BEATBAND SLEEVE

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ABSTRACT

For this final year project, an electronic device which called the BeatBand sleeve has been choose as the title for this final year project. Beatband sleeve is a device that sense our heartbeat and channel it through Light Emitter Diode (LED) that flashing follows our heartbeat rhythm. By the flashing of LED, we can count our heartbeat in our daily activities in easy ways. With the rapid expansion of technology that has been develop, this device has been modified to its suitable and follows the idea which make people's lives become easier. Heartbeat can be check or determined by manual ways such as by using a touch and record it against time. This can be inaccurate due to the low accuracy and have high percentage of errors. BeatBand sleeve is the device that can overcome this problem so that the people who applied to their daily lives can be more improved and safe. An advanced yet reliable and compact electronics device is needed in order to make this project become successful. With the suitable electric components that had been used in this device, the data can be accurate and operate perfectly with the flows of the signal and change it to the electrical signal. Thus, BeatBand sleeve can improved our daily lives and can be use as a worldwide electronic device.

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CHAPTER 1

INTRODUCTION

1.1 Background of study

Heart rate is a vital heart parameter that is directly relate to the soundness of the human cardiovascular system. It is vital to life because heart rate can reflect human health condition whether it is in healthy condition or vice versa. According to the statistics lead by World Health Organization (WHO), one of the major causes of death is cardiovascular disturbance which in this case is heart disease and the other effect from it. Therefore, from the heart rate, we can know if our heart in the state of good condition or having a complication to it. Figure 1 shows the signal of the heart rate.

Figure1: Signal of heart rate