



**The Chinese University of Hong Kong**  
**Non-confidential Abstract of Technology Disclosure**

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**Title:**

**A New Miniaturized and Low Power Photoplethysmograph Measuring Device for the Monitoring of Human Vital Signs**

**CUHK Ref. No.:**

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**Inventor(s):**

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**Non-confidential abstract:**

An apparatus for the measurement of photoplethysmograph (PPG) using ambient light as the light source, whose characteristic is that the light source is not embedded in the apparatus. Photoplethysmograph reflects the changes in the blood volume in the human peripherals. It can be applied to the noninvasive monitoring of human vital signs such as heart rates, blood pressure. Since the present invention does not require an LED, it can achieve low power consumption, as well as light weight and miniature size, and therefore is suitable for insertion into a wide range of personal belongings, such as watch, ring, mobile phone, PDA, electronic toy/pet.

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