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Abstract
The physiological condition of patient is evaluated by electrocardiogram, blood pressure and blood oxygen concentration in the clinical operation. Pulse wave velocity (PWV), which is measured by noninvasive method, is used to analyze properties of human vessels. Therefore, the goal of the study is to develop the extremities-PWV measurement system, which is used in the long-term clinical operation. It can provide clinician the auxiliary reference data.The extremities-PWV system evaluates PWV by real-time recorded phonocardiogram and photoplethysmography. The interface with the functions of real-time analysis and long-time record is designed by using Visual Basic program language. The experimental data is calculated by the analysis program, which is designed by using Matlab program language. Some interference in the operation is unpredictable. The interference will make research analysis difficult. The efficient-analysis of PWV from the operation long-term data is the main point of the research.
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