



Project title: Health monitoring system

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Project Type: Hardware

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Project's Abstract:

Medicine is considered one of the most important human professions because it is related to human life. With the development of science and technology, technology began to enter the world of medicine, so it was exploited in the manufacture and development of electronic medical devices.

According to the World Health Organization, heart disease remains the leading cause of death globally, and it kills more people today than ever before, so new solutions for patient health management are a must.

Hence the idea, to design a health monitoring system. The system can monitor vital signs such as heart rate with ECG display and sound, body temperature, and blood oxygen, and the results will be clearly displayed on a touch screen for the patient and at the same time the results will be sent to the mobile of the doctor or the person in charge of the patient via Wi-Fi. Also, we will provide an electronic bracelet (wearable device). The bracelet will be able to detect the patient suddenly falling to the ground and send an alert or an SMS message to person in charge. Also, there will be a medicine reminder alarm for the patient, to take medicine at the right time, so that the patient can enter the name of the medicine and its time by using touch screen. As for blood pressure, mostly, we will have difficulty finding a suitable sensor to use, but we will try to add a mechanism to measure it if possible.

This device saves the patient a lot of trouble, as it is a small clinic for him, and thus will be able to do health checks quickly, easily and have an accurate result, and it will make it easy for the people in charge of the patient, so that they can check on him even if they are not doctors.

Devices for measuring vital signs have been previously achieved. However, they are mostly separate, or not all of these features are grouped together, so we want to combine them all into one device as well as other new features to form one integrated device, with efficient performance, which will make it easier for the patient to use.