Introduction
In recent years, the public is strongly promoting healthy concepts such as eating healthy foods, doing more exercises and having regular body checks. People become more and more interested in their biological signals. Biological signal is one of the measures that show our health condition. Due to the high popularity of using smart phone, mobile apps are designed in different aspects for wide application. This project aims to design an Android app together with a portable device box for measuring and displaying a user’s biological signals in a convenient and user-friendly way.

Aims and Objective
In this project, we use a portable or a table device that can measure four main biological signals including ECG signal, blood pressure, heartbeat rate and blood oxygen saturation(SpO2) of users. After that, it can process these signals into a signal through Bluetooth and display it on an Android app. For further storage and checking, a health report will be generated and the data will be uploaded to a server through networking. People can access to the website and review their data remotely. This also can help doctors to check the patient body condition in a more convenient way.

System Block Diagram

Methodology
- **Schematic of circuit**
- **ECG and Heart Rate**
- **Blood pressure**
- **SpO2**

**ECG Signal**

**Blood Pressure Signal**

**Blood Oxygen Signal**

**Display on Mobile Phone**

**ECG Electrode**

**Blood Pressure Sensor**

**Finger tip Pulse**

**Apps**

**Microprocessor**

**Server**

**Frequency**

**Time**

**Data on website**

**Results**

**Device box**

**Measuring ECG signal**

**ECG on app**

**Blood pressure on app**

**SpO2 on app**

**Health report**

**Data on website**