts to any of the child accounts. Undeniably

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