2006 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Physics

PROJECT : Swimming Pool safety Device "Baby Buzzer"

AWARDS : Physics Second Award

SCHOOL : Klerk Area Office

FINALISTS : Roelien Blom

COUNTRY : South Africa

CATEGORY: ENGINEERING – ELECTRONICS, ELECTRICAL

TITLE: SWIMMING POOL SAFETY DEVICE "BABY BUZZER"

NAME: ROELIEN BLOM

COUNTRY: SOUTH AFRICA – NORTH WEST REGION – TEGNICAL HIGH SCHOOL

A. Purpose of Research.

Annually several baby's and toddlers drown. There are safety devices available on the market for ex: Safety nets in which toddlers can get strangled. Pool covers that have to be taken off when people swim and replaced after they have swam. If they are not replaced afterwards, babies could fall in the water and drown. Fences around the pool:- The gate could accidentally be left open and the toddler could fall in and drown.

B. Procedures.

When something with a mass of 3kg + falls into the water, the activation switch will let the relay close which then sends a signal via the transmitter. The receiver will activate the relay which will sound the alarm in the residence; the reset switch will reset the device.

C. Data.

Disadvantages:- Works with a battery that has to be recharged.
Solution:- Install a solar panel to keep 1.5V battery fully charged
Advantages:- Affordable; Easy to install; unobtrusive; Peace of mind for parents and suitable for all sizes and depths of pools.

D. Conclusion.

To improve the safety conditions of baby's and toddlers around the swimming pool area where other available safety devices aren't effective any longer and to give parents a better peace of mind.

E. References.

Sources of Media references and Newspaper articles.

評語

此項作品非常具有實用價值，而且由其內容觀之，顯然是獨立創作，只是站在科展之觀點，可以對儀器之靈敏度作更定量之分析。