

# tio

## Increasing Children's Awareness of Energy Consumption

Increasing the younger generation's awareness of energy consumption now will help to effect change in the future. Children play a key role in reducing energy consumption due to the fact that they will be among the key decision-makers in the next 30 years. Focusing on lighting, which accounts for up to 15% of electricity use in the home, is a way to engage and educate them.



### Brief

The core of the brief set by Onzo was to research, design and develop a sustainable, low-cost solution, which engages, educates, empowers and rewards the next generation of young energy users to reduce their energy consumption in the home and beyond.

The brief was unusually broad, allowing a wide range of potential avenues to be investigated. While children have long been educated about environmental issues such as pollution and melting ice caps, the link between these issues and the child's personal energy consumption was a key focus of the project.

### Approach

Such a broad brief required an extensive research period to fully understand the potential of any product development. A thorough design process, including rapid sketch development and user research was implemented, resulting in an efficient, focused progression of the product.

### Result

The concept of an 'energy saving light switch' aims to make children more aware of the energy they use in lighting their rooms. Energy is given a personality through a face featured on the light switch. The character will get progressively more angry the longer the

lights are on. This display of emotion will encourage the child to turn off their lights when they are not needed, for example during the day, or when they are not in the room. Figure 1 highlights the three main emotional states of Tio.

A key feature of the concept is that it is a 'product system'. The wall mounted light switch communicates with a computer to record the child's lighting behaviour.

A web application allows the child to track their lighting-use performance over time. Tio relates lighting usage to topics that are meaningful to children; how energy affects trees, animals and the local environment. This not only makes energy consumption more understandable to the child but also

shows the effect saving energy can have on their life. This engages children to make a personal contribution to reducing energy consumption.

### Recognition

The project was awarded the HSBC Sustainability Prize in 2009. Tio has been featured in research papers at the Massachusetts Institute of Technology (MIT) and in presentations by global companies such as Vodafone. In April 2010 Tio was featured by Springwise, analysts of global business trends, in a focus on in-home energy monitoring devices.

For more information please see:  
[www.timholley.de](http://www.timholley.de)  
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