



hybrid
electronics



INNOVATION NEWSLETTER

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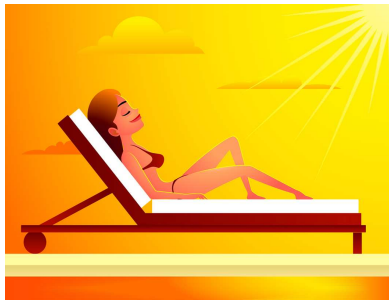
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How a Hybrid is helping in the prevention of skin cancer



Skin cancer is a significant health issue in Australia. Exposure to ultraviolet radiation emitted by the sun in the UVB wavelengths is the primary cause. The combination of

the predominantly light-skinned population, tropical latitude and cultural emphasis on outdoor activities have contributed to this problem. The Australian government has taken measures to educate the public, reduce skin cancer rates and advocate early cancer detection however an Australian company, Healthtronics P/L, has taken one step further in the prevention of skin cancer by inventing a U-B-SAFE 1 product using a hybrid. U-B-SAFE 1 is an outdoor ultraviolet alarm which warns people when they have been exposed to the ultraviolet for a period of time that may cause him/her skin disease. An ultraviolet detector is sitting on the top of the unit which generates a current when it is exposed to an ultraviolet source and this energy is stored electronically. Once the stored energy reaches a certain level which indicates that the wearer has been exposed to the ultraviolet long enough to cause damage to their skin, continuous music from a music IC is played in order to warn the person and remind them to go indoors or seek shade for protection. Different types of skin can be selected on the unit depending on how sensitive it is to the ultraviolet. All of these functions are achieved on a 3.5cm by 2.2cm circuit, thanks to Hybrid Electronics Australia P/L. The hybrid circuit is lighter, smaller and more reliable compared to the old PCB circuit. With solar power and the UV detector attached, the hybrid circuit is mounted into a special designed case, which can be attached to hats or clothes by the safety-pin in the case. No battery is required, it's solar powered!

U-B-SAFE 1 is the only UV alarm monitor with these essential features

1. Unlike other monitors, it is waterproof down to two metres.
2. A special angle of the design ensures it is always in the sun, like your skin, whether you are standing, sitting or lying down.
3. It is designed to pin to your hat so it can't be shaded by your body and is always in sun, unlike monitors that dangle from a necklace or are worn on the wrist.
4. An audible alarm means you don't have to keep checking a display.
5. It will give a short alarm if moved out of the sun whilst your skin is still exposed.
6. It will alarm continuously if anything blocks the detector.
7. It is designed to monitor unprotected skin.
8. Its special biological memory registers past ultraviolet doses to compute today's safe dose.
9. Designed small and tough enough for children to use.
10. All made possible with our Hybrid circuit!



Skin cancer in Australia statistics

- Australia has the highest rate of skin cancer in the world, with over 380,000 people diagnosed every year*.
- Over 1,600 Australians die from skin cancer each year*.
- Skin cancers account for over 80% of all new cancers diagnosed each year in Australia*.

*Source: www.sunsmart.com.au

If you would like more information on thick film hybrids please call +61 3 9729 2177 or visit www.hybrid-electronics.com.

Now you can Have Fun in the Sun with a Hybrid