

HEART BEAT & TEMPERATURE MONITORING DEVICE

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ABSTRACT

In this constantly evolving age, we humans live in a lifestyle which neglects how important are our health, not until disease hit upon them. Therefore, the heart rate monitoring plays role in our daily lives. The separation between life and death is determined by how well the heart rate monitoring is. The heart rate monitoring device can either be used in the hospitals for medical purposes or training gyms for sportsmen to carry out their training.

The ultimate goal of this project title, “Heart Beat & Temperature Monitoring Device” is to design and build a heart rate & temperature monitoring device where it can detect a person’s heart rate and temperature via the index finger. Voice output and wireless display is another special feature of this device as allows the user to have flexibility. The project is done by using a pair of IR Transceivers to sense and detect a person’s heart beat, while the temperature sensor LM35DZ is used to obtain the body temperature of the user. The signal is fed into the PIC16F877A for controlling the wireless display as well as the voice output. The APR9600 is used for announcing the heart rate and temperature.

The designing and building the project is completed by separating each objective into different sections. The different section includes Heart Beat Sensor, Temperature Sensor, LCD Display, Wireless Transmission and Voice output using APR9600. After testing out every section individually, they are combined together at the end. The following chapter discusses on every different section are made based on the results obtained.

Overall, the project is considered successful as all of the objectives are obtained.

Keywords: APR9600, Heart Rate Monitoring, IR Transceiver, LM35DZ, PIC16F877A