

Improving the Design of Blood Pressure and Blood Saturation Monitors

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Abstract : A blood pressure monitor or sphygmomanometer can be either manual or automatic, employing respectively either the auscultatory method or the oscillometric method. The manual version of the sphygmomanometer involves an inflatable cuff with a stethoscope adopted to detect the sounds generated by the arterial walls to measure blood pressure in an artery. An automatic sphygmomanometer can be effectively used to monitor blood pressure through a pressure sensor, which detects vibrations provoked by oscillations of the arterial walls. The pressure sensor implemented in this device improves the accuracy of the measurements taken.

Keywords : blood pressure, blood saturation, sensors, actuators, design improvement

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