

Providing literacy and numeracy to marginalised children

onebillion, a non-profit organisation, brings teaching through apps to the classroom

onebillion is a non-profit organisation that provides literacy and numeracy teaching to under privileged children in some of the remotest and deprived parts of the world including locations in Malawi, Uganda and India. The organisation develops English and Maths apps for 3-6 year olds that cover the whole curriculum – onebillion’s aim, and the clue is in the title, is to bring education to one billion marginalised children.

The Project

To fulfil their aim onebillion has set up what they call ‘oneclass’ learning centres where local teachers teach the entire Maths curriculum to young children in their own language (the Maths app is already available in over 50 languages). Pupils are monitored via the internet and so far it has been proven that what used to take 18 months to learn is now accomplished in just 6 weeks, these results along with the independent research undertaken by the University of Nottingham are helping fuel the project.

To enable teachers to share material with every child in the class they needed a self-contained, secure solar-powered projection solution. The end product included the projector, a tablet, a media streaming device to view films from the internet and other sources, speakers, long life battery and all associated cables.

The Problem

Because the oneclass learning centres are in some of the most remote regions in the world they have faced some huge challenges; lack of electricity, dark classrooms, availability of text books, class sizes (up to 300 pupils), transport and communications.

onebillion required a single contained device, a protective and easily portable case, allowing the classroom teacher to use the app and project onto a classroom wall. The case needed to contain all the equipment safely and securely - weight, protection and durability were key to the issues that needed to be accounted for during the design process and product development planning.

The Solution

CP Cases’ designers produced a robust, portable and customised rotomoulded case that can easily be replicated and enhanced as onebillion expands its ‘oneclass’ programme. The product is light weight and protected against dust ingress thereby protecting the internal electronics.

The case incorporates some key user requirements: a shroud to protect the projector, a top panel to protect speakers and other



internal components, lid hinges that open 225° so it can rest on the table, a spring to automatically switch off the projector when the lid is closed and an iPad cradle in the lid.

Most noticeable is the colour of the case, its green and yellow design taken from a pallet of colours available with this range of CP Cases’ products, helped engage pupils even more so with the teachings.

There continues to be a collaborative approach to the design and integration of new features into the case.

Key to success of the whole project is the positive impact the ‘oneclass’ programme has on the children. Independent research undertaken by the University of Nottingham provided evidence demonstrating that during an 8 week test period children using the app triple their maths curriculum knowledge and that 78% of low achievers improved their maths ability to a level typical for their standard.

The aim throughout the product development has been firmly focussed on the children’s education which as a result has contributed to an innovative design and a creative solution.

So far thirty ‘oneclass’ learning centres have already been established with a further 200 planned.

More information about onebillion and their work can be found on their website at <https://onebillion.org/>

